

# 2040 Comprehensive Plan

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# Table of Contents

|                                                                       |     |
|-----------------------------------------------------------------------|-----|
| 2040 Comprehensive Plan .....                                         | i   |
| Executive Summary .....                                               | v   |
| <i>What is a Comprehensive Plan?</i> .....                            | v   |
| <i>Why is the City updating the Plan?</i> .....                       | v   |
| <i>Burnsville's Approach to the 2040 Comprehensive Plan</i> .....     | vi  |
| <i>Focus of the Plan</i> .....                                        | vii |
| <i>Plan Summary</i> .....                                             | ix  |
| Chapter 1 - Community Overview .....                                  | 1   |
| <i>Introduction</i> .....                                             | 4   |
| <i>City's Comprehensive Planning History</i> .....                    | 5   |
| <i>Community Background</i> .....                                     | 6   |
| <i>Community Vision</i> .....                                         | 8   |
| <i>Demographics</i> .....                                             | 16  |
| <i>2016 Survey Findings</i> .....                                     | 23  |
| <i>2040 Regional Plans</i> .....                                      | 34  |
| <i>Process to Update 2040 Comprehensive Plan</i> .....                | 36  |
| <i>Sustainability Approach</i> .....                                  | 41  |
| <i>Future Amendments</i> .....                                        | 46  |
| Chapter 2 - Future Land Use Guide Plan .....                          | 49  |
| <i>Introduction</i> .....                                             | 52  |
| <i>Goals &amp; Policies</i> .....                                     | 53  |
| <i>Existing Development Overview</i> .....                            | 57  |
| <i>Future Land Use Guide Plan</i> .....                               | 67  |
| <i>Vacant/Redevelopment Land Analysis</i> .....                       | 83  |
| <i>Metropolitan Council Objectives for Suburban Communities</i> ..... | 93  |
| <i>Growth Projections</i> .....                                       | 95  |
| <i>Community Design</i> .....                                         | 97  |
| <i>Resource Protection Element</i> .....                              | 107 |
| <i>Sustainability</i> .....                                           | 111 |
| <i>Implementation</i> .....                                           | 115 |
| Chapter 3 - Economic Development and Redevelopment Plan .....         | 117 |
| <i>Introduction</i> .....                                             | 120 |
| <i>Economic Development (ED) Goals and Policies</i> .....             | 121 |
| <i>Existing Economic Context</i> .....                                | 124 |
| <i>Economic Competitiveness</i> .....                                 | 130 |
| <i>Economic Development Programs and Incentives</i> .....             | 133 |
| <i>Future Economic Development Emphasis</i> .....                     | 138 |
| <i>Sustainability</i> .....                                           | 158 |



|                                                           |            |
|-----------------------------------------------------------|------------|
| Implementation .....                                      | 162        |
| <b>Chapter 4 - Neighborhoods and Housing.....</b>         | <b>167</b> |
| Introduction.....                                         | 170        |
| Goals & Policies .....                                    | 171        |
| Existing Conditions.....                                  | 174        |
| Future Housing Demand.....                                | 194        |
| Future Neighborhood and Housing Needs .....               | 202        |
| Sustainability.....                                       | 204        |
| Implementation .....                                      | 206        |
| <b>Chapter 5 - Natural Environment .....</b>              | <b>219</b> |
| Introduction.....                                         | 222        |
| Goals & Policies .....                                    | 222        |
| Natural Resources Management Plan.....                    | 249        |
| Wetland Protection and Management Plan.....               | 262        |
| Water Resources Management Plan.....                      | 270        |
| Natural Environment Sustainability .....                  | 278        |
| <b>Chapter 6 - Community Enrichment .....</b>             | <b>285</b> |
| Introduction.....                                         | 287        |
| Plan Goals and Policies.....                              | 287        |
| Needs Summary.....                                        | 289        |
| Supportive Community Environment.....                     | 292        |
| City-Led Programs, Services and Events .....              | 294        |
| School Districts .....                                    | 299        |
| Community Partners' Programs, Services and Events .....   | 305        |
| Volunteer Opportunities.....                              | 312        |
| Sustainability.....                                       | 313        |
| <b>Chapter 7 - Transportation Plan.....</b>               | <b>317</b> |
| Introduction.....                                         | 321        |
| Transportation Plan Goals & Policies .....                | 322        |
| Existing Transportation Conditions .....                  | 327        |
| Planning Context – Studies, Projects, Issues .....        | 352        |
| Future Transportation System.....                         | 359        |
| Sustainability.....                                       | 400        |
| Implementation Plan .....                                 | 403        |
| <b>Chapter 8 - City Services and Facilities Plan.....</b> | <b>405</b> |
| Introduction.....                                         | 409        |
| Goals & Policies .....                                    | 409        |
| Burnsville City Organizational Model .....                | 413        |
| Burnsville City Services.....                             | 416        |
| City Departments & Services.....                          | 417        |

Burnsville City Facilities .....428

Sanitary Sewer Plan .....443

Water Plan .....457

Facility Improvement Recommendations.....468

Sustainability.....476

Implementation .....479

# Executive Summary

## What is a Comprehensive Plan?

- » A Comprehensive Plan carries out the City’s vision for the future, looking out the next 20 years
- » The plan looks comprehensively at the City’s systems, including land use and development, housing, transportation, municipal utilities (water supply, sanitary sewer, stormwater), and economic development
- » It looks at the city as a whole to help make coordinated plans and avoid future conflicts
- » It sets goals, policies and directions in a comprehensive manner that the City as a governing body wants to achieve
- » It functions as a high level framework for achieving the City’s goals that are consistent with the City’s preferred direction
- » It provides a touchstone to guide daily, weekly and monthly decision-making

## Why is the City updating the Plan?

State Statute requires that all local governmental entities in the Twin Cities metropolitan area update their comprehensive plans at least once every ten years. The local plans are reviewed and aggregated by the Metropolitan Council in order to plan on a region-wide basis. The Metropolitan Council works with communities to ensure that local goals and policies reflect larger region-wide goals, established in their regional/metropolitan development plan, *Thrive MSP 2040*. The City’s last update of the Comprehensive Plan was in 2008, resulting in its 2030 Comprehensive Plan, followed by a substantial amendment to the 2030 Plan in 2011.

Beyond State Statute, the City recognizes the importance of having an effective city-wide plan which steers the City’s future decisions and investments from a long-term comprehensive perspective for land use and development, neighborhoods and housing, transportation, municipal utilities



(water supply, sanitary sewer, stormwater), economic development, community enrichment, city services, facilities, and the natural environment.

# Burnsville's Approach to the 2040 Comprehensive Plan

## Vision

Burnsville's 2040 Comprehensive Plan vision is an aspirational, overarching, sustainable philosophy in which the long-term health and stability of the city is measured by the well-being of the residents, business owners and visitors; the vitality of the economy; the quality of redevelopment projects; and the health of the natural environment. This vision, which is based on the City's Ends & Outcomes, is:

***People find BURNSVILLE an attractive, well-balanced city of residences and businesses, which through a combination of amenities and public/private partnerships, provides a wide range of opportunities for citizens to live, work, learn and play, for a reasonable investment.***

Each chapter of the 2040 Comprehensive Plan builds off this overall vision and establishes a vision for each plan element, including Land Use, Economic Development/Redevelopment, Neighborhoods/Housing, Natural Environment, Community Enrichment, Transportation, and City Services/Facilities.

## Goals

Each chapter's goals are high-level, yet targeted statements of how the City intends to achieve the vision for that chapter.

## Policies

Each goal is supported by a set of policies that define the City's preferred directions or methods of action to guide and determine future land use and development decisions.

## Implementation

Each chapter, for the first time, ends with an implementation table that addresses specific strategies and actions to fulfill the chapter's policies, goals and vision. The City will annually review these implementation strategies and actions to measure their success.

## 2040 Update Planning Process

- » Evaluation of current 2030 Plan
- » Exploration of Focus Areas Issues & Opportunities
- » Community Engagement

- Citizen’s Advisory Committee/Planning Commission
- City Council & Commissions
- Community Events
- Online Engagement
- » Development of Updated Draft Plan
- » Draft Plan Community Meetings
  - Planning Commission Public Hearing
- » City Council Approval
- » Metropolitan Council Approval
- » Final Plan Adoption

## Focus of the Plan

### Demographics/Projections

Burnsville will continue to be a destination for households looking for quality homes, services and other community assets while being close to the metropolitan core. Burnsville is projected to grow by almost 7,000 additional people and 3,000 households by 2040, resulting in a population of 68,500 and 27,600 households. During that time, Burnsville’s role as an employment center is anticipated to grow as well, with over 7,500 jobs added by the year 2040, which will total 41,900 jobs in the community.

As Burnsville grows over the next 20 years, it is also expected to continue experiencing a shift in demographics. The number of senior households, with heads of household over the age of 65, is expected to continue to increase. The needs of a growing senior population are important factors when looking at the future of housing and City facilities/services. In the recent past, Burnsville has also become much more racially and culturally diverse. This trend is anticipated to continue, as Burnsville will remain an employment center with affordable housing stock for families. Residents, especially those who are immigrants or non-English speakers, have unique needs when it comes to City facilities/services and the City of Burnsville will continue to adapt to serve the needs of all residents.

### Land Use/Redevelopment

As Burnsville continues to grow in population, households and employment, it is important to recognize that Burnsville is a fully developed community. As such, most growth will strategically occur in redevelopment areas in higher densities and a mix of uses around the city. Mixed use guided areas, such as the Heart of the City, will continue to provide housing, jobs, retail, amenities and access to transit, all in one convenient location. Shifts in retail and how people buy daily and specialty goods mean that areas set aside for traditional suburban retail, such as the Burnsville Center mall,

will shift to more flexible and intensive uses. A major component of the 2040 Comprehensive Plan update was to evaluate and provide guidance for a handful of focus areas where a large portion of the City's growth and redevelopment over the next 20 years will occur, including the Heart of the City, the planned Orange Line Bus Rapid Transit (BRT) station areas, Minnesota River Quadrant (MRQ), Cliff Road Business Park, and the Burnsville Center/Hwy 42 Commercial Corridor.

## Neighborhoods/Housing

Burnsville's neighborhood and housing needs will continue to evolve as demographics shift, the city's housing stock grows older, and people's lifestyle preferences change over the next 20 years. To ensure that the community's neighborhood and housing options will continue to meet contemporary needs and preferences, the plan contains a vision, goals and policies that target reinvestment in the existing housing stock; and the addition of a broader range of housing types, including densities, sizes, prices and maintenance levels. An increasing number of people also need or prefer housing in neighborhoods that are better connected to transit, commercial/entertainment and recreation options within walking or biking distance. Burnsville's neighborhoods and housing will need to evolve through redevelopment and public investments to become more connected and accessible.

## Sustainability

The 2040 Comprehensive Plan incorporates a sustainability approach, for the first time, that calls for investment—both time and money—in efforts which simultaneously strengthen the environmental, economic and social dimensions of any issue. Sustainability presumes that resources are finite and should be used conservatively and wisely with a view to long-term priorities and consequences of the ways in which resources are used.

The City has shown success in sustainability for its own operations, and now is looking to promote good sustainability principles that are economically viable, environmentally sound, and socially responsible in the community at-large.

Within each chapter, sustainability strategies are organized within seven sustainability areas:

- » Energy Reduction
- » Sustainable Water Supply
- » Waste Reduction
- » Sustainable Food System Opportunities
- » Efficient Use of Infrastructure and Land
- » Natural Resources Conservation
- » Climate Resiliency



Each chapter also features several sustainability measures of success to help track future progress for the city on sustainability.

## Plan Summary

### Chapter 1: Community Overview

The sections of this chapter provide information on comprehensive planning history, community background, demographics, community vision, 2016 Survey findings, Thrive MSP 2040 regional development and system plans, 2040 Comprehensive Plan process, sustainability approach, and future comprehensive plan amendments process.

### Chapter 2: Future Land Use Guide Plan

The Future Land Use Guide Plan identifies how land should be developed to accomplish the City's Ends & Outcomes, as set by the City Council. It also ensures that resources will be available to provide a consistent level of public infrastructure and services to support the community's future land use patterns and densities. The Plan also provides a land use vision, goals and policies that promote livability improvement, support balanced mix of land uses, offer a wide variety of housing options, provide opportunities for people to live and work in the community, balance development density/intensity, recognize community design and identity, employ sustainable development practices, pursue redevelopment opportunities, and engage in economic development and investment in Burnsville.

### Chapter 3: Economic Development/Redevelopment Plan

This chapter addresses how Burnsville will promote a secure economic base through creation of a culture of business revitalization, industrial, office, and commercial development. The city's long-term vitality will depend on our ability to continue to enhance our business environment, educate our workforce, provide access to cutting edge technology including fiber and wireless services, and expand our economic base, while protecting Burnsville's unique natural resources. The city's economic base will continue to diversify and expand to create a variety of employment opportunities, encourage additional investment in the community and ensure sufficient revenue will be available to support the community.

### Chapter 4: Neighborhoods and Housing

Neighborhoods and Housing focuses on keeping Burnsville a place that keep are able to thrive. This chapter satisfies the requirements of the Mandatory Planning Act and stipulations of Chapter 462C of Minnesota Statutes which requires a housing plan prior to the sale of mortgage revenue bonds. This chapter provides housing goals and policies, a housing profile indicating the status of Burnsville's housing, affordable housing,

future housing demand and strategies/recommendations to accomplish the stated goals and policies.

## Chapter 5: Natural Environment

The Natural Environment Plan seeks to enhance and preserve the unique natural resources and the beautiful setting that defines Burnsville. This Chapter outlines how the City will plan for and maintain its natural environment. The Natural Environment Plan is comprised of several larger management plans: The 2007 Natural Resources Master Plan, the 2017 Wetland Protection and Management Plan, and the 2017 Water Resources Management Plan.

## Chapter 6: Community Enrichment

The objective of the Community Engagement Plan is to outline Burnsville's coordinated approach to promote community-wide involvement in a variety of physical, artistic, health building, education, civic, recreation, cultural, and other activities that together build community and form the fabric of the city.

## Chapter 7: Transportation

As Burnsville looks to 2040, the transportation plan identifies goals, policies and strategies to guide the City in its quest to deliver a diverse transportation infrastructure that will efficiently meet the community's needs and address safety. The plan identifies future deficiencies and expands on the use of Bus Rapid Transit (BRT), MnPASS lanes and autonomous vehicles.

## Chapter 8: City Services and Facilities Plan

The City's Services and Facilities Plan describes the public safety and other services provided by the City as it relates to organizational structure, public buildings and facilities. The Plan also includes telecommunications information, as well as the Parks and Recreation Plan, Sanitary Sewer Plan, and Comprehensive Water Plan. This chapter identifies areas where new services will be needed to accommodate future growth expected over the next two decades.



The background image shows two dancers in traditional Mexican folk costumes performing on a stage. The dancer on the left is wearing a green and gold costume with a large feathered headdress. The dancer on the right is wearing a white and red costume with a large feathered headdress. They are both wearing large, ornate skirts and are in motion. In the background, there are flags and a banner that partially reads "International Club".

## Chapter 1 - Community Overview

**COMMUNITY VISION:** People find Burnsville an attractive, well-balanced city of residences and businesses, which through a combination of amenities and public/private partnerships, provides a wide range of opportunities for residents to live, work, learn and play, for a reasonable investment.



# Table of Contents – Chapter 1

|                                                         |    |
|---------------------------------------------------------|----|
| Introduction.....                                       | 4  |
| City's Comprehensive Planning History .....             | 5  |
| Community Background .....                              | 6  |
| Community Vision.....                                   | 8  |
| Safety.....                                             | 9  |
| Community Enrichment.....                               | 10 |
| Neighborhoods.....                                      | 11 |
| Development/Redevelopment .....                         | 11 |
| Environment.....                                        | 12 |
| Transportation .....                                    | 12 |
| City Services.....                                      | 13 |
| Shared Values Statement .....                           | 14 |
| Demographics.....                                       | 16 |
| Population .....                                        | 16 |
| Age.....                                                | 17 |
| Households .....                                        | 18 |
| Race and Ethnicity .....                                | 19 |
| Foreign Born .....                                      | 20 |
| Poverty.....                                            | 21 |
| 2040 Demographics Outlook.....                          | 22 |
| 2016 Survey Findings.....                               | 23 |
| Residential Survey Findings .....                       | 23 |
| Business Survey Findings .....                          | 31 |
| 2040 Regional Plans.....                                | 34 |
| Process to Update 2040 Comprehensive Plan.....          | 36 |
| Evaluation of Current 2030 Plan.....                    | 36 |
| Exploration of Focus Areas' Issues & Opportunities..... | 36 |
| Community Engagement .....                              | 37 |
| Development of Updated Draft Plan.....                  | 40 |
| Draft Plan Community Meetings.....                      | 40 |
| Planning Commission Public Hearing.....                 | 40 |
| City Council Approval .....                             | 40 |
| Metropolitan Council Review.....                        | 40 |
| Final Plan .....                                        | 41 |
| Sustainability Approach.....                            | 41 |
| 2009 Sustainability Guide Plan.....                     | 42 |
| Community Wide Sustainability Framework.....            | 45 |
| Future Amendments .....                                 | 46 |



## Table of Figures – Chapter 1

|                                                                                                                              |    |
|------------------------------------------------------------------------------------------------------------------------------|----|
| Figure 1-1: Community Location.....                                                                                          | 7  |
| Figure 1-2: Burnsville Shared Values Statement .....                                                                         | 15 |
| Figure 1-3: Percent Population by Age Group (2015) .....                                                                     | 17 |
| Figure 1-4: Distribution of Households by Age of Head of Household .....                                                     | 18 |
| Figure 1-5: Burnsville Race & Ethnicity (2015).....                                                                          | 20 |
| Figure 1-6: Foreign Born Residents by City (2015).....                                                                       | 20 |
| Figure 1-7: Percent of Households Below Poverty Level, by Type .....                                                         | 21 |
| Figure 1-8: How would you rate the quality of life in this community?.....                                                   | 24 |
| Figure 1-9: What do you think is the most serious issue facing the city? .....                                               | 24 |
| Figure 1-10: What do you like most about living in Burnsville? .....                                                         | 25 |
| Figure 1-11: Participation/involvement in current neighborhood.....                                                          | 25 |
| Figure 1-12: How satisfied are you with your neighborhood as a place to live & raise a family? .....                         | 26 |
| Figure 1-13: General feeling about availability of various city recreation programs.....                                     | 26 |
| Figure 1-14: Do you feel that existing city recreational facilities meet the needs of you & members of your household? ..... | 27 |
| Figure 1-15: Various aspects of the natural environment in Burnsville .....                                                  | 27 |
| Figure 1-16: Various aspects of public safety in Burnsville .....                                                            | 28 |
| Figure 1-17: Transportation Issues facing Burnsville.....                                                                    | 29 |
| Figure 1-18: Do you feel youth opinions, teens in particular, are valued in the community? .....                             | 29 |
| Figure 1-19: Are you aware of opportunities to be involved in decision making by City Council and City Boards? .....         | 30 |
| Figure 1-20: Do you feel welcomed in Burnsville?.....                                                                        | 30 |
| Figure 1-21: What do you like most, if anything, about having your business in Burnsville? .....                             | 31 |
| Figure 1-22: How long has your business been at this current site? .....                                                     | 31 |
| Figure 1-23: How would you rate the business atmosphere in Burnsville? .....                                                 | 32 |
| Figure 1-24: How would you rate the City of Burnsville's attitudes and responsiveness toward local businesses? .....         | 32 |
| Figure 1-25: In general, were you satisfied or dissatisfied with the way in which contact was handled by the city? .....     | 33 |
| Figure 1-26: Various aspects of providing services to Businesses .....                                                       | 33 |
| Figure 1-27: Thrive MSP 2040 Regional Designation .....                                                                      | 35 |
| Figure 1-28: Sustainability Model .....                                                                                      | 42 |
| Figure 1- 29: Comprehensive Plan Amendment Process.....                                                                      | 47 |

## Table of Tables – Chapter 1

|                                                                            |    |
|----------------------------------------------------------------------------|----|
| Table 1-1: Metropolitan Council Forecasts - City of Burnsville .....       | 16 |
| Table 1-2: Comparative Population Data 1960-2010.....                      | 17 |
| Table 1-3: Types of Households 1990-2010 .....                             | 19 |
| Table 1-4: Percentage of Households Below Poverty Line (2010) by City..... | 22 |
| Table 1-5: Metropolitan Council Projections for City of Burnsville .....   | 34 |

# Community Overview

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## Introduction

Burnsville's 2040 Comprehensive Plan is the community's fifth major plan update. This plan provides guidance for the community's shift away from traditional new development and infrastructure planning, and towards a focus on maintaining what the community has, enhancing what can be improved, and adapting to what people want. This focus can be accomplished through a strategic lens to diversify and intensify development patterns and living options, optimize redevelopment opportunities, expand service orientation, and integrate sustainability.

As the community continues to evolve and adapt to contemporary lifestyle preferences, this plan expands future opportunities for mixed use neighborhoods that build upon the success of the Heart of the City (HOC). To support the planned Orange Line Bus Rapid Transit (BRT) line, the plan also guides future station areas for transit-oriented development.

A key component of this plan includes land use and development concepts for four focus areas: HOC expansion westward, future BRT station areas (Nicollet Avenue, Burnsville Parkway, and Burnsville Center), Minnesota River Quadrant (MRQ), and the Cliff Road Business Park. During the plan update process, the Burnsville Center and County Road 42 commercial corridor emerged as an additional area of concern, which resulted in analysis and amendment of the land use guidance for this area.

Lastly, the City's strong commitment to sustainability is presented in the latter part of each chapter, where specific sustainability components and implementation steps are highlighted.

In addition to the standard plan chapters, this plan contains chapters that focus on economic development and redevelopment, neighborhoods, City services, community enrichment and sustainability. Key changes between the 2030 and 2040 Comprehensive Plans include:

- » The Youth Plan chapter in the 2030 Comprehensive Plan was broadened into a new Community Enrichment Plan chapter
- » The Neighborhoods and Housing chapters in the 2030 Comprehensive Plan were combined into one chapter
- » Sustainability and implementation sections were added to each chapter
- » The vision, goals and policies for each chapter were updated substantially to align with the City's Ends & Outcomes as the overall vision for the 2040 Comprehensive Plan

The following sections of this chapter provide information on comprehensive planning history, community background, demographics, community vision, 2016 Survey findings, Thrive MSP 2040 regional development and system plans, 2040 Comprehensive Plan process, sustainability approach, and future comprehensive plan amendments process.

## City's Comprehensive Planning History

Burnsville has been a planned community since its incorporation in 1964. The City adopted its first comprehensive plan in 1965, which focused on providing a strong transportation plan with a coordinated system of north/south and east/west collector streets and thoroughfares. The Land Use Plan emphasized growth management and orderly development based upon planned infrastructure improvements.

In 1967 the Minnesota Legislature created the Metropolitan Council to plan and coordinate orderly development of the seven-county metropolitan area. Minnesota law requires every local government jurisdiction within the metropolitan area to prepare and submit a comprehensive plan to the Metropolitan Council following each national census. The City's 1979 Comprehensive Plan Update was prepared in response to the 1976 Metropolitan Land Planning Act. This plan focused on guiding rapid growth, single-family development, commercial development around Burnsville Center, park land needs, and protection of natural features. The Economic Growth Committee was created during this planning period in 1987.

In 1990, the City updated its comprehensive plan for the second time. This plan concentrated on aggressive park planning, shifted focus from a rapidly developing community to one reaching full development, and was oriented toward maintenance and redevelopment. The plan addressed the Southwest Burnsville Rural Residential Area and incorporated goals and policies to expand community volunteerism programs. The City also became a participant in the Metropolitan Livable Communities Act Local Incentives Program to provide and maintain a wide variety of housing types and affordable housing.

The third update to the comprehensive plan was the 2000 Comprehensive Plan. Prior to this update, the City engaged the community to create Partnerships for Tomorrow, a community vision. This visioning process led to the adoption of the Carver Governance model and the implementation of the Ends & Outcomes for the City beginning in 1997. When this plan was prepared, the Metropolitan Council considered the city to be part of the "Urban Area," which entailed regional capacity to serve all of Burnsville with metropolitan utility, parks and transportation systems. The plan was structured to maintain a balance of land uses, strong tax base, and diverse housing stock, including a significant component of multi-family residential at densities up to 26 units per acre. Recognizing that the city was nearing full development, the focus turned toward redevelopment, cleaning up

contaminated sites, reuse and renovation of existing structures, and infill development of vacant parcels. Conceptual plans were established for the end uses of the Kraemer Quarry, McGowan Property MRQ, and HOC.

The 2030 Comprehensive Plan was the result of the City's fourth major update and was prepared in response to the Metropolitan Council's 2030 Regional Development Framework. The creation of the plan was predicated on a community visions exercise called Burnsville for the 21<sup>st</sup> Century. This updated plan was an example of the community's commitment to long-range planning, partnerships, public visioning and community involvement. This update established long-range (to the year 2030) goals, policies and strategies to guide land use decisions; identify, preserve, and manage natural resources; and provide necessary public services and programs for Burnsville residents, the business community and property owners. The plan identified demographic trends/changes, community issues, market conditions and other matters related to development impacts on neighborhoods, community services, recreation, housing, natural resources, transportation, schools and infrastructure. In addition, it demonstrated how local infrastructure and programs relate to the regional Metropolitan Council systems (transportation, airports, transit, sanitary sewers, water resource management and regional parks). This plan was more action-oriented in encouraging redevelopment to promote economic well-being; enhance community character; improve quality of life; and create a healthy, vibrant, safe and sustainable community to live, work and play.

## Community Background

Burnsville is located in northern Dakota County, roughly 14 miles south of downtown Minneapolis (see Figure 1-1). The city limits encompass about 27 square miles. Burnsville has experienced many transitions over the past five decades including incorporation from a rural township in 1964, rapid suburban development during the 1990s, and maturing into a suburban community facing redevelopment opportunities.

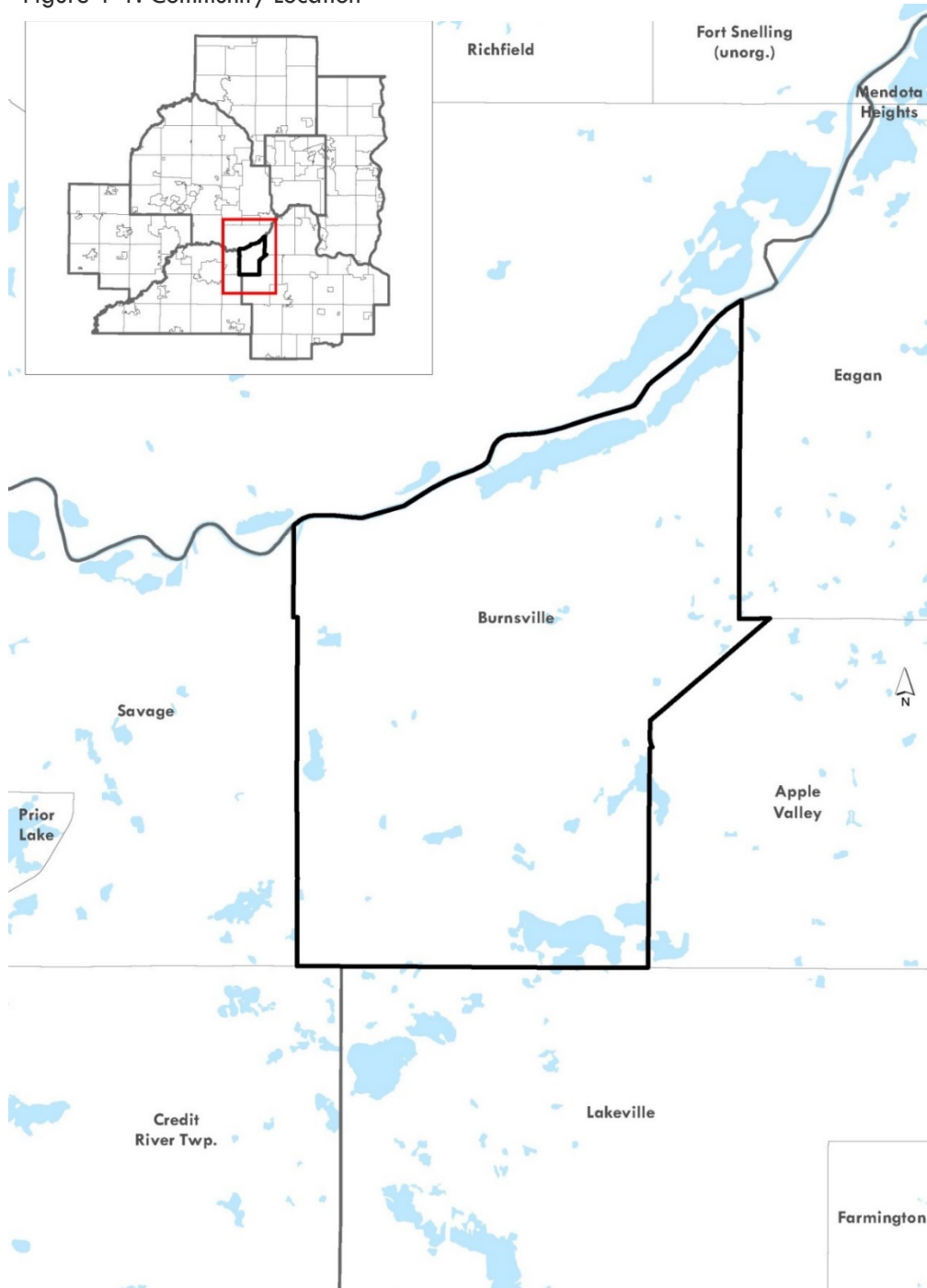
Burnsville's development follows a traditional suburban pattern. The city developed as a suburban community due to its geographic location (within the Twin Cities metropolitan area), good highway access, and close proximity to the Minneapolis/St. Paul (MSP) International Airport. Burnsville is over 98 percent developed and is home to an estimated 61,290 people, more than 2,500 businesses, and almost 1,800 net acres of parks and wildlife refuge lands.

Throughout its history, many internal and external forces shaped the community. In addition to close proximity to Minneapolis/St. Paul and the MSP International Airport, external forces that have shaped the community include its location adjacent to the Minnesota River; proximity to major transportation infrastructure including Interstates 35W and 35E, State Highway 13, Cedar Avenue, County Road 42, Cliff Road, ancillary county



roads; and two railroads which, when combined, form the backbone of the community.

Figure 1-1: Community Location



Internal forces that have shaped Burnsville include: development of the Burnsville Center, Fairview Ridges Hospital Campus, and HOC; industrial and business park development; Buck Hill; neighborhood growth; regional

resources including landfills, limestone quarry, a power plant, and numerous public parks; and rich natural resources including lakes, wetlands, hills and wooded areas that attract people. Finally, the people that live, work and own property in Burnsville are the most valuable asset. Through individual contributions, volunteerism, public service and key partnerships, they influence the makeup of the community.

One of the major contributors to the success of Burnsville as a great place to live, play, go to school, own/operate a business and visit is the City's commitment to long-range planning, imaginative thinking, strong leadership, cooperative partnerships and the will to define innovative ways to address community issues. Burnsville recognizes that successful relationships between public leadership and private sector investment culminate in the long-term economic sustainability of the community. Burnsville's success is due in part to its willingness to explore unique programs and financial incentives to attract development and re-investment in the community.

## Community Vision

***People find BURNSVILLE an attractive, well-balanced city of residences and businesses, which through a combination of amenities and public/private partnerships, provides a wide range of opportunities for citizens to live, work, learn and play, for a reasonable investment.***

*[Mega Ends Statement (Vision) from City's Ends & Outcomes]*

Burnsville's future growth will be guided by a vision that is expressed through the City's Ends & Outcomes. That vision reflects an overarching sustainable philosophy, in which the long-term health and stability of the city will be quantified by the well-being of residents, business owners and visitors; the vitality of the economy; and the health of the natural environment.

The City of Burnsville operates under a governance structure that is currently based on Ends & Outcomes adopted by the City Council. The Ends & Outcomes consist of eight themes – Safety, Community Enrichment, Neighborhoods, Development/Redevelopment, Environment, Transportation, City Services, and Financial Management. These Ends & Outcomes are continually monitored by the City Council, and all aspects of the City's operations are focused on these outcomes. The themes have periodically been modified to address current conditions and/or new initiatives such as the new Community Enrichment theme adopted in 2014 (this replaced the Youth theme and is now expanded). City staff provides monthly updates and annual year-end monitoring reports to define the progress made relating to each of the themes.

The following Ends & Outcomes, as established by the City Council and modified from time to time, provide high level guidance for the preparation of various chapters of this Comprehensive Plan and will apply throughout the planning period to the year 2040.

## Safety

### End Statement:

People find Burnsville a safe community, participate in Homeland Security, and are willing to prevent fire and crime.

### Outcomes:

1. People have an overall feeling of safety.
  - a. Neighborhood Watch groups are provided improved training, networking and organizational opportunities.
2. Customers and employees feel safe in a shopping environment.
  - a. Licensing and regulation of businesses provides safe and healthy environments for residents and visitors that meet community expectations.
3. People feel safe using the parks.
4. People trust in public safety response and service rendered.
  - a. Fire and Emergency Medical Services (EMS) will reach 80 percent of the emergency calls in nine minutes or less (inclusive of dispatch processing, turnout, and travel times).
  - b. Fire and EMS Services are provided in the most cost effective manner, through partnerships with surrounding communities when necessary. The City takes preventative safety measures that include licensing and inspecting rental properties and proactive enforcement of property maintenance codes.
  - c. Fire and EMS Services are reliably provided to the community.
5. Residents, including youth, are active participants in community safety.
  - a. People are proactive in reporting suspicious/unusual activity.
  - b. People are aware of and adhere to safe driving practices.
  - c. Residents participate in public safety “force multiplier” activities such as Community Emergency Response Team (CERT) training and the Mobile Volunteer Network (MVN).
  - d. Public safety works with community partners to proactively address drug-related crimes with an emphasis on heroin and methamphetamine use.
6. Pedestrian safety is preserved and enhanced through engineering, enforcement, and education.

# Community Enrichment

## End Statement:

Community members are actively engaged and have access to quality parks, facilities, programs and services that meet the changing needs of the community and create positive experiences for all.

## Outcomes:

1. Burnsville is a preferred community with a great quality of life.
2. City parks and recreational facilities offer a variety of events and activities throughout the year to build community and stimulate economic activity for local businesses.
  - a. Residents participate in a wide variety of physical and artistic activities.
  - b. A coordinated media plan effectively promotes community-wide involvement in health building activities.
3. Youth find Burnsville a nurturing and supportive community.
  - a. Youth are involved in community decisions including active participation on City Boards and Commissions wherever possible.
  - b. Youth are aware of community activities, programs, facilities and support systems.
  - c. The City is an active partner in the development/redevelopment of an after-school youth program addressing academic, social development, recreation and nutritional needs of the City's youth from elementary to high school ages.
4. Community partnerships have significant impact on reducing or even eliminating youth tobacco and alcohol use.
5. Community members have the opportunity to participate in a broad range of programs, community service and facilities that are built on strong, sustainable partnerships.
6. As an organization, the City practices a philosophy that encourages employees to learn from, build relationships with and facilitate the participation of residents in identifying needs, addressing challenges, and affecting change in their community by:
  - a. Making meaningful connections with diverse populations in the City through active community partnerships, including participation in the community's celebrations.
7. The City fosters community partnerships to provide targeted services and facilities to community members of all ages.
8. People are aware of the volunteer opportunities available in our community and volunteers are recognized for the services they provide.



# Neighborhoods

## End Statement:

People feel connected to their neighborhoods.

## Outcomes:

1. People have pride and ownership in their neighborhoods.
  - a. The City implements plans and strategies to collaboratively advance the viability of residential neighborhoods.
  - b. The City proactively canvasses neighborhoods checking for property maintenance compliance to maintain and/or enhance housing stock and property values.
2. People know and care about their neighbors and participate in solving problems and creating celebrations in their neighborhoods.
  - a. Public recognition is given to neighborhoods solving problems and creating celebrations in their neighborhood.
3. Neighborhoods are enjoyable, safe and stable places to live, work, and recreate.
4. People feel Burnsville has quality housing by:
  - a. Having a diverse mix of housing types throughout the City, including amenity rich multi-family development.
  - b. Promoting and encouraging the upgrade, enhancement and maintenance of existing housing stock.
  - c. Partnering with organizations to achieve affordable home ownership.
  - d. Through rental licensing initiatives including engagement of community and agency partnerships to improve quality of life and enhance health and safety in rental housing.

# Development/Redevelopment

## End Statement:

People find Burnsville a balanced city of residential and business development enhanced by redevelopment.

## Outcomes:

1. Job creation, retention and an enhanced tax base are assured by growth, redevelopment and sustained viability of commercial and industrial property.
2. Economic development and redevelopment initiatives are implemented, including creating and capturing opportunities, partnering with private property owners and other agencies and engaging the public. Specific initiatives include:
  - a. Heart of the City
  - b. Minnesota River Quadrant

- i. Public Infrastructure
    - ii. Removing impediments to development, including but not limited to poor foundation soils, and providing other development assistance including Tax Increment Financing and other tools
    - iii. Fostering appropriate interim uses until the time the landfill and quarry operations are complete
    - iv. Periodic reviews of the Kraemer Mining and Material, Inc. (KMM) and Waste Management Inc. Planned Unit Development (PUD) agreements
  - c. Monuments at Key City Entrances
  - d. Promotion of skilled workforce initiatives.
    - i. Encourage post-secondary education for students and training options for residents to ensure a skilled workforce
3. Specific development or redevelopment assistance will provide for business and residential projects consistent with established policies.

## Environment

### End Statement:

People find Burnsville is an environmentally sensitive community ensuring preservation and enhancement of its natural resources.

### Outcomes:

1. Burnsville is an environmentally sensitive community and individuals understand their role in pursuing this result.
2. Development and redevelopment occurs in an environmentally sensitive manner, preserving and restoring natural resources.
3. The City encourages business to employ best practices for sustainability and climate resiliency.
4. People find Burnsville to be an attractive, clean city and are willing to keep it that way.
5. Residents value all bodies of water and green spaces and recognize the importance of preserving them.
6. The City maintains critical raw water sources and infrastructure necessary for the delivery of safe drinking water.
7. The City employs feasible sustainable practices that promote development and maintain or enhance economic opportunity and community well-being while protecting and restoring the natural environment upon which people and economies depend.

## Transportation

### End Statement:

People find Burnsville a community with an effective, multi-modal transportation system connecting people and goods with destination points.

### Outcomes:

1. People feel that the transportation system is effective for connecting them to destination points.
  - a. Advocate for collaborative efforts and shared resources for intra-city transit services.
2. People feel that multiple methods of transportation are easily available, safe and convenient.
  - a. Support implementation of Bus Rapid Transit in the I-35W Corridor
3. People feel that the community roadway system is well maintained at a reasonable cost.
  - a. Leverage alternative Local, State, and Federal funding options for planned capital improvements.
  - b. Define community quality standards for residential and heavier volume streets and adequately fund the maintenance required to achieve these standards
4. Transportation system adequately serves city businesses.
  - a. Advocate adequate access from County, State and Federal roadways to ensure a viable business community.
  - b. Efforts will be made to obtain funding for significant safety and mobility improvements on TH 13.
5. The safety, longevity and quality of residential neighborhood streets are maintained, improved or enhanced.
6. Seek and support new initiatives for transportation funding by MnDOT and Dakota County when City and County businesses are not disadvantaged.

## City Services

### End Statement:

People find the City of Burnsville delivers quality essential services in a cost effective, timely manner.

### Outcomes:

1. Residents and businesses recognize City services as a positive value.
2. Residents perceive City employees as customer service oriented.
3. City Services focus on and City employees are increasingly involved in community building.
4. Residents are informed about issues, feel positive about City services and are aware of opportunities for increased involvement in community initiatives.
5. Businesses and residents are attracted to Burnsville because of a visible commitment to technology that supports an enhanced quality of life.

- a. Burnsville facilitates community-wide accessibility to broadband technology.
  - b. Burnsville provides effective community-wide electronic-government (E-Gov.) services.
  - c. Burnsville provides and supports local Public, Education and Government (PEG) television programming.
6. Burnsville is an organization that provides a supportive and collaborative environment encouraging employee learning and participation in the decision-making process.
  7. Continued implementation of service consolidations and partnerships with Dakota County and other cities.

## Financial Management

### End Statement:

People find the City of Burnsville managed in a cost-effective responsible manner, maintaining the highest standards of service to enhance the community's quality of life for a reasonable investment.

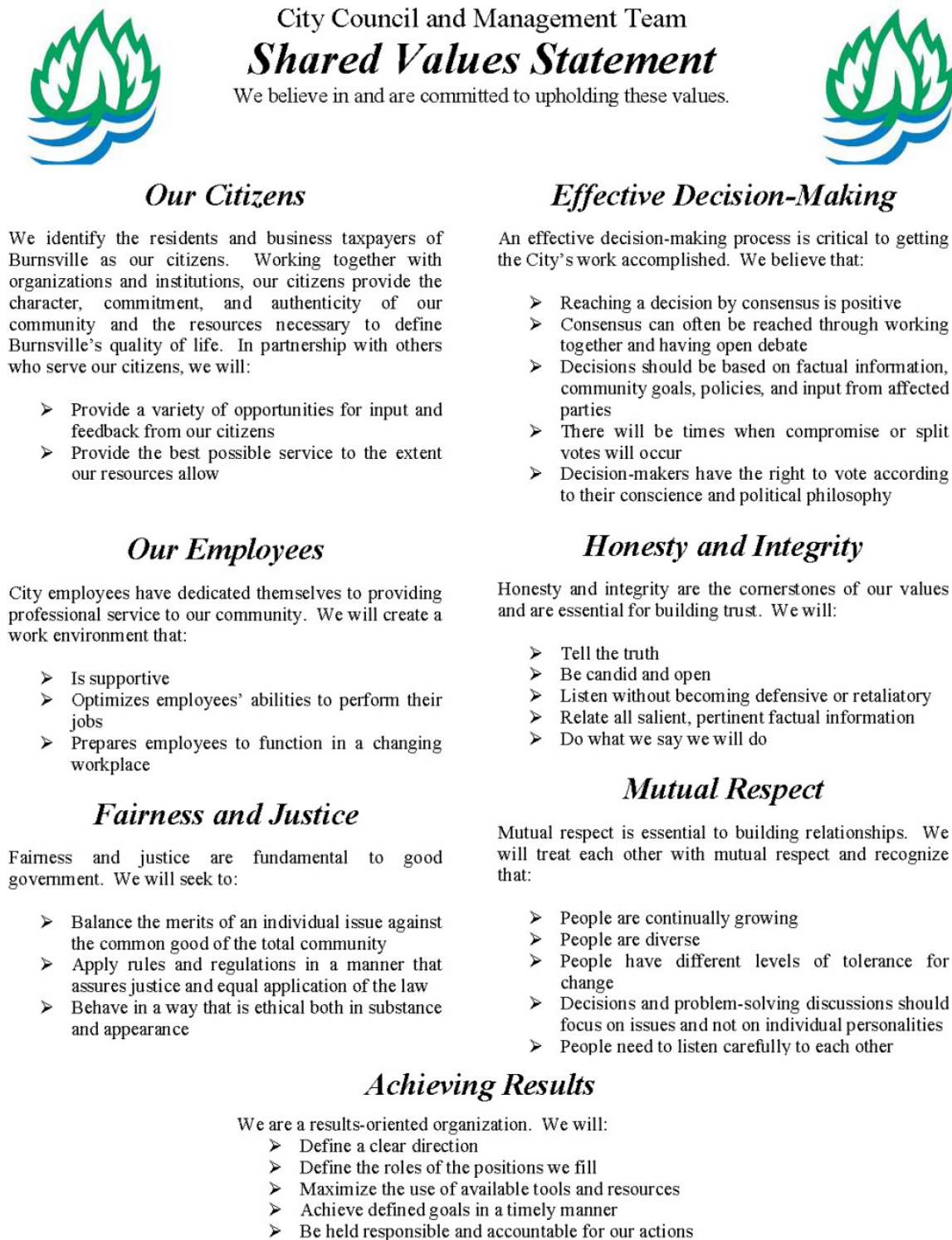
### Outcomes:

1. Residents perceive the cost of City services as reasonable compared with other cities.
2. Grant opportunities are pursued to identify innovative solutions that will assist in the reduction of costs to provide service to the community.
3. Burnsville follows a consistent compensation philosophy which guides compensation and benefit decisions for employees.

## Shared Values Statement

The City also operates under, and is committed to, a number of values identified as the “Shared Values Statement” seen in Figure 1-2 on the next page. These values are endorsed by the City Council and Management Team as the standards we will hold ourselves accountable.

Figure 1-2: Burnsville Shared Values Statement





# Demographics

Population and demographic trends are primary factors affecting the land use patterns of communities. The number of people, their age, the living arrangements they select, the types of dwellings in which they choose to live, and the places available to find employment all play an important role in how much land and what type of services and programs are needed to accommodate their choices. The following sections highlight demographic data that has been considered while developing this plan.

## Population

The city's population, including its related characteristics, is an essential element of the comprehensive planning process. The Metropolitan Council's 2014 population/household estimates for Burnsville indicated 61,747 people living in 24,960 households. The Metropolitan Council projects Burnsville will have a population of 68,500 in 27,600 households by the year 2040 (see Table 1-1), which results in an average of 101 more households per year for the next 25 years. More households with fewer persons-per-household than in the past means more housing units will be needed to accommodate individuals and families.

Table 1-1: Metropolitan Council Forecasts - City of Burnsville

|                       | 2010<br>Census | 2014<br>Estimate | Projections |        |        |
|-----------------------|----------------|------------------|-------------|--------|--------|
|                       |                |                  | 2020        | 2030   | 2040   |
| Population            | 60,306         | 61,747           | 63,500      | 66,000 | 68,500 |
| Households            | 24,283         | 24,960           | 25,900      | 26,800 | 27,600 |
| Employment            | 31,514         | 34,256           | 36,700      | 39,400 | 41,900 |
| Persons per Household | 2.48           | 2.47             | 2.45        | 2.46   | 2.48   |

Source: Metropolitan Council, U.S. Census 2010

Burnsville's population growth during the last decade has slowed down when compared to that of the Metropolitan Area (1.4 percent to 8.0 percent respectively). However, the rate of growth for Dakota County far exceeded the Metropolitan Area as a whole, as the county grew over 12 percent during the same time period.

Table 1-2 on the next page indicates that Burnsville (because it is a fully developed community) is being outpaced by other growing cities within Dakota County. This comparison may have future implications for policy makers. A smaller constituency will have different issues to face as an older, redeveloping city in contrast to other rapidly growing communities within Dakota County.

Table 1-2: Comparative Population Data 1960-2010

| Year               | Burnsville | Burnsville % of Dakota County Population | Dakota County | Metro Area |
|--------------------|------------|------------------------------------------|---------------|------------|
| 1960               | 2,716      | 3%                                       | 78,803        | 1,535,297  |
| 1970               | 19,940     | 14%                                      | 139,808       | 1,874,612  |
| 1980               | 35,674     | 18%                                      | 194,279       | 1,985,873  |
| 1990               | 51,288     | 19%                                      | 275,186       | 2,288,729  |
| 2000               | 60,220     | 17%                                      | 355,904       | 2,642,056  |
| 2010               | 60,306     | 15%                                      | 398,552       | 2,849,567  |
| % Change 2000-2010 | 1.4%       |                                          | 12%           | 8%         |

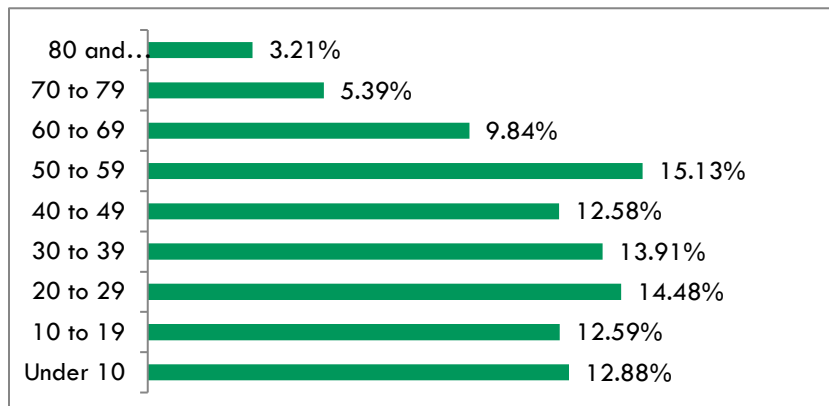
Source: U.S. Census 2010

The number of persons-per-acre is increasing in Burnsville, which can be attributed to the community nearing full build out while also increasing residential densities in redeveloping areas. From 1990 to 2010, the number of persons-per-acre increased from 2.95 to 3.53. The “persons-per-acre” statistic is one indicator of sustainable development that helps to measure our consumption of natural resources and generation of waste. It is typically more cost efficient to provide services to a limited land area with a higher concentration of people than it is to provide services to sprawling areas with low density. The more persons-per-acre, (higher density consuming less raw land), generally the more sustainable and affordable an area is considered to be.

## Age

In 2015, Burnsville’s age demographics compared similarly to that of the state of Minnesota. In 2015, people aged 50-59 years made up 15.13% of the population, making it the largest age cohort of that year, as seen in Figure 1-3.

Figure 1-3: Percent Population by Age Group (2015)

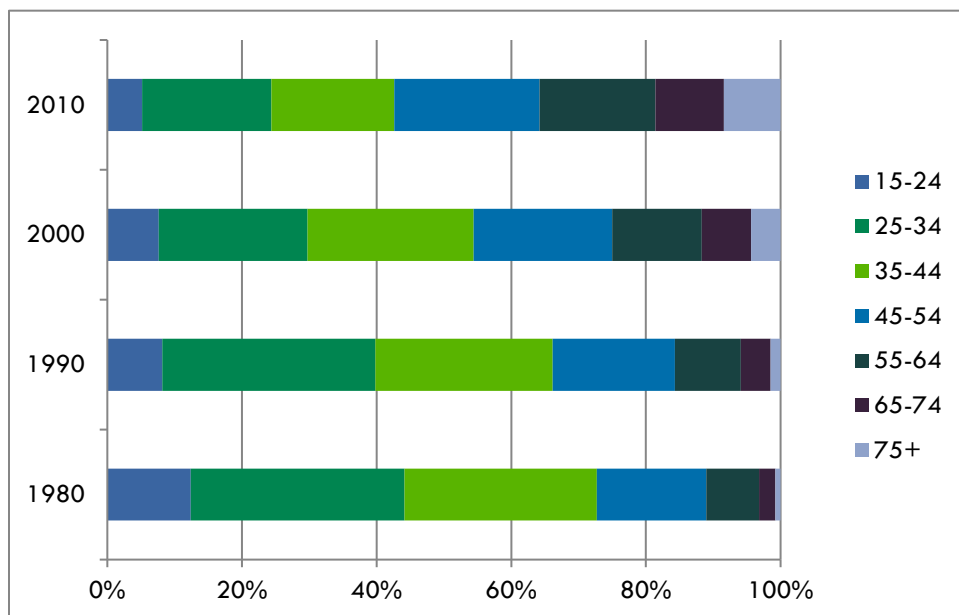


Source: U.S. Census 2010 ACS 2011-2015

From 2000 to 2012, the city experienced an increase in the number of people age 65-74, from 4.4 percent of Burnsville's population in 2000 (2,648 people) to 6.6 percent of the population in 2012 (4,021 people), an overall increase of nearly 52 percent. During this same time span, Burnsville also experienced an increase in the number of people over the age of 75, from 2.9 percent of the population in 2000 (1,710 people) to 5.0 percent of the population in 2012 (3,015 people), an increase of more than 75 percent.

While the number of people in older age groups increased, the number of people age 25-34 declined by 7 percent. This age cohort comprised approximately 17 percent of the population in 2000 but comprised only 16 percent of the population in 2010.

Figure 1-4: Distribution of Households by Age of Head of Household



Source: U.S. Census, American Community Survey 2008-2010

Figure 1-4 above indicates changes in the distribution of households in Burnsville by age group over the past three decades. The graphic indicates that the number of households with people in the age groups from 35 and older is increasing over time. The number of households in the 15-24 year old age category decreased in the 1980s, but has remained fairly level since that time. From this information it is apparent that a growing number of Burnsville's residents are aging, and as a result, the type of housing and services the City provides to accommodate an increasingly older and larger proportion of the aging population may change in the future.

## Households

Since 1980, Burnsville has experienced an increase in the ratio of non-family households to family households, as seen in Table 1-3. In 2010,

64.5 percent of households were comprised of families (two parents and children), which is a decline from 66 percent in 2000.

The number of single male- and single female-headed households both increased between 1990 and 2010. Single male-headed households grew from 2.7 percent of the total number of households in Burnsville in 1990 to 4.5 percent of the total number of households in 2010. Single female-headed households increased from 9.2 percent of all households in Burnsville in 1990 to 11.5 percent of all households in 2010.

At the same time, the number of married couple-households has declined from 59.7 percent of all households in Burnsville in 1990 to 48.5 percent of all households in 2010.

Table 1-3: Types of Households 1990-2010

| Household Type     | 1990          | % of HH      | 2000          | % of HH    | 2010          | % of HH      | Change 1990-2010 |
|--------------------|---------------|--------------|---------------|------------|---------------|--------------|------------------|
| <b>Family</b>      | <b>13,713</b> | <b>71.7%</b> | <b>15,631</b> | <b>66%</b> | <b>15,656</b> | <b>64.5%</b> | <b>14.1%</b>     |
| Married Couple     | 11,427        | 59.7%        | 12,503        | 52.8%      | 11,743        | 48.5%        | 2.7%             |
| Male Family Head   | 524           | 2.7%         | 767           | 3.2%       | 1,116         | 4.5%         | 112.9%           |
| Female Family Head | 1,762         | 9.2%         | 2,361         | 10%        | 2,797         | 11.5%        | 58.7%            |
| <b>Non-Family</b>  | <b>5,414</b>  | <b>28.3%</b> | <b>8,056</b>  | <b>34%</b> | <b>8,627</b>  | <b>36.0%</b> | <b>59.3%</b>     |

Source: U.S. Census 1990, 2000 and 2010

## Race and Ethnicity

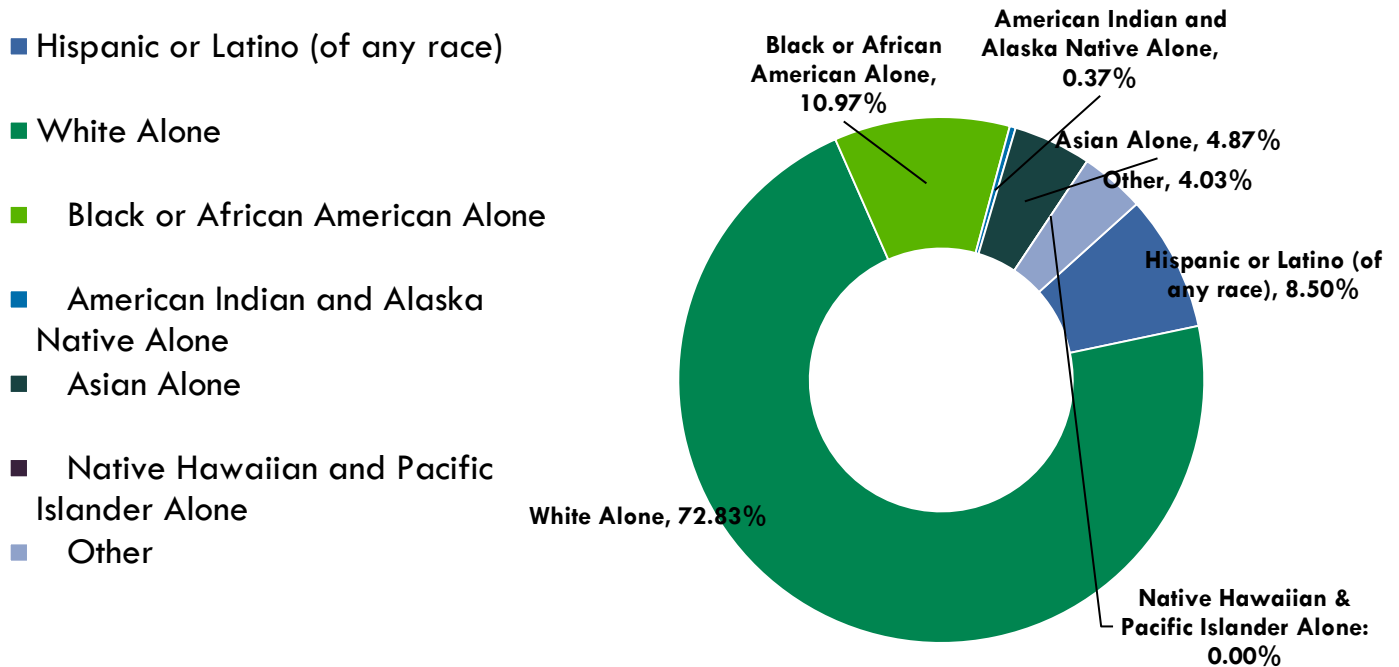
When assessing the racial and ethnic makeup of Burnsville, a majority of the population (72.83 percent) were white non-Hispanic in 2015. This is significantly more diverse than Dakota County, which was 80.8 percent white non-Hispanic, and Minnesota, which was 81.7 percent white non-Hispanic. The second largest racial/ethnic group is Black or African American, non-Hispanic, making up 10.97 percent of the population (see Figure 1-5 on the following page).

Burnsville historically had a higher percentage of white population. However, over the last several decades, ethnic and racial diversity in Burnsville has increased. Today, many residents see Burnsville's diversity as an asset and a reason to stay in the community.

The City is embracing the increasingly diverse population with new programs, events and other services to reach out to residents and ensure they feel a part of the community. The "Burnsville for the 21<sup>st</sup> Century Visioning Project" emphasized this need with new visions for the City to enhance neighborhood communication and social connectivity. In addition to new residents with diverse ethnicity, the variety of minority-owned businesses has increased, providing for a wider product selection, retail,

restaurants and other businesses that benefit our community. The growing ethnic diversity is also being experienced in the schools and the districts are addressing diversity within their curricula.

Figure 1-5: Burnsville Race & Ethnicity (2015)

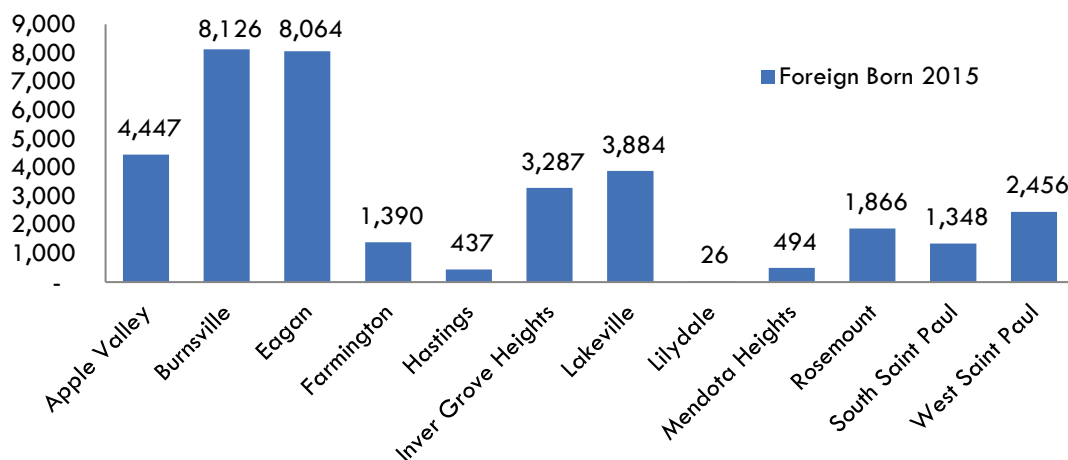


## Foreign Born

Data available from the Census and Dakota County indicate that Burnsville and Eagan have the most foreign born residents in Dakota County. The City will continue to play an integral role in reaching out to these new residents.

Figure 1-6 compares the number of Foreign Born individuals by Dakota County city.

Figure 1-6: Foreign Born Residents by City (2015)



Source: U.S. Census, American Community Survey 2011-2015



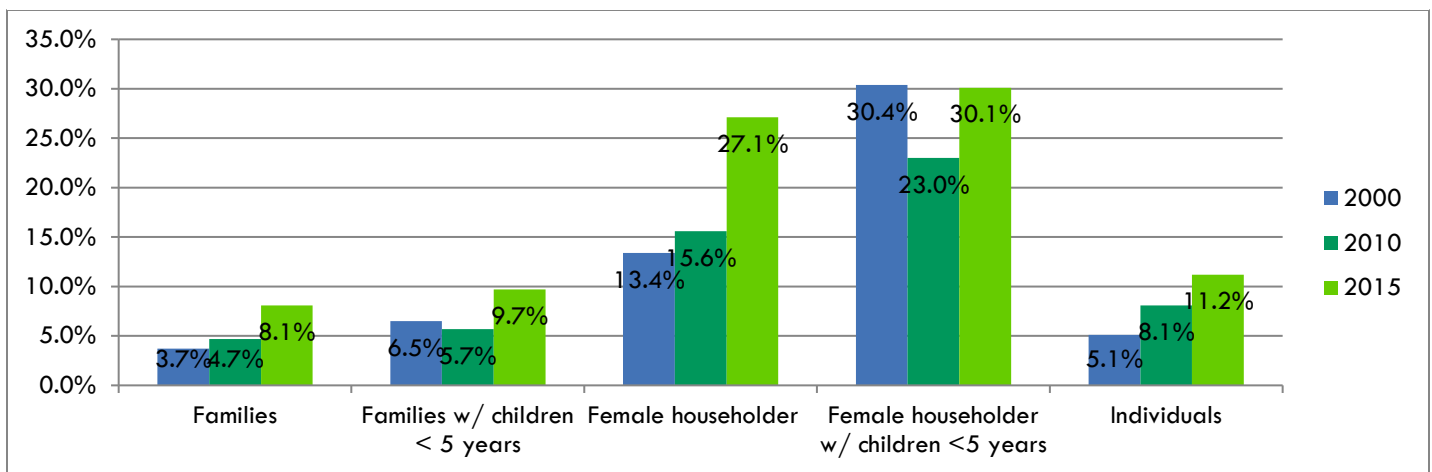
## Poverty

In 2015, there were an estimated 2,883 female households with no husband/father. An estimated 27.1 percent of these households had an income below the poverty level in Burnsville. Overall, 11.2 percent of Burnsville households have an income below the poverty level.

This statistic is important when examining poverty levels (with dependent children) because family type is a major determining factor of poverty. Single female-headed households are statistically more likely to be below the poverty level than those run by male counterparts or married-couple families.

Figure 1-7 indicates that poverty levels have been on the rise for almost all categories from 2000 to 2015 in Burnsville.

Figure 1-7: Percent of Households Below Poverty Level, by Type



Source: U.S. Census, American Community Survey 2011-2015

The data in Table 1-4 on the following page also comes from the U.S. Census and provides comparative data with other Dakota County cities for families living below the poverty level.

Table 1-4: Percentage of Households Below Poverty Line (2010) by City

|                     | Families Below Poverty |      | Female Head of Household Below Poverty |      |
|---------------------|------------------------|------|----------------------------------------|------|
|                     | 2000                   | 2010 | 2000                                   | 2010 |
| Apple Valley        | 1%                     | 4%   | 6%                                     | 13%  |
| Burnsville          | 4%                     | 5%   | 13%                                    | 15%  |
| Eagan               | 2%                     | 3%   | 7%                                     | 18%  |
| Farmington          | 1%                     | 3%   | 12%                                    | 20%  |
| Hastings            | 2%                     | n/a  | 10%                                    | n/a  |
| Inver Grove Heights | 3%                     | 2%   | 12%                                    | 7%   |
| Lakeville           | 1%                     | 3%   | 14%                                    | 10%  |
| Lilydale            | 0%                     | 0%   | 0%                                     | 0%   |
| Mendota Heights     | 1%                     | 2%   | 9%                                     | 20%  |
| Rosemount           | 2%                     | 4%   | 9%                                     | 12%  |
| South St. Paul      | 4%                     | 7%   | 12%                                    | 21%  |
| West St. Paul       | 4%                     | n/a  | 14%                                    | n/a  |

## 2040 Demographics Outlook

Based on the above demographic trends and the Metropolitan Council's population, household and employment projections out to 2040, the following are assumptions that have been incorporated into the 2040 Comprehensive Plan.

Burnsville is projected to grow in population and number of households over the next 20 years. With almost 7,000 additional residents and approximately 2,600 additional households in 2040, Burnsville will continue to evolve as these housing units are added into the community over time.

Burnsville's older resident segment of the overall population will continue to increase and diversify. For example, residents aged 55-64 will have different needs and preferences than residents aged 65-75 and those who will be 75+.

Burnsville's population will continue to diversify racially, which will have impacts on preferences and needs for types of housing, businesses, transportation and recreation.

Burnsville is projected to add more than 7,600 jobs from 2014 to 2040. This healthy job growth is projected to exceed the City's growth in households, which will result in an increasing jobs-to-housing ratio from 1.3 jobs/household in 2010 to 1.5 jobs/household in 2040. This projected job growth will require the city to provide areas for business expansion, strategic redevelopment and new development in key business centers, such as existing business parks, HOC, the Burnsville Center, Highway 42

Corridor and the MRQ. According to the Department of Employment and Economic Development (DEED), job growth in Burnsville declined slightly between 2000 and 2010 with 251 jobs being lost for a total employment of 31,514. This decrease in jobs was most likely due to the recession that began in 2008.

## 2016 Survey Findings

The City of Burnsville conducts regular surveys of residents and businesses to stay aware of what the public thinks about all aspects of City services and programs. The most recent surveys were conducted in 2016 and identified the following information related to Community Enrichment.

### Residential Survey Findings

#### People Live in Burnsville for Many Years

The 2016 Residential survey indicated that 47 percent of the respondents have lived in Burnsville for 11 years or longer and 72 percent planned to live in the City for 11 plus years in the future.

#### Reasons Planning to Move Out of Burnsville

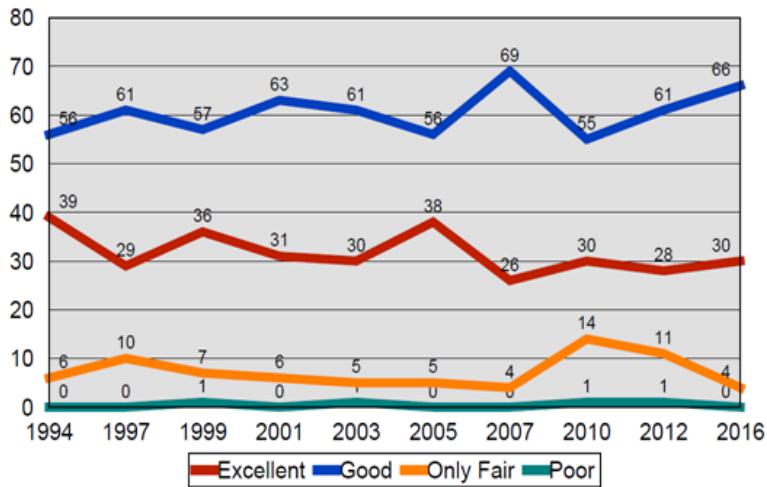
When asked: “Why do you plan to leave Burnsville?” the largest reason identified in the 2016 residential survey for people planning to move out of the City was: 40 percent closer to family; 13 percent need assisted living; 13 percent rising crime. The City cannot change where relatives live, but can work to ensure a variety of housing choices are available so families and relatives can stay close to one another. The City could provide opportunities for more assisted living or increase awareness of existing facilities to change the perception. Similarly with crime activity, the City can direct resources toward crime prevention and enact communication plans to increase awareness of the rates of criminal activity.

The information and data provided on the following pages are from the 2016 Residential survey.

## High Quality of Life

Residents continue to rate the quality of life in Burnsville very high, with 96 percent of the survey respondents indicating their quality of life is good or excellent. Figure 1-8 indicates that this belief has been stable over time.

Figure 1-8: How would you rate the quality of life in this community?

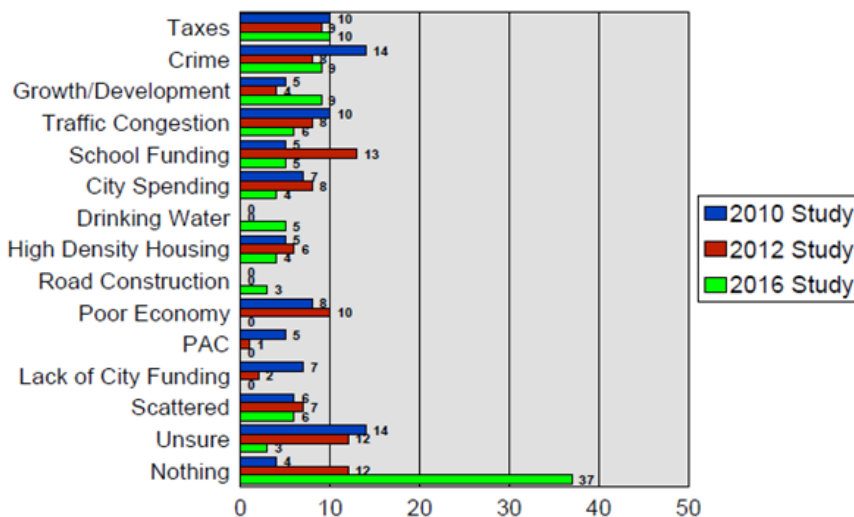


## Most Serious Issues Facing the City

Of the survey respondents who identified an issue, these issues were identified the most:

1. Taxes
2. Crime (tied)
2. Too Much Growth/Development (tied)
3. Traffic Congestion
4. School Funding

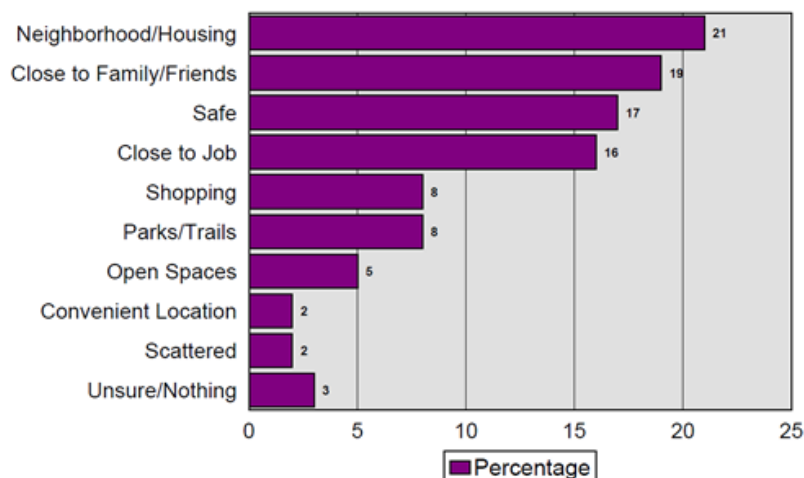
Figure 1-9: What do you think is the most serious issue facing the city?



## People Like their Neighborhoods

Residents indicated that the thing they like most about Burnsville is the neighborhoods and housing. 94 percent of the survey respondents indicated that they are very/somewhat satisfied with Burnsville as an area to live and raise a family. Residents like that they are close to family and friends, feel the community is safe and like that they are close to where they work. Figure 1-10 indicates the characteristics people like most about Burnsville.

Figure 1-10: What do you like most about living in Burnsville?

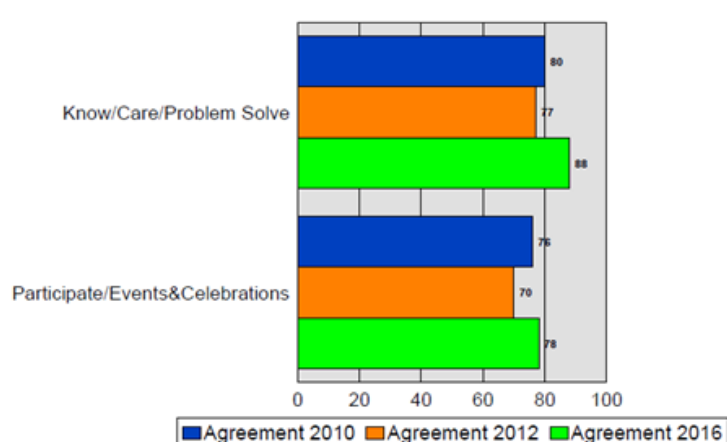


## People Care about their Neighborhoods, Participate in Problem Solving, Events & Celebrations

Survey participants agreed with the following statements, as seen in Figure 1-11.

- » I feel people know and care about their neighborhoods and participate in solving problems
- » I participate in neighborhood or community events and celebrations

Figure 1-11: Participation/involvement in current neighborhood

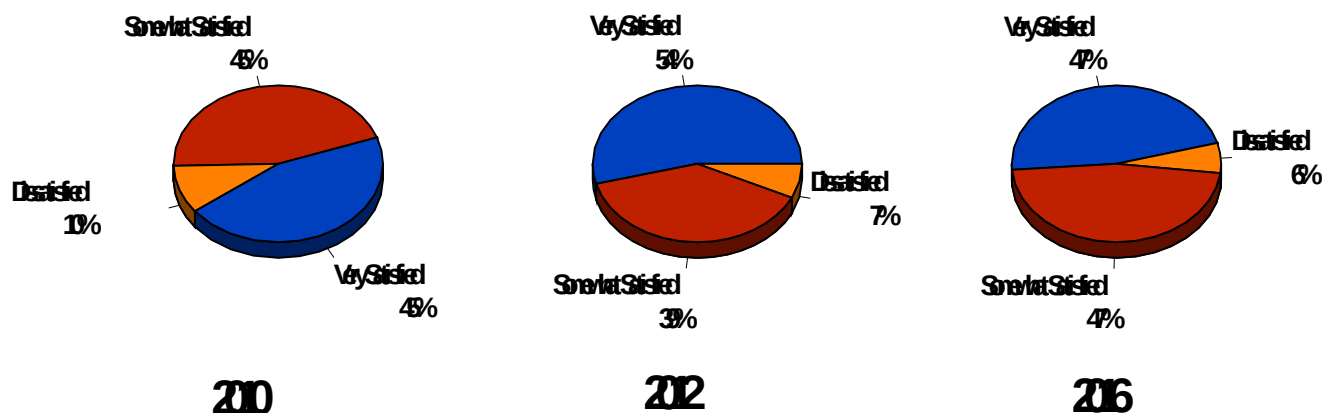




## People are Mostly Satisfied with Their Neighborhoods, with Some Room for Improvement

People have expressed higher satisfaction with their neighborhoods 2010, but satisfactions levels have remained high throughout.

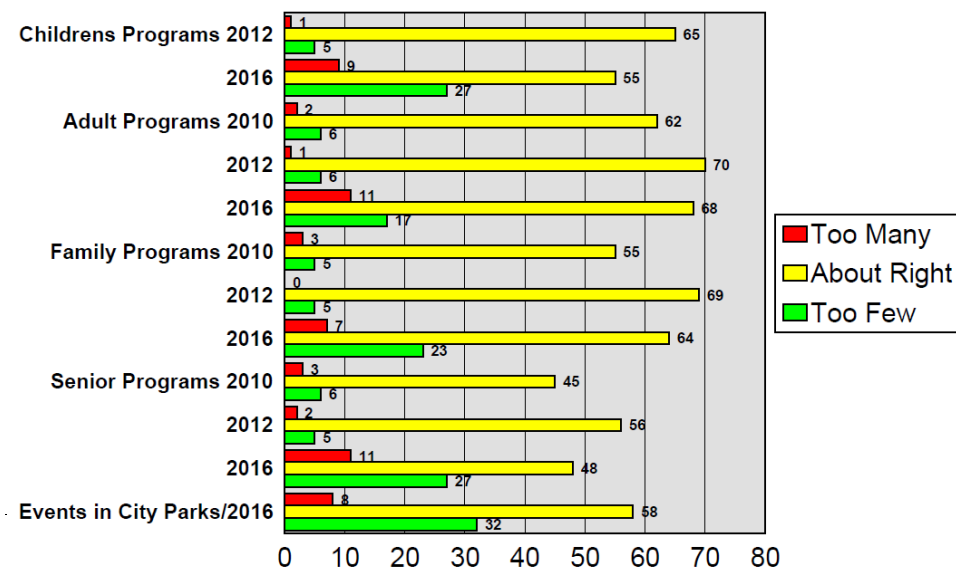
Figure 1-12: How satisfied are you with your neighborhood as a place to live & raise a family?



## People Feel the City Provides the Right Amount of Recreation Programs

The amount of recreational programming provided by the City is “About Right” for a majority of respondents in the most recent 2016 survey, with the exception of Senior programs. Only 48 percent of respondents felt the amount of Senior Program was “About Right” with 27 percent of respondents indicating they believed there were “Too Few” programs. 32 percent of respondents also indicated there were “Too Few” events in City Parks.

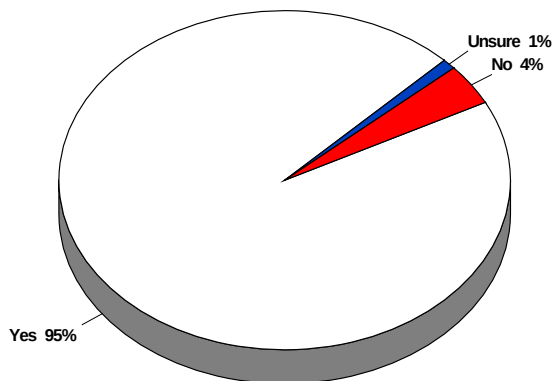
Figure 1-13: General feeling about availability of various city recreation programs



## People's Recreational Needs are Generally Met by Existing City Facilities

An overwhelming majority of respondents indicated that their recreational needs are met by existing facilities.

Figure 1-14: Do you feel that existing city recreational facilities meet the needs of you & members of your household?

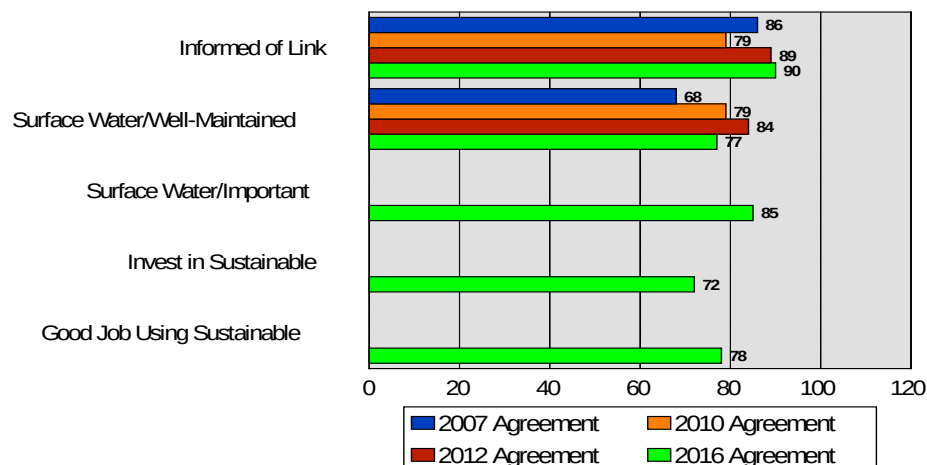


## People Prioritize Issues Facing the Natural Environment

Survey participants agreed with the following statements, as seen in Figure 1-15:

- » I feel informed about sustainable practices and the things I can do to help conserve energy and protect the natural environment
- » Surface water, lakes and ponds in Burnsville are clean and well-maintained
- » I believe keeping surface water, lakes and ponds in Burnsville clean and well-maintained is important
- » The City of Burnsville should invest in sustainable practices
- » The City of Burnsville does a good job using sustainable practices

Figure 1-15: Various aspects of the natural environment in Burnsville

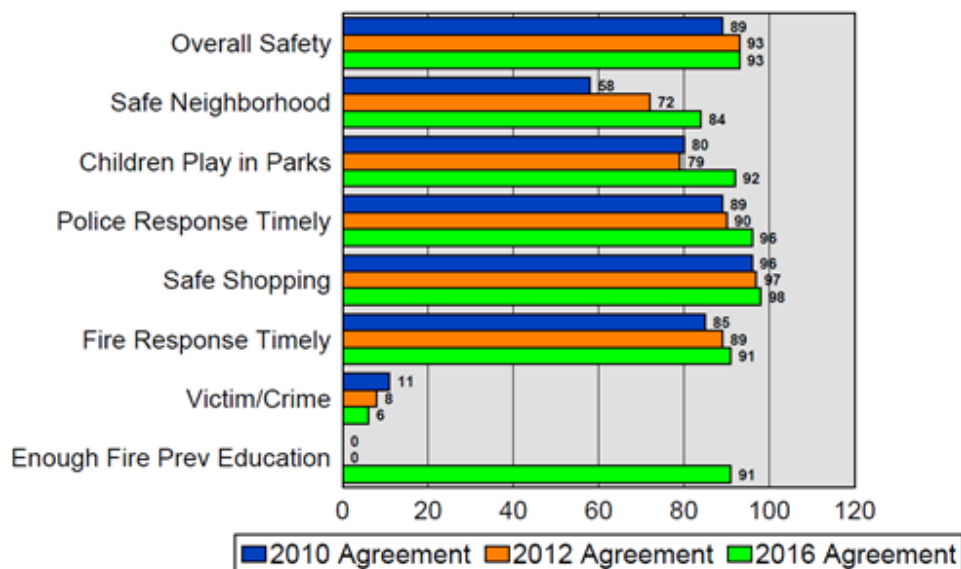


## People Feel Safe in Burnsville

Survey participants agreed with the following statements, as seen in Figure 1-16:

- » I have an overall feeling of safety in Burnsville
- » I would feel safe walking in my neighborhood alone at night
- » Children are safe playing in our City parks
- » The Burnsville Police Department responds to calls in a timely manner
- » I feel safe shopping in Burnsville
- » I have been a victim of a crime in Burnsville during the past year
- » Burnsville Fire Department does enough public education on fire & emergency prevention

Figure 1-16: Various aspects of public safety in Burnsville

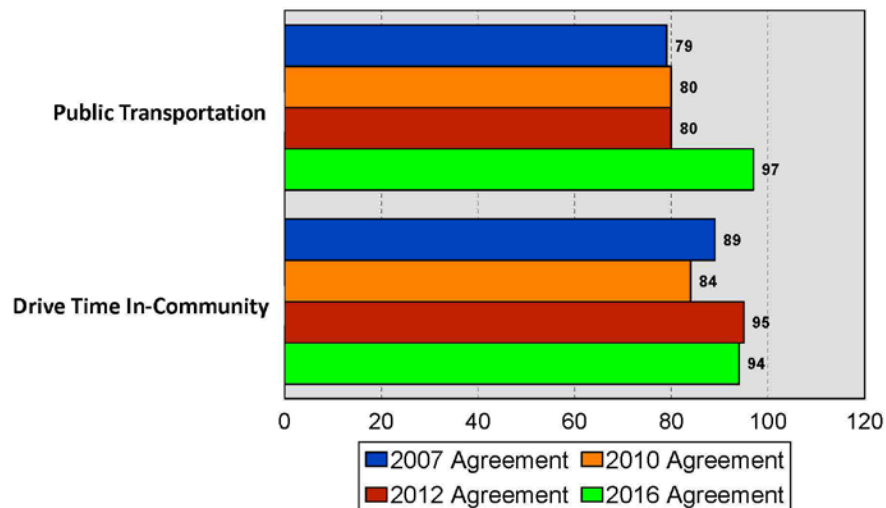


## Transportation in Burnsville Remains an Important Topic

Survey participants agreed with the following statements, as seen in Figure 1-17 on the following page:

- » Whether I use them or not, I am satisfied with public transportation opportunities in Burnsville
- » I am generally satisfied with the amount of time required to drive from one place to another place in the city

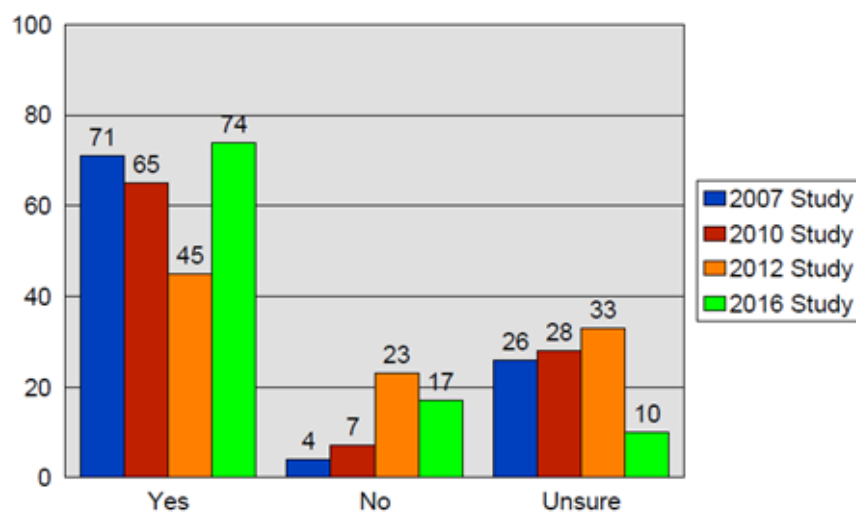
Figure 1-17: Transportation Issues facing Burnsville



## People Feel Youth/Teens are Valued in Burnsville

Figure 1-18 indicates that respondents value youth voices.

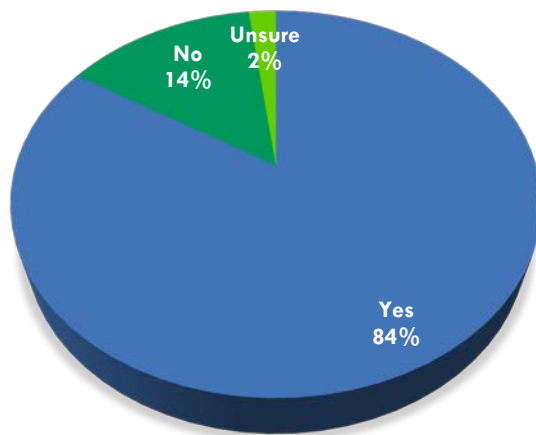
Figure 1-18: Do you feel youth opinions, teens in particular, are valued in the community?



### People are Aware of Opportunities for Involvement in decision-making

In the 2016 residential survey, 84 percent of the respondents indicated that they were aware of opportunities for involvement in City decisions.

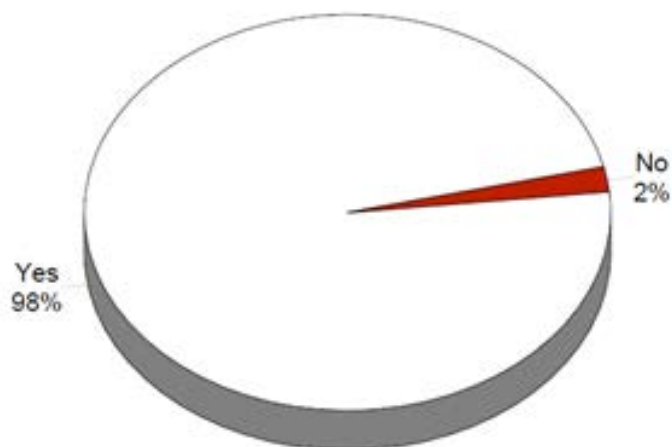
Figure 1-19: Are you aware of opportunities to be involved in decision making by City Council and City Boards?



### People Feel Welcome

Non-Caucasian respondents overwhelmingly indicated that they feel welcome in the City of Burnsville.

Figure 1-20: Do you feel welcomed in Burnsville?

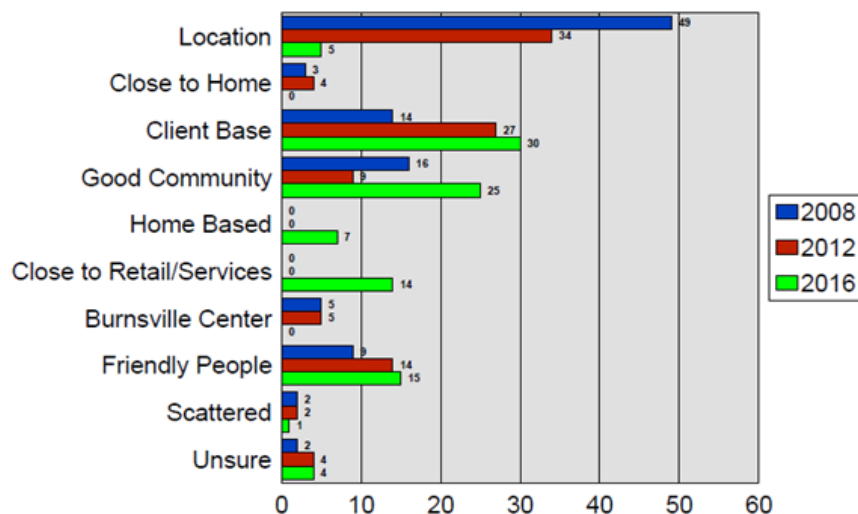


# Business Survey Findings

## Businesses Believe Burnsville is a Good Community

When local businesses were asked what they liked most about the City, the feeling that Burnsville is a “Good Community” came in second only to the “Client Base” that is here.

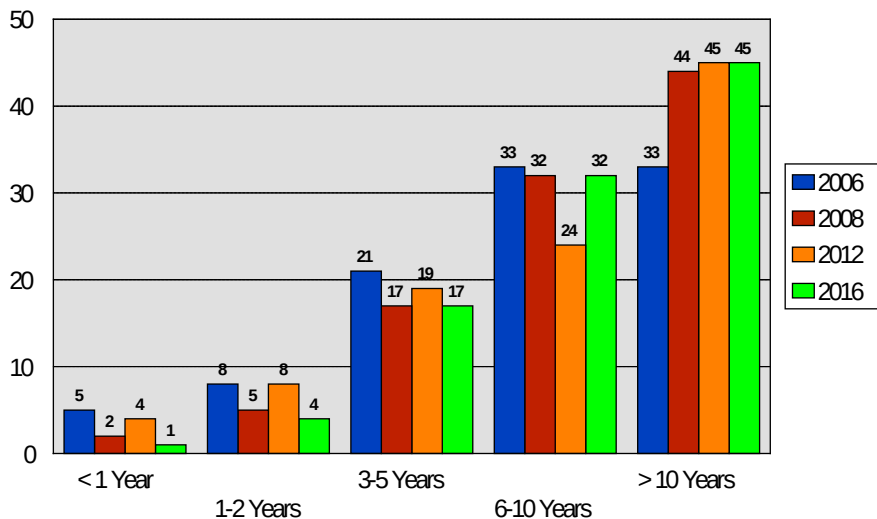
Figure 1-21: What do you like most, if anything, about having your business in Burnsville?



## Most Businesses have Remained in Burnsville Five Years or More

The number of businesses that have been in Burnsville for more than 5 years has increased since 2006.

Figure 1-22: How long has your business been at this current site?

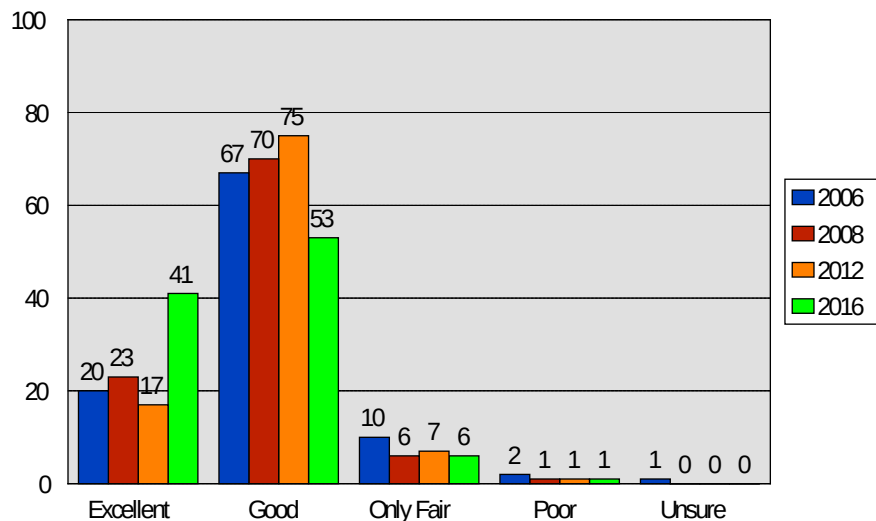




## The Business Environment has been Improving Over Time

Respondents indicating that Burnsville provides an “Excellent” environment for business has more than doubled since 2012 and 94 percent rate the business environment “Excellent” or “Good.”

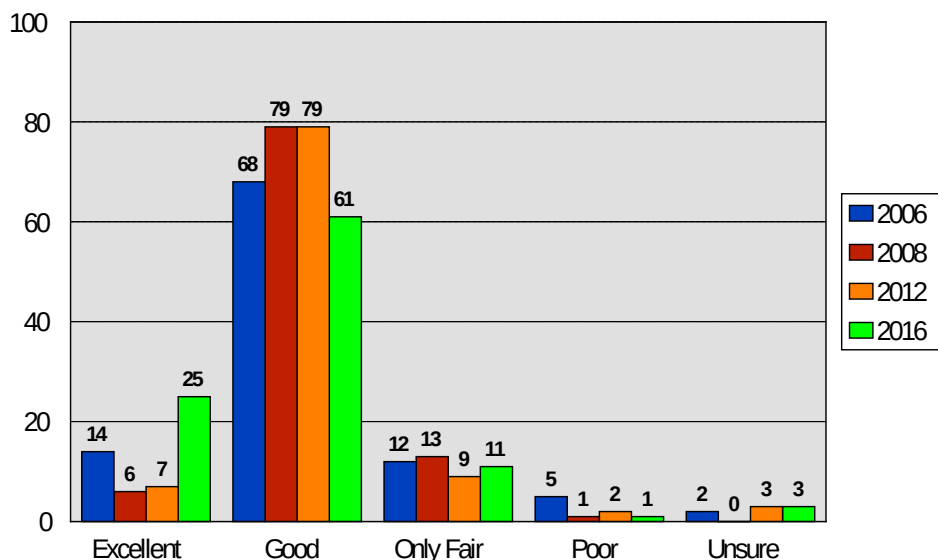
Figure 1-23: How would you rate the business atmosphere in Burnsville?



## Businesses have Seen an Improvement in City Attitude and Responsiveness Over Time

The number of respondents indicating that the City’s responsiveness to local businesses is “Excellent” tripled since 2012 and 86 percent of respondents indicated that the City’s responsiveness is “Good” or “Excellent.”

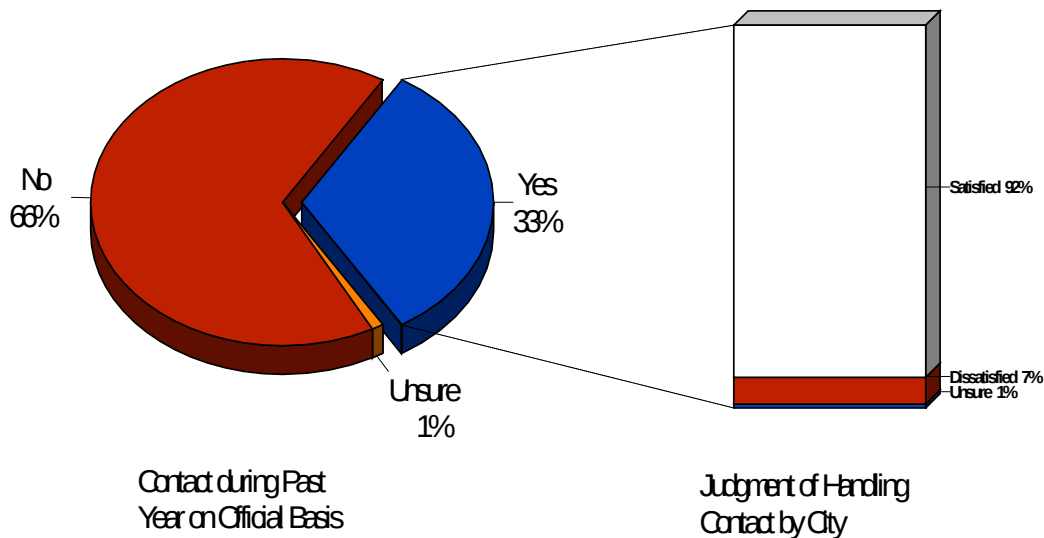
Figure 1-24: How would you rate the City of Burnsville’s attitudes and responsiveness toward local businesses?



## Businesses have been Satisfied with their Contact and Communication with the City

Of the 33 percent of business respondents that had contact with the City in the past year, 92 percent were satisfied with the City's response.

Figure 1-25: In general, were you satisfied or dissatisfied with the way in which contact was handled by the city?

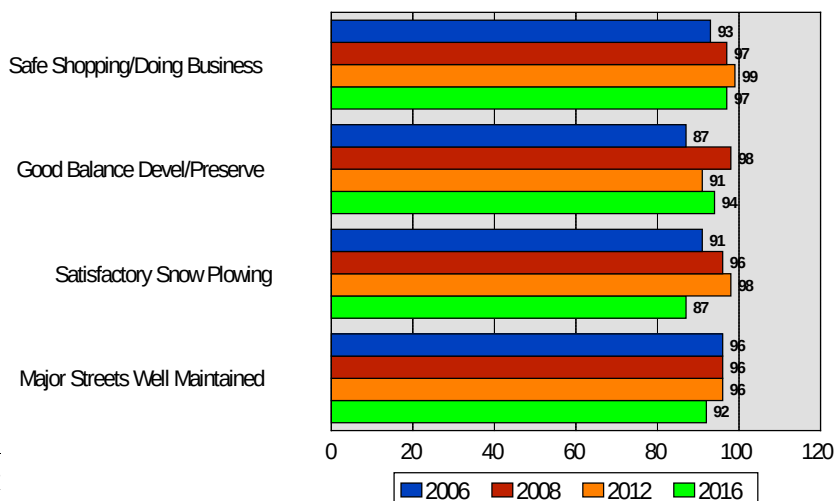


## Burnsville Provides an Environment for Businesses to Thrive

Survey participants agree with the following statements, as seen in Figure 1-26:

- » Customers and employees feel safe shopping and doing business in Burnsville
- » The City has maintained a good balance between development and preservation of natural resources
- » The quality and timeliness of the snow plowing of city streets is satisfactory
- » Major city streets are well maintained in Burnsville

Figure 1-26: Various aspects of providing services to Businesses



# 2040 Regional Plans

The new Twin Cities regional/metropolitan development plan – Thrive MSP 2040 – was adopted by the Metropolitan Council in May 2014.

Subsequent to the adoption of Thrive MSP 2040, the Metropolitan Council also adopted new metropolitan system plans, consisting of the 2040 Transportation Policy Plan, 2040 Regional Parks Policy Plan, 2040 Water Resources Policy Plan, and 2040 Housing Policy Plan. State Statutes including the Metropolitan Land Planning Act, require all local jurisdictions to ensure that their local comprehensive plans conform with the metropolitan development and system plans.

To implement the new 2040 metropolitan plans, the Metropolitan Council issued system statements in 2015 for all jurisdictions in the Twin Cities metropolitan area. Burnsville’s system statement identifies the specific infrastructure and planning areas that must be addressed as part of the 2040 Comprehensive Plan. The system statement also identifies population, household and employment forecasts for Burnsville for the years 2020, 2030 and 2040, as shown in Table 1-5:

Table 1-5: Metropolitan Council Projections for City of Burnsville

|            | 2010 (Actual) | 2014 (Estimate) | 2020   | 2030   | 2040   |
|------------|---------------|-----------------|--------|--------|--------|
| Population | 60,306        | 61,747          | 63,500 | 66,000 | 68,500 |
| Households | 24,283        | 24,960          | 25,900 | 26,800 | 27,600 |
| Employment | 31,593        | 34,256          | 36,700 | 39,400 | 41,900 |

The Burnsville system statement is included as Appendix A. As required by State Statute, all metropolitan jurisdictions must review and update their comprehensive plans within three years after the issuance of system statements to ensure that they conform with the metropolitan development and system plans. Updated local jurisdiction comprehensive plans are required to be completed and submitted to the Metropolitan Council for review by December 31, 2018.

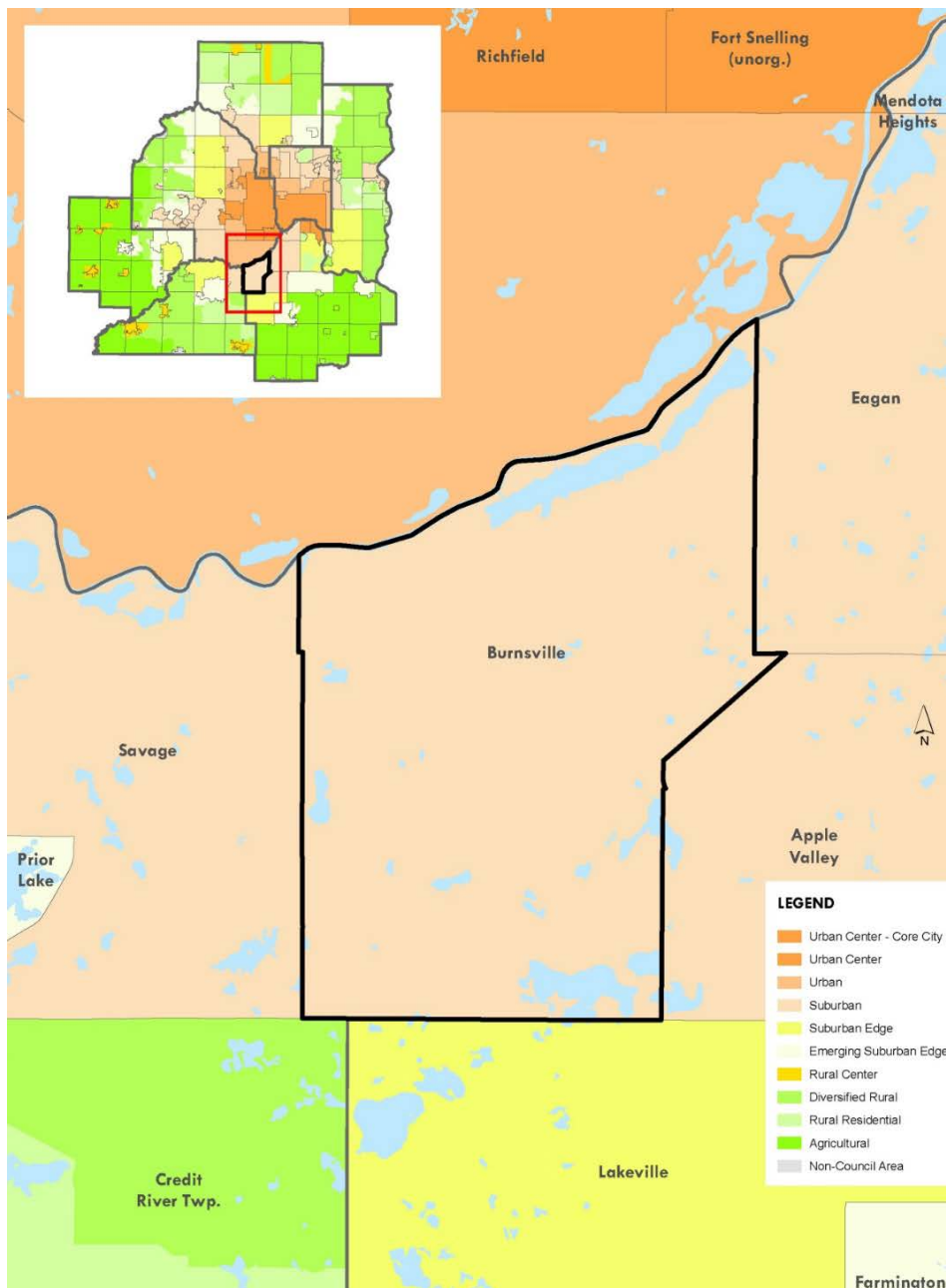
Thrive MSP 2040 designates Burnsville as a suburban community (see Figure 1-27), which is a designation given to communities whose primary era of development occurred in the 1970s, 1980s, and early 1990s. Communities designated as suburban are generally located along or just beyond of the I-494/I-694 beltway. Burnsville is located within the Metropolitan Urban Service Area (MUSA), indicating that at some future date, the entire community will be served with municipal utilities. Burnsville is over 98 percent developed and this plan must demonstrate that the City’s long-range plan will:

- » conform with metropolitan system policy plans for transportation, sewer systems, regional parks and housing

- » be consistent with requirements of the Metropolitan Land Planning Act and Metropolitan Council policies
- » be compatible with the plans of other jurisdictions including school districts, counties, watershed management organizations and others

The 2040 Comprehensive Plan describes how Burnsville's local planning efforts will meet Metropolitan Council objectives and policies related to efficient growth, multi-modal transportation, housing, natural resource protection, transportation, water resources management and regional parks.

Figure 1-27: Thrive MSP 2040 Regional Designation



# Process to Update 2040 Comprehensive Plan

## Evaluation of Current 2030 Plan

To facilitate the 2040 Comprehensive Plan, a Citizen's Advisory Committee was formed to work along with the Planning Commission to provide input and review of the 2030 Comprehensive Plan. The advisory committee consisted of a variety of representatives from the business community; youth, senior, culturally diverse populations; faith community; real estate experts; and residents in general.

City staff from multiple departments and the planning consultant team of Hoisington Koegler Group Inc. (HKGI) collaborated in a series of meetings at the beginning of the planning process to discuss and evaluate each chapter of the 2030 Comprehensive Plan. The purpose for the meetings was to define the elements of each chapter that needed updating as well as content that was lacking. The result of these evaluation meetings was a series of technical memorandums prepared by the planning consultant team that clearly identified the updates needed for each chapter. These technical memorandums were then used throughout the rest of the plan update process to guide development of the updated chapters.

## Exploration of Focus Areas' Issues & Opportunities

The planning consultant team organized and conducted a two-day planning and design charrette with City staff from multiple departments to explore the issues and opportunities of the four identified focus areas: HOC; BRT station areas, including the Burnsville Center; Minnesota River Quadrant; and Cliff Road Business Park. The charrette accelerated the planning process by creating a highly creative, interactive environment for participants to work efficiently together. Importantly, it also provided an opportunity to achieve consensus on some of the worthiest ideas that emerged from the discussion.

At the beginning of the session, the charrette participants reviewed the City's current plans for each of the focus areas. Working in collaboration, charrette participants generated sketch plans for each of the sites that illustrated land use, site access and egress, circulation, potential building and parking configurations, preservation of significant site features, open space concepts, landscape concepts, and sustainable design concepts.

The resulting focus area concepts from the charrette were presented to the Citizen's Advisory Committee, the City's Economic Development Commission (EDC), and Parks and Natural Resources Commission (PNRC) to get their feedback. The concepts underwent revisions during the planning process based on input from these groups and follow-up meetings with staff. The planning consultants also held interviews with property owners, developers

and real estate professionals. These focus area concepts are included in Chapter 3, Economic Development/ Redevelopment.

## Community Engagement

The community engagement plan for the 2040 Comprehensive Plan was centered on an inclusive process designed to reach out to all community members to participate, and in particular, to encourage those who are not usually engaged to become involved. Effective public engagement that meets the needs of various stakeholders and provides a meaningful outcome for decision makers was an important step in the overall planning process and was incorporated from start to finish.

### Community Engagement Goals

- » Utilize effective communication tools accessible to a broad and diverse audience
- » Engage community leaders and underserved populations
- » Ensure the community outreach strategies align with the sequence of project tasks so that input gathered can meaningfully inform the work products that are developed, including key decision points
- » Target community-based events and activities and activities in locales where Burnsville residents and businesspeople typically congregate including, but not limited to, the International Festival, Fire Muster, and Night to Unite
- » Incorporate Burnsville faith communities and other cultural/demographic groups to help identify and reach various project constituencies
- » Incorporate online community engagement platforms including, but not limited to, the quarterly newsletter, email alert system, project website, cable TV and social media
- » Explore additional ideas for advertising the Comprehensive Plan Update, such as within utility bills, the park and recreation program guide, flyer/postcard, etc.
- » Specifically identify ten outreach efforts that will occur during the project

### Citizen's Advisory Committee/Planning Commission

The Citizen's Advisory Committee, joined by the Planning Commission was charged with the review of all prepared materials and plan drafts, providing direction on ideas, concepts and strategies; and formulating a final recommendation at the conclusion of the planning process. A total of 12 joint advisory committee/Planning Commission meetings occurred during the planning process. Meeting notes were prepared for all Advisory Committee meetings.

The advisory committee was made up of a broad representation of the community. Advisory committee members represented the following community groups:



- » Residents, including youth, seniors, diverse ethnic backgrounds, and persons with disabilities
- » Faith community (Prince of Peace Church)
- » Education (School District 191, South of the River Education Center)
- » Healthcare (Fairview Ridges Hospital)
- » Realtors (Burnsville Commercial Real Estate Council, Coldwell Banker Burnet)
- » Burnsville Chamber of Commerce
- » Burnsville Convention & Visitors Bureau
- » Burnsville Community Foundation
- » Burnsville Center (CBL & Associates Properties)
- » Burnsville Athletic Club
- » Members of the Planning Commission

### City Council and Commissions

The project team periodically met with the City Council, EDC, and PNRC to share information about the project and invite their input. The EDC was engaged most significantly during the exploration of redevelopment concepts for the four focus areas and to provide guidance and feedback on the Economic Development/Redevelopment chapter. The PNRC was engaged early in the process to provide feedback on the City's four focus area concepts and then during the actual updating of the City Services/Facilities Plan chapter, which includes parks, recreation and trails.

### Community Events

City staff and the planning consultant team collaborated to provide project information and seek public input at existing community events, including the following:

- » International Festival of Burnsville (July 2016)
- » Night to Unite (August 2016)
- » Burnsville Fire Muster (September 2016)
- » Mayor's CEO Forum (December 2016)
- » Southwest Burnsville Rural Residential Area Meeting (June 2017)
- » Heart of the City Focus Area Meeting (June 2017)
- » Cliff Road Business Park Focus Area Meeting (June 2017)
- » MRQ Focus Area Meeting (June 2017)
- » International Festival of Burnsville (July 2017)
- » Mayor's CEO Forum (September 2017)
- » Two community meetings (October 2017)

## Online Engagement

The City of Burnsville posted updates on the City's website at regular intervals informing the public of upcoming meetings, milestones during the project, and ways to be engaged. Online questionnaires were utilized to engage people who were comfortable with technology and didn't have the time to attend an in-person meeting.

- » 2040 Comprehensive Plan project page ([www.burnsville.org/2040](http://www.burnsville.org/2040))
- » Online questionnaire
- » City of Burnsville Bulletin newsletter (quarterly)
- » City's email/text alert system
- » Cable TV
- » Social media

## Diversity of Engagement

In an effort to engage communities who have historically been left out of the planning process, this project provided online access to the survey and various information in Spanish and Somali languages. Additionally, the project team engaged with ethnically diverse populations through partnerships with School District 191 and Prince of Peace Mission Outpost. While more input from more ethnically diverse populations would have been ideal and welcomed, the revisions to this plan did come from a diverse range of ages, income levels, longevity in the community and physical abilities. Diverse input was also provided by the various roles and professions of the Citizen's Advisory Committee.



## Engagement Results

A summary of Community Engagement may be found in Appendix O.

## Development of Updated Draft Plan

Updating the actual plan document was accomplished by sequencing the update of each chapter. The Future Land Use Guide Plan and Neighborhoods/Housing chapters were updated first, followed by Economic Development/Redevelopment, Community Overview, Community Enrichment, and finally the technical chapters, including Transportation, City Services/Facilities, and Natural Environment. Based upon the current conditions analysis; future projections; recommended goals and policies; and input received from the Citizen's Advisory Committee, Commissions, stakeholders and community events, the project consultants and staff completed the first draft of the 2040 Comprehensive Plan chapters in August and September 2017. The draft plan chapters were reviewed by the Citizen's Advisory Committee, Planning Commission and City Council and then distributed to adjacent municipalities and units of government including Scott and Dakota County, the cities of Savage, Lakeville, Apple Valley, Eagan and Bloomington, School Districts 191, 194 and 196, Black Dog Watershed Management Organization, Vermillion Watershed District, Lower Minnesota River Watershed District, Minnesota Department of Transportation and the Metropolitan Council.

## Draft Plan Community Meetings

City residents and businesses were invited to two community meetings in October 2017 to learn about the draft 2040 Comprehensive Plan and to provide feedback to be incorporated into a final draft to be presented to the Planning Commission as part of a public hearing. An estimated fifty people attended the meetings. The outreach into the community and on-line reached a larger audience

## Planning Commission Public Hearing

The Planning Commission held a public hearing on November 14, 2018 to review the 2040 Comprehensive Plan, take public testimony and make a recommendation to the City Council. The Planning Commission recommended approval subject to review by the Metropolitan Council.

## City Council Approval

The City Council conditionally approved the 2040 Comprehensive Plan on November 20, 2018, after which it was sent to the Metropolitan Council for formal review, comment, and approval.

## Metropolitan Council Review

The 2040 Comprehensive Plan was submitted to the Metropolitan Council on February 21, 2019. The Metropolitan Council approved the plan on June 26, 2019.

## Final Plan

Once the 2040 Comprehensive Plan was amended to reflect the changes suggested by the Metropolitan Council and other adjacent and affected jurisdictions, the official 2040 Comprehensive Plan was published and made available to the public.

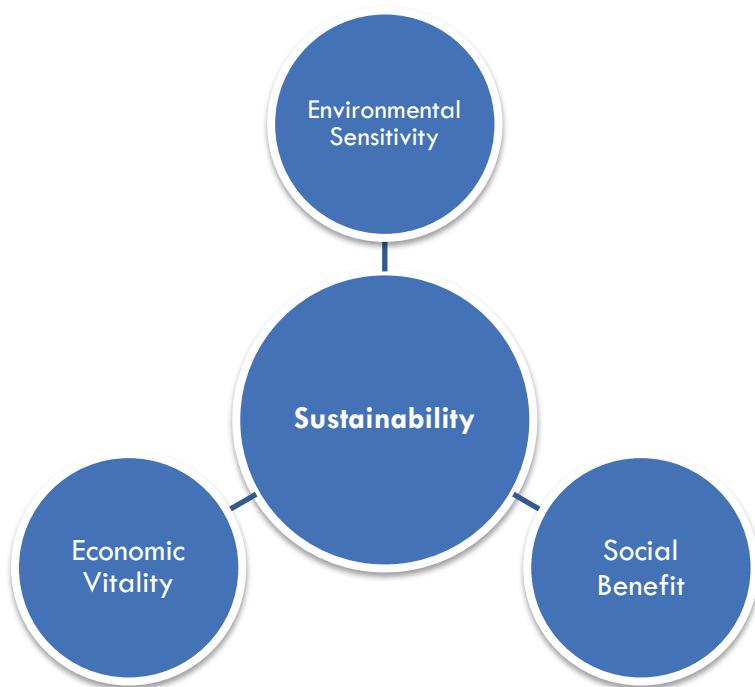
## Sustainability Approach

The 2040 Comprehensive Plan incorporates a sustainability approach that calls for investment—both time and money—in efforts which simultaneously strengthen the environmental, economic and social dimensions of any issue. Sustainability presumes that resources are finite, and should be used conservatively and wisely with a view toward long-term priorities and consequences. Sustainability is designed to achieve a realistic balance between the environmental protection, economic growth and social equity and equality.

Sustainable development or sustainability involves three broad interacting areas: environmental sensitivity, economic vitality, and social benefit, which are described and interrelated as follows and illustrated in Figure 1-28 on the following page:

- » Economic vitality includes meaningful employment opportunities, job training, education, business ownership and local re-investment. Economic sustainability is accomplished through financial practices and economic growth that fairly distribute the benefits and burdens of development, while also equitably and efficiently allocating available resources. Social equity and a healthy environment are supported by economic development and support it in turn.
- » Environmental sensitivity includes protecting ecosystems and biodiversity; ensuring clean water and air; preventing pollution; conserving natural, cultural and historic resources; and allowing growth that is sensitive to natural resources and systems. The environmental sensitivity component involves initiatives such as renewable energy, reducing fossil fuel consumption and emissions, sustainable agriculture and fishing, organic farming, tree planting and reducing deforestation, recycling, and better waste management.
- » Social benefit includes quality health services, safe and well-lit streets, accessible public spaces, diverse housing and educational choices, creative expression through the arts, safety, and respect for cultural and historic resources. Social sustainability can be achieved by respecting and including diverse views and values, providing an equal opportunity to participate in and influence decision-making, providing access to government services, and providing a sense of place and self-worth. Most importantly, social sustainability strives to ensure the benefits and burdens of modern societies are balanced across all social groups.

Figure 1-28: Sustainability Model



The City of Burnsville recognizes the intrinsic worth of economic development, effective public transit and connectivity, strong schools and community services, pedestrian and bicycle corridors, parks and recreation amenities, coordinated parking programs, urban design and conservation guidelines. Burnsville has developed its sustainability approach based on the definition established by the 1996 Minnesota State Legislature:

*"Development that maintains or enhances economic opportunity and community well-being while protecting and restoring the natural environment upon which people and economies depend. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs."*

## 2009 Sustainability Guide Plan

The City of Burnsville's Sustainability Guide Plan was one of the first community sustainability plans in the region. It was first adopted in 2009. This plan focused on the leading by example with sustainable City systems. The plan provides guidance in the form of 14 sustainability best practice areas for the City's facilities and operations. Each of these sustainability best practice areas is supported by strategies and recommended implementation, including lead department responsibility, timeframe, estimated costs, potential benefits, performance indicators, possible partners and funding sources. The 14 sustainability best practice areas and statements are:

- » Environmentally Preferable Purchasing
  - Burnsville will strive to establish City goals for environmentally preferable purchasing and develop a City-wide educational effort to purchase economical and environmentally preferable products and services.
- » Product Stewardship
  - Burnsville will strive to promote product stewardship, including facilitating programs that partner with private industry to reduce the end-of-life impacts of products.
- » Greenhouse Gas Reduction
  - Burnsville will strive to inventory and set reduction targets for greenhouse gas emissions for City facilities.
- » Sustainable Land Use
  - Burnsville will strive to adopt land use policies that provide incentives to reduce sprawl, preserve open space, expand and enhance green corridors as redevelopment occurs and to create a walk-able community.
- » Sustainable Transportation
  - Burnsville will strive to promote sustainable transportation systems/networks, develop and publicize information about transit alternatives, re-evaluate transit routes and stops utilizing public input to maximize service within Burnsville and to the metropolitan area.
- » Renewable Energy
  - Burnsville will strive to increase the use of clean, alternative energy options into City facilities, research methods to reduce energy consumption and promote alternative energy options within the community.
- » Energy Efficiency
  - Burnsville will strive to make energy efficiency a priority in infrastructure by developing educational programs for the public about energy efficient techniques and construction practices; investigate opportunities and ways to provide incentives to encourage private sector home and business energy improvements.
- » Sustainable Building Practices
  - Burnsville will strive to practice and promote sustainable building practices by providing staff training for LEED certification and green construction to assist residents/builders and to promote green building techniques for both City-owned facilities and private development.

» Community Health

- Burnsville will strive to promote and support a healthy community through public education, effective partnerships, and the development of infrastructure that supports walking and biking.

» Recycling and Waste Reduction

- Burnsville will strive to increase recycling rates, reduce waste, and promote reuse in City operations and in the community.

» Healthy Urban Forests

- Burnsville will strive to maintain a healthy urban forest; promote tree planting by establishing programs to annually increase tree canopy within the city and to develop a program that encourages private sector owners to plant trees within parking lots and other areas of the city.

» Sustainability Education

- Burnsville will strive to provide education on how the public can incorporate sustainable practices into daily activities/operations.

» Surface & Ground Water Resources

- Burnsville will strive to protect and improve surface and groundwater resources. To that end the City will develop an educational program aimed at reducing groundwater use, investigate new design standards and incentives to emphasize the use of natural drainage systems over built storm water systems, and seek ways to modify street improvement projects to provide less impervious surface utilizing practices such as porous pavement.

» Innovative Opportunities

- Burnsville will strive to look for innovative opportunities to improve the environment. Identify ways to partner with local utility and power providers, manufacturers, etc. to establish regular meetings to brainstorm and implement environmental outreach programs, encourage neighborhood environmental initiatives, and investigate funding programs for local environmental initiatives/improvements.

The City has used the plan successfully over the years and made significant progress on many of the identified sustainability initiatives, including achieving the greenhouse gas (GHG) reduction goals and establishing a monitoring system to measure progress. Annually, City staff provides a Sustainability Report to the City Council summarizing accomplishments and future opportunities. In 2017 the City was awarded Step 5, the highest recognition in the Minnesota Pollution Control Agency (MPCA) GreenStep Cities program. This program recognizes cities that have reached both sustainability and quality-of-life goals based on 29 best practices.



## Community Wide Sustainability Framework

As the City moves into its next planning phase, the 2040 Comprehensive Plan, its desire is to expand its sustainability initiatives to be more outwardly focused to the community at-large. The City has shown success on sustainability for its own operations, and now is looking to promote good sustainability principles that are economically viable, environmentally sound, and socially responsible in the community at-large. It is the City's intention to begin guidance for expanding into community-wide sustainability planning with the 2040 Comprehensive Plan with more detailed sustainability planning to follow.

In the 2040 Comprehensive Plan, sustainability strategies are organized within seven areas, which encompass all the best practice areas of the 2009 Sustainability Guide Plan. The seven areas are:

- » Energy Reduction
- » Sustainable Water Supply
- » Waste Reduction
- » Sustainable Food System Opportunities
- » Efficient Use of Infrastructure and Land
- » Natural Resources Conservation
- » Climate Resiliency

Strategies for each of the seven areas are identified within the sustainability section of each chapter of the 2040 Comprehensive Plan. The complete list of sustainability strategies are also included in Appendix B.

In developing the sustainability strategies, it is clear that sustainability areas such as energy, water and waste, do not align directly with the comprehensive plan chapters. Therefore, the strategies are identified within each chapter, some of which may overlap with other chapters' strategies.

For example, the Energy Reduction area relates to multiple chapters, such as Neighborhoods/Housing (building design/construction, solar installations, etc.), Transportation Plan (transit, bike/pedestrian alternatives, etc.), Land Use Plan (transit-oriented development, walkable communities, etc.), and City Services/ Facilities Plan (water pumping, wastewater treatment).

During the 2040 Comprehensive Plan update, it was determined that sustainability would be woven throughout the plan and within each chapter. Therefore, the most relevant sustainability strategies are identified within each chapter.

Each chapter in the 2040 Comprehensive Plan includes a table listing sustainability approaches organized by the seven sustainability areas. These sustainability approaches are provided as suggestions for enhancing the sustainability of the city, serving as a guide for future implementation.

The sustainability approaches and Matrix (Appendix B) will be used to update of the City's current Sustainability Guide Plan in the near future to further develop the specific actions and implementation timing. The approaches in the 2040 Comprehensive Plan will also be used to develop measures for success, to further document and plan out the sustainable path forward for the City. Further means and methods to enact and track progress will be developed by the City in the future.

There will be additional efforts to address the inherent overlap and interconnected nature of implementing sustainable thinking within the City's governing framework as well as promoting it throughout the community.

## Future Amendments

From time to time, there may be a need to amend the 2040 Comprehensive Plan text and/or maps associated with:

- » Changes resulting from interim planning activities such as master plans or redevelopment plans
- » A need to change a land use designation to allow a proposed development
- » Routine update of a public facilities element, such as a parks plan
- » A text amendment to revise a land use category, policy or other description
- » A routine update to incorporate new information such as census figures or amended End & Outcomes or changes to the Sustainability Plan

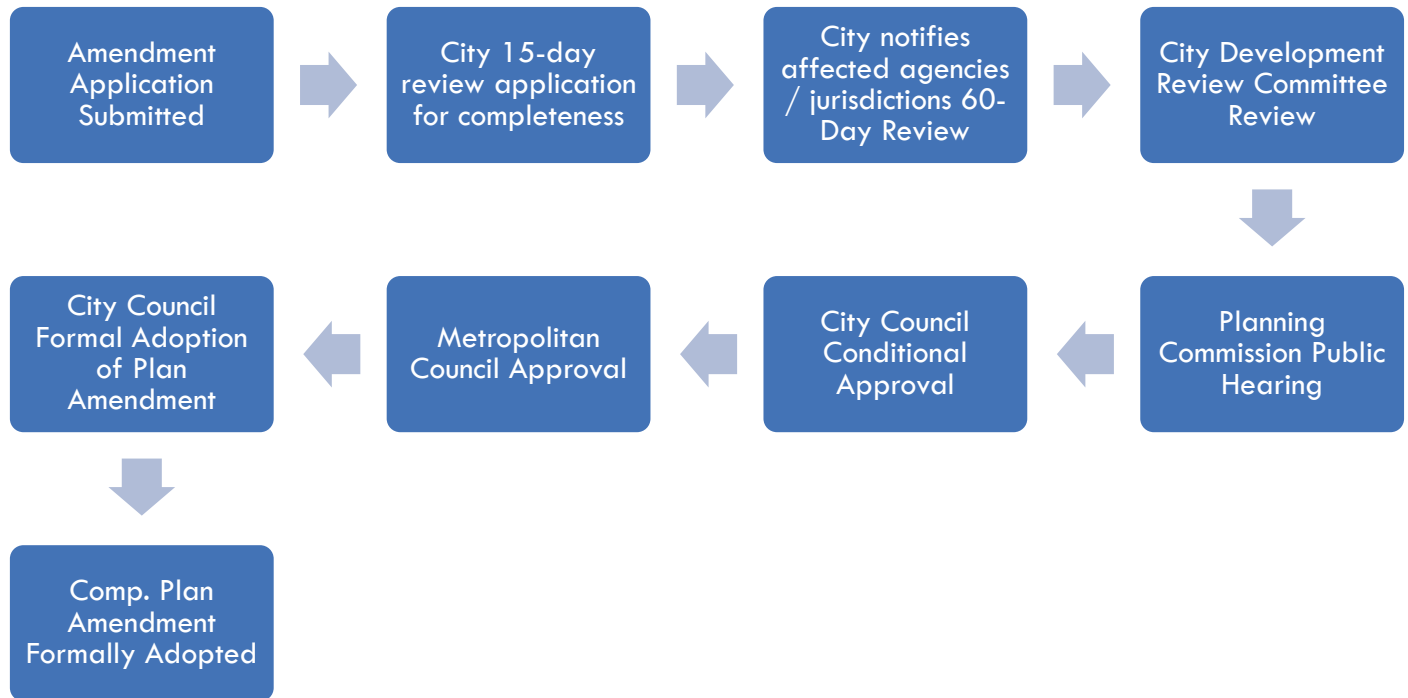
The Comprehensive Plan amendment process follows the public hearing procedures set forth in the Burnsville City Code for rezoning applications. Communities in the metropolitan area are required to submit amendments to the Metropolitan Council for review and approval. Requirements for submitting and gaining approval of a comprehensive plan amendment are provided in the Metropolitan Council's Local Planning Handbook, which is available on the Metropolitan Council's website.

In addition to the standard notification process, the City will notify adjacent and affected jurisdictions/agencies, including special districts, and school districts of the proposed amendment as required by the Metropolitan Council. Following the adjacent and affected government/agency review period, the City will schedule a public hearing before the Planning Commission following publication and public notification procedures.

The recommendation of the Planning Commission will be forwarded to the City Council for approval (but not final adoption) subject to Metropolitan Council Review. Following City Council conditional approval, the application will be forwarded to the Metropolitan Council for review and approval. Minnesota law requires local governments to formally adopt updates and plan amendments within nine months following Metropolitan

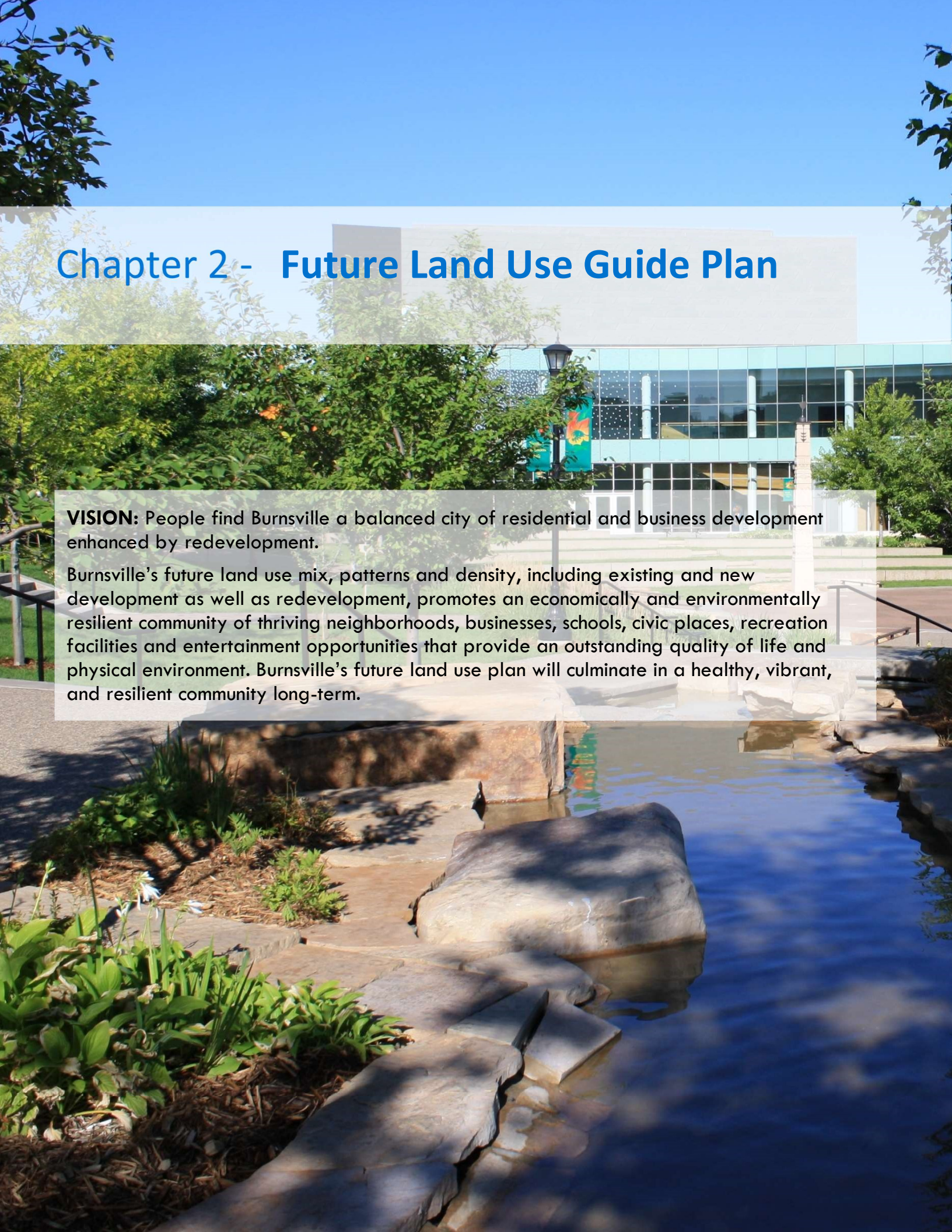
Council's final action. Following final action by the Metropolitan Council, the City Council will approve a resolution adopting the amendment, forward required documentation to the Metropolitan Council and update the comprehensive plan to implement the amendment.

Figure 1- 29: Comprehensive Plan Amendment Process



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## Chapter 2 - Future Land Use Guide Plan

**VISION:** People find Burnsville a balanced city of residential and business development enhanced by redevelopment.

Burnsville's future land use mix, patterns and density, including existing and new development as well as redevelopment, promotes an economically and environmentally resilient community of thriving neighborhoods, businesses, schools, civic places, recreation facilities and entertainment opportunities that provide an outstanding quality of life and physical environment. Burnsville's future land use plan will culminate in a healthy, vibrant, and resilient community long-term.



## Table of Contents – Chapter 2

|                                                                        |            |
|------------------------------------------------------------------------|------------|
| Introduction.....                                                      | 52         |
| Goals & Policies.....                                                  | 53         |
| Existing Development Overview .....                                    | 57         |
| <i>Residential Development Overview .....</i>                          | <i>58</i>  |
| <i>Retail/Commercial Development Overview .....</i>                    | <i>59</i>  |
| <i>Industrial Development Overview .....</i>                           | <i>62</i>  |
| <i>Existing Land Use Overview .....</i>                                | <i>64</i>  |
| Future Land Use Guide Plan.....                                        | 67         |
| <i>Introduction .....</i>                                              | <i>67</i>  |
| <i>Future Land Use Guide Plan Categories.....</i>                      | <i>67</i>  |
| <i>Future Land Use Guide Plan Summary.....</i>                         | <i>67</i>  |
| <i>Future Land Use Guide Plan Map.....</i>                             | <i>68</i>  |
| <i>Business and Industrial Land Preservation/Down Zoning.....</i>      | <i>82</i>  |
| Vacant/Redevelopment Land Analysis .....                               | 83         |
| <i>Vacant/Underutilized Yield Plan Analysis .....</i>                  | <i>83</i>  |
| <i>Aging Retail Strip Center Redevelopment Potential Analysis.....</i> | <i>86</i>  |
| Metropolitan Council Objectives for Suburban Communities.....          | 93         |
| Growth Projections .....                                               | 95         |
| <i>Residential Growth Accommodation .....</i>                          | <i>95</i>  |
| <i>Commercial Growth Accommodation .....</i>                           | <i>96</i>  |
| <i>Industrial Growth Accommodation.....</i>                            | <i>97</i>  |
| Community Design .....                                                 | 97         |
| <i>City Entries/Gateways.....</i>                                      | <i>98</i>  |
| <i>Corridors .....</i>                                                 | <i>99</i>  |
| <i>Streetscapes .....</i>                                              | <i>100</i> |
| <i>Art.....</i>                                                        | <i>100</i> |
| <i>Memorable Spaces/Community Gathering Places.....</i>                | <i>100</i> |
| <i>Screening.....</i>                                                  | <i>101</i> |
| <i>Building Materials.....</i>                                         | <i>101</i> |
| <i>Signs.....</i>                                                      | <i>101</i> |
| <i>Physical, Cultural &amp; Natural Landmarks .....</i>                | <i>101</i> |
| <i>Historic Places.....</i>                                            | <i>102</i> |
| Resource Protection Element .....                                      | 107        |
| <i>Solar Access Protection Statement .....</i>                         | <i>107</i> |
| <i>Aggregate Resources .....</i>                                       | <i>109</i> |
| <i>Earth Sheltered Buildings Protection Statement .....</i>            | <i>111</i> |
| <i>Wind Energy Conversion Systems.....</i>                             | <i>111</i> |
| Sustainability .....                                                   | 111        |
| <i>Sustainability Measures of Success .....</i>                        | <i>114</i> |
| Implementation .....                                                   | 115        |

## Table of Figures – Chapter 2

|                                                             |     |
|-------------------------------------------------------------|-----|
| Figure 2-1: Burnsville Development Areas & Landmarks.....   | 58  |
| Figure 2-2: Burnsville Center Trade Area Map.....           | 60  |
| Figure 2-3: Fairview Ridges PUD Plan.....                   | 62  |
| Figure 2-4: Existing Land Use 2017 .....                    | 66  |
| Figure 2-5: 2040 Future Land Use Guide Plan Map.....        | 69  |
| Figure 2-6: Vacant Parcels in 2017 by Future Land Use ..... | 85  |
| Figure 2-7: Neighborhood Strip Retail Centers .....         | 88  |
| Figure 2-8: Satellite Strip Retail Centers.....             | 89  |
| Figure 2-9: Major City Entries.....                         | 98  |
| Figure 2-10: Gross Solar Potential .....                    | 108 |
| Figure 2-11: Aggregate Resources.....                       | 110 |

## Table of Tables – Chapter 2

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| Table 2-1: 2008 – 2017 Existing Land Uses in Acres.....                 | 64  |
| Table 2-2: Future Land Use Guide Plan Categories .....                  | 67  |
| Table 2-3: Significant Updates from 2030 Plan Map to 2040 Plan Map..... | 68  |
| Table 2-4: 2040 Future Land Use Guide Plan Acreages.....                | 70  |
| Table 2-5: 2040 Residential Land Use Categories.....                    | 71  |
| Table 2-6: 2040 Business Land Use Categories .....                      | 73  |
| Table 2-7: 2040 Industrial/Office Land Use Plan Categories .....        | 78  |
| Table 2-8: 2040 “Other” Land Use Plan Categories.....                   | 81  |
| Table 2-9: Vacant Land (2017) by Future Land Use Designation .....      | 84  |
| Table 2-10: Neighborhood Centers Summary .....                          | 92  |
| Table 2-11: Satellite Centers Summary .....                             | 93  |
| Table 2-12: Metropolitan Council Forecasts for Burnsville .....         | 95  |
| Table 2-13: Residential Growth Projections.....                         | 95  |
| Table 2-14: Minimum Housing Units, by Decade.....                       | 96  |
| Table 2-15: Commercial Growth (in square feet).....                     | 96  |
| Table 2-16: MRQ Uses by District.....                                   | 97  |
| Table 2-17: Physical, Cultural, & Natural Landmarks .....               | 102 |
| Table 2-18: Burnsville Solar Potential .....                            | 107 |



# Future Land Use Guide Plan

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## Introduction

As a community that is nearly fully developed, Burnsville's future land use is driven by an overarching ideal of maintaining what it has, enhancing what it can, and adapting to meet future needs all within a sustainable framework. The Future Land Use Guide Plan has three main purposes:

1. Identify how land should be developed to accomplish the City's Ends & Outcomes, as set by the City Council.
2. Ensure that resources will be available to provide a consistent level of public infrastructure and services to support the community's future land use patterns and densities.
3. Provide a land use vision, goals and policies that promote livability improvement, support balanced mix of land uses, offer a wide variety of housing options, provide opportunities for people to live and work in the community, balance development density/intensity, recognize community design and identity, employ sustainable development practices, pursue redevelopment opportunities, and engage in economic development and investment in Burnsville.

The Future Land Use Guide Plan establishes the foundation upon which all other elements of the 2040 Comprehensive Plan are developed. Utilizing the Guide Plan, the City will determine how to balance all necessary land uses - housing, commercial, industrial, parks and open spaces - while identifying opportunities for better connecting the City's different land uses.

Burnsville has always utilized land use planning to establish progressive development objectives. Now that the city is over 98 percent developed, the City must redefine how to accommodate regional growth projections established by the Metropolitan Council for housing, population and employment through strategic new development and redevelopment that integrates well into the community's existing fabric.

Burnsville has a strong, established track record for offering diverse housing stock with significant housing affordability and lifecycle options. A key indicator of Burnsville's success in meeting housing growth and affordability needs is the Metropolitan Council's 2017 Housing Performance Scores, which gives Burnsville a score of 98 out of 100. The predominant redevelopment opportunity areas will be infill and expansion of the Heart of the City (HOC), bus rapid transit (BRT) station areas, Burnsville Center area, aging neighborhood and satellite retail strip centers, and the Minnesota River Quadrant (MRQ).

The plan identifies key implementation strategies to accomplish the City's land use vision, goals and policies identified herein. Burnsville must build on its own successful models and partnerships while establishing new relationships to accomplish the goals and policies. This plan incorporates sustainable development practices, healthy living, increased transit opportunities, bike/pedestrian connections, resource protection, and efficient energy use. This plan also expands mixed-use development opportunities by utilizing successful elements from the HOC area as a template to incorporate mixed-use and transit-oriented development (TOD) at a smaller scale within neighborhood commercial areas. Like the HOC, future neighborhood oriented mixed-use will be designed to provide services, retail, dining, entertainment, recreation and public gathering areas within close proximity to living units and transit locations.

## Goals & Policies

The 2040 Comprehensive Plan establishes land use (LU) goals and policies to guide future land use and development in the community. There are seven land use goals that reflect high level yet targeted statements of how the community intends to achieve the vision of the Future Land Use Guide Plan, which is stated on page 1 of this chapter. The seven goals encompass the community's desire for a balanced mix of land uses, higher yet compatible development densities, community identity and physical environment, creative site design, environmentally sensitive development, protection of historic and natural resources, and commercial/industrial jobs and tax base growth. Each land use goal is supported by a set of policies that define the City's preferred directions or methods of action to guide and determine future land use and development decisions.

### **LU Goal 1.** City's land use mix is maintained with a healthy balance between residential, commercial, industrial/office, and park/open space.

- LU Policy 1.1. Promote industrial and office development and redevelopment to build the tax base and generate revenues sufficient to support residential development.
- LU Policy 1.2. Preserve the City's share of business and industrial guided land by requiring that any property requests for land use category or zoning changes from business or industrial to residential must address the City's "down zoning" criteria. (Refer to Business and Industrial Land Preservation in the Future Land Use section of this chapter)
- LU Policy 1.3. Support development of higher value, move-up homes for vacant Low Density Residential guided lands, particularly in southwest Burnsville.
- LU Policy 1.4. Support the reinvigoration of the city's existing neighborhood commercial areas through redevelopment into

neighborhood-oriented mixed-use centers, improving transit options, providing links to neighborhood amenities and cultural facilities, encouraging live/work units, and allowing higher residential densities to support neighborhood commercial operations and services.

- LU Policy 1.5. Preserve open space to protect sensitive natural areas and enhancement of wildlife habitats through use of the Open Space land use designation, Conservancy Zoning District, and Environmental Overlay District zoning tools.
- LU Policy 1.6. Support institutional uses and their expansions especially when designed to enhance neighborhood connections, uses, and services.
- LU Policy 1.7. Encourage the provision of new housing options as part of higher density mixed-use developments especially when designed with transit orientation, connection to community parks and employment centers, and dining, shopping and medical services within close proximity.
- LU Policy 1.8. Encourage increased diversification of Burnsville's housing options to meet lifecycle housing needs, which will enable residents to stay in the community as their housing needs change and will attract new residents from a wider range of ages to move to Burnsville.

**LU Goal 2.** Future development incorporates appropriate density/intensity levels and design to support increased housing options, viability of neighborhood commercial, and long-term neighborhood sustainability.

- LU Policy 2.1. Support development with higher densities/intensities, including vertical mixed-use, to optimize the value and growth benefits (e.g. number of housing units, business sq. footage, mix of uses) of the city's limited availability of development sites as a fully developed community.
- LU Policy 2.2. Encourage higher densities in the Heart of the City (HOC), Minnesota River Quadrant (MRQ), and Mixed-Use (MIX) designated areas.
- LU Policy 2.3. Promote higher densities for redevelopment of aging retail strip centers as part of neighborhood-oriented mixed-use centers that create a livable, pedestrian-oriented environment with access to park/recreation areas and transit.
- LU Policy 2.4. Ensure that density/intensity of development will be compatible with the general characteristics of the surrounding area in which development is located. Changes in density/intensity may be supported when they enhance the viability, character and livability of the area.

**LU Goal 3.** Burnsville's physical character and identity is enhanced through property maintenance, redevelopment, and new development.

- LU Policy 3.1. Prioritize ways the City can assist in the financing, redevelopment and maintenance of aging housing, parks, business and industrial areas.
- LU Policy 3.2. Support community appearance and promote a stronger tax base by maintenance, enforcement and regular review of development and performance standards to accomplish high aesthetics and ensure durable, quality development while providing flexibility to the property owners.
- LU Policy 3.3. Achieve appropriate transitions between different types of land uses and/or development densities/intensities to ensure new development is compatible with existing areas by utilizing design standards, landscape buffers/screening, and land use transitions, and by encouraging high-quality design.
- LU Policy 3.4. Develop character districts, streetscape projects and other public improvement projects to create, reinforce, or improve the unique business, residential and industrial areas of Burnsville.
- LU Policy 3.5. Preserve and maintain natural, recreational, historical and cultural landmarks that are unique and essential to Burnsville's identity.
- LU Policy 3.6. Enhance the aesthetic character of the city's primary gateways, major roadway corridors, and community commercial areas (e.g. HOC, Burnsville Center) to increase community identity and a sense of place by implementing established design standards that emphasize high quality building materials, coordinated signage, site lighting and landscaping to complement adjacent uses.
- LU Policy 3.7. Ensure that the location, size, number and appearance of signage throughout Burnsville is appropriately regulated.
- LU Policy 3.8. Provide cultural amenities throughout Burnsville by incorporating them into public facilities/projects, such as city identity monuments at key city entrances, and by encouraging development of cultural amenities by the private sector.

**LU Goal 4.** New development and redevelopment projects incorporate creative site design.

- LU Policy 4.1. Preserve and incorporate outstanding natural (such as woodlands, steep slopes, wetlands), cultural, historical and unique features as part of development projects.

LU Policy 4.2. Provide transit access, pedestrian and bike connectivity to parks, employment areas, business/services, and neighborhood institutional uses such as schools and churches.

LU Policy 4.3. Enhance neighborhood identity and/or unique features that are representative of Burnsville.

LU Policy 4.4. Provide for the flexibility in land use and design within Planned Unit Developments (PUDs).

**LU Goal 5.** New development and redevelopment occurs in an environmentally sensitive manner, preserving and restoring natural resources.\*<sup>1</sup>

LU Policy 5.1. Promote the use of green/sustainable construction practices for public and private sector projects.

LU Policy 5.2. Encourage developers and home owners to develop and remodel utilizing green/sustainable practices to decrease environmental impacts and increase energy efficiency.

LU Policy 5.3. Protect environmentally sensitive features through preservation, best management practices, green/sustainable design and construction techniques.

LU Policy 5.4. Promote the efficient use of existing and new energy resources, such as solar access in municipal, commercial and residential developments.

LU Policy 5.5. Reduce impervious surfaces by working with land owners to provide adequate parking to meet user demand without building an oversupply of parking.

**LU Goal 6.** Job creation, retention and enhanced tax base are assured by growth, redevelopment, and sustained viability of commercial and industrial properties.\*<sup>2</sup>

LU Policy 6.1. Ensure that Burnsville continues to be a desirable place to live, work and do business.

LU Policy 6.2. Be creative in finding solutions to foster redevelopment.

LU Policy 6.3. Focus and promote the City's redevelopment efforts in the following areas:

- (a) Heart of the City (HOC)
- (b) Orange Line Bus Rapid Transit (BRT) Station Areas
- (c) Cliff Road Business Park
- (d) Burnsville Center/County Road 42 Corridor
- (e) Minnesota River Quadrant (MRQ)

---

<sup>1</sup> \* Indicates a goal that references Council's adopted Ends and Outcomes.

<sup>2</sup> \* Indicates a goal that references Council's adopted Ends and Outcomes.

**LU Goal 7.** Historic and environmental resources are protected as required by state statutes.

LU Policy 7.1. Support preservation of historic sites by private parties by directing interested parties to existing resources at the local, state and federal levels.

LU Policy 7.2. Protect access to direct sunlight for solar energy systems.

LU Policy 7.3. Allow aggregate resources to be extracted prior to urbanization of an aggregate-rich site.

LU Policy 7.4. Allow development of earth sheltered buildings.

LU Policy 7.5. Allow the use of wind-power as an energy resource.

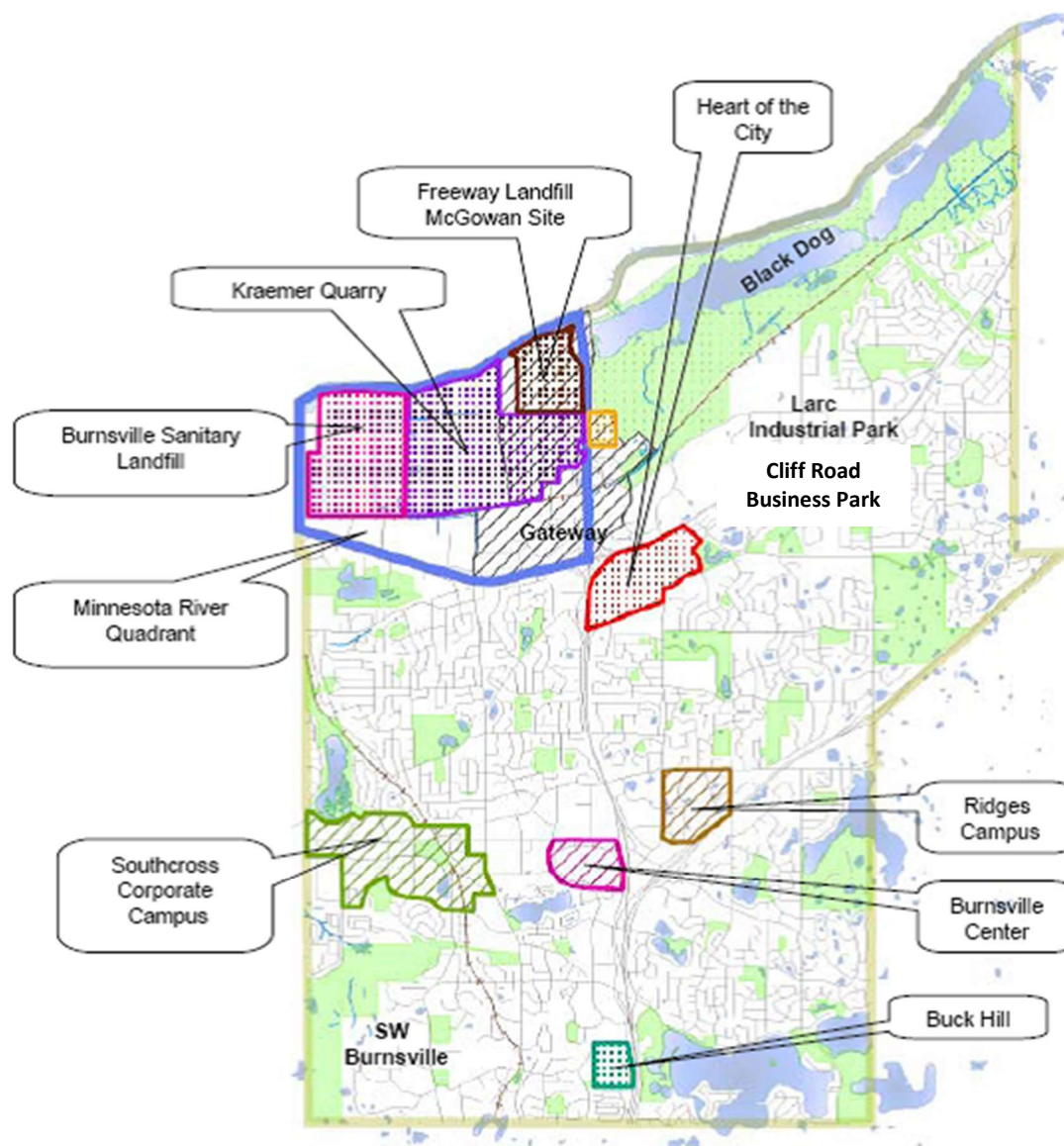
## Existing Development Overview

Burnsville has employed a consistent approach to land use planning. From the first plan created in 1965 to the current plan today, it is evident that the pattern of land use designating major commercial and industrial corridors and residential, parks and open space areas has followed the original Comprehensive Plan.

There are several key areas in Burnsville in which special districts have developed. These districts are based on previous planning efforts that were outlined in Comprehensive Plans dating back to 1965. Other areas are generally well known because of their prominence in the community and the duration of their operations (landfills, quarry, major park/natural preserves, etc.). Still others such as Buck Hill, Fairview Ridges and the Burnsville Center are private ventures that attract people from all over the region to our community. Figure 2-1, illustrates the location of various development areas and landmarks in Burnsville that will be referred to throughout this Plan.



Figure 2-1: Burnsville Development Areas & Landmarks



## Residential Development Overview

Burnsville has a balanced mix of single family and multi-family housing within the community that serves a broad-range of residents. However, a need for newer, amenity-rich housing has emerged. Burnsville has maintained areas for high density housing along major transportation corridors and inside of the ring road system surrounding Burnsville Center. Improving transportation/transit and pedestrian links between jobs, services and all types of housing, as well as increasing the diversity of desirable housing options in the city, are focuses for this planning period.

Over the last ten years, new housing development stalled in Burnsville due to several factors, primarily the Great Recession and to development policies and direction adopted by the City. In the ten years between 2006 and 2016, only 283 units of housing were built: 111 single family detached homes, 121 townhomes, and 51 manufactured homes. No condos or apartments were built during that time.

### **Redevelopment and Infill Sites**

Opportunities for future development should be focused on townhomes and condos/apartments in mixed-use and redevelopment areas that are connected to desirable neighborhood amenities. Being located in a neighborhood like the HOC provides great proximity to transit, jobs, retail and services as well as easy access to Nicollet Commons Park and the Ames Center, the City's performing arts center.

### **Southwest Burnsville**

The only area of the city with any significant amount of vacant, residentially guided (identified on the Comprehensive Plan Future Land Use Plan Map) and zoned land, is in southwest Burnsville. This area is guided as Rural Residential and contains about 47.5 net vacant acres of land for the future development of homes. A majority of these vacant areas have already been platted, so anticipated future development is limited to approximately 19 homes. This area is largely developed without municipal sewer and has remained relatively unchanged for decades. The City has a long-standing policy that requires property owners to petition for municipal utilities and pay for the cost of extending utilities to their project area. The City will not force utility installation in southwest Burnsville unless it is needed to address health issues. Due to this policy, the existing scattered site nature of development, and the desire by many of the residents to remain in a rural setting, future development in southwest Burnsville is anticipated to be intermittent.

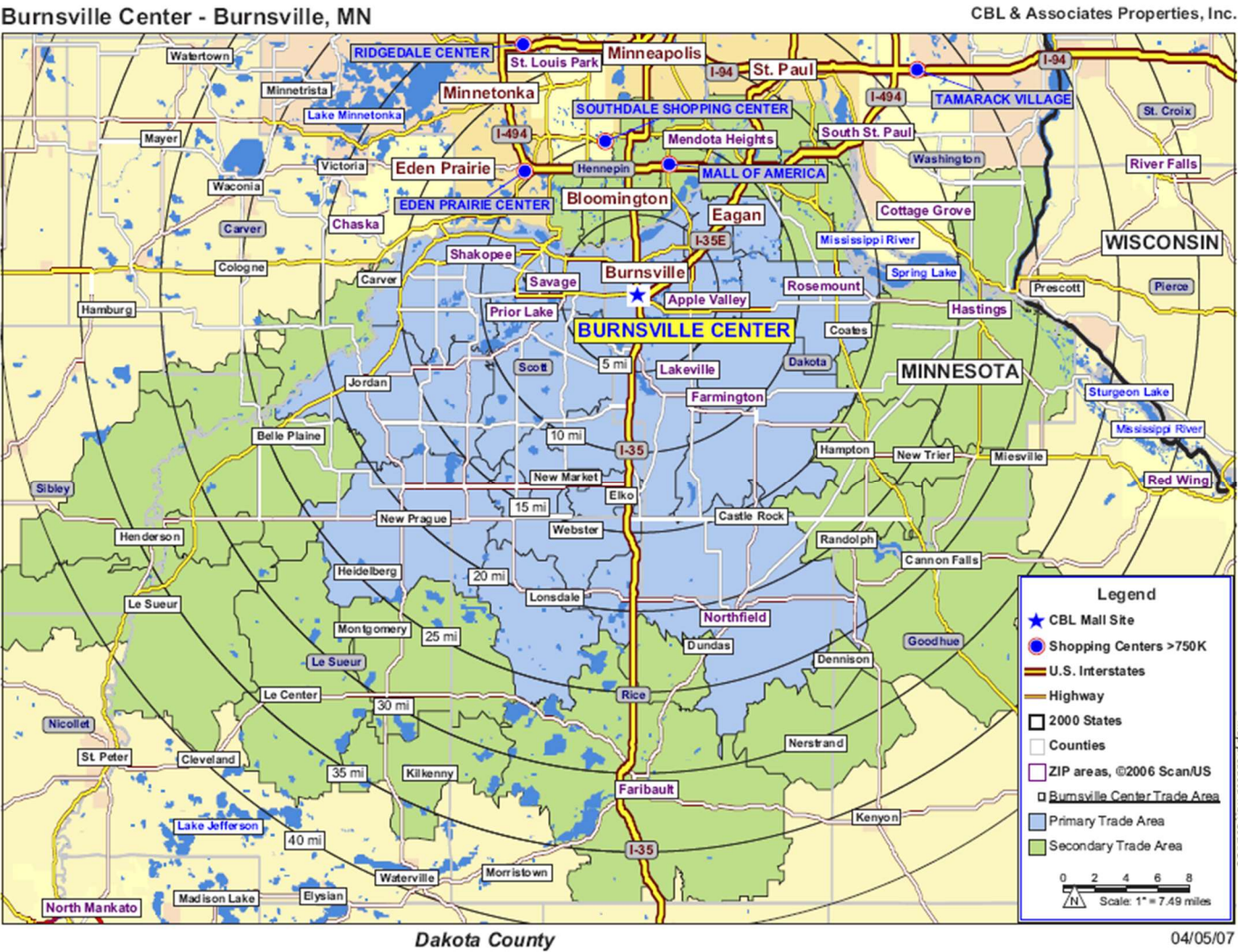
## **Retail/Commercial Development Overview**

### **Burnsville Center**

Burnsville is home to Burnsville Center, a regional shopping mall, plus 15 surrounding shopping centers and super stores as well as numerous retail strip centers scattered around the community (21 neighborhood centers). The development of the Burnsville Center in the late 1970s shifted the focus for locating major shopping and services to the County Road 42/I-35W and I-35E area of the city. Prior to 1977, much of Burnsville's retail was developed along the Highway 13 corridor in the northern part of the city. At that time, Burnsville Center established a retail hub and was the focus for attracting other major regional retail, entertainment, restaurants, hotels and offices to this part of the city.

Since its heyday, Burnsville Center has struggled to maintain its status as a regional retail center. In the last decade, retail centers around the country have languished as consumer buying patterns have changed. The rising prominence of online retail as well as more “experiential” retail spaces has made it difficult for traditional shopping centers, such as Burnsville Center, to thrive. The shopping center currently has an increasing vacancy rate, as well as underutilized parking, which is currently being rented to nearby car dealerships to store their stock. Future planning for the Burnsville Center area needs to identify how to maintain its regional draw, which could include the incorporation of transit-oriented development (TOD). The types of land uses allowed in the TOD area and along the CR 42 corridor will play a major role in the future success of this area.

Figure 2-2: Burnsville Center Trade Area Map





### **Strip Retail Centers**

Other commercial retail is located in strip centers of varying sizes and ages. Many of these strip centers are located near the Burnsville Center and take advantage of the central location and highway access of the mall area. Older strip retail centers are scattered throughout the community serving neighborhoods, visitors, commuters and/or daily workers. Some of the oldest retail sites are located along Highway 13 where some redevelopment is starting to take place. There are a total of 36 strip retail centers. The City studied them in the early 2000s to determine which ones were ideal candidates for future redevelopment. Early studies of the aging strip retail centers were initiated to address issues of poor performance, poor physical characteristics, high vacancy rates, large underutilized parking lots, lack of pedestrian and transit amenities, and to ensure that the older strip retail centers perform as strongly as possible or redevelop to maintain or improve the city's tax base and continue to be an asset to the community. Revitalization could include the incorporation of housing in a mixed-use setting and amenities, retail, services that are more closely related to their surrounding neighborhoods.

### **Heart of the City (HOC)**

The HOC is a mixed-use, pedestrian-friendly and transit-oriented development located south of the intersection of Highway 13 and Nicollet Avenue. The HOC will be discussed in more detail later in this chapter.

### **Ridges Planned Use Development (PUD)**

Burnsville is home to Fairview Ridges Hospital, which serves as the largest land use within the Fairview Ridges Planned Unit Development illustrated below. The PUD is bounded on the north by Nicollet Boulevard, on the west by Fairview Drive, on the south by I-35E and on the east by Portland Avenue. Fairview Ridges Hospital is a planned medical campus with a large hospital at its core and a number of existing and planned medical buildings surrounding it. As the medical campus continues to grow, the Ridges PUD provides guidance for development of new buildings, parking, circulation, and stormwater management.

The Ridges PUD dates back to 1974 and comprises about 32 acres of land. This development is an integral part of Burnsville that contains the medical campus, as well as the YMCA and Prince of Peace Church. Ebenezer Ridges - a senior housing facility with 104 nursing beds, 42 independent senior units and 45 assisted living units - is also located in the Ridges PUD.

The Ridges PUD is an essential land use, job center and resource for all of Burnsville. The property is guided as Mixed Use (MIX) to allow housing at higher densities, as well as serve as a medical campus.

Figure 2-3: Fairview Ridges PUD Plan



## Industrial Development Overview

Older industrial areas in the city are located in the Industrial Park (IP) districts which include the Cliff Road Business Park and other industrial development generally located north of Highway 13 and east of I-35W. In 2002 the City completed a study of aging industrial areas. The purpose of the analysis was to investigate the long-term viability of the aging industrial properties. The study area covered 81 properties (241 acres) and provided an inventory of the individual sites. A database was generated identifying site conditions, vacancy rates, market values, and taxes generated. Funding assistance options and land use controls were evaluated to achieve flexible regulations/standards to preserve the value of industrial properties over time. The study revealed that the majority (81%) of the properties were generally well maintained, however, pockets

of deterioration (primarily in the vicinity of 12<sup>th</sup> Avenue) were noted that reflected poorly on the entire district.

As a result of this study, the City Council adopted a policy that outlined evaluation objectives for planned unit developments (PUDs) in aging industrial districts. The policy provides guidelines for evaluating proposals for redevelopment of older industrial properties. Under this policy, existing non-conforming properties are allowed to expand their facilities through the PUD process. Utilizing a PUD, the sites can be granted flexibility for setback, green space and other requirements in exchange for aesthetic and environmental improvements as considerations for site deviations. The policy establishes the types of deviations to be considered, methods for the project to off-set the deviations, and also establishes the maximum deviation that will be considered. Deviations may be granted in exchange for providing enhanced landscaping, exterior materials, or by implementing Low Impact Development (LID) techniques on site. This policy remains in place today.

### **Burnsville Sanitary Landfill**

The Burnsville Sanitary Landfill is a 362-acre site located between the Union Pacific railroad and the Minnesota River in northwest Burnsville. The first mining permit was issued to the site in the 1950s; however, it is believed that the land filling activities occurred prior to this time. Methane gas recovery has been occurring at the landfill since 1993. In 2006, the City approved the Development Stage PUD and plat for the landfill. The site land use designation was changed from General Industry to Commercial Recreation Business which reflects the established end use plan for the landfill. The land filling activity is anticipated to continue through the year 2030 and this activity is recognized as an interim use with the 18-hole championship golf course and recreational open space as the permanent or long term planned use for the site. The golf course will be sculpted with dirt berms on top of the 100-foot tall landfill and will have commanding views of the Minnesota River Valley. The BSLI Addition plat included a 44-acre outlot containing land adjacent to the Minnesota River that has been given to the City. Of this 44 acres, 31.9 acres is intended to be within a conservation easement as approved by the U.S. Army Corps of Engineers permit. The PUD also provides a trail around the perimeter of the landfill. Once the landfill is closed, the public will have access to the future parks and trail system and right-of-way for future road connections.

### **Kraemer Quarry**

The Kraemer Quarry consists of approximately 500 acres of land located between I-35W and the Burnsville Sanitary Landfill site. It is bound on the north by the Minnesota River and on the south by the Union Pacific railroad tracks. The entire site is part of a Planned Unit Development approved by the City in 1994. City records date back to 1968 indicating mining operations existed at that time. A majority of the site (350 acres over 100

feet deep) is used for a limestone quarry, which is anticipated to remain open through 2035. Since it is anticipated that the limestone resource will be exhausted within the 2040 planning period, the area east of the quarry and the southwest corner of the site will be preserved for future development.

### Freeway Landfill Property

The property commonly referred to as the McGowan PUD contains about 180 acres of land and is bounded on the east by Interstate I-35W and the north by the Minnesota River. The site contains the former Freeway Landfill. This landfill remains on the Minnesota Pollution Control Agency's (MPCA) list of superfund sites. In recent years both the MPCA and City have worked with the landowner to complete closure of the superfund site. In 2006, a concept was identified by the MPCA which would relocate the landfill from the site adjacent to I-35W to the west part of the McGowan property (Amphitheater 1<sup>st</sup> Addition). The idea is to consolidate the garbage into a lined landfill on the western portion of the site and fill the area adjacent to I-35W with appropriate soils to open the area for development. This concept plan for remediation and development was validated again in 2016. The negotiations to accomplish this effort are ongoing.

## Existing Land Use Overview

Burnsville is classified by the Metropolitan Council as a "Suburban" community. According to the Metropolitan Council's 2015 System Statement for the City of Burnsville, "Suburban communities experienced continued growth and expansion during the 1980s and early 1990s, and typically have automobile-oriented development patterns at significantly lower densities than in previous eras. Suburban communities are expected to plan for forecasted population and household growth at average densities of at least five units per acre for new development and redevelopment. In addition, Suburban communities are expected to target opportunities for more intensive development near regional transit investments at densities and in a manner articulated in the "2040 Transportation Policy Plan." Table 2-1 displays growth in acres of the various land uses 2008 to 2017.

Table 2-1: 2008 – 2017 Existing Land Uses in Acres

| Land Use                  | 2008  | % of 2008 Total | 2017 (Net)* | % of 2017 Total |
|---------------------------|-------|-----------------|-------------|-----------------|
| Rural Residential         | 469   | 3%              | 489.26      | 2.83%           |
| Single Family Detached    | 4,066 | 23%             | 3,992.56    | 23.12%          |
| Single Family Attached ** |       |                 | 730.33      | 4.23%           |
| Multifamily **            | 1,035 | 6%              | 516.63      | 2.99%           |
| Manufactured Housing      | 173   | 1%              | 156.30      | 0.91%           |
| Commercial                | 1,045 | 6%              | 1,002.33    | 5.81%           |
| Commercial Recreation     | 282   | 2%              | 284.78      | 1.65%           |



| Land Use               | 2008   | % of 2008 Total | 2017 (Net)*   | % of 2017 Total |
|------------------------|--------|-----------------|---------------|-----------------|
| Mixed Use              | 5      | >1%             | 8.90          | 0.05%           |
| Industrial             | 1,438  | 8%              | 1,314.66      | 7.61%           |
| Extractive             | 493    | 3%              | 452.29        | 2.62%           |
| Institutional          | 505    | 3%              | 499.51        | 2.89%           |
| Utility                | 63     | 1%              | 15.33         | 0.09%           |
| Parks/Recreation       | 2,804  | 16%             | 1,084.14      | 6.28%           |
| Open Space/Conservancy | 135    | 1%              | 707.74        | 4.10%           |
| ROW                    | 2,978  | 17%             | 2,956.15      | 17.12%          |
| Vacant                 | 380    | 2%              | 285.84        | 1.66%           |
| Open Water             | 1,378  | 8%              | 1,252.73      | 7.26%           |
| Wetland                |        |                 | 1,517.06      | 8.79%           |
| Total                  | 17,249 | 100%            | *** 17,266.55 | 100.00%         |

Source: HKGi, 2017

\*The 2017 figures show net acreage, with Wetland taken out of the equation

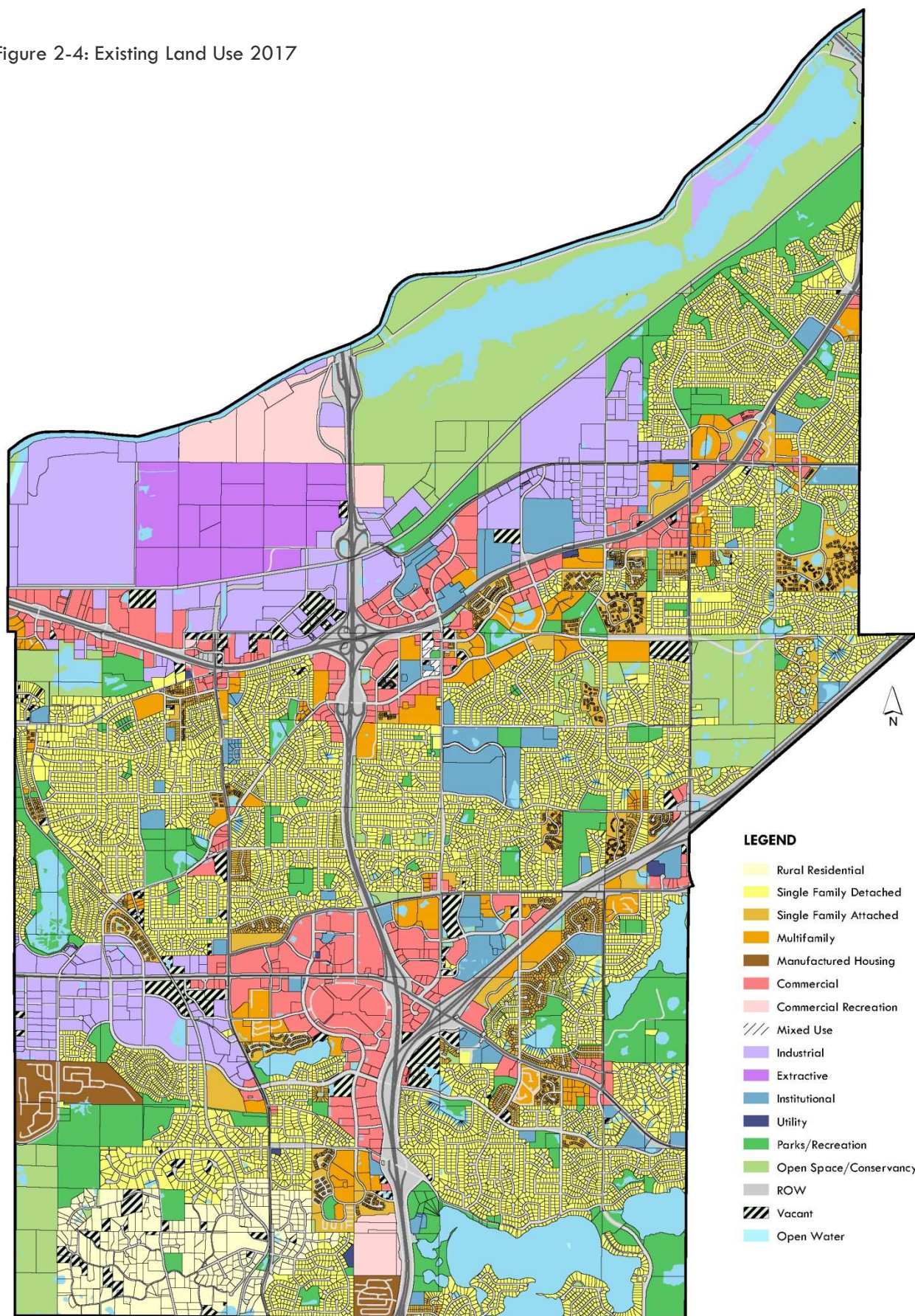
\*\*The 2030 Comprehensive Plan considered single family attached homes to be "multi-family"

\*\*\*GIS provides a more accurate total acreage of the city than was available in the past

The majority of Burnsville's developed land consists of single family detached residential uses which occupy 3,992.56 net acres of land or 23.12 percent of the city. Public right-of-way comprises the second largest land development category utilizing 2,956.15 acres or 17.12% of the land area of Burnsville. Parks and Recreation facilities occupy 6.28% of the city's land or 1,084.14 acres of land. (The park land acreage calculation for this plan does not include open water, right-of-way, wetlands, existing lands guided for open space/conservancy or temporary parks that are used for recreation fields but not owned by the City.) Burnsville provides its residents with a great variety of passive and active park and recreation programs and facilities including ball fields, indoor and outdoor ice rinks, and a golf course. Existing mixed-use land is located in the HOC, which includes a performing arts center, public parking ramps, and buildings consisting of ground floor commercial with residential above. Wetlands throughout the city occupy 8.79 percent of land area, with open water occupying an additional 7.26 percent. Industrial occupies 7.61 percent of the city's land area. Single family attached residential (townhomes, duplexes, triplexes, and fourplexes) makes up 4.23 percent of the city; while multifamily (5+ unit apartments/condos) takes up 3.00 percent of the area. There is only around 285 acres of net vacant land, which is 1.65 percent of the City's land. Vacant land analysis will be addressed in the next section of this chapter.

Figure 2-4 illustrates existing conditions in Burnsville and shows how properties are currently developed. Each parcel has an associated color representing a land use type. The map identifies how land is currently used.

Figure 2-4: Existing Land Use 2017



Source: HKGi, Dakota County GIS, Metropolitan Council GIS, City of Burnsville

# Future Land Use Guide Plan

## Introduction

The focus of the Future Land Use Guide Plan is to reflect a balance residential and non-residential growth with an emphasis on strategic opportunities that fulfill the goals and needs identified in this Plan. A balance in growth means that residential development will align with demand for housing. Industrial/office, and skilled workforce engagement will be high priorities for Burnsville, as will appropriate new investment in business/retail and services. This Comprehensive Plan Update supports future development and redevelopment that is based on a mix of land uses and densities to create successful, walkable, sustainable, healthy neighborhoods and business centers to further enhance our community. The 2040 Future Land Use Guide Plan has been developed to meet the City's objectives.

## Future Land Use Guide Plan Categories

The Future Land Use Guide Plan categories are the land uses that are used to guide future development in Burnsville through the year 2040. The plan contains 15 future land use categories including the following:

Table 2-2: Future Land Use Guide Plan Categories

| Residential                      | Business                             | Industrial/Office                           | Other                  |
|----------------------------------|--------------------------------------|---------------------------------------------|------------------------|
| Rural Residential (RR)           | Business/Retail/Office (B/R/O)       | Industrial/Office (IND)                     | Park & Recreation (PR) |
| Low Density Residential (LDR)    | Commercial Recreation Business (CRB) | Industrial/Office/Limited Business (IND/LB) | Open Space (OS)        |
| Medium Density Residential (MDR) | Mixed Use (MIX)                      | Minnesota River Quadrant (MRQ)              | Right of Way (ROW)     |
| High Density Residential (HDR)   | Heart of the City (HOC)              |                                             | Open Water (WA)        |

## Future Land Use Guide Plan Summary

Most of these future land use categories are applicable city-wide with the exception of the HOC and MRQ categories, which are specific area categories. Each of the future land use guide plan categories has corresponding zoning district(s) that are discussed later within the description of each land use category. The Zoning Ordinance contains the regulatory tools to implement the vision, goals, and policies of the future land use guide plan.



The descriptions and an explanation of how they correspond to zoning districts are described in a series of tables that identify the future land use plan categories and the specific zoning districts that will implement the Future Land Use Guide Plan.

## Future Land Use Guide Plan Map

The significant changes between the 2030 and 2040 maps are summarized in Table 2-3. Figure 2-5 shows the location of the future land use plan categories for all properties within the city.

Table 2-3: Significant Updates from 2030 Plan Map to 2040 Plan Map

| Location of Properties                                                                                                                                                                                                                 | Description of Properties                                                                                                                                               | 2030 Future Land Use Map Designation                          | 2040 Future Land Use Map Designation                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------|
| Burnsville Parkway & I-35W BRT (Orange Line) Station Area                                                                                                                                                                              | Properties in the planned transit station area located west of I-35W, not part of the Heart of the City, that may attract future mixed use redevelopment interest       | Business/Retail/Office (BUS)<br>Low Density Residential (LDR) | Mixed Use (MIX)<br>Medium Density Residential (MDR) |
| Burnsville Transit Station at Hwy 13 & Nicollet Ave (NE corner)                                                                                                                                                                        | Burnsville Transit Station and adjacent high density residential                                                                                                        | Business/Retail/Office (BUS)                                  | Mixed Use (MIX)                                     |
| Aging Retail Strip Centers <ul style="list-style-type: none"> <li>Riverview Center (Hwy 13 &amp; Diffley Rd)</li> <li>Cliffview Plaza (Hwy 13 &amp; Cliff Rd)</li> <li>Colonial Ridge (Nicollet Ave &amp; 138<sup>th</sup>)</li> </ul> | Three aging retail strip centers that may attract future mixed use redevelopment interest                                                                               | Business/Retail/Office (BUS)                                  | Mixed Use (MIX)                                     |
| Center Village Area                                                                                                                                                                                                                    | Existing retail mall and surrounding properties generally south of McAndrews Road, adjacent to CR 5 and CR 42 that may be considered for future mixed use redevelopment | Business/Retail/Office (BUS)                                  | Mixed Use (MIX)                                     |
| County Road 5 & County Road 42 Open Space                                                                                                                                                                                              | Undevelopable City-owned open space property with steep slopes                                                                                                          | Industrial/Office (IND)                                       | Open Space (OS)                                     |

Figure 2-5: 2040 Future Land Use Guide Plan Map

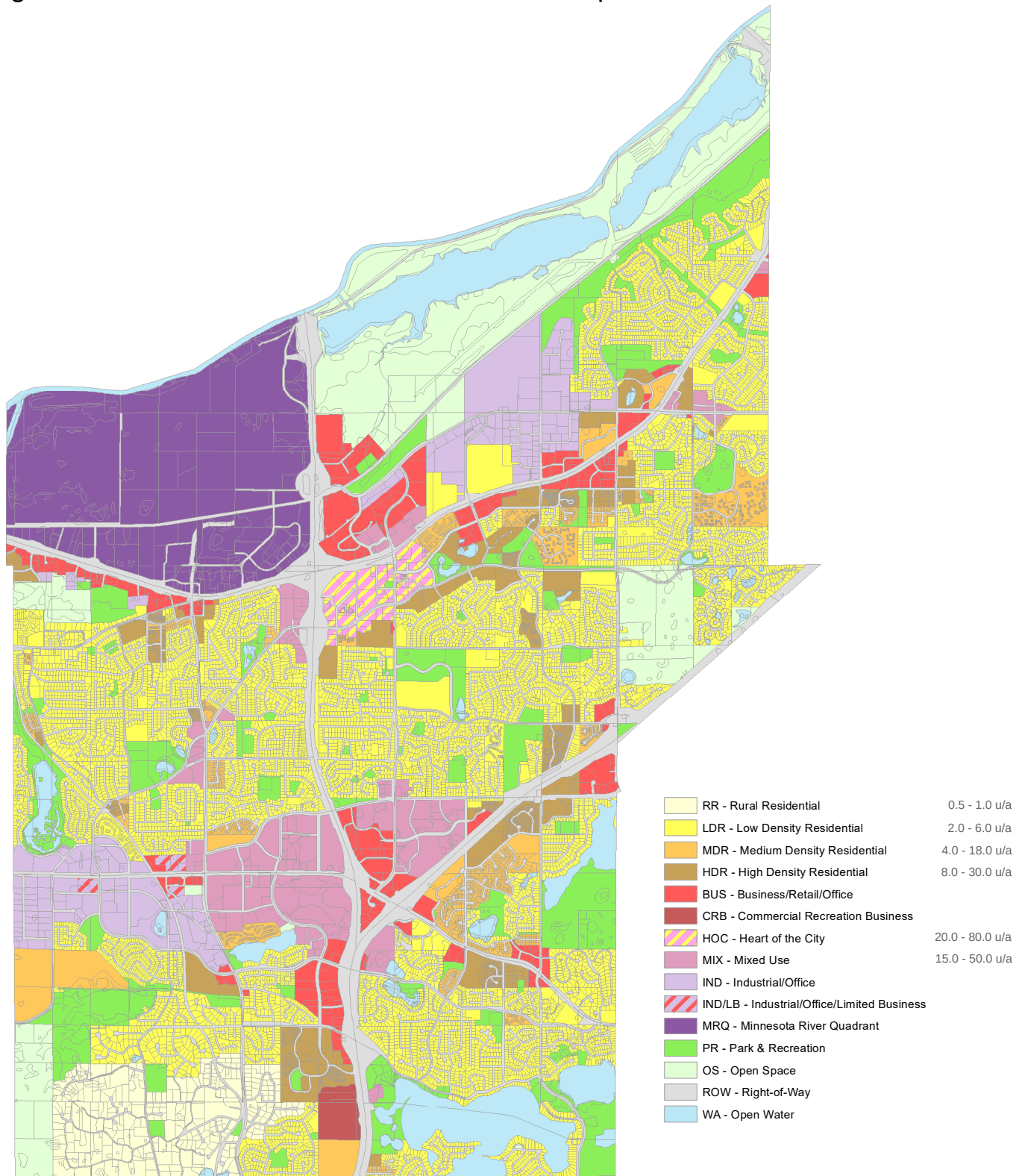


Table 2-4 illustrates the gross and net acreages for each land use category shown on the 2040 Future Land Use Guide Plan Map.

Table 2-4: 2040 Future Land Use Guide Plan Acreages

| Land Use Category |                                    | Net Acres        | % of Total (Net Acres) |
|-------------------|------------------------------------|------------------|------------------------|
| RR                | Rural Residential                  | 541.74           | 3.13%                  |
| LDR               | Low Density Residential            | 4,382.56         | 25.32%                 |
| MDR               | Medium Density Residential         | 625.95           | 3.62%                  |
| HDR               | High Density Residential           | 668.02           | 3.86%                  |
| HOC               | Heart of the City                  | 129.99           | 0.75%                  |
| MIX               | Mixed Use                          | 550.93           | 3.18%                  |
| BUS               | Business/Retail/Office             | 750.21           | 4.33%                  |
| CRB               | Commercial Recreation Business     | 59.55            | 0.34%                  |
| IND               | Industrial/Office                  | 739.90           | 4.27%                  |
| IND/LB            | Industrial/Office/Limited Business | 23.73            | 0.14%                  |
| MRQ               | Minnesota River Quadrant           | 1,310.63         | 7.57%                  |
| PR                | Park & Recreation                  | 1,167.36         | 6.74%                  |
| OS                | Open Space                         | 650.52           | 3.76%                  |
| ROW               | Right-of-Way                       | 2,886.49         | 16.67%                 |
| WA                | Open Water                         | 1,049.50         | 6.06%                  |
| Wetland           |                                    | 1,774.25         | 10.25%                 |
| <b>Total</b>      |                                    | <b>17,311.33</b> |                        |

Source: HKGi 2017

## 2040 Residential Land Use Categories

The residential land use categories provide for a range of housing opportunities, residential densities, and related compatible uses contemplated by the Goals and Policies. Each description includes the purpose, density, minimum development requirements, utility availability, typical uses, and the corresponding zoning districts. Each of the city's residential zoning districts encompasses most of each other's permitted and conditional uses but at greater degrees of density. Thus, each of the residential land use categories allow housing units as well as supportive uses typically found in residential settings such as schools and churches. The proposed residential land use categories for the 2040 Plan are described as follows:



Table 2-5: 2040 Residential Land Use Categories

| 2040 Future Land Use Guide Plan Categories |                            | Density Range (Units/Acre) | Corresponding Zoning Districts |                                                                                                      |
|--------------------------------------------|----------------------------|----------------------------|--------------------------------|------------------------------------------------------------------------------------------------------|
| RR                                         | Rural Residential          | 0.5 – 1.0                  | R-1A<br>PUD                    | One-Family Rural Residential District<br>Planned Unit Development                                    |
| LDR                                        | Low Density Residential    | 2.0 – 6.0                  | R-1<br>R-2<br>PUD              | One-Family Residential District<br>Two-Family Rural Residential District<br>Planned Unit Development |
| MDR                                        | Medium Density Residential | 4.0 – 18.0                 | R-3A<br>R-3D<br>PUD            | Medium Density Residential District<br>Manufactured Housing District<br>Planned Unit Development     |
| HDR                                        | High Density Residential   | 8.0 – 30.0                 | R-3B<br>PUD                    | High Density Residential District<br>Planned Unit Development                                        |

### Rural Residential (RR)

This category applies to lands in southwest Burnsville that are located within the Metropolitan Urban Service Area but are developed with private septic systems and wells. The Rural Residential category represents a unique area with a variety of older existing large lot single family homes combined with some newer, still larger lot development. The land use has the largest amount of vacant residential land at 47 net acres. Lands with this category have a corresponding zoning district of R-1A, One-Family Rural Residential and may cluster units through the use of PUD, Planned Unit Developments. Development typically consists of single-family detached dwellings on acreage parcels with some hobby farms. Existing residential density ranges from 0.5 to 1.0 units per acre for unsewered areas with a minimum lot size of two acres of “upland buildable” (with soils and topography suitable to provide adequate area for two septic system sites). This large lot development pattern makes the extension of municipal utilities very costly. It is, therefore, the intent of the City to allow limited rural estate infill in reliance on private on-site sewer and water systems with minimum lot sizes that are generally compatible with adjacent lots and yet able to support on-site systems in accordance with Minnesota Rules Section 7080. Areas that are served with public sewer and water may, through the Planned Unit Development process, develop at a one acre lot size. Clustering of lots is permitted provided the residential density does not exceed one unit per net acre. Any future development of this area will occur with joint cooperation between land owners to address future roadway and corridors through the area.

### Low Density Residential (LDR)

This category provides for a range of lower density housing opportunities. The land use category is completely developed except for 36 net acres that remain vacant. Single-family detached homes, two-family attached homes (duplex, twin homes) and detached townhomes are allowed in this

category. Other uses that relate well to low density residential are also allowed as conditional uses including churches, schools, municipal buildings, hospitals and nursing/assisted living communities. Mixed-use and/or residential developments with higher density and a mix of housing styles, values, and architecture may be realized in Planned Unit Developments. Lands within this category are served with municipal utilities. The corresponding zoning districts are R-1, One-Family Residential; R-2, Two-Family Residential District; and PUD, Planned Unit Development. Residential density ranges of 2.0 to 6.0 units per acre are allowed under the LDR land use category.

### Medium Density Residential (MDR)

This category provides for a broader range of medium density housing opportunities. Much of the community's smaller townhome developments are included in this category. Allowed uses include single-family attached housing (townhomes, small apartment buildings), small lot detached townhomes, and manufactured homes (mobile homes) within the three existing manufactured home parks (Camelot Acres, Rambush Estates, and Sunny Acres). Lands within this category are served with municipal utilities. Single-family and duplex residential units are also permitted within this land use category. Net residential densities from 4.0 to 18.0 units per acre are allowed under the base zoning district. Mixed use and/or residential developments with higher densities and a mix of housing styles, values and architecture may be realized in Planned Unit Developments (PUDs). The corresponding zoning districts are R-3A, Medium Density Residential; R-3D, Manufactured Housing District; and PUD, Planned Unit Development.

### High Density Residential (HDR)

This category is characterized by dwellings other than single family detached houses at net residential densities of 8.0 to 30.0 units per acre. The City may consider increasing the maximum density by a maximum of 20% if a development satisfies development policy, community vision and specific housing goals. Allowed uses include larger attached townhome developments, apartments and condominiums generally in a stacked or attached configuration. Mixed use and residential developments with higher densities, and a mix of housing styles, values and architecture may be realized in PUDs. Single-family, duplex, and townhomes are also allowed within this land use category. The corresponding zoning districts are R-3B, High Density Residential and PUD, Planned Unit Development.

## 2040 Business Land Use Categories

Several business land use categories provide for a variety of uses to meet the shopping, professional, employment, service, entertainment, commercial recreation and regional center residential (assisted living) needs of the community. Each description includes the purpose, minimum development requirements, typical uses and the corresponding zoning districts. Municipal

utility services are available to all lands that have been classified for business land uses. The Comprehensive Plan recognizes the predominant business centers (Burnsville Center and Heart of the City) and corridors (County Road 42 and Highway 13) and attempts to concentrate business activities to support these centers where major infrastructure, transportation and transit investments exist and will be enhanced during this planning period (to the year 2040). Residential development in the form of nursing homes, assisted living/residential health care type units are allowed in the B-1, B-2 and B-3 zoning districts as conditional uses and are typically approved as PUDs with higher densities (up to 26 units per acre).

Table 2-6: 2040 Business Land Use Categories

| 2040 Future Land Use Guide Plan Categories |                                | Density Range (Units/Acre) | Corresponding Zoning Districts  |                                                                                                                                                    |
|--------------------------------------------|--------------------------------|----------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| BUS                                        | Business/Retail/Office         | N/A                        | B-1<br>B-2<br>B-3<br>B-4<br>PUD | Office Business District<br>Neighborhood Business District<br>General Business District<br>Highway Commercial District<br>Planned Unit Development |
| CRB                                        | Commercial Recreation Business | N/A                        | CRD<br>PUD                      | Commercial Recreation District<br>Planned Unit Development                                                                                         |
| HOC                                        | Heart of the City              | 20.0 – 80.0                | TOD<br>PUD                      | Transit Oriented Development District<br>Planned Unit Development                                                                                  |
| MIX                                        | Mixed Use                      | 15.0 – 50.0                | MIX<br>TOD<br>PUD               | Mixed Use District<br>Transit Oriented Development District<br>Planned Unit Development                                                            |

### Business/Retail/Office (BUS)

This category is characterized by a wide range of commerce, entertainment, retail, dining, office and uses that provide services, goods and employment opportunities. The PUD zoning district is used to implement development in the Business land use category to accommodate the variety of uses, designs and redevelopment issues often faced.

The corresponding zoning districts are B-1, Office Business and B-2, Neighborhood Business with uses such as offices, clinics, schools, studios, small retail and services uses allowed. The Burnsville Center is a regional destination and hub for general business development. The corresponding zoning district for the Burnsville Center area and retail adjacent to County Road 42 and generally adjacent to and east of County Road 5 is B-3, General Business District. The BUS, Business/Retail/Office category also includes highway commercial which is primarily located along the Highway 13 corridor, west of I-35W and immediately adjacent to the interstate on the east. The highway-oriented commercial areas are zoned B-4, Highway Commercial and large-scale, highway oriented commercial with

some office and light industrial uses mixed in and those that need outdoor storage/sales and display.

### Commercial Recreation Business (CRB)

The intent of the Commercial Recreation Business land use category is to designate lands that include important private recreation facilities as well as supporting businesses such as restaurants, hotel/conference facilities, golf courses and other forms of outdoor recreation. The classification seeks to promote high quality, large-scale recreational facilities that reserve the natural character of woodlands, steep slopes, wetlands and other conditions. This area is applied to the Buck Hill ski facility to recognize the importance of this facility and to promote business that helps sustain the use for years to come.

This land use category has also been applied to the former Freeway Landfill property, and Burnsville Sanitary Landfill site (future 18-hole championship golf course area). The designation is intended to recognize the special characteristics of these uses. While they are privately owned, they serve the general public in a way similar to other publicly owned recreation facilities like Birnamwood Golf Course. The corresponding zoning districts are CRD, Commercial Recreation District and PUD, Planned Unit Development District.

### Heart of the City (HOC)

The HOC redevelopment area is a mixed use, pedestrian-oriented downtown area for Burnsville and is bound by I-35W to the west, existing residential uses to the south of Burnsville Parkway, Eagle Ridge Drive to the east and Trunk Highway 13 to the north. The HOC is Burnsville's most ambitious and largest redevelopment effort to date and grew from the citizen driven 1996 community visioning project "Partnerships for Tomorrow." The City Council adopted a Framework Design Manual and specific zoning ordinance standards (HOC-1 and HOC-2 Districts) that outline design parameters and other requirements for redevelopment. Since the year 2000, numerous projects have been approved and built bringing new commercial, office, entertainment, recreation, and residential opportunities to the city in addition to Nicollet Commons Park and the Ames Center as the community gathering area. The HOC-1 and HOC-2 Districts were rezoned to Transit Oriented Development (TOD) in 2020 to accomplish the strategic priorities of the Comprehensive Plan.

The HOC concept is designed to cater to pedestrians, offer a gathering place for community civic events, provide access and exposure to public arts, and attract unique restaurants, office space and retail that support the residential neighborhood. The HOC has been designed with walkability and transit service in mind. The HOC is adjacent to the Minnesota Valley Transit Authority transit station which includes a 1200-space public parking ramp with daily commuter and local transit service,

### Highway BRT Transitway TOD Standards

- » Metropolitan Council policy is that density expectations for highway BRT transitway station area (area within 10-minute walk or ½ mile) are a minimum of 10 units per acre, with a target density of 20-40+ units per acre.
- » Two future Orange Line BRT stations are planned within the Heart of the City, with a possible additional station being considered near Burnsville Center
- » These locations are within the HOC and MIX land use categories, with residential densities at 20-80 u/a, and 15-50 u/a, respectively

office space and future retail developments. Within HOC there are two City parking structures. A 350-stall ramp is located on Pillsbury Avenue and includes MVTA transit stops. There is also a 389-stall public parking deck located adjacent to Nicollet Commons Park and the Ames Center.

The HOC is a specific area mixed use category that guides this area for urban scale development with a broad mix of uses, including multi-story buildings containing retail, office and dining uses on the street level and housing opportunities on upper levels that overlook landscaped public plazas and Nicollet Commons Park. Within the HOC, minimum residential densities are established at 20 units per acre. Actual HOC residential densities (for projects approved through December 2008) range from 21.78 –68.8 units per acre. Entertainment is another land use component of the HOC, including The Ames Center, a performing arts center that draws local and regional talent and visitors to Burnsville. The Ames Center brings more energy to the district as a unique regional amenity not found in other suburban mixed use developments.

The planned Orange Line Bus Rapid Transit (BRT) line will have two station areas located in the HOC with one station located at the southwest corner of Highway 13 and Nicollet Ave and one station located at the northeast corner of I-35W and Burnsville Parkway. Land located within these two station areas is primarily guided for the HOC land use category, in addition to the MIX land use category. The zoning for HOC originally consisted of HOC-1, the core 54 acres located on either side of Nicollet Avenue, and HOC-2, the larger transition area with more transitional zoning regulations, is located west of HOC-1 out to I-35W. Looking forward, the City should review the zoning of the HOC and surrounding areas to determine how to best encompass TOD and the eventual build out and redevelopment of HOC-2. In addition to the specific zoning standards, development within this district must conform to the HOC Framework Design Manual, which is available on the City's website at [www.burnsvillemn.gov](http://www.burnsvillemn.gov). HOC Zoning was replaced by Transit Oriented Development zoning (TOD) in 2020.

There are just under 14 net acres of vacant land in the HOC redevelopment area, within the Transit Oriented Development zoning district. The City anticipates full development of the HOC by 2040 and will concentrate on improving pedestrian links (pedestrian bridge connecting to the Burnsville Transit Station located south of Highway 13), adding to the mix of uses and completing phased development of approved housing projects. For the future, the City intends to utilize the successful HOC model (on a much smaller scale) to create neighborhood oriented and business related mixed use centers which will be further discussed in the following "Mixed Use (MIX)" land use category.

### Mixed Use (MIX)

Lands designated for this category are typically located around the Ring Road System (County Road 5, Nicollet Avenue, McAndrews Road, and Southcross Drive), that surrounds the Burnsville Center.

Existing areas where the MIX category is applied include Fairview Ridges Campus, Rolling Meadow Acres, Scandia Condominiums, Nicollet Ridge and areas near County Road 5 and 143<sup>rd</sup> Street such as Chancellor Manor, the Atrium and Whispering Oaks. As part of the 2040 Comprehensive Plan Update process, additional redevelopment areas were re-guided to the MIX category, including a substantial portion of the Burnsville Center area and a number of aging retail strip centers. To be consistent with the Center Village Vision the area south of McAndrews Road West, adjacent to C.R. 5 and C.R. 42 and west of I-35W is re-guided to the MIX land use category.

The corresponding zoning districts for the MIX land use category are MIX, Mixed Use District, TOD, Transit Oriented Development District and PUD, Planned Unit Development.

The intent of the MIX category for future sites is to continue this level of unique master planned developments where residential can be combined in neighborhoods with retail, office, entertainment and recreation facilities in close proximity to neighborhoods and transit. The City is looking for neighborhood oriented mixed use to occur as part of redevelopment of some of the aging retail strip centers. One method the City will use to promote the widest flexibility for neighborhood oriented center redevelopment is the expansion of the MIX land use category that will allow an anticipated density range of at least 15 units per acre up to a possible 50 units per acre, to utilize the land more effectively. The City may consider increasing the maximum density by a maximum of 20% if a development satisfies development policy, community vision and specific housing goals. Future mixed use will permit a mix of retail/commercial, office, residential, and public uses. The design of these neighborhood centers should strive to incorporate objectives such as the following: increased transit opportunities; connectivity; amenities like retail and services closer to where people live adjacent to neighborhoods; higher densities to support retail/services; consideration for live/work units; energy efficient design; components that will attract young professionals and families; green building practices; public art and gathering places; and more sustainable natural storm water management techniques. Because these are likely to be redevelopment sites, corresponding PUDs will be required for each development.

As part of the aging retail centers redevelopment analysis, two types of mixed use development were identified to create the yield plans: Business Oriented Mixed-Use and Neighborhood Oriented Mixed-Use. In general, the satellite retail centers were assumed for redevelopment as Business Oriented Mixed-Use and neighborhood retail centers were assumed for



redevelopment as Neighborhood Oriented Mixed-Use. However, both types of mixed-use are permitted in the MIX land use category.

### Business Oriented Mixed-Use Centers

As part of the 2040 Future Land Use Guide Plan, the City contemplates redevelopment of some of the aging retail centers identified on Figure 2-8: Satellite Strip Retail Centers on page 2-89. Redevelopment of many of the Satellite Centers are anticipated to occur based on the BUS land use categories, should redevelopment occur. Business Oriented Mixed-Use Centers (with no residential uses) will focus on growth and redevelopment of areas with the supporting infrastructure that are connected to existing development by transit, bike and pedestrian access. This approach will act as a development model where business, entertainment, recreation, public art, culture and public gathering spaces can co-exist comfortably and where transit services are easily accessible. Green space and recreational opportunities will be woven into the mixed-use environment to soften the impacts of business uses/places to work, while providing a transition into adjoining residential neighborhoods.

### Neighborhood Oriented Mixed-Use Centers

The City intends to re-invigorate neighborhoods, create opportunities to attract a broad range of age groups as residents, and will utilize the Neighborhood Oriented Mixed-Use Center model to create unique neighborhood oriented living environments that provide places for people to work, shop, dine and play 24 hours per day/seven days per week, all in close proximity to where they live. The large number (21) of Neighborhood Retail Strip Centers (See Figure 2-7: Neighborhood Strip Retail Centers on page 2-88 for reference), that are located close to or within residential neighborhoods, provide great potential for redevelopment of Neighborhood Oriented Mixed-Use Centers where live/work opportunities can be created.

Residential densities of the MIX District, up to 50 units per acre could be achieved through the PUD process, provided necessary transit service, recreation, public open spaces, and supporting or related retail and commercial are also integrated. These areas will be designed to promote family-friendly living, places for young adults and active seniors by providing units where people can live and work. The Neighborhood Oriented Mixed-Use Centers will also benefit the adjacent residential areas by providing additional dining, retail and service opportunities close to existing neighborhoods and by boosting the density that is needed to support transit and the commercial uses. Care will need to be taken to ensure good pedestrian, bike routes and transit services are incorporated into these areas and that they connect to existing neighborhoods. 2040 Industrial/Office Land Use Categories

Three primary industrial/office land use categories including the Minnesota River Quadrant (MRQ), Industrial/Office (IND), and Industrial/ Office/ Limited Business (IND/LB) provide current and future employment base, manufacturing, production, processing, storage and distribution of materials, products, limited outdoor storage, highway oriented retail, recreation business, park, office, showroom and heavy industrial operations within the city.

Table 2-7: 2040 Industrial/Office Land Use Plan Categories

| 2040 Future Land Use Guide Plan Categories |                                    | Corresponding Zoning Districts |                                     |
|--------------------------------------------|------------------------------------|--------------------------------|-------------------------------------|
| IND                                        | Industrial/Office                  | I-1                            | Industrial Park District            |
|                                            |                                    | I-3                            | Office and Industrial Park District |
|                                            |                                    | PUD                            | Planned Unit Development            |
| IND/LB                                     | Industrial/Office/Limited Business | I-3                            | Office and Industrial Park District |
|                                            |                                    | PUD                            | Planned Unit Development            |
| MRQ                                        | Minnesota River Quadrant           | B-4                            | Highway Commercial                  |
|                                            |                                    | I-2                            | General Industrial District         |
|                                            |                                    | GIM                            | Gateway Industrial Medium District  |
|                                            |                                    | GIH                            | Gateway Industrial Heavy District   |
|                                            |                                    | CRD                            | Commercial Recreation District      |
|                                            |                                    | P                              | Park District                       |
|                                            |                                    | MIX                            | Mixed Use District                  |
|                                            |                                    | PUD                            | Planned Unit Development            |

### Industrial/Office (IND)

This category encompasses uses that are traditional industrial, manufacturing and warehousing and those that are more office and office/warehouse focused. One example would be Southcross Corporate Campus. There are various industrial zoning districts that regulate the variety of industrial uses in appropriate locations within these designated areas. The corresponding zoning districts are I-1, Industrial Park District; I-3, Office and Industrial Park District; and PUD, Planned Unit Development.

The I-1 land is generally located north of Highway 13 and east of I-35W. Uses including small processing and fabricating, warehouse, wholesale, service operations, manufacturing, indoor agriculture and food production, and value added processing are allowed along with sports facilities, open sales/rental lots and a limited amount of retail sales. This area of the city was studied in 2004 and again in 2016/2017 as part of the 2040 Comprehensive Plan Update to identify ways to allow older industrial uses to expand/redevelop to more contemporary standards. To encourage older industrial properties to improve sites and add value, the City developed performance standards which allow certain deviations from zoning requirements in exchange for adding better exterior materials, green space and improving storm water management.

The areas along County Road 42 between County Road 5 and the Savage city limits are to be developed with employment centers. This would accomplish a City priority to have a strong office and industrial base that attracts local, regional and national company headquarters. The 300-acre Southcross Corporate Center is located in this area of the city and is zoned I-3. This land use category was developed in an effort to prevent County Road 42, west of County Road 5 from becoming a commercial strip. Uses allowed in I-3 include office/industrial park, corporate headquarters, office, warehouse, wholesaling, research uses, convention and sports facilities. Manufacturing processes are allowed provided they are contained within buildings.

#### Industrial/Office/Limited Business (IND/LB)

This category is related to the IND land use category but also allows for limited business opportunities. There are a handful of sites located along County Road 42 that are designated IND/LB. This land use plan category is not intended to be expanded in the future but is a category that allows specific properties to have limited retail development as a component of a larger mixed-use project. The related zoning districts are I-3, Office and Industrial Park District and PUD, Planned Unit Development. The amount of the retail is limited in area and is to be affiliated with and supportive to the other showroom/industrial park uses such as single-use retail outlets, showroom sales, and business related sales establishments. Service-oriented commercial uses, such as sit-down restaurants, dry cleaners and similar uses are also permitted. Retail must be developed concurrently to the industrial uses and is intended to allow single-use retail outlets (similar to Abdallah Candies) where products manufactured on site may be offered for sale to the general public.

#### Minnesota River Quadrant (MRQ)

The 2040 Future Land Use Guide Plan Map shows the MRQ as a specific area mixed use category. This category was created to reflect the unique, long-term redevelopment vision for the area of the city located south of the Minnesota River, east of the City of Savage border, west of I-35W and north of Highway 13. While the MRQ land use designation is not changing from the 2030 Comprehensive Plan, the MRQ 2040 Future Land Use and Transportation Concept has been updated as the basis for the MRQ's long-term development objectives. (See Chapter 3 – Economic Development and Redevelopment Plan.) This revised concept plan is more generalized to allow for flexibility of the land uses over time as sites become ready for development.

The MRQ land use category allows a broad mix of uses, including business, retail, restaurant, entertainment, office, industrial (light to heavy), residential, and recreation. The MRQ 2040 Future Land Use and Transportation Concept establishes where these various uses are generally

allowed within the MRQ. (See Chapter 3 – Economic Development and Redevelopment Plan.) Essentially, the MRQ concept guides future land uses along I-35W and south of the rail line for a broad mix of business, office, and industrial. Land uses adjacent to the future accessible natural amenities (river and the quarry lake) are guided for residential and mixed-use. The MRQ land use category also recognizes that MRQ redevelopment is a complex and long-term process, so it allows existing industrial activities to remain in place until these uses are exhausted or can be mitigated sufficiently to enable redevelopment, e.g. gravel extraction, landfills.

The City will utilize the Planned Unit Development (PUD) zoning tool to implement the MRQ plan and continue to process Interim Use Permits for land uses such as temporary dirt stock piles, and outdoor storage uses in the GIM Zoning District, etc. This allows lands to be utilized during the transition period between now and realization of the MRQ vision. Roadways, trails, transit and utility plans related to the MRQ are further discussed in Chapter 7 - Transportation Plan, and Chapter 8 - City Services and Facilities Plan of this Plan.

A tremendous amount of planning has occurred in the MRQ in preparation for when major land use activities, such as the landfill and mining cease and new redevelopment can occur. Many of the long range plans and negotiations have occurred through PUDs and master plans where new uses are already planned. Along with the existing PUDs, the MRQ category allows existing businesses to co-exist with new development through utilization of the Interim Use Permit process. The highway-oriented commercial areas are zoned B-4, Highway Commercial and large-scale, highway oriented commercial with some office and light industrial uses mixed in and those that need outdoor storage/sales and display. Interim Use Permits allow for the temporary use of property for activities such as exterior storage/ display until conditions arise where permanent uses are poised to develop.

At such point that any landfill is closed, the MPCA will direct the City to enact a Closed Landfill Overlay District. This zoning district will establish what land uses are appropriate for MPCA designated closed landfills. It is anticipated that the end-use plans will not conflict with the future closed landfill overlay district uses.

## 2040 “Other” Land Use Plan Categories

Open Space, Park & Recreation, Right-of-Way and Water are the remaining land use categories for the 2040 Future Land Use Guide Plan and Map.

Table 2-8: 2040 “Other” Land Use Plan Categories

| 2040 Future Land Use Guide Plan Categories |                   | Corresponding Zoning Districts |                      |
|--------------------------------------------|-------------------|--------------------------------|----------------------|
| OS                                         | Open Space        | CD                             | Conservancy District |
| PR                                         | Park & Recreation | P                              | Park District        |
| ROW                                        | Right-of-Way      | N/A                            | N/A                  |
| WA                                         | Open Water        | N/A                            | N/A                  |

### Open Space (OS)

The OS - Open Space land use category applies to lands guided for future permanent public or private open space and is intended to provide for the preservation of sensitive natural areas and the protection and enhancement of wildlife habitat. There are 649 net acres of open space or four percent of the total area of the city guided for open space in this plan. The OS category differs from park land as it includes passive natural areas that typically do not include planned facilities or programs as found in a typical city park. The majority of land with this category is located within the Minnesota Valley National Wildlife Refuge (located east of I-35W adjacent to the Minnesota River). The Rudy L. Kramer Nature Preserve located south of Highway 13 and East of the Savage city border, the Kelleher Park and Murphy-Hanrehan Park Reserve in southwest Burnsville and Terrace Oaks Parks are all designated as OS. The corresponding zoning district is CD - Conservancy District and the permitted uses are limited to open space, conservation and wildlife management. The CD does allow, as conditional uses, utility and public uses such as trails and nature centers as well as the expansion of nonconforming uses. The City may impose increased development standards to protect the natural features. Chapter 5 - Natural Environment Plan contains further information regarding open space.

### Park & Recreation (PR)

The PR - Park and Recreation land use category identifies City-owned public parks and recreation lands within the city and the corresponding zoning district is PK, Park. Both the open space and parks and recreation land uses are further discussed in detail in Chapter 8, City Services and Facilities Plan. There are 1,180 net acres or seven percent of Burnsville's land area guided for public park use, in addition to the areas guided for open space. One of the City's goals is to maintain a minimum of 20 acres of public open space for every 1,000 people. Utilizing the 2016 U.S. Census population estimate (61,290 people), the city should have 1,226 acres of park land. By the year 2040, the city is expected to have a

population of 68,500 residents requiring 1,370 acres of park land to meet the goal. Additional park land may need to be acquired in order to meet service area or other recreational needs that are identified as part of the 2017 Park Master Plan, which is adopted as an addendum to this Plan.

### Right-of-Way

Reflects the location of public right-of-way within the city including all existing and reserved or platted city, county, state and federal right-of-way. Right-of-way constitutes about 17 percent of the city's land area or about 2,956 acres. The right-of way contains public and private utilities including streets, sewer, water, electricity, gas, telephone, cable, internet/broadband, cell phone antennas including small cell technology, small wireless facilities and wireless support structures to accommodate small wireless facilities, and transit facilities including shelters and benches.

### Open Water

Reflects open water areas including lakes and rivers but not wetlands (which are a separate environmental overlay district conforming to the 1991 Wetlands Conservation Act, as amended). Open water comprises about seven percent of the city's total area.

## Business and Industrial Land Preservation/Down Zoning

As the city approaches full development, the remaining vacant parcels of land are the most difficult to develop. The owners of these parcels often request a land use amendment and rezoning to put their property to use. When the land use amendment and rezoning request is to change the parcel from commercial or industrial to residential, approval of the request could significantly shift the city's land use balance and tax base. No such request should be granted unless development addresses the following criteria:

- » Any market, planning, and feasibility studies required to meet this policy shall be provided by the property owner or developer, at no cost to the City.
- » The proposed residential development meets an actual housing need of the community. A market study by itself is not enough to meet this criterion.
- » The proposed residential use is compatible with the surrounding land uses. A showing of compatibility shall include an analysis of the size and scale of the development, the proposed density, the building style and materials, the adequacy of screening and buffering elements, the minimization of potential nuisance effects from adjoining land uses, and the resolution of potential traffic conflicts.
- » The existing commercial or industrial zoning is not appropriate, based on topography, location, vehicle or truck access, parcel size, surrounding land uses, and market demand. Additionally, the existing commercial



zoning is not appropriate, based on site visibility and traffic patterns and volumes.

- » The development allows the City to meet community goals and policies regarding the balance of all land uses.
- » There is either adequate park land reasonably close to the development that can be enhanced by the park dedication fee paid by the developer, or there are significant on-site recreational amenities for the residents, in addition to the park dedication fee.
- » The proposed residential development would cause less disruption of on-site natural features, such as woodlands and ponds, than would a commercial/industrial development.
- » The applicable school district can adequately provide for the projected student population in the proposed development.
- » The applicable transit authority can adequately provide transit services for the projected residential population if the proposed development includes low and moderate income, senior, handicapped, or other special needs residents; or if the proposed development includes 150 or more residential units.

### **Future Land Use Guide Plan Summary**

Burnsville has a proven record of quality, long-term planning as made evident by the discussions regarding the future of the MRQ, HOC and anticipation for future redevelopment. The City will face challenges towards these redevelopment efforts due to the difficult nature of converting existing uses, dealing with owners and tenants, financial constraints, and environmental factors such as wetland conservation. However, the City aspires to continue to maintain its desired neighborhoods and job centers while creating new opportunities for new residents from all age groups, maintaining affordable housing, providing for life-cycle housing choices, and creating unique mixed use transit-oriented environments.

## **Vacant/Redevelopment Land Analysis**

### **Vacant/Underutilized Yield Plan Analysis**

The City has updated its inventory of vacant/underutilized parcels as part of the 2040 Comprehensive Plan Update process. The City also evaluated potential future uses for each vacant and underutilized site within the city. Figure 2-6 illustrates the location of vacant parcels as of May 2017. Both Figure 2-6 and Table 2-9 show the future land use that these parcels are guided for on the 2040 Future Land Use Guide Plan Map. There are approximately 285 net acres of vacant land in the city or 1.65 percent of Burnsville's total land area as shown in Table 2-9. Development of these vacant parcels represents a significant portion of the city's future growth,

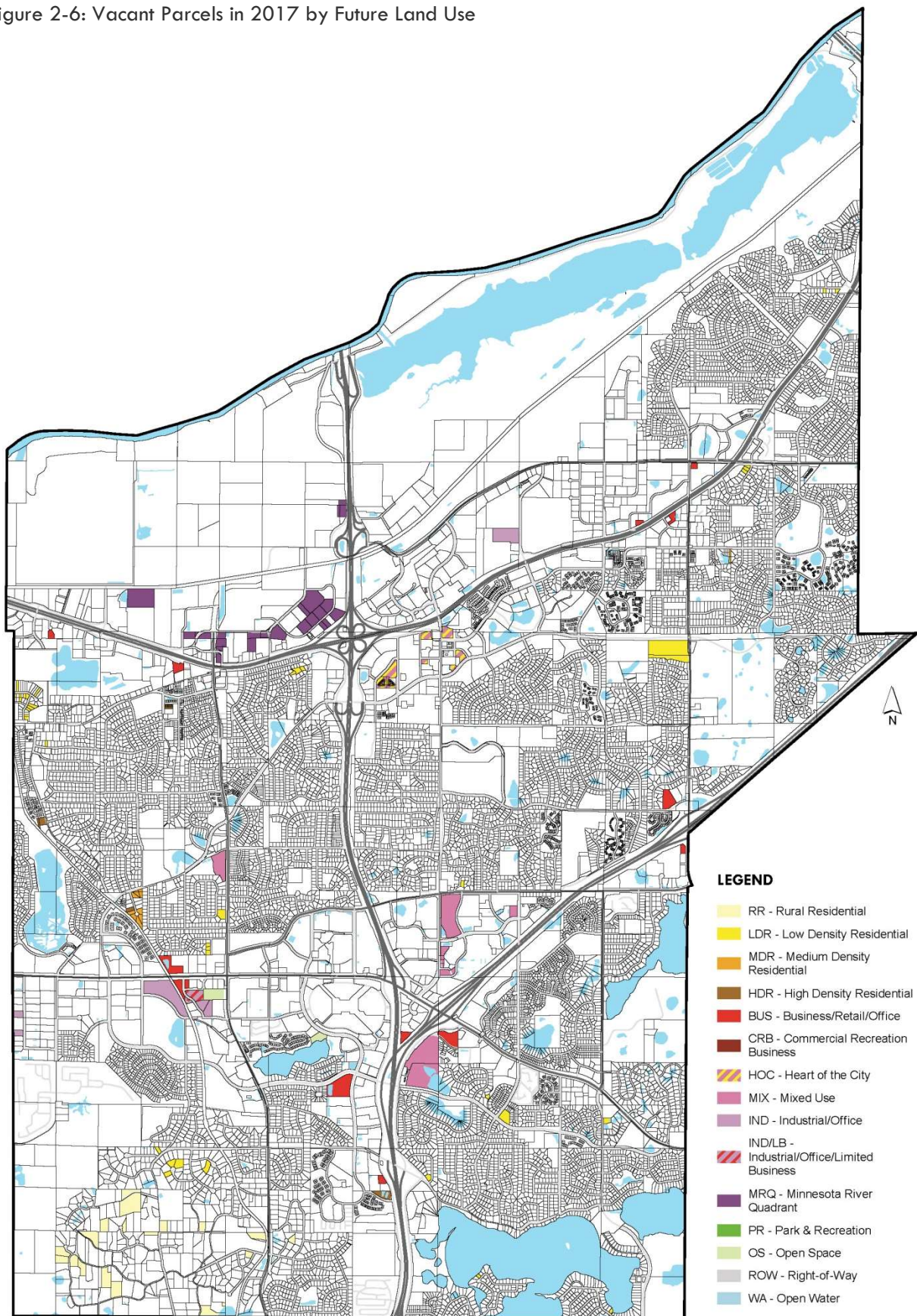
so it is important to periodically evaluate that they are guided for the appropriate future land uses. The vacant parcels are not all readily available for development or sale. Many vacant properties are owned by individuals for investment purposes, or as private yards/open space. The majority of vacant parcels have development constraints related to severe topography, utility encumbrances, poor soils or contaminated soils from previous land uses.

Table 2-9: Vacant Land (2017) by Future Land Use Designation

| Future Land Use Designation                 | Net Acres     | % of Total     |
|---------------------------------------------|---------------|----------------|
| RR – Rural Residential                      | 44.76         | 16.81%         |
| LDR – Low Density Residential               | 36.12         | 13.56%         |
| MDR – Medium Density Residential            | 5.40          | 2.03%          |
| HDR – High Density Residential              | 5.53          | 2.08%          |
| HOC – Heart of the City                     | 14.49         | 5.44%          |
| MIX – Mixed Use                             | 50.25         | 18.87%         |
| BUS – Business/Retail/Office                | 35.22         | 13.22%         |
| CRB – Commercial Recreation Business        | 0.00          | 0.00%          |
| IND – Industrial/Office                     | 28.03         | 10.53%         |
| IND/LB – Industrial/Office/Limited Business | 4.24          | 1.59%          |
| MRQ – Minnesota River Quadrant              | 35.07         | 13.17%         |
| PR – Park and Recreation                    | 0.00          | 0.00%          |
| OS – Open Space                             | 7.22          | 2.71%          |
| <b>Total</b>                                | <b>266.32</b> | <b>100.00%</b> |

Source: HKGi, City of Burnsville

Figure 2-6: Vacant Parcels in 2017 by Future Land Use



Source: HKGi, Dakota County GIS, Metropolitan Council GIS, City of Burnsville

As part of the vacant/underutilized site analysis in 2008, conceptual “yield plans” were prepared for seven of these sites. Four of these yield plans are still relevant, while the other three sites have been redeveloped. Appendix C – Vacant/Underutilized Site Yield Plans contains these four yield plans. Concepts or possible development scenarios were considered in order to identify the maximum development potential for commercial, industrial and/or residential uses. Yield plans are not proposed land use plans but rather graphic tools used to develop information about density, green space, impervious surface and land use potential. The plans define a range or average development density for the purpose of discerning potential impacts to public utilities, roads, parks, trails and other services. Most of the yield plans were prepared based on mixed use concepts of retail/office and residential. It is through this type of redevelopment that the city could accommodate new housing growth while providing opportunities for a wide variety of developments. The yield plans were prepared for privately owned properties. Ultimately, future development/redevelopment will depend on the plans and aspirations of the private property owners. **The yield plans do not represent approved land use or actual development plans but represent ideas for possible redevelopment activity.**

## Aging Retail Strip Center Redevelopment Potential Analysis

In addition to the vacant/underutilized site analysis, and yield plan analysis, the City completed the 2004 Aging Retail Strip Center Study and updated it in 2008. It remains possible that some of these centers may redevelop prior to the year 2040. In 2012, seven acres of the former 14-acre Valley Ridge Shopping Center site at 1921 Burnsville Parkway West were successfully redeveloped with senior housing. There are no current plans for redevelopment of any of the other aging retail strip centers at this time. However, the City anticipates some redevelopment as land prices continue to increase, Burnsville’s vacant land supply diminishes further, and there is less vacant land available in surrounding communities.

Redevelopment of any of the aging retail strip centers will likely involve some type of mixed use design as this development approach typically provides the widest range of flexibility, land use intensity and/or residential density needed to support higher redevelopment costs. The City intends to maintain its viable commercial/industrial land supply. To reinforce this commitment, the City Council adopted a policy establishing specific criteria required to support any rezoning request to change commercial or industrial land to residential use, currently known as downzoning. The mixed-use technique identified as part of the 2040 Future Land Use Guide Plan is not viewed as downzoning commercial guided property. Mixed-use may actually result in a higher intensity of commercial/industrial development as a greater variety of uses and

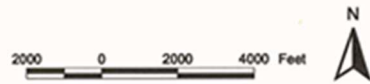
increased floor area ratios are possible. Mixed-use will be defined for respective areas of the city to identify where mixed use with a residential component will be considered and where mixed use with no residential component can occur. The residential component will typically be in addition to the existing business square footage/floor areas because anticipated residential could be in the form of attached units located above lower level business or incorporated as rowhomes/townhomes in addition to the business uses.

Thirty-six aging retail strip centers were identified in the 2004 Study and were classified as either “Neighborhood Centers” or “Satellite Centers”. Neighborhood Centers typically serve neighborhood residents, commuters or daily workers. Satellite Centers are those located in close proximity to the Burnsville Center area of the city. The following maps indicate the locations of both the Neighborhood Centers and Satellite Centers.

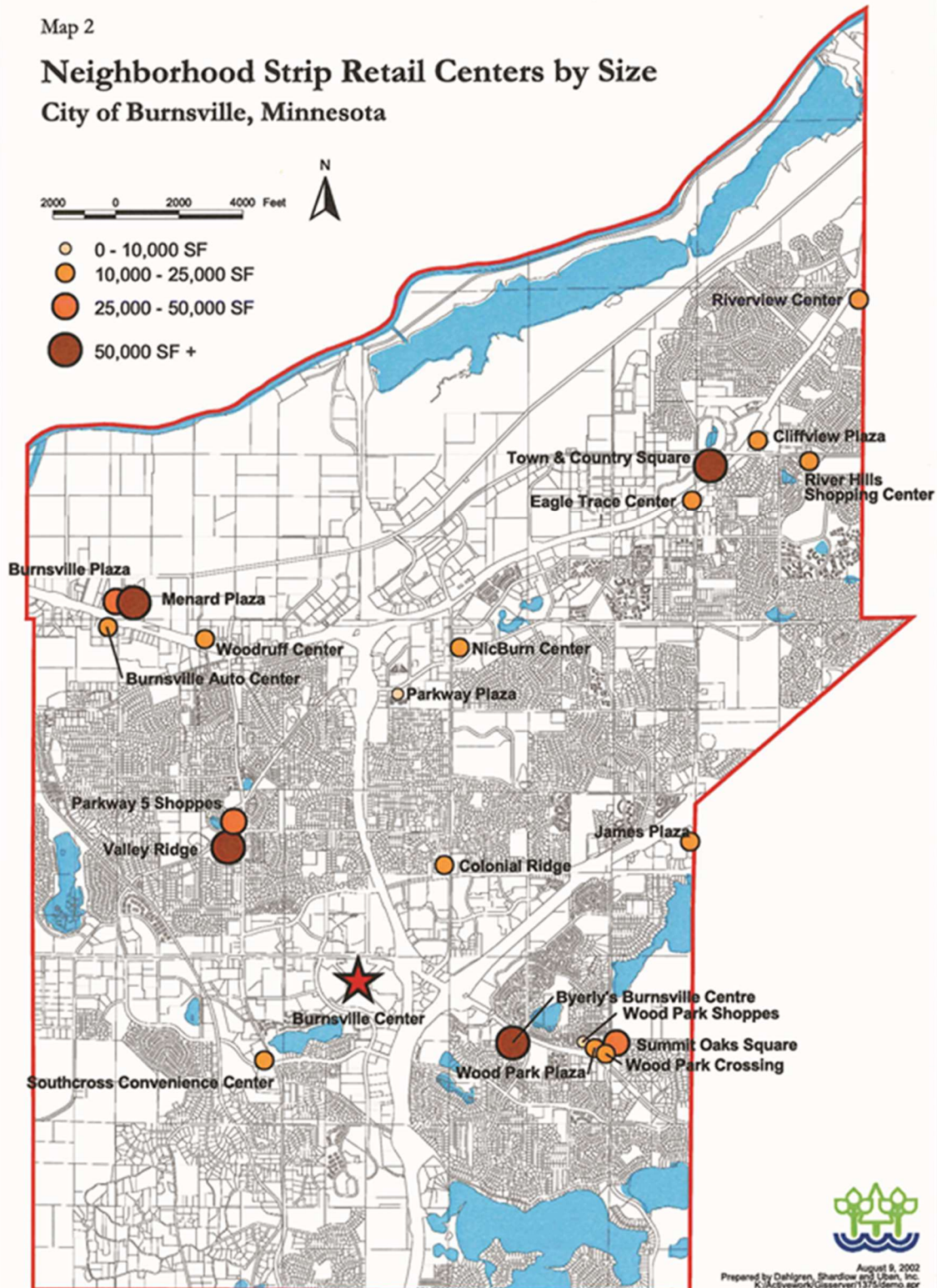


Map 2

## Neighborhood Strip Retail Centers by Size City of Burnsville, Minnesota



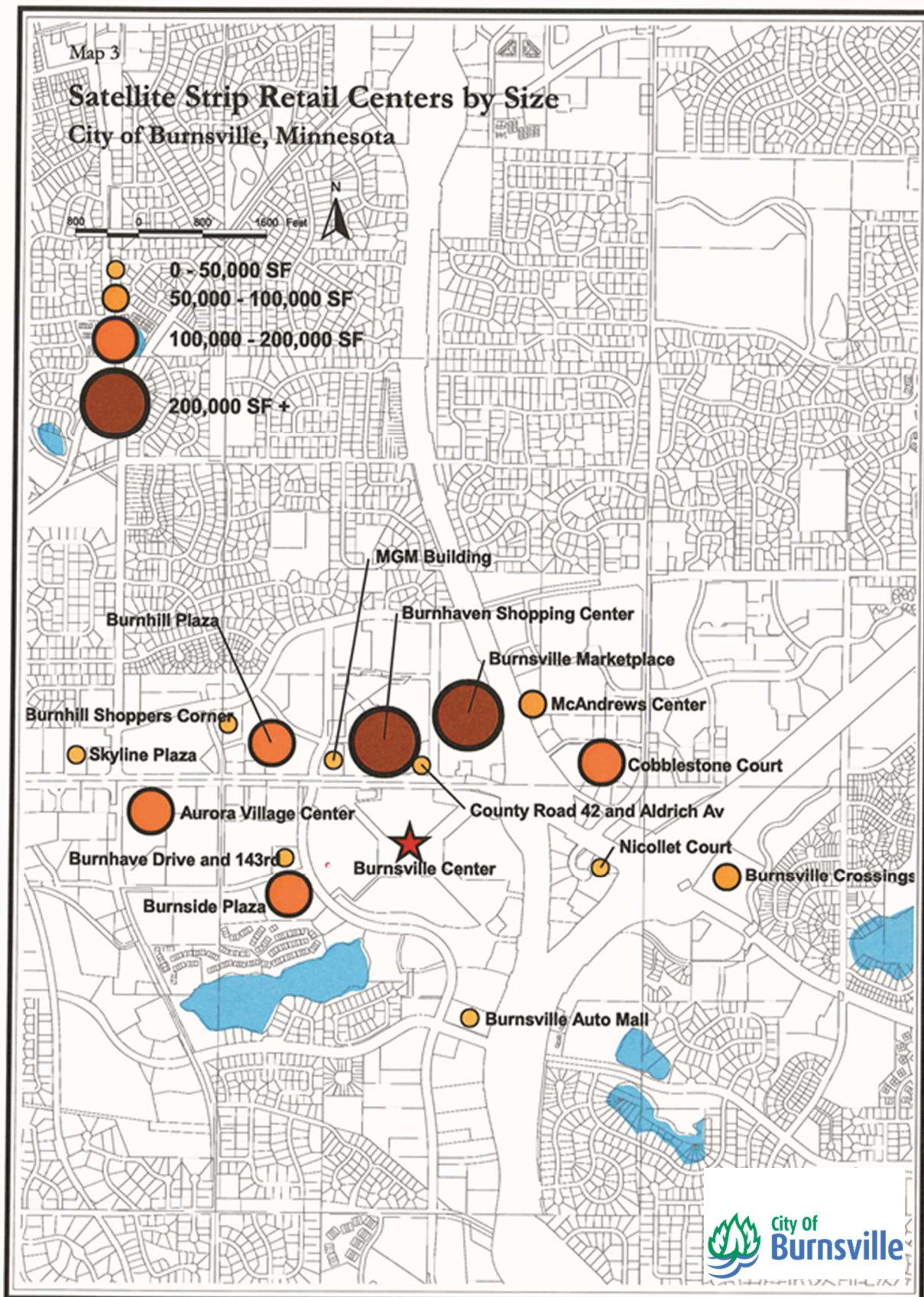
- 0 - 10,000 SF
- 10,000 - 25,000 SF
- 25,000 - 50,000 SF
- 50,000 SF +



August 9, 2002  
Prepared by Dahlgren, Shandow and Urban, Inc.  
K:\Active\GIS\Server\1375\demo.apr



Figure 2-8: Satellite Strip Retail Centers



Early in the 2004, study process, the City Council identified that the redevelopment of Satellite Centers should not include a residential housing component as part of the mix. Satellite Centers are located primarily along the County Road 42 corridor and the Burnsville Center. The City Council expressed their interest in keeping these areas as high intensity commercial. To address this situation, the aging retail strip center redevelopment analysis was broken into two categories: an analysis of Neighborhood Centers looking at redevelopment scenarios with mixed-uses including a residential component; and an analysis for redevelopment of Satellite Centers looking at redevelopment scenarios with mixed uses but no residential component.

A function of this Future Land Use Guide Plan is to identify how and where future population, households and employment may be accommodated and to gauge potential impacts on municipal services and facilities through the year 2040. The 36 aging retail centers represent one of the greatest short-term opportunities for redevelopment in Burnsville. As part of the 2030 Comprehensive Plan Update, an interactive analysis spreadsheet was created which was more detailed than the 2004 Retail Strip Center Study. This redevelopment scenario analysis provided a means to ascertain redevelopment potential for Burnsville based on a series of assumptions about land uses and other factors that control development such as density, green space area, and floor area ratios. This analysis also calculated average trips per day, impervious surface, and average gallons of wastewater used by each land use type to provide a picture of the potential redevelopment impacts.

A series of assumptions were made and information from the yield plan analysis was used and applied to each of the 36 aging strip centers. The assumptions were related to parking type (surface and/or stacked parking), green space, storm water ponding, residential unit type (row or townhomes and/or multi-family units above retail/office), commercial/office floor area ratios etc. The result of the analysis was that average development densities, floor area ratios, green space, impervious surface, parking and storm water ponding estimates were determined that will assist the City to gauge impacts of future mixed use redevelopment projects. It also helped to quantify the city's development potential as it related to the 2030 population, housing and employment forecasts for Burnsville, which remain relevant to the city's 2040 projections. These will be discussed later in this chapter.

It is important to note that this analysis is one planning tool to help the City study potential redevelopment impacts based on reasonable mixed use scenarios and densities. The interactive nature of the spreadsheet is intended to be flexible and other assumptions may be incorporated into the analysis. It should not be assumed that the scenarios and assumptions provided in the Satellite Center and Neighborhood Center analysis will occur in exactly the same fashion as presented herein. Rather, this is one

method to assist in planning for service impacts that may result based on prescribed redevelopment assumptions.

In order to conduct the analysis, a number of assumptions were made. Separate analysis was conducted for the Neighborhood Centers and the Satellite Centers. For both categories it was assumed that any redevelopment will be over the entire site. As such, both scenarios were developed based upon the total site square footage. It is important to note that there are a wide variety of site sizes associated with the aging retail strip centers in both the Neighborhood Center and Satellite Center categories.

### **Neighborhood Centers - Redevelopment Analysis**

To calculate potential housing redevelopment opportunities, the scenarios for neighborhood retail strip centers included the following assumptions:

- » Residential redevelopment at a density of eight units per acre for medium density
- » Residential redevelopment at a density of 14 units per acre for high density
- » Redevelopment will likely utilize attached/multi-family construction (townhomes, condominiums, live/work units, or apartment designs)
- » Overall residential densities of at least five units/acre. This density supports goals of the Metropolitan Council for a Suburban community to redevelop at densities of at least five dwelling units per acre.
- » Other uses will accompany residential development including office, service, entertainment, retail/commercial or any combination thereof.

For the Neighborhood Centers, the redevelopment assumption used was: one-third mixed office/retail in same building; one-third retail/commercial with residential above, and one-third residential. For residential, the density was calculated over the entire site, one-half at eight units/acre and one-half at 14 units/acre. This provides a better reflection of each site's residential potential assuming that in a mixed use site some residential might be standalone (such as row house and townhomes), while the higher density housing will likely be above retail/commercial and could occur in multiple stories. The total square footage of the site was divided between three likely uses: residential, office, retail/commercial.

The study of Neighborhood Centers provides insight for the amount of potential residential redevelopment. These centers range in size from just under one acre up to 14 acres. The analysis includes retail, retail/office mix and residential calculated at eight and ten units/acre. The Neighborhood Center Analysis summarizing the total and average uses are shown in Table 2-10.

.

Table 2-10: Neighborhood Centers Summary

| Neighborhood Centers                 |           |    |         |     |
|--------------------------------------|-----------|----|---------|-----|
|                                      | Total     |    | Average |     |
| Acres                                | 81        | -  | 4       | -   |
| Ground Floor Retail (Sq. Ft.)        | 353,097   | -  | 16,814  | -   |
| Retail/Office Mix (Sq. Ft.)          | 353,097   | -  | 16,814  | -   |
| Medium Density Housing Units         | 324       | -  | 15      | -   |
| High Density Housing Units           | 567       | -  | 27      | -   |
| Total Housing Units                  | 891       | -  | 42      | -   |
| Required Green Space (Sq. Ft./Acres) | 900,167   | 21 | 42,865  | 1.0 |
| Impervious Coverage (Sq. Ft./Acres)  | 2,700,502 | 62 | 128,595 | 3.0 |
| Wastewater (Gallons)                 | 282,422   | -  | 13,449  | -   |
| Water Supply (Gallons)               | 310,644   | -  | 14,794  | -   |
| Storm Water Ponding (Sq. Ft./Acres)  | 540,100   | 12 | 25,719  | 0.6 |
| Parking Stalls                       | 6,019     | -  | 287     | -   |
| Transit Trips                        | 639       | -  | 30      | -   |
| Trips Generated                      | 22,029    | -  | 1,049   | -   |

Source: Bonestroo, Burnsville – 2030 Comprehensive Plan

This summary table demonstrates the potential among all of the Neighborhood Centers for 891 residential units based on the density and other development factors applied in the interactive tool. This total may increase with greater flexibility to the height of buildings allowing for a greater number of residential units on floors stacked above retail, or a reduction in green area or parking allowing an increase in development capacity on the various sites.

### Satellite Retail Strip Center Redevelopment Yield Plan Analysis:

To calculate potential redevelopment opportunities, the yield plan scenarios for Satellite Centers include the following assumptions:

- » 75 percent of the land area to be redeveloped as retail/commercial
- » 25 percent of the land area to be redeveloped as office

No residential uses were considered as part of this analysis.

Table 2-11 on the next page provides a summary of the combined total and average redevelopment potential for all of the Satellite Centers. It is important to note that there is a fairly wide range in site size between the various centers.

Table 2-11: Satellite Centers Summary

| Satellite Centers                    |           |    |         |     |
|--------------------------------------|-----------|----|---------|-----|
|                                      | Total     |    | Average |     |
| Acres                                | 129       | -  | 9       | -   |
| Retail (Sq. Ft.)                     | 375,865   | -  | 25,058  | -   |
| Office (Sq. Ft.)                     | 563,797   | -  | 37,586  | -   |
| Required Green Space (Sq. Ft./Acres) | 1,526,950 | 35 | 101,797 | 2.3 |
| Impervious Coverage (Sq. Ft./Acres)  | 4,228,478 | 97 | 281,899 | 6.5 |
| Wastewater (Gallons)                 | 86,287    | -  | 5,752   | -   |
| Water Supply (Gallons)               | 94,915    | -  | 6,328   | -   |
| Storm Water Ponding (Sq. Ft./Acres)  | 563,797   | 13 | 37,586  | 0.9 |
| Parking Stalls                       | 5,325     | -  | 355     | -   |
| Transit Trips                        | 550       | -  | 37      | -   |
| Trips Generated                      | 18,981    | -  | 1,265   | -   |

Source: Bonestroo, Burnsville – 2030 Comprehensive Plan

## Metropolitan Council Objectives for Suburban Communities

As noted earlier in the Existing Land Use section, Burnsville is designated by the Metropolitan Council's Thrive MSP 2040 regional development plan as a "Suburban" community. Thrive MSP 2040 establishes two policies to guide regional and local land use and development:

1. Orderly and Efficient Land Use – Align land use, development patterns, and infrastructure to make the best use of public and private investment.
2. Building in Resilience – Promote sensitive land use and development patterns to contribute toward achieving Minnesota's adopted greenhouse gas emission goals at the regional scale, and to develop local resiliency to the impacts of climate change.

Thrive MSP 2040 elaborates on the community's role in implementing these two land use policies to accommodate growth forecasts through new development and redevelopment.

In Suburban communities, this role may include the following land use strategies:

- » Plan for forecasted population and household growth at overall average densities of at least 5 units per acre, and target opportunities for more intensive development near regional transit investments at densities and in a manner articulated in the 2040 Transportation Policy Plan.



- » Identify areas for redevelopment, particularly areas that are well-served by transportation options and nearby amenities and that contribute to better proximity between jobs and housing.
- » In collaboration with other regional partners, lead major redevelopment efforts.
- » Lead detailed land use planning efforts around regional transit stations and other regional investments.
- » Plan for and program local infrastructure needs (for example, roads, sidewalks, sewer, water, and surface water), including those needed to accommodate future growth and implement local comprehensive plans.

Through this plan, the City will strive to meet the objectives of the Metropolitan Council through reinvestment projects in areas of the city including the HOC, future Orange Line Bus Rapid Transit (BRT) station areas, MRQ, and redevelopment of underutilized properties and infill sites throughout Burnsville. Burnsville will provide and accommodate new growth through redevelopment, continued development of vacant infill properties and reinvestment. Chapter 5, Neighborhoods and Housing Plan, provides detailed analysis, goals/policies, and strategies to provide diversified housing opportunities for all Burnsville residents. The City will continue to utilize innovative zoning techniques and planned unit developments to implement mixed use, sustainable and transit-oriented development.

The Metropolitan Council's Thrive MSP 2040 also addresses the community's role in building resilience to potential climate impacts. In Suburban communities such as Burnsville, this role may include the following resiliency strategies:

- » Participate in federal, state, and local utility programs that incentivize the implementation of wind and solar power generation.
- » Consider making a property-assessed clean energy (PACE) program available for conservation and renewable energy.
- » Consider promoting the development or use of community solar gardens (CSGs) by public and private entities to enable fuller and more economic use of the community's solar resource, including participating as subscribers, assisting in marketing CSG opportunities for economic development, or encouraging the use of rooftop sites for gardens.
- » Continue local policies and ordinances that encourage land development that supports travel demand management (TDM) and use of travel options.
- » Consider development standards that increase vegetative cover and increase the solar reflective quality of surfaces.

Burnsville has a priority of advancing climate resiliency. It began with the adoption of a Sustainability Plan in 2009, and continues today. Sustainability efforts are incorporated into every chapter of this



Comprehensive Plan and specific approaches and measurable are detailed in a table at the end of each chapter.

## Growth Projections

Forecasts for future population, households and employment growth to the year 2040 were prepared by the Metropolitan Council and are shown as follows on Table 2-12. The City of Burnsville concurs with the Metropolitan Council forecasts.

Table 2-12: Metropolitan Council Forecasts for Burnsville

|            | 2000 Census | 2010 Census | Forecasts |        |        |
|------------|-------------|-------------|-----------|--------|--------|
|            |             |             | 2020      | 2030   | 2040   |
| Population | 60,220      | 60,306      | 63,500    | 66,000 | 68,500 |
| Households | 23,687      | 24,283      | 25,900    | 26,800 | 27,600 |
| Employment | 31,765      | 31,593      | 36,700    | 39,400 | 41,900 |

Source: Metropolitan Council, U.S. Census 2010

Appendix F provides an analysis of developable and redevelopable land by future land use. These areas of development were established by identifying vacant areas within GIS and staff knowledge of potential redevelopment sites. Likely phasing of development was then established, to identify the minimum and maximum yield through time.

Some properties may need more creative applications for development to work. The City has a strong history of utilizing partnerships and creative, innovative solutions to work through difficult site conditions. Because the City has so little vacant land, the majority of future population, household and employment growth will occur through infill development and redevelopment efforts.

## Residential Growth Accommodation

Based on the Metropolitan Council projections, Burnsville must accommodate the following amount of residential growth:

Table 2-13: Residential Growth Projections

|            | 2010 - 2020 | 2020 - 2030 | 2030 - 2040 | Total Growth<br>2010 - 2040 | Growth per Year<br>2010 - 2020 |
|------------|-------------|-------------|-------------|-----------------------------|--------------------------------|
| Population | 3,194       | 2,500       | 2,500       | 8,194                       | 273                            |
| Households | 1,617       | 900         | 800         | 3,317                       | 111                            |

Source: HKGi, 2017; Metropolitan Council

As seen in Appendix F, the city at a minimum will be able to accommodate the following number of units:

Table 2-14: Minimum Housing Units, by Decade

|                               | 2017-2020 | 2021-2030 | 2031-2040 | Post 2040 | 2017-2040 |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|
| Developable Residential Acres | 47.74     | 61.95     | 86.95     | 115.26    | 196.64    |
| Minimum Housing Units         | 647       | 673       | 1,415     | 922       | 2,735     |
| Minimum Units/Acre            | 13.55     | 10.86     | 16.28     | 8.00      | 13.91     |

Source: HKGi, 2018

It is probable that future redevelopment will occur at higher densities than the minimum allowed by land use, due to increasing costs of construction, higher land costs for redevelopment sites and because most projects are processed as PUDs in Burnsville, allowing for increased densities. Future redevelopment will likely occur utilizing PUD zoning allowing for increased density and mixed use projects which incorporate elements benefitting the public. Review of actual development in the HOC demonstrates the higher densities that have been attained through PUDs. Although the base density for the HOC zone is 20 units per acre, the actual development density approved for a PUD in the HOC has been as high as 68 units per acre.

## Commercial Growth Accommodation

As seen in Appendix F, assumed floor area ratios and employees per square foot yield the employment growth forecasted for the city. There are about 100 net acres of vacant commercial property available for future development. Future commercial development opportunities exist in the HOC, on scattered properties guided for commercial, at the Burnsville Center and satellite retail centers that may have underutilized parking, redevelopment along the Highway 13 Corridor, and redevelopment of some of the city's aging retail strip centers.

The Aging Retail Strip Center analysis demonstrates that through redevelopment of the 36 Neighborhood and Satellite Centers there are opportunities for more intensive retail, office and mixed use business in the city. Additionally, there will be business development opportunities within the MRQ. Table 2-15 illustrates square footage calculations for future retail/office and business within the MRQ and strip retail center redevelopment:

Table 2-15: Commercial Growth (in square feet)

|                             | Retail  | Office  | Business Mixed-Use | Hotel                         |
|-----------------------------|---------|---------|--------------------|-------------------------------|
| Satellite Retail Centers    | 375,865 | 563,797 | 0                  | 0                             |
| Neighborhood Retail Centers | 353,097 | 0       | 353,097            | 0                             |
| MRQ                         | 0       | 0       | 1,367,259          | 775 rooms;<br>117,600 sq. ft. |
| Total                       | 728,962 | 563,797 | 1,720,356          | 117,600                       |

Source: City of Burnsville, HKGi, 2017

## Industrial Growth Accommodation

The city has about 67 net acres of vacant land available for future industrial development. The largest opportunity area for industrial development is in the GIM, Gateway Industrial Medium area of the MRQ which has about 44 net acres of vacant land. Through the year 2040, future industrial development will occur through construction on vacant infill lots, redevelopment and development of tax forfeiture properties. Typically, tax forfeiture properties in Burnsville are undeveloped parcels, and many have been acquired by the Burnsville Economic Development Authority and improved and sold for new industrial development. All tax-forfeited properties that become available will be evaluated by the EDA for potential acquisition, development and redevelopment.

Future industrial development opportunities exist on scattered sites throughout the city. The major redevelopment focus for industrial and business campus uses will be within the MRQ that will be discussed further in Chapter 3 – Economic Development and Redevelopment Plan.

The MRQ analysis demonstrates that through redevelopment there are opportunities for more intensive industrial development in addition to infill and vacant industrial land development. The following table illustrates square footage calculations for future retail/office and business within the MRQ and strip retail center redevelopment:

Table 2-16: MRQ Uses by District

|                    | By 2040 (5%) | Total     |
|--------------------|--------------|-----------|
| Residential Units  | 91           | 1,814     |
| Commercial Sq. Ft. | 62,113       | 1,242,258 |
| Office Sq. Ft.     | 211,459      | 4,229,177 |
| Other Sq. Ft.      | 125,347      | 2,506,930 |

Source: City of Burnsville, HKGi, 2017

All redevelopment will be dependent on market conditions, the desire of private land owners to sell or develop and the ability of the City and other agencies/partners to provide incentives and programs to clear and assemble properties, remove blighted and/or polluted conditions, correct soils and install infrastructure improvements.

## Community Design

A component of the 2040 Land Use Plan relates to community design elements that can be implemented to further identify a common or shared “sense of place” for Burnsville. The following concepts identify ideas to enhance Burnsville’s shared identity.

## City Entries/Gateways

Burnsville has taken measures to improve the appearance of the entries to the city. Establishing a major city entry beautification program for I-35W, I-35E north, Highway 13, and County Road 42 was one objective of the 1988 “Vision for Tomorrow” report. The “Highway 13 Visioning Study” conducted in the late 1980’s established a strategy to improve the appearance of the west entry to Burnsville off Highway 13 and the north entry via I-35W. It includes a collaborative effort between the City, MnDOT, and property owners to landscape the Highway 13 corridor from Savage to I-35W. The City has since rezoned property along the corridor to B4 - Highway Commercial District, which includes improved aesthetic standards for landscaping, signage, and building materials. The following graphic illustrates key entries into Burnsville where gateway improvements can occur.

Gateways are an important demarcation point for the entrances to the city. The design elements associated with the gateways let people know they are entering a unique and memorable community. Gateways also can be used to set Burnsville apart from adjacent suburban communities, as a way to market our city and as a way to welcome visitors and invite people to explore the city. Gateway elements can be coordinated landscape treatments along roads, special bridge treatments, sculpture, decorative lighting, community signage or emphasis on natural areas that define the community. Burnsville has identified several gateways and implemented unique design elements such as the Burnsville Parkway Bridge over I-35W and entrance monument signs. The North Gateway Design Guidelines adopted in 2006 will result in consistent building/site and landscape designs for properties located on either side of I-35W between the Minnesota River and Highway 13.

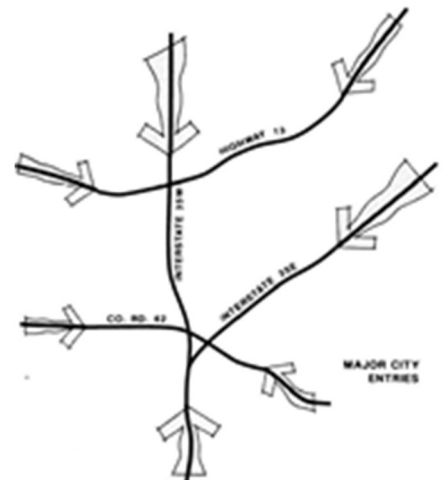
Other gateways identified as part of the Gateway Plan and Scoping Study outlined in the 2000 Comprehensive Plan include landscape design within the Highway 13/Cliff Road intersection and general landscape cleanup of the wooded areas along the highway.

Future bridges and gateway locations may be accentuated so that visitors and citizens realize they have entered into a special community. These gateway treatments could be developed with design elements unique to the City of Burnsville so as to represent the city as a destination and not just another place along the interstate. The gateway elements may all have an analogous design so as to relate to each other and become a consistent theme. The City may consider incorporating future “branding” design elements into gateway designs.

### Gateway District (GW)

Development within this category is subject to the “Burnsville North Gateway Design Guidelines” manual that is adopted as an addendum to

Figure 2-9: Major City Entries



this Plan and can be found on the Burnsville Website at [www.burnsville.org](http://www.burnsville.org). The category applies to lands located north of Highway 13 and along both sides of I-35W which is the northern gateway entrance to the city. The purpose of the GW land use category is to reflect a steadfast and ongoing commitment to the transformation from intense land altering industrial activity to future land uses and activities that thrive in sustainable relationships with restored natural resources systems. The design standards established in the Burnsville North Gateway District Design Guidelines provide site design, architectural building treatments, landscaping and storm water treatment and are intended to provide a framework for evaluating projects to ensure that they contribute to a positive image for the Gateway District as land redevelops over time.

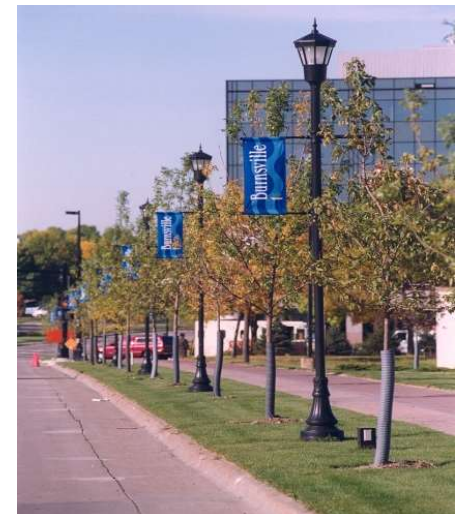
## Corridors

The private automobile provides the means by which the majority of people move about Burnsville. Generally, the image of a city is synonymous with what people see from the street. Transportation corridors help orient visitors while simultaneously providing them with a first impression of the city.

The I-35W and Highway 13 corridors provide some of the best vistas of the city and its landmarks. The primary means by which most people experience the Minnesota River corridor is from I-35W. A dramatic view of the Minneapolis skyline can be seen from northbound I-35W and from Nicollet Avenue in the Heart of the City. Highway 13, west of I-35W, directs views to the grain elevators at the Savage border and the large wetlands to the south. To the east, Highway 13 provides vistas of the Minnesota River corridor.

Streets and parking lots are the dominant form and image of suburban cities. Development patterns are typically more spacious with buildings separated from each other and set back from streets to accommodate wide landscaped setbacks and parking lots. In some cases, this results in shapeless and broken edge-to-street corridors and an environment dominated by automobiles.

The challenge in a suburban environment like Burnsville is to reduce the impact of the automobile on the appearance and livability of the city. Zoning standards for building setbacks, parking lot screening, shared parking provisions, landscaping, building materials, and signage become critical in maintaining a high quality image of the city from the street. Although traffic engineering standards for streets are driven by safety, efficiency, economy, livability, and aesthetic considerations, streets are typically designed to achieve the first three considerations at the expense of livability and aesthetics. Street design should be continually evaluated to achieve a balance between functional requirements and aesthetic needs for the community. Street design is becoming even more important as





accommodations are made for alternative modes of transportation and driverless cars.

## Streetscapes

Street corridors provide opportunities to highlight positive aspects and to create a cohesive image. Special landscapes or “streetscape” treatments incorporated on major roadways can create a stronger identity, reduce automobile speed limits and facilitate traffic calming. In addition, streetscapes can encourage bicycle and pedestrian use, facilitate pedestrian and bicycle access to parks and stores, increase the safety of street crossings for bicycle riders and pedestrians at major intersections, and distinguish the city from neighboring municipalities.

Trees are the most cost-effective elements that can make a city more attractive. Landscaped boulevards and medians unify and reinforce the character of special districts and may include all or a combination of the following: distinctive lights, decorative flags, overstory and ornamental trees, enhanced landscaping, street banners, hanging flower pots, street furniture and decorative paving. These elements create a more human-scaled environment, where it is important to provide pedestrian-friendly areas. The majority of these elements has been incorporated into the Transit Oriented Development District in Heart of the City and provide a template for future mixed-use redevelopment and smaller areas such as prominent intersections, roundabouts and pedestrian spaces.

## Art

To recognize and create unique, beautiful and memorable places, Burnsville promotes public art and there are several examples of sculptures on public and private lands throughout the city. The City will consider the feasibility of further streetscape improvements and public art in connection with transportation and neighborhood improvements.



## Memorable Spaces/Community Gathering Places

Locations where people gather, including schools, churches, entertainment and shopping areas and parks and recreation areas, all add to Burnsville’s sense of place. These are unique areas and places where many share common activities and associate the experiences with living, working and playing in Burnsville. The City will continue to expand opportunities for shared public experiences and unique venues for Burnsville in the future.





## Screening

Many commercial and industrial buildings have rooftop utilities, and loading and service areas that are visually unappealing. The Zoning Ordinance requires rooftop utilities, loading and service areas to be screened from street level views. The City continues to identify ways to provide better screening between incompatible uses while encourage owners to maintain screening and to use native plants to ensure the survival of landscaped screening areas.

## Building Materials

Exterior building materials are numerous and always changing. The Zoning Ordinance contains design standards that promote the use of high quality exterior materials, maximizing the life-span of each building. The City will continue to work with the private sector to ensure proper variety of materials are allowed, aesthetically pleasing, can accommodate a variety of modern design, and sustainable materials are utilized in the construction of new buildings and additions.

## Signs

The overuse of signs can increase the perception of clutter, negatively impacting the image of the city. Typically, buildings are set back and separated from the street by parking lots. Merchants feel compelled to erect large pylon signs, building mounted signs, and temporary signs in order to increase visibility from the street. Often the colors, sizes, and overwhelming number of signs competing against each other lend to their ineffectiveness. The City is continually adjusting the Sign Ordinance to address these issues. The administration of sign regulations and permits requires substantial staff time due to changing tenants and new advertising technologies.

## Physical, Cultural & Natural Landmarks

In the process of moving from place to place, people generally take note of where they are relative to certain landmarks or key features in the environment. Landmarks function as essential elements that assist visitors and residents alike in orienting themselves within the city. They also create a lasting impression of the overall image of Burnsville. Thus, it is important to retain those landmarks that offer enduring value, are historically significant, and are unique and essential to Burnsville's identity. Following is a partial list of prominent landmarks within the city of Burnsville that can be utilized/referenced in future branding, community identification, gateway and other initiatives.

Table 2-17: Physical, Cultural, & Natural Landmarks

| Cultural Landmarks                                                                                                                      | Physical Landmarks                                                                                                                                                                                                                                       | Natural Landmarks                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alimagnet Lake<br>Orchard Gardens Railway Station<br>Mortenson House, 15612 Lac Lavon Road<br>Greek Revival House, 12013 County Road 11 | Interstate Highways 35W and 35E<br>Highway 13 and County Road 42<br>Black Dog Power Plant<br>Burnsville Center Area<br>Civic Center Area and City Hall<br>Buck Hill Ski Area<br>Landfills/quarries north of Highway 13<br>Heart of the City Neighborhood | Minnesota River Valley and Bluffs<br>Crystal Lake<br>Lake Alimagnet<br>Keller Lake<br>Sunset Pond<br>Earley Lake<br>Twin Lakes<br>Wood Lake<br>Buck Hill<br>Terrace Oaks Park<br>Kelleher Park<br>Murphy-Hanrehan Park Reserve<br>Kraemer Nature Preserve |

Burnsville is fortunate to be home to several strong natural features that act as landmarks and form much of the character of the city. The Minnesota River corridor and nearby bluffs are one of the most identifiable natural landmarks within Burnsville. The bluff and river form the northern boundary and create an impressive entrance from the north on I-35W.

Buck Hill is recognized by the State Historic Preservation Office as a State Landmark. This natural feature is the highest point in the county and was used by Dakota Indians to watch and hunt deer that came to drink at Crystal Lake.

The Comprehensive Plan establishes a framework of transportation, land use, recreational, and environmental protection systems to support cultural landmarks and preserve the natural landmarks within the city. The Zoning Ordinance includes site planning standards that will help maintain natural landmarks and the character of Burnsville by reducing the impact of the built environment on natural systems. These standards include Shoreland management requirements, flood plain management, wetland preservation, tree preservation, on-site stormwater retention, parking lot landscaping, and maximum limits for impervious surfaces.

## Historic Places

The Minnesota River Valley has been home to American Indians for thousands of years, most recently the Dakota. Black Dog's Village, which was located on the isthmus of land between Black Dog Lake and the Minnesota River, the current site of the Black Dog Power plant, was home to 250 American Indians in the 1850s. Part of the Mdewakanton band of the Dakota that may have moved from the Mille Lacs area around 1750,

they sold geese to the inhabitants of Fort Snelling and traded fish to the Irish Roman Catholics who lived in Burnsville.

According to E. D. Neill, Burnsville was settled by people of European descent in 1852, first among them being John McCoy, Martin Patrick, Thomas Burns, David Nixon and John Woodruff. Other early settlers included William Byrnes for whom the town is named, Francis Newell and family, Patrick Harkins and William Earley, which may have originally been spelled Earle. Until the depression, farming was the predominant occupation of most of the residents of Burnsville.

The National Register of Historic Places is the nation's official list of properties deemed worthy of preservation. The Register is maintained by the National Park Service and is administered by a State Historic Preservation Office (SHPO) in each state. Properties may be listed due to their association with significant persons and events, their architectural or engineering significance or for the historical or pre-historical information they provide. The Register also lists important groupings of properties as historic districts. Properties possessing a transcendent value to the nation as a whole may be designated as National Historic Landmarks. As of 1996, 20 properties in Minnesota had achieved Landmark status. Preservation of properties listed on the National Register may be encouraged through certain federal tax benefits and state and federal grant funds. An environmental review process protects properties that may be affected by state projects or federally funded or licensed projects but does not interfere with a private property owner's right to alter, manage or dispose of the property.

### **Minneapolis, St. Paul, Rochester & Dubuque Electric Traction Company Depot (Orchard Gardens Railway Station) – County Road 5 at 155<sup>th</sup> Street.**

Orchard Gardens Railway Station is the only site listed on the National Register of Historic Places in Burnsville. The Orchard Gardens Station is a very small wooden structure covered with horizontal wood siding, a low pitched hip roof of asphalt shingle, an exposed roof rafter, and an unfinished interior with wooden benches lining three interior walls. Built in 1910 on the Minneapolis, St. Paul, Rochester and Dubuque Traction Rail Road (Dan Patch Line), it served the Orchard Gardens subdivision of five- to ten-acre lots which were platted in 1910. The City maintains the station as part of the Parks and Natural Resources facilities.

The Dan Patch line began as a passenger-only interurban line between Minneapolis and Antlers Park, a popular recreation area located in Lakeville. The line is associated with Colonel Marion Willis Savage (1859-1916), a Minneapolis livestock feed and mail order tycoon. He purchased the legendary trotter, Dan Patch, for \$60,000 in order to promote one of his brands of feed. The railroad was developed as a gimmick to bring passengers from Minneapolis to Savage to view Dan Patch and to sell them Savage's various products. The line was also used as a commuter and



freight line. Stops were at 54<sup>th</sup> and Nicollet and 7<sup>th</sup> Street and 3rd Avenue in Minneapolis and extended 37 miles south to Northfield, serving Mankato on a branch line. The railroad was reorganized as the Minneapolis, Northfield and Southern after Colonel Savage died (incidentally, only hours after the death of Dan Patch). The Minneapolis, Northern & Southern now operates as a dieselized belt line freight railway eventually forming part of the Minneapolis and St. Louis and Soo Line Systems.

Orchard Gardens was named for the groves of wild crabapple and plum trees growing along the shores of Orchard Lakes. Colonel Savage originally owned the land and sold it to R.H. "Doc" Benham, who platted the land around 1910 for a small subdivision that would provide a hill, a valley and an apple orchard on each lot. Many of these orchards failed due to the poor soil and a fire in 1914, which retarded the growth of most of the trees. Families then turned to yellow onions until the onions were wiped out by Tripps disease in 1920. The farmers switched to egg production for the urban market and they, along with others who produced milk, apples and cut flowers, used the train line to ship their produce to the Twin Cities. The agricultural depression in the 1920s and 1930s forced many landowners to find work in Minneapolis and commute by train. It was around 1942 that the line became a freight-only belt line railway. Orchard Gardens was part of an incorporated village from 1920 to 1926 until it went bankrupt, was dis-incorporated and jurisdiction transferred to Burnsville Township.

Once its original parentage was discovered in 1993, the depot was renamed from Minneapolis, Northfield and Southern to the Orchard Gardens Station. A consultant made this discovery when Dakota County began to reconstruct County Road 5, which required moving and further study of the depot. Most structures are delisted from the National Register of Historic Places once they are moved. However, the station was relocated only 300 yards southeast of the present location, still in sight of the railroad track across County Road 5 on City property. Hence, the station is still visually associated with the railroad and the neighborhood. Furthermore, the consultant suspected that the depot had been moved at least once before, since it was facing away from the railroad line. It may originally have been located on the west side of the railroad, a short distance north and west of its second location.

The depot is significant as a rare example of the diminutive "flag stop" railroad depot and, since it was added to the National Register of Historic Places on December 31, 1979, it is eligible for federal grants-in-aid for restoration and preservation.

### **State Inventory of Historic Places**

The Minnesota State Historic Preservation Office (SHPO) maintains two databases, one dealing with historical architecture and the other with archeological discoveries that are of state and local significance. The

SHPO advocates for the preservation of Minnesota's historic and archaeological resources and identifies, evaluates, registers and protects the state's historic properties. All of the sites in Burnsville are privately owned. Interested parties should contact the SHPO at <http://www.mnhs.org/shpo> for further information.

#### State Historic Preservation Architectural Database

1. Mortenson House, 15612 Lac Lavon Road (previously known as Crystal Lake Road E.)

The Mortenson House was a residence associated with an old resort on Crystal Lake. It is in excellent condition and of local significance.

2. Greek Revival House, 12013 County Road 11

This house was built in the Greek Revival style, which was popular in the 1860s and 1870s. It was added to the local inventory as having architectural and visual interest in 1977. It is in good condition with painted wood siding.

3. Buck Hill

Buck Hill is the most prominent example of Dakota County's small hills topography. Buck Hill is located 1,175 feet above sea level, and approximately 100 feet above the surrounding landscape. Named by the early settlers who observed that the American Indians would climb the hill to watch deer drink from the west end of "Minni-elk" (Crystal Lake), the site was added to the State list in 1989. It was part of the agricultural landscape until the 1960s, when it became a ski resort and is considered a geographical feature of historical significance.

4. Kennelly Farmstead

#### State Historic Preservation Archeological Database:

The scarcity of recorded archaeological sites in Burnsville may be more a function of the lack of archaeological surveys and early private development than of the absence of actual sites. Information from the Office of the State Archaeologist including an Architecture/History Inventory and Archeological Sites by Site Location are provided as part of Appendix G – Architecture/History Inventory & Archeological Site Technical Reports. It is likely that other unidentified archaeological sites may exist within the city, especially along the river terraces, bluff tops and the lake shores. Recorded and unrecorded burial, archeological sites and cemeteries are protected under a number of state and federal laws. The majority of lands located south of the Minnesota River are under public jurisdiction of the state, federal government or local city parks. These are the areas most likely to have archeological remnants. Other areas in the city have likely been destroyed as part of early and midcentury farming and development.

1. Penichon's Village/Good Road's Village/Nine Mile Creek Village

Possibly the oldest of the Lower Dakota villages, the one from which many of the American Indians moved to Wapasha's Village at Winona, was located on the south bank of the Minnesota River, near the mouth of Nine Mile Creek. The small village was rebuilt after being swept away by the flood of 1826. By 1853 it was known as Good Road's Village.

2. Pemton River Hills

Depressions and pit burials were found on an 80-acre site near Black Dog Lake, on the uplands above the south bank of the Minnesota River. The discovery was made by a housing development contractor who exposed the burial pits while leveling an area for construction of the River Hills housing development. The builder called the Minnesota Historical Society, who quickly excavated seven burial pits containing at least 56 bundle reburials. Bundle reburial involves exposing the body until the soft tissue decays, after which the remaining bones are gathered together and placed in a grave pit as a bundle. Smaller bones are usually lost as a result. A small number of items were discovered with the bones: shell pendants and beads, two bone harpoons, fragments of worked bone and shell, and an antler tine used as a tool.

The artifacts closely resemble those belonging to the Arvilla Focus, an unidentified cultural assemblage living in Northwest Minnesota and Eastern North Dakota approximately 2,000 years ago. They were a late Archaic culture and immediately preceded the introduction of pottery and agriculture in this area. This find, along with two other sites, extends the geographic range of the Arvilla Complex in Minnesota across a significantly larger region than they were originally believed to have inhabited.

3. Crystal Lake Mounds

Four to five burial mounds rising two to four feet on the north bank of Crystal Lake, approximately 50 feet above the water were first recorded in 1888. Two mounds also were found on the north side of Crystal Lake near Keller Lake in 1978.

4. Earley Lake Mounds

Seven mounds were discovered in 1888 on property overlooking the east end of Earley Lake on a narrow strip of land between Earley and Middle Lakes. An excavation of one of the mounds revealed four layers of ashes and indications of decomposing bones.

5. Single Artifact Find Spots

In 1978, a resident found a single stone projectile on Crystal Lake Island. Made of yellow chert, it has been dated from the Late Archaic to Middle Woodland tradition. A broken point was found in 1964 just



north of Buck Hill in a soybean field and has been dated back to the paleo-indian tradition.

# Resource Protection Element

Minnesota Statutes (MS) Chapter 473.859, §2b requires the Comprehensive Plan to contain a protection element, “as appropriate, for historic sites, the matters listed in the water management plan required by Section 103B.235, and an element for the protection and development of access to direct sunlight for solar energy systems.” The requirements of Minnesota Statutes 103B.235 are included within Chapter 5 - Natural Environment Plan. This section deals with the remaining items and programs/standards administered by the City.

## Solar Access Protection Statement

Minnesota Statutes require Comprehensive Plans to include an element for the protection and development of access to direct sunlight for solar energy systems. The intent of this legislation is to prevent solar collectors from being shaded by adjacent structures and vegetation and to ensure that development decisions do not preclude the possible future development and use of solar energy systems.

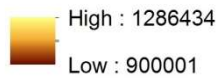
Burnsville’s Zoning Ordinance establishes in its Solar Energy Systems ordinance that “the City finds that it is in the public interest to promote the use of alternative energy systems such as solar, because of the positive impact on energy production and conservation, to reduce carbon production, and promote efficient use of existing and new energy resources in a manner that does not have an adverse impact on the community”. Solar energy systems (SES) are allowed as a permitted accessory use in all residential, commercial, industrial and park zoning districts and on City-owned property. All SESs are subject to general and aesthetic standards. SESs must also conform to applicable performance standards, including ground-mounted, pole-mounted, building-mounted, wall-mounted, and building-integrated systems. The development standards contained in the current Zoning Ordinance are consistent with the basic principles of solar access. Burnsville’s buildings are generally low in height and the City’s yard requirements create an open environment conducive to the use of solar power. The Zoning Ordinance also contains conditional use permit provisions allowing variations from the required standards for access to direct sunlight for solar energy systems.

Table 2-18: Burnsville Solar Potential

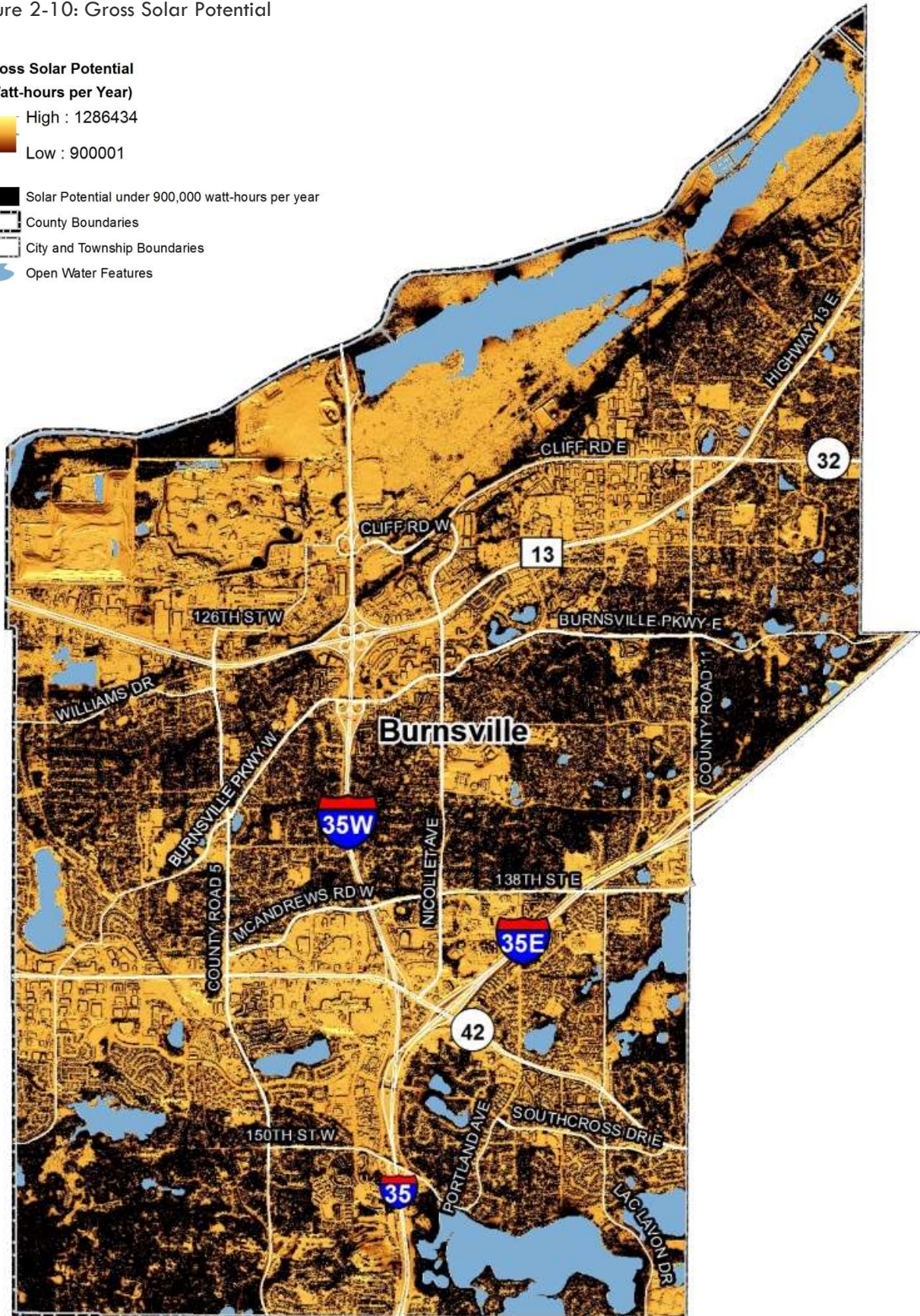
| Community  | Gross Potential (Mwh/yr) | Rooftop Potential (Mwh/yr) | Gross Generation Potential (Mwh/yr) | Rooftop Generation Potential (Mwh/yr) |
|------------|--------------------------|----------------------------|-------------------------------------|---------------------------------------|
| Burnsville | 42,312,511               | 3,718,052                  | 4,231,251                           | 371,805                               |

Figure 2-10: Gross Solar Potential

**Gross Solar Potential  
(Watt-hours per Year)**



- Solar Potential under 900,000 watt-hours per year
- County Boundaries
- City and Township Boundaries
- Open Water Features



## Aggregate Resources

As part of the 2040 Comprehensive Plan Update, the Metropolitan Council requires the Land Use Plan to identify the location of aggregate resources in our community as they are shown in the Minnesota Geological Survey.

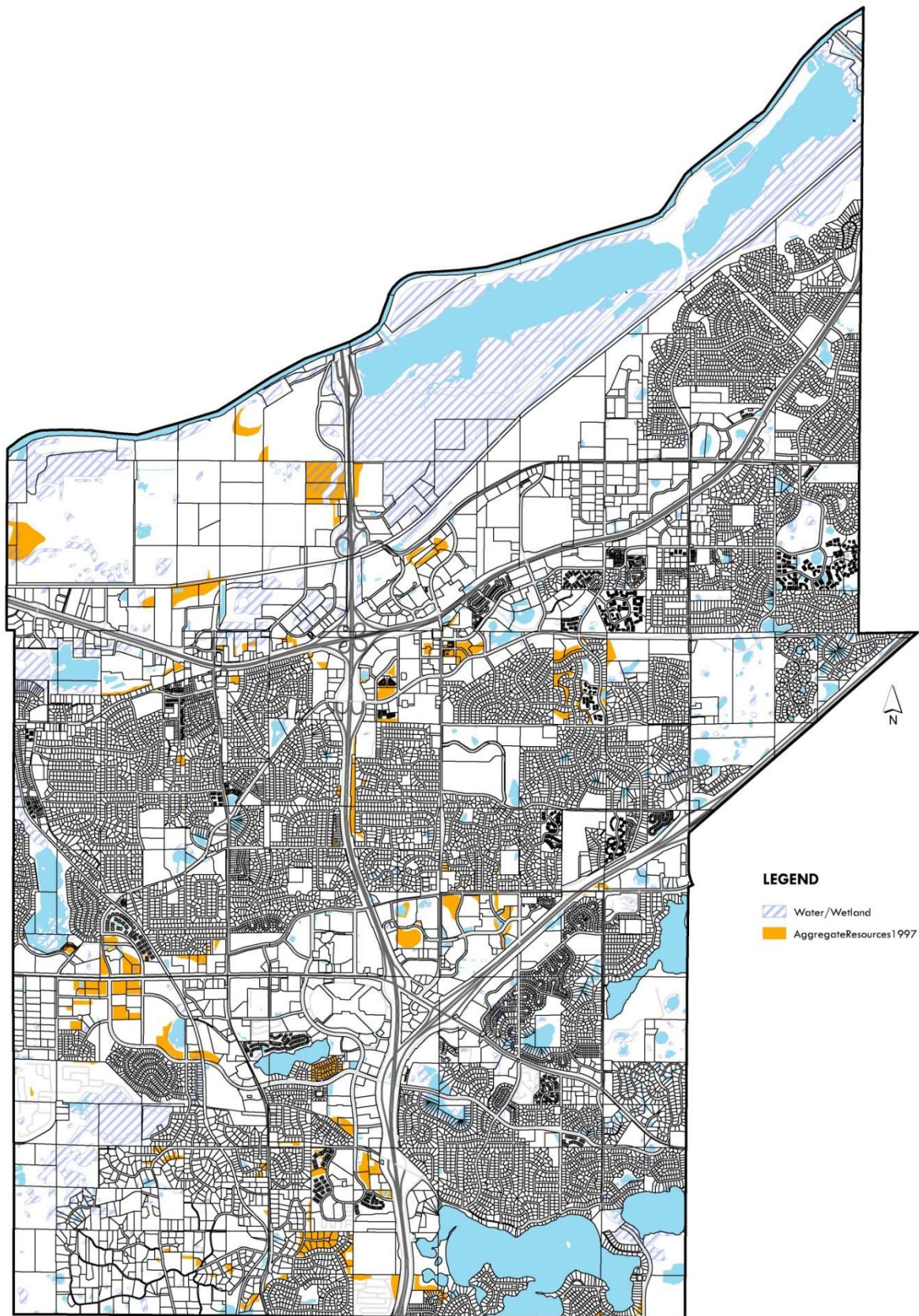
Two limestone quarries include the retired McGowan quarry and the Kraemer quarry. The McGowan quarry is located immediately to the west of the former Freeway Landfill, forming a 50-acre pit that has been excavated to a final elevation of 667.9 feet above mean sea level. (The term above mean sea level (AMSL) refers to the elevation (on the ground) or altitude (in the air) of any object, relative to the average sea level datum.) The active Kraemer quarry, located to the south and west of the McGowan quarry and Freeway landfill, is larger and deeper, anticipated to reach approximately 675 feet above mean sea level. Both quarries possess areas with very steep slopes and vertical rock faces.

Figure 2-11 illustrates the location of aggregate resources in Burnsville. The Aggregate Resources Map identifies that the majority of resources left in Burnsville consist of small scattered sites, most of which are underlying developed properties. The largest concentrations of aggregate resources are in the MRQ area and are currently being mined as part of the Kraemer Quarry or are owned by Kraemer Mining and Materials Inc. Other aggregate resources in the MRQ are located under wetlands. The City's Natural Resources Plan and Wetlands Plan identify the need to preserve and improve wetlands to meet the Federal Wetlands Conservation Act, Watershed Districts/Management Organization requirements and objectives of the City of Burnsville. Wetland areas take priority over aggregate resources that may lie below the surface and will not be mined.

The Zoning Ordinance contains Interim Use Permit guidelines that allow land reclamation, mining and soil processing uses to occur in the city. The owners of parcels that contain aggregate resources may apply for an Interim Use Permit as part of development review to mine/capture the aggregate resource prior to grading of the site and future development.



Figure 2-11: Aggregate Resources



## Earth Sheltered Buildings Protection Statement

In addition to solar energy systems, the Burnsville Zoning Ordinance permits earth sheltered buildings in single family residential districts as permitted uses. Earth sheltered homes are oftentimes more energy efficient than traditionally constructed homes. Earth sheltered homes are not required to have frost footings and a continuous perimeter, a permanent foundation consisting of concrete block, concrete or approved equivalent, a pitched roof, or a cellar or basement.

## Wind Energy Conversion Systems

The City permits the use of wind energy conversion systems (WECS), pursuant to State Statutes. WECS must comply with all applicable state and federal regulatory standards including the State Building Code and Federal Aviation Administration (FAA) requirements; and Minnesota Pollution Control Agency (MPCA) and Environmental Protection Agency (EPA) regulations. The City's Zoning Ordinance regulates WECS as a permitted accessory use with required design standards in any zoning district except residential districts, conservation districts and park districts.

## Sustainability

Land use was once considered a local environmental issue, with limited importance outside the community. It is now recognized as a force of global importance. In the course of providing food, water, shelter, and entertainment, land uses inflict significant damage to the planet's forests, farmlands, waterways and air. The main challenge is to balance immediate human needs with long-term ability of the planet to provide for future generations.

Land Use is one of the most visible of the sustainability topics. Cities with sustainable land use actively attempt to balance environmental preservation, commerce and livability. Sustainable land use provides a diverse range of choices in land uses, building types, transportation options, homes, workplace locations, and stores. Land use and transportation are intricately connected. Sustainable communities contain an ample supply of open green spaces designed to encourage consistent active and passive use. Current and long-term availability of water is vital starting point of any land use decision, and community planning includes the provision and protection of local water supply. A sustainable community is pedestrian-oriented, with daily needs situated within easy and enjoyable walking distance of each other. To promote this access, residential, commercial, recreational, and civic uses are connected by both public and private transportation options. Community planning efforts integrate a variety of residential, commercial, recreational, and civic facilities essential to the daily life of residents of differing demographic profiles. Finally, the

design of spaces and structures should reflect and celebrate what is unique about a community: its people, culture, heritage, and natural history.

This Comprehensive Plan cannot address all sustainable development aspects of the greater metropolitan area. However, by unifying and coordinating efforts around targeted priorities, it will be possible to accelerate the transition and incrementally build a sustainable city. The following table provides a list of land use sustainability strategies organized by seven sustainability areas. These sustainability strategies will serve as a guide for future actions that are more specific than the Comprehensive Plan.

| Sustainability Area                                                                                                 | Land Use Sustainability Approaches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Energy Reduction</p>          | <ul style="list-style-type: none"> <li>» Integration of land use planning and transit-oriented development planning</li> <li>» Increase density and incorporate mixed use zoning and design</li> <li>» Develop multi-modal streets and areas</li> <li>» Street &amp; building orientation to capture sustainability opportunities (heat gain/loss, solar access)</li> <li>» “Ensure new and redevelopment meet the City’s water resources management plan development standards</li> <li>» Designate appropriate areas for mixed-use developments</li> <li>» Encourage mixing of uses at building, site, and neighborhood levels</li> <li>» Grant performance standard bonuses (density, bulk/height, streamlined permitting) for green buildings (LEED levels).</li> <li>» Promote and incentivize in-fill development</li> <li>» Continue to preserve open space, natural beauty, and critical environmental areas</li> </ul> |
|  <p>Sustainable Water Supply</p> | <ul style="list-style-type: none"> <li>» New and redevelopment incorporates Low Impact Development principles</li> <li>» Promote land use frameworks that provide a positive net effect to sustainable water supply.</li> <li>» Include the provision and protection of local water supply at planning concepts.</li> <li>» Continue to protect groundwater</li> <li>» Direct development and re-development in a manner consistent with watershed health.</li> <li>» Coordinate regional planning for a resilient municipal water supply.</li> <li>» Pilot neighborhood-scale rain and grey-water capture, treatment and reuse.</li> </ul>                                                                                                                                                                                                                                                                                     |



| Sustainability Area                                                                                                             | Land Use Sustainability Approaches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Waste Reduction                            | <ul style="list-style-type: none"> <li>» Encourage waste reuse/recycling in the community.</li> <li>» Consider flexibility and/or regulations for building repurposing.</li> <li>» Institute educational programs to encourage restaurants/residences to recycle grease waste and organics.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <br>Sustainable Food System Opportunities      | <ul style="list-style-type: none"> <li>» Support programs that support and incentivize urban agriculture (UA) and local food production and businesses.</li> <li>» Continue implementation of ordinances and/or zoning district standards that permit Urban Agriculture and local food producers.</li> <li>» Encourage local/cottage food industries</li> <li>» Strategies to allow/incentivize neighborhood food production (bees, chickens, goats, etc.)</li> <li>» Ensure that there are no neighborhoods that are food deserts.</li> <li>» Use permaculture (examining and following nature's patterns) in landscaping.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <br>Efficient Use of Infrastructure and Land | <ul style="list-style-type: none"> <li>» Permit and encourage mixed-use development and redevelopment.</li> <li>» Foster a diversity of housing types.</li> <li>» Allow increased density where appropriate.</li> <li>» Support intergenerational housing ordinances</li> <li>» Co-locate complementary industries (i.e. recycling and manufacturing - recycled waste becomes raw material for new products).</li> <li>» Actively engage in Watershed Management Plans to address pollution, development patterns, water quality, degraded riparian habitat, wetlands, and restoration programs.</li> <li>» Consider a pilot program to create an "Eco-District" in a neighborhood with shared amenities</li> <li>» Provide infrastructure and design to support walkability &amp; connectivity</li> <li>» Consider quality of life measures to be included in development approvals</li> <li>» Encourage buildings to be universally accessible, to allow everyone, no matter their capacities, to have similar and simultaneous usage of services.</li> <li>» Transition streets to Complete/Living Streets</li> </ul> |

| Sustainability Area                                                                                                    | Land Use Sustainability Approaches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Natural Resource Conservation</p> | <ul style="list-style-type: none"> <li>» Consider implementing an urban ecosystem services valuation program to identify economic and environmental benefits.</li> <li>» Continue to plant shade trees in and around parking lots and government buildings to reduce energy required to heat and cool buildings.</li> <li>» Develop a Tree Canopy Assessment Plan that includes strategies to protect/expand use of native species, as well as evaluate the ecosystem services provided by the existing urban forest.</li> <li>» Continue to promote environmental stewardship by educational programs in areas of environmental science</li> <li>» Provide experiences for children in local natural environments.</li> <li>» Consider developing an Insect Assessment Plan to identify the existence and threats posed by invasive/non-beneficial insects.</li> <li>» Continue to protect and enrich the urban forest and biodiversity</li> </ul> |
|  <p>Climate Resiliency</p>           | <ul style="list-style-type: none"> <li>» Continue to promote utilities to be placed underground.</li> <li>» Encourage green infrastructure</li> <li>» Encourage compact multi-functional green spaces</li> <li>» Provide and promote green linkages that allows non-car commuters to get anywhere</li> <li>» Promote climate awareness and adaptation preparedness by educational programs.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## Sustainability Measures of Success

The following measures of success can be used to assess progress on sustainability initiatives:

- » Establishing quantifiable baselines by measuring/monitoring: energy use, carbon emissions, in-fill & brownfield sites, road miles & parking lot acreage, percentage impervious surfaces, green roofs, low impact development (LID)/green infrastructure facilities, open-space acreage, mixed-use areas, transit modes, etc.
- » Number of sustainability-focused ordinances/policies adopted, programs initiated
- » Routine comparison of baseline and reduced/optimized land use: air quality, water quality, in-fill and brownfield development, and reduced waste/increased recycling; carbon or greenhouse-gas emissions, community energy use, lifecycle analysis ratings
- » Equality: Opportunities for a diverse staff to lead and contribute to the enterprise (e.g. women, ethnicities), as well as serving a global population across countries and income levels

# Implementation

| Land Use Need | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Zoning        | <ul style="list-style-type: none"> <li>» Amend the Zoning Map to align it with the updated Future Land Use Guide Plan Map.</li> <li>» Monitor parking standards for potential zoning amendments, particularly required parking space minimums, which could enable property owners to reduce parking areas and increase developable land.</li> <li>» Add development review guidelines that promote transit-oriented development, connectivity, crime prevention through environmental design (CPTED), and healthy living components as part of the general development review process.</li> <li>» Review HOC zoning to: incorporate TOD areas to meet objectives, including adjacent areas currently outside of HOC, but within TOD; and provide for appropriate zoning for HOC2 area to provide appropriate development and redevelopment opportunities in this once transition that will now be located between two Orange Line stations.</li> <li>» Amend the zoning ordinance to address public right-of-way as a separate zoning district.</li> <li>» Enact a Closed Landfill Overlay zoning district over closed landfills as directed by the MPCA.</li> </ul> |
| Redevelopment | <ul style="list-style-type: none"> <li>» Update the aging retail strip center yield plans to reflect current direction on mixed-use and residential densities.</li> <li>» Conduct a Burnsville Center area land use, development, and visioning study to explore the city's desires and alternatives for this area as the retail environment continues to experience dramatic changes.               <ul style="list-style-type: none"> <li>- Future planning for the Burnsville Center area needs to identify how to maintain its regional draw, which could include the incorporation of transit-oriented development (TOD).</li> </ul> </li> <li>» Update MRQ Land Use Plan based on Freeway landfill remediation plan yet to be approved by the state and/or federal agencies.</li> <li>» Foster appropriate interim uses in the MRQ until the time the landfill and quarry operations are complete.</li> <li>» Periodically review the Kraemer Mining and Material, Inc. (KMM) and Waste Management Inc. planned unit development (PUD) agreements for consistency with long term planning of the MRQ.</li> </ul>                                               |

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## Chapter 3 - Economic Development and Redevelopment Plan

**VISION:** People find Burnsville a balanced city of residential and business development enhanced by redevelopment. Burnsville will continue to build its economic vitality and tax base by celebrating and strengthening the economic and geographical assets which make it attractive to businesses, workers, and new development.

Burnsville's economic future will be secured with technology, full utilization of its resources, capitalizing on our close proximity to other regional assets and strong workforce, marketing ourselves as a prime business location, collaborating with our partners and by connecting our community focus areas (Minnesota River Quadrant, Heart of the City, Burnsville Center, Southcross Business Park, Ridges Medical Campus and others) through smart corridor planning.

The City of Burnsville will work cooperatively with its local and regional partners to vigorously promote economic development and skilled job creation. The City intends to promote connectivity with regional markets, through a diversified and self-supportive economic base. Economic development will be supported by communication and cooperation between city government, related agencies, businesses and residents in the pursuit of appropriate investment opportunities for Burnsville. A variety of sustainable employment opportunities will be available to the residents of Burnsville in addition to job training and continuing education.

Table of Contents – Chapter 3

Introduction..... 120

Economic Development (ED) Goals and Policies..... 122

Existing Economic Context..... 125

    Education ..... 130

    Household income ..... 130

Economic Competitiveness..... 131

    Employment Centers..... 131

    Economic Assets ..... 132

    Opportunities and Challenges ..... 132

    Summary ..... 133

Economic Development Programs and Incentives..... 134

    Economic Development Authority ..... 134

    Economic Development Commission (EDC)..... 135

    Economic Incentives..... 136

Future Economic Development Emphasis ..... 139

    Heart of the City (HOC)..... 139

    Minnesota River Quadrant (MRQ) ..... 143

    Cliff Road Business Park..... 151

    Burnsville Center Area..... 157

Sustainability ..... 159

    Sustainability Measures of Success ..... 163

Implementation..... 163



## Table of Figures – Chapter 3

|                                                                                                           |     |
|-----------------------------------------------------------------------------------------------------------|-----|
| Figure 3-1: Incoming and Outgoing Employees .....                                                         | 125 |
| Figure 3-2: Location of Lower Paying Jobs.....                                                            | 128 |
| Figure 3-3: Location of Higher Paying Jobs.....                                                           | 129 |
| Figure 3-4: Percent Bachelor's Degree or Higher .....                                                     | 130 |
| Figure 3-5: Household Income Profile.....                                                                 | 130 |
| Figure 3-6: Fairview Ridges Hospital.....                                                                 | 131 |
| Figure 3-7: Burnsville TIF Districts.....                                                                 | 137 |
| Figure 3-8: Heart of the City – Illustrative Redevelopment Plan.....                                      | 142 |
| Figure 3-9: Heart of the City –Future Land Use Concept .....                                              | 143 |
| Figure 3-10: MRQ – 2040 Future Land Use and Transportation Concept w/ Existing I-35W Interchanges.....    | 148 |
| Figure 3-11: MRQ – 2040 Future Land Use and Transportation Concept with Single New I-35W Interchange..... | 150 |
| Figure 3-12: Cliff Road Business Park – Existing Property Types.....                                      | 152 |
| Figure 3-13: Cliff Road Business Park – Jobs by NAICS Code .....                                          | 153 |
| Figure 3-14: Cliff Road Business Park – Year Built.....                                                   | 154 |
| Figure 3-15: Rental Rate Comparison – Minneapolis & U.S.....                                              | 155 |
| Figure 3-16: Cliff Road Business Park – Potential Improvements and Amenities .....                        | 156 |
| Figure 3-17: Online Retail Sales as A Percentage of Total Retail Sales.....                               | 158 |

## Table of Tables – Chapter 3

|                                                                                          |     |
|------------------------------------------------------------------------------------------|-----|
| Table 3-1: Percent Employment by Industry, 2016.....                                     | 125 |
| Table 3-2: Top Employers - Burnsville .....                                              | 126 |
| Table 3-3: Average Weekly Wages, 2016 .....                                              | 126 |
| Table 3-4: Twin Cities Super-Regional Retail Malls .....                                 | 157 |
| Table 3-5: Expansion and New Development at Twin Cities Super-Regional Retail Malls..... | 159 |

# Economic Development and Redevelopment Plan

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## Introduction

As a community that is nearly fully developed, Burnsville's future economic and redevelopment plan is driven by an overarching ideal of maintaining what we have, enhancing what we can, and adapting to meet future needs all within a sustainable framework. Burnsville's excellent location, fine schools and reputation as a "business friendly" city have contributed to Burnsville's history of development and redevelopment. The next 20 years will see Burnsville continuing its current phase of sustained redevelopment. The City will need to continue its tradition of comprehensive planning and innovative approaches, as it redevelops, and captures opportunities for continual community reinvention. The past practice of active involvement of both residents and businesses will need to continue to ensure that the redevelopment efforts are as successful as previous development efforts. Burnsville has been and will strive to continue being a model for economic redevelopment. The City actively engages the local business community and owners in ordinance and plan preparation to identify impacts and to accomplish "win-win" strategies and development. The City works with business owners to attract new business to the community, maintains a vacant land and space inventory, partners with the workforce center and organizations such as the Chamber of Commerce, Experience Burnsville, Department of Economic Development (DEED) and others that seek to retain and expand business opportunities in Burnsville. The City works to maintain a responsive and "business friendly" atmosphere and processes most development applications within sixty days.

Burnsville is fortunate to have many exciting projects underway and planned for the future. The Heart of the City (HOC) is nearing full development, but redevelopment opportunities are still present and expect to be expanded with the introduction of the Orange Line Bus Rapid Transit. The Minnesota River Quadrant (MRQ) will be a major focus of economic development in coming decades. Burnsville is undertaking strategies to maintain the viability of the Cliff Road Business Park located west of Highway 13. With the ever changing retail and lifestyle changes in the economy, the Burnsville Center Mall and County Road 42 commercial corridor are a top priority in the more immediate future. In 2019, the City Council adopted the Center Village Vision with the overall goal to prepare a feasible redevelopment vision that meets the market and community objectives. The specific development and outcomes of the vision include:

- Community and stakeholder engagement

- Define the study boundaries
- Identify redevelopment opportunities (on private property)
- Identify unique experiences/venues/uses to keep this area as a regional draw
- Conduct a market analysis
- Identify a future Orange Line Extension transit station location
- Identify public improvements
- Create an implementation and phasing plan

The final Center Village Vision highlights opportunity for implementation of public investments which will begin with some additional studies such as traffic analysis, design guidelines/specifications, sewer/water adequacy, etc.

Burnsville's economic development strategies are an important tool to accomplish the city's objective to keep Burnsville a desirable place to live, work, recreate and do business. They prioritize business attraction and retention, workforce development, identity building, and organization and partnership building. A diverse economy is fundamental to developing and maintaining a balanced, sustainable tax base that is sufficiently broad to reduce the impact of economic downturns, yet focused to encourage retention, expansion, and attraction of business. Burnsville's long-term sustainability depends on a sound and diverse economy. The City recognizes that a robust business community, skilled workforce and natural environment can stimulate a stronger economy. Future economic growth in Burnsville will be sustainable and respect the interconnectedness of environment, economy and community.

This plan will address how Burnsville will promote a secure economic base through creation of a culture of business revitalization, industrial, office, and commercial development. The city's long-term vitality will depend on our ability to continue to enhance our business environment, educate our workforce, provide access to cutting edge technology including fiber and wireless services, and expand our economic base, while protecting Burnsville's unique natural resources. The city's economic base will continue to diversify and expand to create a variety of employment opportunities, encourage additional investment in the community and ensure sufficient revenue will be available to support the community.

Burnsville will continue to utilize partnerships to build and expand the tax base with a mix of business and industry through business recruitment and retention programs. The City supports workforce and career development programs and will continue to partner with agencies, educational institutions, current and future employers to provide a sufficient skilled labor force to serve business and industry. Future workforce and career development will be expanded to take advantage of opportunities that our growing senior and culturally diverse population will provide.

The following City Council “Ends and Outcomes” statement and subsequent goals and policies establish Burnsville’s economic development framework through the year 2040.

## Economic Development (ED) Goals and Policies

The 2040 Comprehensive Plan establishes the following goals and policies to guide future economic development and redevelopment in the community. The four economic development and redevelopment goals are high level yet targeted statements of how the community intends to achieve the vision of the Economic Development and Redevelopment Plan, which is stated on page 1 of this chapter. The four goals encompass the community’s desire for economic growth (tax base and jobs), skilled workforce development, leveraging the city’s competitive advantages, and strengthening the community’s quality of life and identity through reinvestment and redevelopment. Each economic development and redevelopment goal is supported by a set of policies that define the City’s preferred directions or methods of action to guide and determine economic development and redevelopment decisions.

### **ED Goal 1.**    *Jobs and tax base are retained and expanded by fostering diversified growth, redevelopment, and sustained viability of commercial and industrial property.\*<sup>1</sup>*

- ED Policy 1.1. Promote and support the retention and expansion of existing businesses through business outreach, continuing to streamline regulatory processes, and utilizing community development staff as first points of contact for businesses needing City services.
- ED Policy 1.2. Strengthen the availability of and awareness of technical support for Burnsville businesses.
- ED Policy 1.3. Utilize financial incentives outlined in the Development Tools Policy to support business that provides livable wage jobs.
- ED Policy 1.4. Develop a program to provide financial support for the rehabilitation and retrofit of aging, distressed and underutilized business and industrial properties.

---

<sup>1</sup> \* Indicates a Goal or Policy that references the Council’s adopted Ends and Outcomes.

- ED Policy 1.5. Strengthen the market identity of the Southcross and Cliff Road Business Parks, and employ strategies to upgrade the appearance and functionality of their buildings.
- ED Policy 1.6. Pursue incubator, innovation district, and community-building strategies in the Cliff Road Business Park, to support local business startups, and build relationships between Cliff Road businesses and between employees of Cliff Road businesses.
- ED Policy 1.7. Preserve land guided for industrial and business development by evaluating land use category and zoning change requests with the criteria of the City's Business and Industrial Land Preservation Policy (LU Policy 1.2).
- ED Policy 1.8. Develop a strategy for supporting the redevelopment of obsolete properties.

**ED Goal 2.** Burnsville strengthens its skilled workforce through providing post-secondary education and job training opportunities for residents.\*<sup>2</sup>

- ED Policy 2.1. Partner with post-secondary education providers and organizations, such as South of the River Education Center and Burnsville Promise, to strengthen secondary educational and career readiness opportunities in Burnsville including internships.
- ED Policy 2.2. Collaborate with the Minnesota Workforce Center, private employers and schools to match potential employees with job opportunities.
- ED Policy 2.3. Work with community partners and all school districts in the city to advance job training and career readiness initiatives.

**ED Goal 3.** Burnsville's identity as an attractive and desirable place in which to live, work, shop and play is actively promoted.

- ED Policy 3.1. Communicate the city's livability, assets, and business orientation through the news media, newsletter, cable television and the City's website.
- ED Policy 3.2. Identify all gateways into Burnsville with unique features.
- ED Policy 3.3. Enhance and connect Burnsville's recognized amenity areas (MRQ, HOC, Burnsville Center, Southcross Business

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<sup>2</sup> \* Indicates a Goal or Policy that references the Council's adopted Ends and Outcomes.

Park, Ridges Medical Campus, Cliff Road Business Park) with improved pedestrian and bicycle facilities, “high impact” streetscapes, water features, public areas, way finding signage, public art, and signature buildings.

- ED Policy 3.4. Showcase the Minnesota River through amenities, trails, lighting, and building orientation.
- ED Policy 3.5. Embrace bus rapid transit service (Orange Line) supplemented by express and local transit services, and leverage them to attract additional investment in Burnsville.
- ED Policy 3.6. Support repositioning and strengthening Burnsville Center Mall and the County Road 42 corridor for the future by partnering with their marketing, branding, retail positioning, and development strategies.
- ED Policy 3.7. Continue to foster development in Heart of the City that builds the residential community, attracts people to the area, and adds to its vibrancy.
- ED Policy 3.8. Attract unique, multi-purpose attractions and programming that cannot be found elsewhere in the Twin Cities.
- ED Policy 3.9. Maintain the vision of a unique and high quality development future for the Minnesota River Quadrant, following the expiration of the gravel mine and closure of Waste Management Burnsville Sanitary Landfill.

**ED Goal 4.** Burnsville’s competitive advantage is improved through organizational development, and building partnerships to create/enhance economic development opportunities.

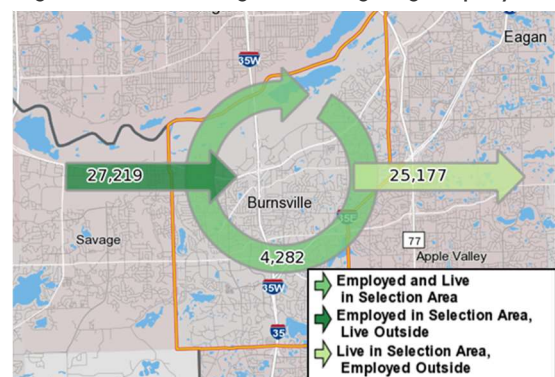
- ED Policy 4.1. Participate in the state legislative process on economic development issues.
- ED Policy 4.2. Build and maintain strong cooperative working relationships with local groups such as the Chamber of Commerce, Experience Burnsville and others so that they may share their resources and energies to address community problems and opportunities.
- ED Policy 4.3. Continue unique relationships with the private sector to accomplish development activities that are mutually beneficial for Burnsville.



# Existing Economic Context

Burnsville's business economy is strong. More people commute to work in Burnsville than live in Burnsville and work elsewhere. The job base is strong, and it has remained fairly constant over the past couple of decades. The US Census Bureau counted 31,825 jobs in Burnsville in 2000. Its estimate in 2014 was 31,500 jobs, based on the five-year American Community Survey.

Figure 3-1: Incoming and Outgoing Employees



Source: US Census Bureau, OnTheMap

The mix of businesses and industries is very diverse. Burnsville offers industrial jobs at the Southcross Business Park and Cliff Road Business Park. It attracts medical workers to the hospital and clinics clustered at the Ridges Medical Campus. The city also employs retail workers at businesses in and around Burnsville Center Mall, Heart of the City, and other retail nodes. Even within its business park areas, local businesses are involved in a wide range of industries. Business sectors that are particularly strong include wholesale and retail trade, manufacturing, and construction.

Table 3-1: Percent Employment by Industry, 2016

| Occupation                                        | Burnsville | Dakota County | Minnesota |
|---------------------------------------------------|------------|---------------|-----------|
| Manufacturing                                     | 11.8%      | 10.5%         | 11.4%     |
| Non-Manufacturing                                 | 88.2%      | 89.5%         | 88.6%     |
| • Agriculture, Forestry, Fisheries, & Mining      | 0.2%       | 0.4%          | 0.8%      |
| • Construction                                    | 4.8%       | 4.9%          | 3.8%      |
| • Wholesale Trade                                 | 6.5%       | 5.3%          | 4.7%      |
| • Retail Trade                                    | 19.1%      | 12.6%         | 10.6%     |
| • Transportation, Communication, & Public Utility | 5.8%       | 7.7%          | 3.6%      |
| • Information                                     | 1.7%       | 3.8%          | 2.0%      |
| • Finance, Insurance, & Real Estate               | 3.6%       | 7.9%          | 6.2%      |
| • Professional & Technical Services               | 11.3%      | 9.7%          | 13.2%     |
| • Education Services                              | 4.1%       | 8.0%          | 8.6%      |
| • Arts, Entertainment, & Recreation               | 2.2%       | 1.6%          | 1.6%      |

|                                      |       |       |       |
|--------------------------------------|-------|-------|-------|
| • Other Services except Public Admin | 3.3%  | 4.0%  | 3.2%  |
| • Public Administration              | 1.3%  | 2.8%  | 4.6%  |
| • Health Care & Social Services      | 16.5% | 12.4% | 17.1% |
| • Accommodation & Food Services      | 8.2%  | 8.3%  | 8.0%  |

Source: MN DEED 2016

Burnsville's largest employers are noted in the following table, Table 3-2.

Table 3-2: Top Employers - Burnsville

| Employer                         | Description                | Employees |
|----------------------------------|----------------------------|-----------|
| UTC Aerospace Systems            | Manufacturing              | 1,653     |
| Independent School District #191 | Education Services         | 1,370     |
| Fairview Ridges Hospital         | Health Care                | 967       |
| Pepsi Bottling Group             | Manufacturing              | 500       |
| Buck Hill Ski Area               | Recreation & Food Services | 500       |
| Ames Construction                | Construction               | 400       |

Source: Reference USA, 2017

Average wages for Burnsville businesses compare closely to the county and state averages. The following table, Table 3-3 shows the average wage by employment sector.

Table 3-3: Average Weekly Wages, 2016

| Occupation                                        | Burnsville       | Dakota County | Minnesota |
|---------------------------------------------------|------------------|---------------|-----------|
| Manufacturing                                     | \$1,195          |               | \$1,205   |
| Non-Manufacturing                                 |                  |               |           |
| » Agriculture, Forestry, Fisheries, & Mining      | \$1,568 (mining) | \$888         | \$843     |
| » Construction                                    | \$1,408          | \$1,283       | \$1,168   |
| » Wholesale Trade                                 | \$1,318          | \$1,483       | \$1,563   |
| » Retail Trade                                    | \$629            | \$575         | \$529     |
| » Transportation, Communication, & Public Utility | \$859            | \$1,070       | \$1,030   |
| » Information                                     | \$1,098          | \$1,560       | \$1,379   |
| » Finance, Insurance, & Real Estate               | \$1,082          | \$1,504       | \$2,060   |
| » Professional & Technical Services               | \$1,300          | \$1,410       | \$1,577   |
| » Education Services                              | \$950            | \$972         | \$862     |
| » Arts, Entertainment, & Recreation               | \$302            | \$354         | \$596     |
| » Other Services except Public Admin              | \$613            | \$631         | \$573     |
| » Public Administration                           | \$1,270          | \$1,032       | \$1,013   |
| » Health Care & Social Services                   | \$977            | \$754         | \$924     |
| » Accommodation & Food Services                   | \$353            | \$333         | \$336     |

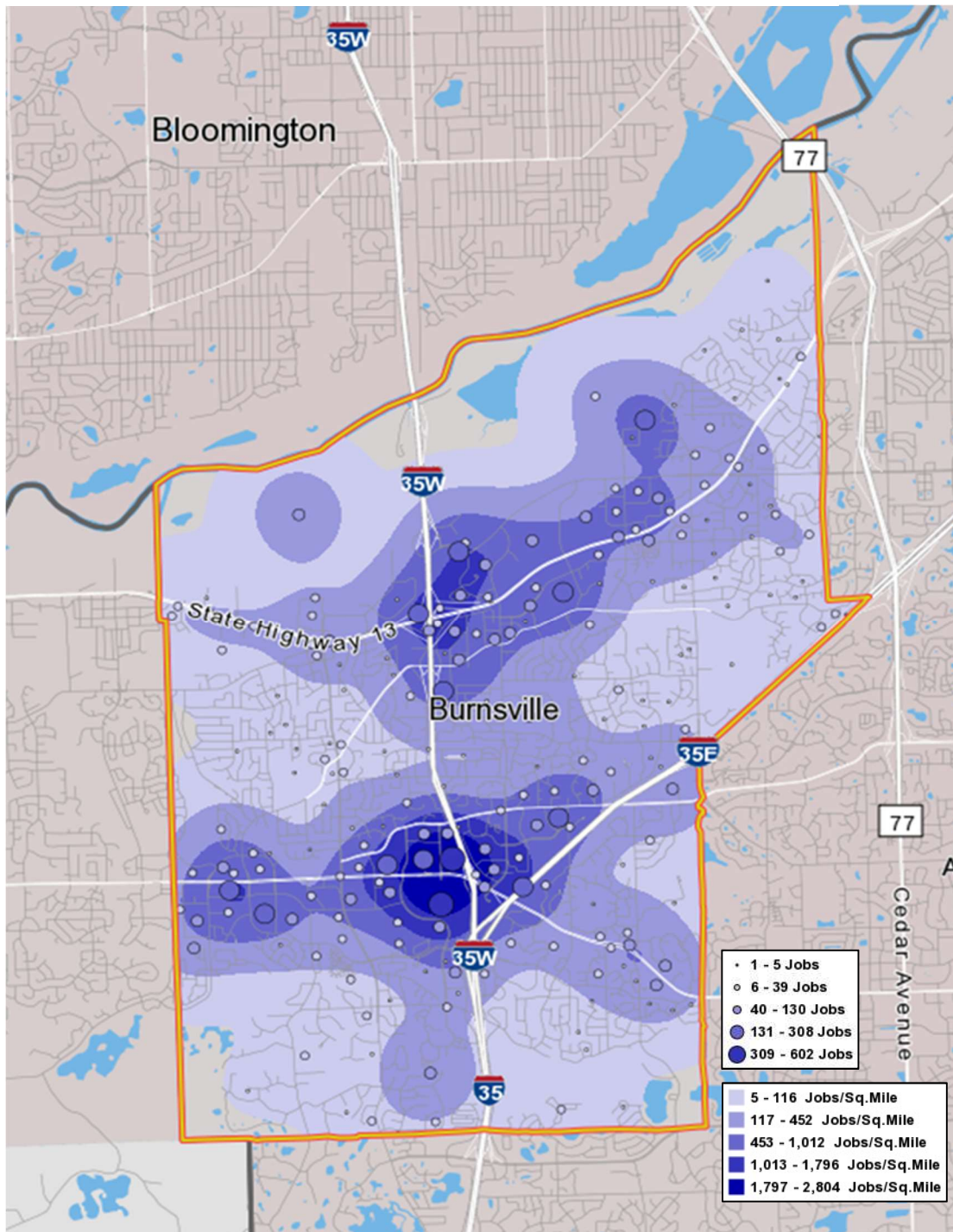
Source: MN DEED 2016

Jobs in Burnsville are clustered in a few distinct areas. Burnsville Center Mall and the surrounding area are a focus of retail businesses and retail

employment. The area around Fairview Ridges Hospital is a focus of health care employment. The Southcross and Cliff Road business park areas are a focus of industrial, business services, and contractor employment.

The following maps illustrate where higher paying jobs and lower paying jobs are concentrated in Burnsville.

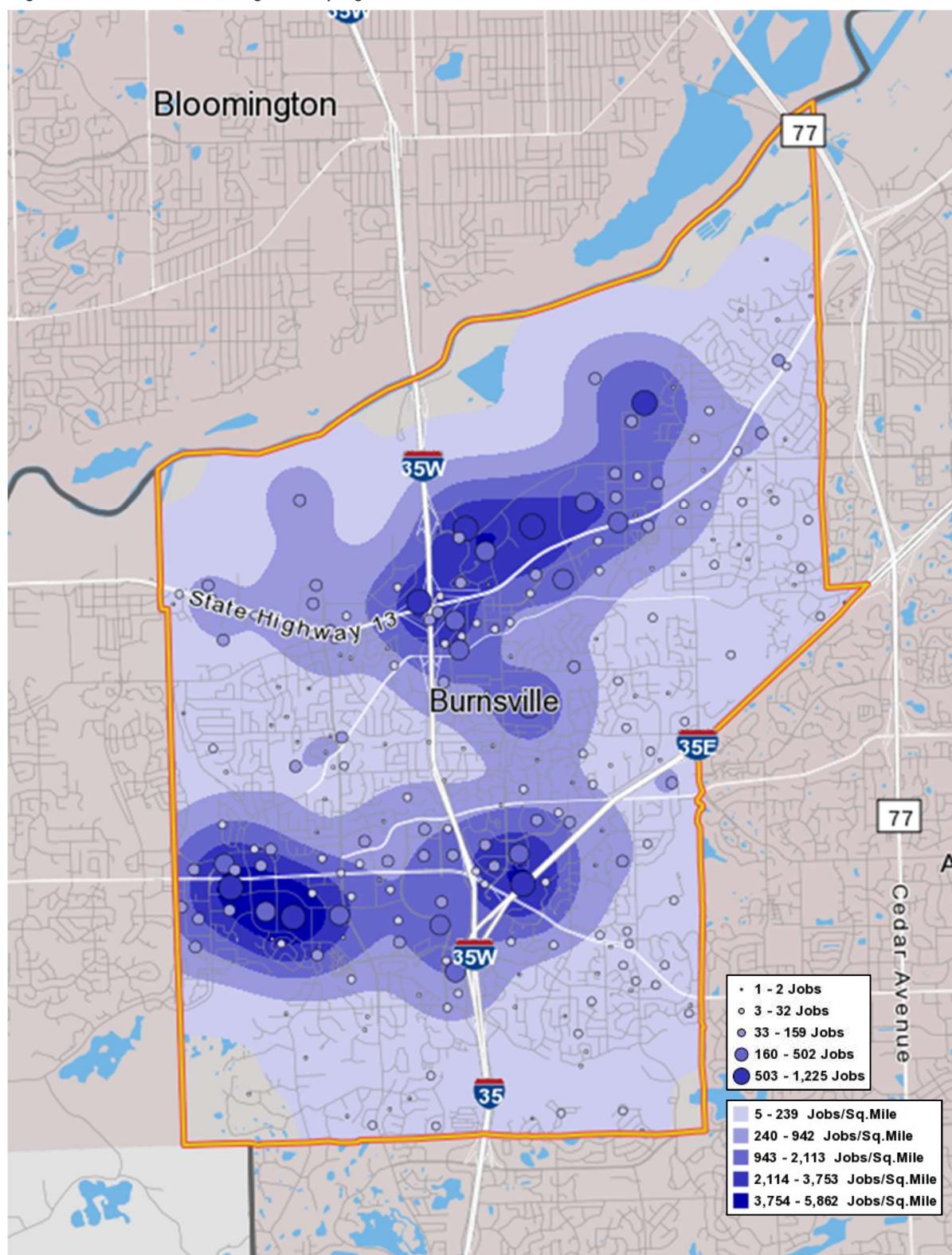
Figure 3-2: Location of Lower Paying Jobs



Source: US Census, OnTheMap



Figure 3-3: Location of Higher Paying Jobs

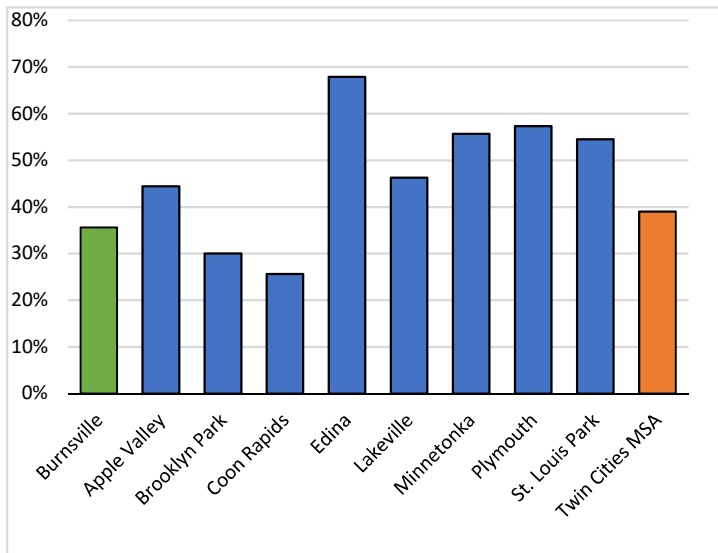


Source: US Census, OnTheMap

## Education

Most Burnsville residents are well educated, with roughly 47 percent of those 25 years old or older holding an associate's degree or higher and roughly 35 percent of all residents holding a bachelor's degree or higher (Figure 3-4). That is a little lower than some similarly situated suburbs, but close to the corresponding rate for the metropolitan area as a whole.

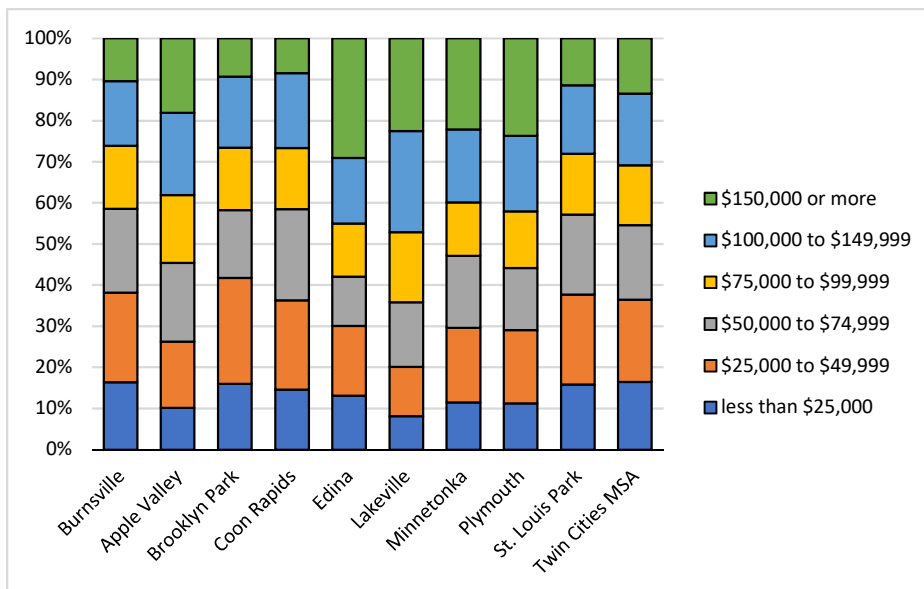
Figure 3-4: Percent Bachelor's Degree or Higher



## Household income

Burnsville has a comparable household income profile to the Twin Cities metropolitan area. Brooklyn Park and Coon Rapids are especially comparable to Burnsville households. Household income impacts spending potential, and support for retail businesses.

Figure 3-5: Household Income Profile



Source: U.S. Census ACS 2011-2015 (both charts on this page)



# Economic Competitiveness

The City of Burnsville stands out among suburban cities in that more people work in Burnsville than live in Burnsville and work elsewhere. Burnsville is the home of approximately 2,500 businesses. It is Minnesota's fifteenth largest city by population, but it ranks seventh in manufacturing employment, tenth in healthcare employment, and eighth in retail employment.

## Employment Centers

Burnsville's economic competitiveness is grounded in its several centers of employment. Those are sustained in turn by a set of economic assets that are attractive to businesses, and to the workforce that they employ. Four centers of employment stand out in the city's economic landscape.

### Southcross Business Park

The Southcross Business Park is a business commercial area of approximately 290 acres. Most of the area was developed in the 1990s and early 2000s. It is home to some large employers such as UTC Aerospace Systems and Ames Construction, and offers over 5,000 jobs.

### Cliff Road Business Park

The Cliff Road Business Park is a business commercial area of approximately 500 acres. It began to be developed in the 1960s, and was largely built out by 2000. Most buildings are multitenant, so it houses many small businesses. It offers over 3,000 jobs and home to Pepsi Bottling Group. It is a significant entrepreneurial node.

### Fairview Ridges Medical Campus

A set of health care providers are clustered in an area of approximately 100 acres in central Burnsville. Fairview Ridges Hospital serves as the area's anchor. Related health care providers in the area include Park Nicollet Clinic, Fairview Clinics, Quello Clinic and other specialty clinics. It offers over 3,000 jobs.

### Burnsville Center Mall Retail District

Burnsville Center is the focal point of a retail area centered on County Road 42 and encompassing approximately 400 acres of retail property. Burnsville Center is the fifth largest mall in the Twin Cities, built on a similar scale to Ridgedale, Southdale and Rosedale. Other major stores in the retail district include Target, Cub Foods, Costco, Kohl's, Hobby Lobby, At Home, and Home Depot. The retail area offers over 4,000 jobs.

Figure 3-6: Fairview Ridges Hospital



## Economic Assets

Burnsville boasts a rich set of economic assets. Some are directly beneficial to existing and prospective businesses. Others benefit businesses by making the area an attractive place for their employees to come to work each day. Key assets include the following.

### Transportation Access

Area businesses have convenient access to the regional transportation network via two interstate highways - I-35W and I35E - and several state highways including Trunk Highways 77 and 13.

### Complementary Business Parks

Burnsville's two established business parks - Southcross and Cliff Road - offer an array of office and industrial properties that can meet a broad spectrum of business needs.

### Business Support

The City of Burnsville has a reputation for valuing and supporting Burnsville businesses. Once located in Burnsville, businesses tend to stay in Burnsville. City staff are considered approachable, and take a problem-solving approach to issues. These qualities matter for retaining and attracting businesses.

### Retail And Restaurant Amenities

Many businesses have occasional lunches with clients, collaborating businesses, or employees. Businesses and workers benefit from these amenities, and their contribution to the area's attractiveness.

### Transit Service

Existing transit service supports worker access to some Burnsville businesses, by connecting to downtown Minneapolis and St Paul, the Mall of America, and the MSP airport as well as to other south metro communities.

### Housing Options

An estimated 14 percent of Burnsville's workforce also lives in Burnsville. Burnsville offers a wide range of single family homes, townhomes, and apartment buildings. Living near work is increasingly valued.

### Recreation and Culture

Burnsville offers a broad set of cultural and recreational offerings, including parks and trails of various kinds, and the Ames Center, Burnsville's flagship performing arts center.

## Opportunities and Challenges

Maintaining the City's economic competitiveness means continuing to build and strengthen these employment centers and economic assets. It also entails leveraging some unique opportunities that are on the horizon, and navigating the challenge presented by the changing retail landscape.

## New Transit Service And Transit Oriented Development

Transit service in Burnsville will improve in the coming decade, with new all-day bus rapid transit (Orange Line) service. Orange Line service will improve connections to downtown Minneapolis, and provide a reverse commute option for Burnsville workers who live north of the Minnesota River. High quality transit service also supports the development of transit-oriented development—that is, higher density housing and commercial development in the station areas.

Transit-oriented development in the Orange Line station areas provides one of Burnsville's greatest near-term opportunities to attract new development. This type of development will also offer additional housing choices for Burnsville residents. New households support local businesses, and contribute to the safety and vibrancy of public spaces.

In addition, Dakota County completed its East-West Transit Study in 2017 to evaluate needs for east-west oriented transit service improvements. The study looked for opportunities to improve the quality of fixed-route transit service on key transportation corridors and improve connections to the regional transit system. The study contains recommendations for potential transit improvements on two corridors in Burnsville. The Cliff Road corridor will be considered for a new transit connection between the future Orange Line and the Red Line stations and the County Road 42 corridor will be considered for increased transit services to support the concentration of destinations along this corridor.

## Shifting Retail Landscape

Burnsville's retail environments are an important contributor to its livability and attractiveness. They are also subject to a rapidly changing market context. Online shopping continues to take a toll on bricks and mortar retail. Many traditional retail anchors are closing stores around the country. And meanwhile, household incomes have been relatively stagnant. While the economy has returned to full employment in recent years, pay rates have not risen, in the way they typically do in post-recession years.

These macro effects are evident in Burnsville's retail areas. The health of Burnsville Center Mall is of particular concern. Signs of stress are evident in store vacancies. This could increase with the closure of one or more of its three anchor stores. While the City of Burnsville can't change the challenging macro environment, retail areas are more likely to adapt successfully when cities are proactive in planning and re-envisioning retail areas, supporting redevelopment and retail recruitment strategies, and collaborating on retail vitality programs.

## Summary

An asset-based approach to building and maintaining Burnsville's economic competitiveness entails working to strengthen existing economic assets such as those above. Centers of employment can be supported and marketed.

Further improvements can be made to existing assets such as business support, assisting local entrepreneurs, encouraging market expansion based on local diversity, transit service and housing options. New Orange Line transit service is a particularly promising opportunity, which can be leveraged to provide benefits to the community. The City can also play an important role in meeting new retail challenges at and around Burnsville Center Mall.

## Economic Development Programs and Incentives

The City, in conjunction with the Minnesota Department of Education and Employment (DEED), offers economic incentive programs to retain and recruit businesses. The City has tools to encourage and support economic development, entrepreneurship, and business expansion and retention. This Chapter lists and describes the existing tools and programs.

### Economic Development Authority

The express purpose of the Economic Development Authority (EDA) is to promote economic development and consolidate the economic development and redevelopment activities of the city into one entity. The EDA has the powers and duties given to it under the Minnesota Statutes, Chapter 469, Economic Development, which include, among other things, the authority to hire personnel and expend funds for economic development and redevelopment purposes, to acquire land and buildings for development and redevelopment, and to request the City to levy taxes for the support of those activities. The EDA is governed by a Board of Commissioners that is composed of the Mayor and City Council members. The EDA has all of the powers of a municipal redevelopment authority, as well as all of the powers relating to municipal development districts. All EDA activities are subject to review and approval by the City Council. The major advantages of the EDA are as follows:

- » The EDA has clear statutory authorization to act as economic development/redevelopment agent for the City, using a broad array of powers
- » The EDA can exercise the same powers throughout the city, not just in areas that are "blighted"
- » The EDA has a close interrelationship and limitation of powers, as authorized by the City Council (i.e., the City Council can require unpledged reserves to be pledged back to the city and that all bonding and budgeting be approved by the City Council)
- » The EDA is the authorized Tax Increment Financing (TIF) agent of the City
- » The EDA has the right to acquire, sell or lease land and facilities
- » The EDA may participate in limited partnerships whose purposes are consistent with those of the EDA

- » The EDA has statutory powers of eminent domain; power to contract, acquire supplies and materials; establish foreign trade zones; and conduct research

Burnsville is fully committed to the creation of employment opportunities and the continued retention of jobs. The EDA has established tax increment financing (TIF) districts within the city as well as utilized tax abatement policies when appropriate. Both are important and useful tools in attracting and retaining businesses. Designed to encourage development or employment opportunities that would not otherwise occur, it is essential that they be used appropriately to accomplish the City's development and redevelopment goals and objectives.

## Economic Development Commission (EDC)

In 1987, the Economic Growth Committee (EGC) was formed as a means to bring together business interests in the community via a union of the Chamber of Commerce and City of Burnsville. Both organizations placed local business owners and operators on the EGC. Over the years, the EGC provided valuable insight from a local business perspective on economic development matters and acted as a business advisory group. In 2008, both the City and Chamber of Commerce agreed on the need to separate the business advocacy functions from the formal and legal economic development processes of the City.

The City Council formally created a new Economic Development Commission (EDC) with a clearly defined mission and purpose to provide economic development related research recommendations to the City Council and EDA but not to act as a business advocacy group. As a formal advisory commission, the EDC has more authority than the former EGC and provides resident and business input related to economic policies, procedures and programs to the City Council and EDA on matters such as:

- » Zoning ordinance changes that may impact businesses (commercial, industrial, and mixed-use districts)
- » Fee policies as they relate to businesses
- » Private Activity Bond and Business Subsidy Policies
- » The creation of new Tax Increment Financing (TIF) Districts
- » Economic Development Authority and City land sales
- » Business regulation provision including business licensing (i.e. liquor, tobacco, etc.)
- » The areas of the Comprehensive Plan affecting economic development and commercial/industrial land uses
- » City's legislative agenda related to Economic Development
- » Potential new or revised approaches to the City's economic development policy

## Economic Incentives

The City in conjunction with the Minnesota Department of Education and Employment (DEED) offers economic incentive programs to retain and recruit businesses. The City of Burnsville has tools to encourage and support economic development, entrepreneurship, and business expansion and retention. This Chapter lists and describes the existing tools and programs.

### Development Tools Policy

The city established a Development Tools Policy to assist new businesses that can demonstrate that they meet a public purpose, including but not limited to: increasing the tax base, increasing wages, creation or retention of jobs, elimination of blight, neighborhood revitalization, and other development and redevelopment goals established by the City. Other measurable, specific and tangible goals such as redevelopment, or pollution or soils remediation, may also qualify for business assistance. In addition to this policy, business assistance is also subject to the requirements of Minnesota State Statutes. More information is available on the City's website regarding the Development Tools Policy.

### Tax Increment Financing (TIF)

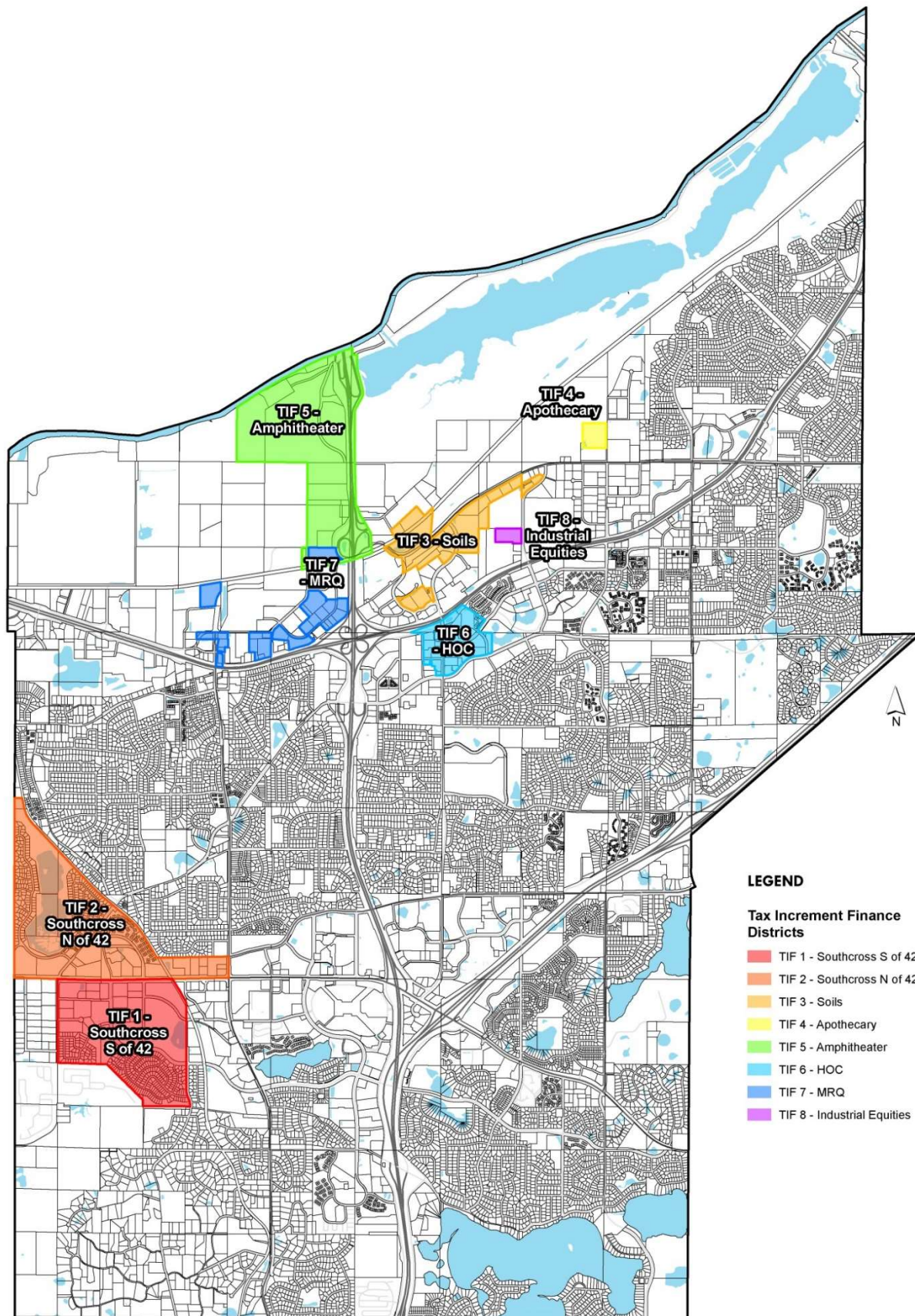
The City of Burnsville uses Tax Increment Financing (TIF) as an economic development tool to generate property tax revenues attributable to increases in assets value. The City's TIF Districts are areas established to promote economic development and redevelopment plus to create and retain jobs in Burnsville. The City has eight TIF Districts which are identified on the map in Figure 3-7. TIF District 3 was decertified (properties were removed from the TIF District) in 2004. Decertification occurs once the term of the District expires. TIF District 2-1 was recently decertified when a Special Law was passed by the State Legislature authorizing special rules for certain TIF Districts in the MRQ. The City will need to establish a new project area with new TIF Districts pursuant to the new Special Law.

The following is a list of all Burnsville TIF Districts and their expiration or decertification dates:

|                                            |                                                       |
|--------------------------------------------|-------------------------------------------------------|
| TIF 1 - Southcross South of County Road 42 | Expired December 31, 2010                             |
| TIF 2 - Southcross North of County Road 42 | Expires December 31, 2013                             |
| TIF 3 - Soils                              | Expired December 31, 2007, Decertified April 17, 2004 |
| TIF 4 - Apothecary                         | Expired December 31, 2008, Decertified July 7, 2008   |
| TIF 5 - Amphitheater                       | Never Certified – Project never developed             |
| TIF 6 - HOC                                | Expires December 31, 2019                             |
| TIF 7 - MRQ                                | Expires December 31, 2038                             |
| TIF 8 - Industrial Equities                | Still to be certified, adopted December 6, 2016       |
| Orichio - Grand Seven Abatement            | Expired February 1, 2011 (Final Payment)              |



Figure 3-7: Burnsville TIF Districts



### **Tax Abatement Policy**

Tax Abatement Policy serves as a guideline for the use of tax abatement as a financing tool for projects within the City. Under State Statutes, the City Council is the governing body that must act to approve all tax abatement assistance. The tax abatement tool provides the ability to capture and use all or a portion of the property tax revenues within a defined geographic area. In practice, it is a tax rebate rather than an exemption from paying property taxes.

Tax abatement is an important economic development tool that when used appropriately can be useful to accomplish the City's development and redevelopment goals and objectives. Requests for tax abatement must serve to accomplish the City's targeted goals for development and redevelopment. These goals include, but are not limited to, projects that will result in the creation or retention of a significant number of jobs that pay wages adequate to support households, projects that will assist with the retention and expansion of businesses, and projects that will expand the City's tax base. Projects must meet the requirements established by the Business Subsidy Policy of the City, to the extent it is applicable, in order to receive abatement.

The City and EDA currently have one Tax Abatement District consisting of the majority of HOC1 and HOC2 properties. The EDA began collecting tax abatement in 2008 for the parcels in HOC2 and will begin collecting abatement for HOC1 parcels beginning in 2020 (after TIF 6 expires). Abatement collection will continue until 2027.

### **Sale of City Owned Property and Capital Improvements Planning**

Minnesota Statute § 462.356 Subd. 2, specifies that the planning agency is responsible to review proposed acquisition or disposal of real property and capital improvement plans for compliance of the action with the comprehensive plan. The planning agency may consist of the planning commission or planning department of a municipality. The planning department is designated as the planning agency for the purpose of administering the comprehensive plan and forwarding recommendations regarding consistency with the comprehensive plan to the City Council (governing body) for the sale and acquisition of public land and capital improvements planning. The City of Burnsville Planning Commission is the designated planning agency for administering all other aspects of the comprehensive plan.

The City Council established a formal policy setting forth procedures for the sale/rental of city property including properties owned by the EDA. The policy allows City property to be rented or offered for sale when it is determined that it is no longer needed for a public purpose. The City considers the sale or rental of property based on the proposed use for the property that serves the public interest and is in keeping with the

established policies and goals of the city. Also, the City and EDA may on occasion acquire tax forfeit land following notification by Dakota County.

### **Economic Development Partnerships**

The City utilizes partnerships with many organizations such as the Minnesota Department of Education and Economic Development (DEED), Dakota Community Development Agency (CDA), and others to offer economic development incentives and programs. Partnerships often expand opportunities for economic development and may increase a project's eligibility for certain grant programs. The City collaborates with the Dakota-Scott Workforce Development Board (WDB) which oversees employment and training programs in Dakota and Scott Counties. The WDB is a state leader in developing innovative programs through workforce centers, one of which is located in Burnsville. The WDB brings together public and private resources for job seekers and employers, provides local initiatives, and works to strengthen economic development partnerships to foster a healthy climate for new and existing businesses. The WDB supports the Dakota-Scott Youth Council which oversees youth programs in the community and advocates for young people who are at risk.

## **Future Economic Development Emphasis**

### **Heart of the City (HOC)**

#### **Existing Conditions**

The Heart of the City (HOC) today consists of a core area oriented to Nicollet Avenue, between Burnsville Parkway and Highway 13, that was designed based on smart growth design principles, mixed land uses, and a pedestrian-friendly downtown area for Burnsville. The HOC project grew from a community-driven visioning project called Partnerships for Tomorrow in the mid-1990s. It started in 1995 as a simple streetscape improvement project and grew to a full-fledged redevelopment effort. The HOC core area's existing land uses consist of mixed-use (residential above ground level commercial), commercial, multi-family, single-family attached and detached residential, and public (park, arts center, parking structures). As of August 2017, there were five vacant sites (7.47 acres) left in the core redevelopment area of the HOC. Four out of five of these sites have received project approval previously but have not yet reached the construction phase. Future land uses for these vacant sites are anticipated to be primarily multi-family residential. The Burnsville EDA currently owns the 1.75-acre vacant site (former AAA site) west of Nicollet Ave with visibility from Highway 13. The HOC core area is zoned as HOC-1.

The HOC is focused on bringing arts and cultural opportunities to the area and building tax base to benefit the entire community. The HOC has retail, office, condominium and town home residential, apartments and public

institutional components. Twenty percent of the housing options are planned as “work force” housing. Cultural amenities include the Ames Center, a performing arts center, and various public art sculptures. Nicollet Commons Park is a central driver for the HOC. The park is a 1.2-acre “town square” style park in the center of the HOC. The park is host to many concerts and community events throughout the year including the International Festival, Fire Muster, I Love Burnsville 5K, and the annual Winter Lighting Ceremony.

The HOC area to the west of the core area (west of Pillsbury Avenue) primarily consists of commercial land uses but also has multi-family residential, institutional (Burnsville-Eagan-Savage School District Education Center), and vacant land uses. Up to now, this area has not been the focus of the HOC redevelopment vision. The *HOC Design Framework* (1999) viewed this area as primarily office and limited retail land uses, lower intensity development, and somewhat less urban building form (e.g. buildings allowed to be setback from sidewalks) than the HOC core area. This area is zoned as HOC-2.

### Market Context

Burnsville’s Heart of the City area offers a distinctive alternative commercial environment, which differs from typical suburban retail formats. Its character, and the sense of place that has been established, is its competitive market advantage for attracting customers, and certain types of commercial businesses. Its market assets include the following.

- » Walkability
- » Business density
- » Attractive public plaza
- » Transit availability
- » Visibility and convenience of location along Burnsville Parkway, Highway 13, and Nicollet Avenue

Retail and housing development in the HOC are performing well. Vacancy rates are low for both types of property. Area residents report that they enjoy living in the area.

At the time of this writing, developers are building new multi-family housing in high quality suburban locations such as this. The demand for such housing will be strongest in a walkable radius of the Nicollet Avenue, the core of the area—and close to future Orange Line transit service. Developers of suburban multi-family developments report that their target market is a mix of older households (empty nesters and retirees), and younger “millennial” households.

Retail businesses will be strengthened by additional housing development. New pedestrian-oriented retail development will be most attracted to



locations that are extensions of the pedestrian oriented retail along Nicollet Avenue.

### Land Use and Development

The Illustrative Redevelopment Plan for the HOC area west of Pillsbury Ave, as shown in Figure 3-8 guides this area for a broader mix of land uses than the *HOC Design Framework* (1999). Redevelopment in this area is anticipated to require a longer time horizon. However, as land does become available for redevelopment, the City believes that this area has the potential to build upon the success of the HOC core area's redeveloped land use patterns and densities. Through the community engagement process for the 2040 Comprehensive Plan Update, it is evident that the HOC core area enjoys great support from its residents as well as the broader Burnsville community. The HOC offers a desirable mixed-use neighborhood to live in with high quality amenities, such as Nicollet Commons Park, the Ames Center, and shops, restaurants, and services within walking distance of homes.

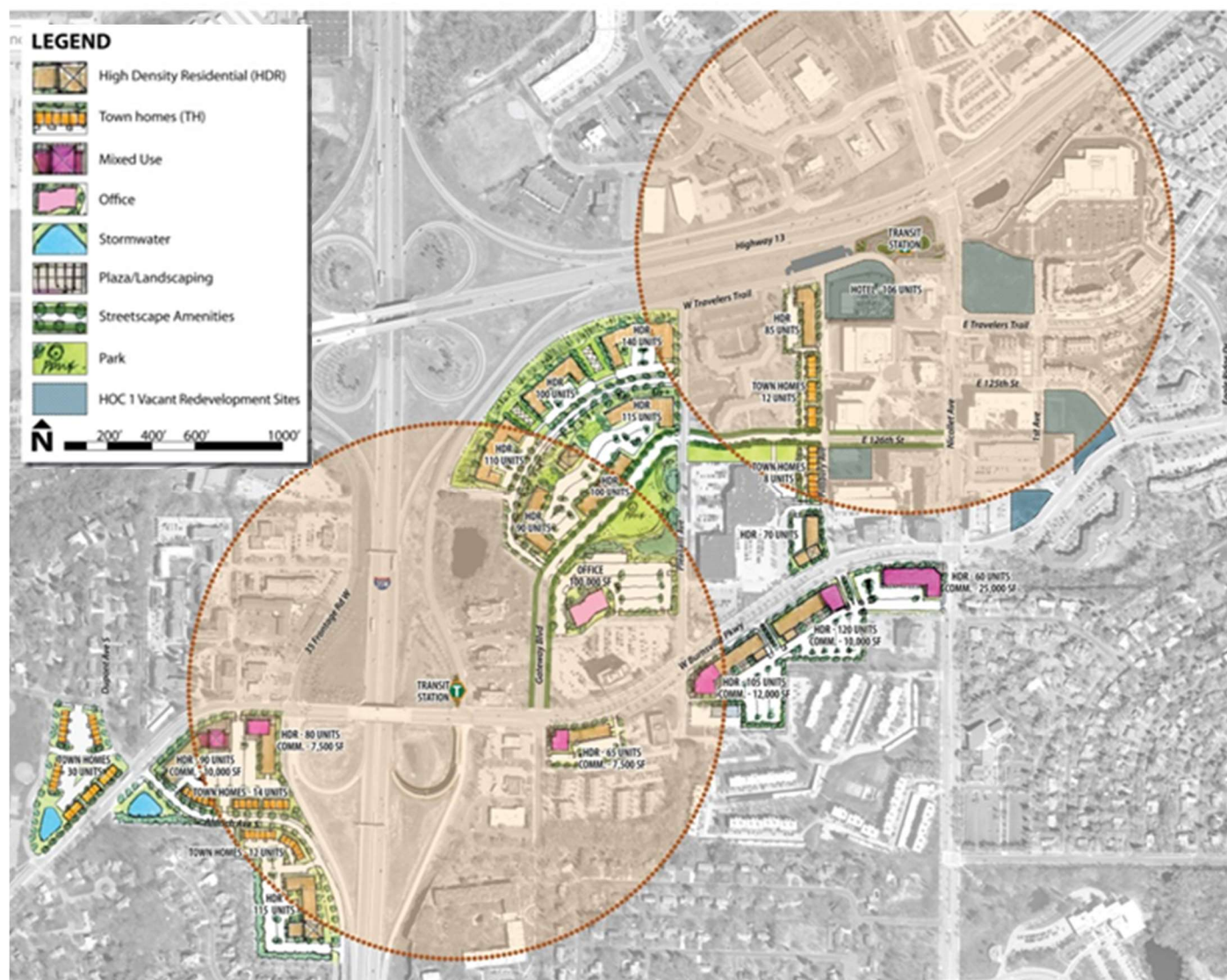
A foundation of the Illustrative Redevelopment Plan is the connection of this area to the HOC core area's high quality amenities, as well as the addition of amenities west of the HOC core area. A critical component is to connect 126<sup>th</sup> Street west to Gateway Boulevard, creating a new parkway connection from Nicollet Ave to Burnsville Parkway through the expanded HOC. To support the expansion of the HOC area west and attract redevelopment long-term, the concept also shows a new park along the south side of Gateway Boulevard and a linear green space connecting this new park to the core area, the Ames Center, and Nicollet Commons Park.

The Illustrative Redevelopment Plan shown in Figure 3-8 provides guidance for expanding the amount and variety of housing options in the HOC in four ways:

1. Infill development along the west side of Pillsbury Ave of townhomes and high density residential;
2. Potential for adding live/work units;
3. Potential for adding high density residential if the large commercial site (Gateway Business Center) in the southeast quadrant of I-35W/Highway 13 becomes available for redevelopment in the future; and
4. Potential for adding high density residential, including mixed-use buildings, along the south side of Burnsville Parkway as these commercial sites become available for redevelopment.

The concept also guides this area for additional office adjacent to the existing multi-story office building at the intersection of Burnsville Parkway and Gateway Boulevard.

Figure 3-8: Heart of the City – Illustrative Redevelopment Plan



In addition, the Illustrative Redevelopment Plan expands the HOC area to incorporate the planned Orange Line Bus Rapid Transit (BRT) station area that would extend west of the Burnsville Parkway/I-35W interchange. The concept plan shows the potential for redeveloping this area with a mix of residential options, including townhomes, high density residential, and mixed-use buildings (residential above ground level commercial).

The Future Land Use Concept, shown in Figure 3-9, guides the land use pattern in the HOC's western portion for a mix of high density residential, medium density residential, business/retail/office, mixed-use, institutional, and park.



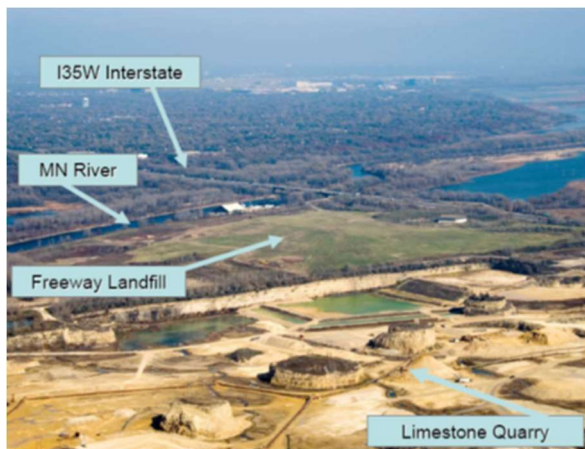
Implementation strategies for the HOC can be found in the Implementation section later in this chapter.

## Existing Conditions

2040 Comprehensive Plan  
Chapter 3 - Economic Development and Redevelopment Plan

The following photographs illustrate existing conditions within the Minnesota River Quadrant:

Active Kraemer Quarry (view to north)



Active Burnsville Sanitary Landfill



View to South from Minnesota River



View to West from I-35W



Examples of Existing Heavy Industrial Uses & Outdoor Storage within the MRQ



The reality of the MRQ is that the majority of properties consist of small, privately held parcels with many of the properties having development constraints or developed with heavy industrial uses dating back to the 1950s. There is varied interest by the property owners to further develop. The Burnsville Sanitary Landfill, Kraemer Quarry, and Freeway Landfill



properties are the largest land holdings in the MRQ. It is important to note that many of the parcels in the MRQ have Planned Unit Development (PUD) zoning, some of which date back to the 1990s. As such, the property owners have rights to previously approved plans. The larger land use concentrations like the Burnsville Sanitary Landfill, Kraemer Quarry, and Freeway Landfill properties all operate under PUDs that identify short-term land use activities and also long term land use expectations. The land areas between the future quarry lake and I-35W are currently owned by two entities, Kraemer Mining & Materials Inc. (KMM) and R.B. McGowan Co. Inc.

### Freeway Landfill

The Freeway Landfill property is located adjacent to the Minnesota River. It contains about 180 acres of land and is bounded on the east by Interstate I-35W. The Freeway Landfill is closed but remains on the Minnesota Pollution Control Agency's (MPCA) list of superfund sites. In recent years both the MPCA and the city have worked with the landowner to facilitate closure of the site to meet MPCA standards. In 2006 a conceptual plan was developed which would relocate the landfill from the site adjacent to I-35W to the west part of the Freeway Landfill property (Amphitheater 1<sup>st</sup> Addition). The idea is to consolidate the garbage into a lined landfill and to fill the area adjacent to I-35W with appropriate soils so the area can be opened for development. The agreements to accomplish this effort are ongoing and the concept was validated by state agencies in 2016. The federal Environmental Protection Agency (EPA), has been engaged in remediation efforts. The goal is for all involved agencies to work together with responsible parties to remediate the landfill before the Kraemer Quarry ceases mining and the related dewatering. Once dewatering ceases on the adjacent properties, there is concern about the future environmental impacts of the rising water table in the area and adjacent landfills.

### Kraemer Mining and Materials Inc (KMM)

The KMM land holdings consist of approximately 500 acres of land bound on the north by the Minnesota River, the west by the Burnsville Sanitary Landfill, the south by the Union Pacific railroad and the east by I-35W. KMM also owns an 11-acre parcel located directly north of Menards on Highway 13. The majority of the PUD is used for the limestone quarry operation. City records dating back to 1968 indicate mining operations existed at that time. The majority of the site was granted PUD approval in 1994 with the most recent amendment occurring in 2016 (to establish final edge treatments on the west side). It is anticipated that the limestone resource will be exhausted within the 2040 planning period. Once mining ceases, the quarry will naturally fill with cold, clean ground water to become a large, deep freshwater lake.

### Existing Zoning District Designations

Understanding the property, land use, and zoning considerations, the city took steps in 2002 to begin implementation of the MRQ vision by amending the Comprehensive Plan to simplify industrial land uses in the MRQ into two basic categories: Light Industrial and Heavy Industrial. To implement these changes, the City's Zoning Ordinance and Zoning Map were also modified to add new Gateway Industrial Medium (GIM) and GIH - Gateway Industrial Heavy districts. The current Zoning Map shows the following zoning district designations within the MRQ: General Industrial District (I2), Gateway Industrial Medium District (GIM), Gateway Industrial Heavy District (GIH), Highway Commercial (B-4), Commercial Recreation Business District (CRD), and Planned Unit Development (PUD). In addition to these base zoning districts, the Environmental Overlay District (including Shoreland, Floodplain, Woodland, Wetland, Soil Erosion, Restrictive Soils, Stormwater, Drinking Water Protection and future planned Closed Landfill Districts) and the Gateway District also apply within the MRQ.

### Existing Planned Unit Developments (PUDs)

The City has been successful working with property owners to establish end-use plans as part of the PUD process and to obtain right-of-way, park and utility dedications as part of platting associated with the implementation of the end-use plans. In 2006, for example, the BSLI, Inc. development stage PUD was approved for the landfill. This resulted in platting the land and set in place the implementation tools and financial securities to assure that the desired 18-hole championship golf course will be built following closure of the landfill. The site land use category designation was also changed from General Industrial (I2) to Commercial Recreation Business (CRB) to reflect the future end-use plan (golf course, open to the public, future streets, trails and public ownership of the land area adjacent to the Minnesota River). The Freeway Landfill property adjacent to the river also has been guided for CRB to reflect the future public use of the Minnesota riverfront, for development of a future public park along the river and for a regional trail system (part of the Minnesota River Greenway) to connect with the regional trail system within the Minnesota Valley National Wildlife Refuge. The Minnesota River Greenway will connect to Dakota County's Lake Marion Greenway near the eastern City of Savage border. The CRB designation for the Freeway Landfill site was originally granted to implement an amphitheater project. This project is no longer under consideration.

The Kraemer Quarry, and adjacent lands that they own, operate under a PUD agreement that dates back to 1994. The owner of the quarry has considered several future development concepts that call for waterfront development to occur between the quarry and I-35W. Once the quarry is exhausted, water that is currently pumped to the Minnesota River will be captured to create a 340-acre freshwater lake. The City will need to

continue to work with KMM, the quarry owners, to ensure the PUD is updated. Updating would allow for reclamation and would provide a plan for future infrastructure and utility improvements.

## Market Context

Development of the MRQ was shaped by the existence of gravel deposits, and the railroad line that runs through the area. It was and is well suited to the large, land-intensive, industrial and distribution businesses that occupy much of its land area. However, when the gravel resource has been mined, opportunities will open up for high quality redevelopment that is based on other area assets, and that will offer numerous benefits to the City of Burnsville.

The market context for specific types of development will change over time, and will be different by the time the area is developed. But fundamental characteristics of the area will remain that will support high quality redevelopment. Those market strengths include the following:

- » Ease of access afforded by adjacency to I-35W
- » Future lake amenity
- » Proximity to the Minnesota River
- » Access to regional bicycle networks
- » Freeway visibility
- » Access to rail

The future development potential is also defined by the scale of the opportunity. The extensive area that is potentially available for redevelopment allows for a master-planned approach that can create a dynamic and distinctive new neighborhood. The opportunity is on the scale of the redevelopment of St. Paul's Ford plant, or the New Brighton Exchange project. Opportunities on this scale are infrequent, and will only become rarer as time goes on. It is likely to capture the imagination and interest of the development community.

## Future Land Use and Development

### MRQ Vision

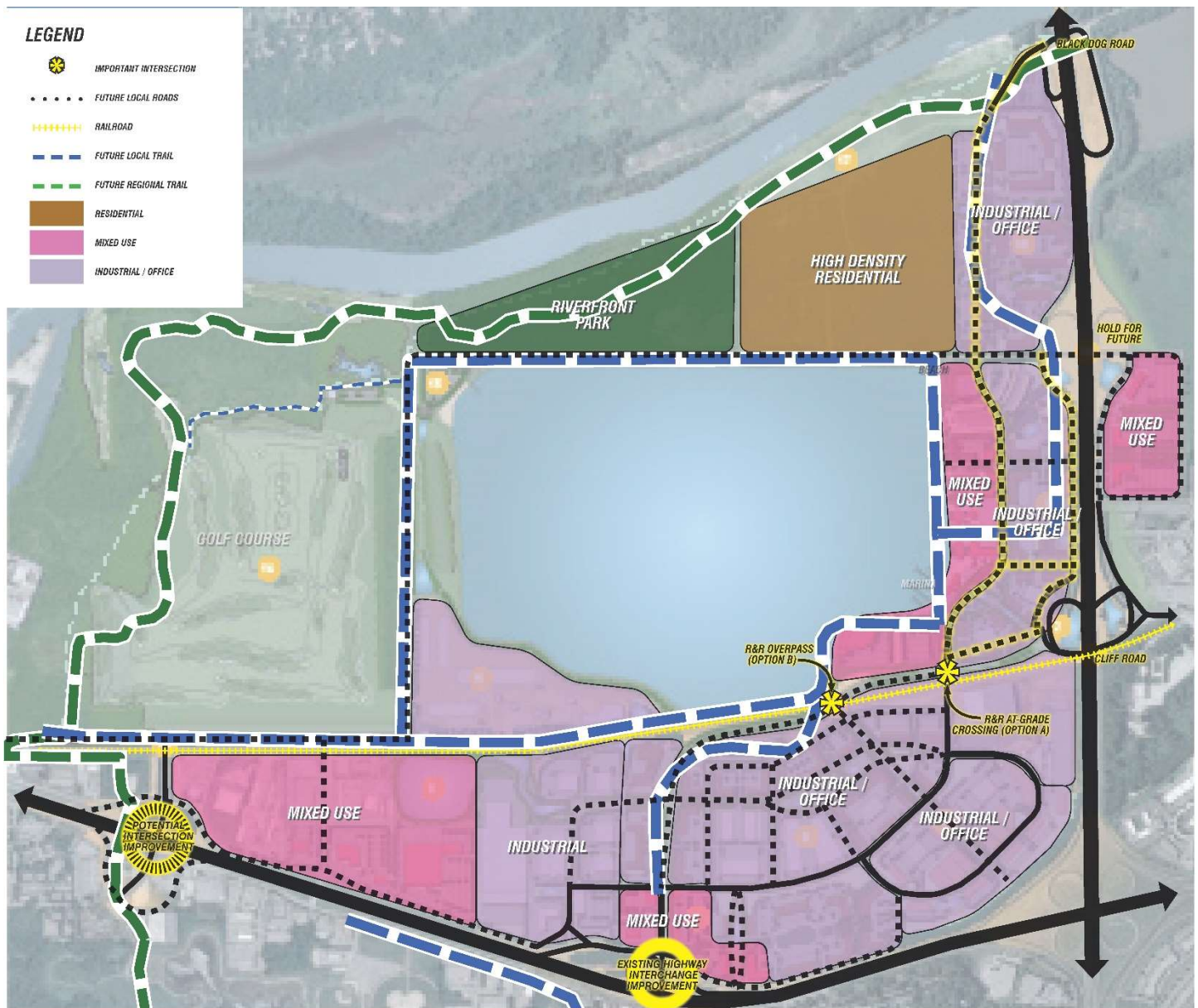
The MRQ will be the largest redevelopment project in Burnsville's history and will allow for major growth in companies and employment. The vision is to create a unique waterfront-oriented mixed-use area that provides a major employment center, attracts business

campus and office/showroom uses, offers waterfront living opportunities (riverfront and lakefront), creates unique recreation opportunities, and re-establishes the natural



Artist Rendering of Future Golf Course in MRQ

Figure 3-10: MRQ – 2040 Future Land Use and Transportation Concept w/ Existing I-35W Interchanges



resource link between the Minnesota River Valley and the rest of the Burnsville community. A new public riverfront park, public trails (connecting regional trail systems), natural open space areas, and a golf course will be provided along the Minnesota River with public beach and recreation facilities to be developed adjoining the quarry lake. This concept would create a unique waterfront promenade with a variety of development opportunities.

During the Burnsville for the 21<sup>st</sup> Century Visioning project and public input sessions conducted as part of this 2030 Comprehensive Plan Update, much



attention was given to the future quarry lake and its value as a natural resource. A goal of the Visioning Environmental Committee was to ensure that the development of the MRQ is not only a commercial success, but that the highest quality natural resources and recreational values are achieved. Through the future Development Stage PUD process and negotiations with the land owner many environmental objectives may be met.

#### MRQ 2040 Future Land Use and Transportation Concept

The overall MRQ vision has not changed substantially from the vision in the 2030 Comprehensive Plan. The major change has been to replace the detailed concept plan in the 2030 Comprehensive Plan with a higher level and more flexible concept plan that is focused on future land uses and roadway connections rather than buildings. In general, the future land use concept will still allow a broad mix of business and industrial land use but does not target the previous concept's medical technical campus that is no longer a market reality. An addition to the concept, future residential is shown between the river and the future quarry lake.

In addition to future land use changes, the MRQ vision identifies transportation improvements, including a high level roadway network, railroad crossings, and highway interchanges. The 2040 Comprehensive Plan Update project explored two I-35W interchange concepts: the two existing interchanges at Highway 13 and Cliff Road or replacement of these two interchanges with a single new interchange in between them. Through this process, it was determined that retaining the two existing interchanges was preferable if the full MRQ area will ultimately be redeveloped, including the area between the river and the future quarry lake.

#### MRQ Development Objectives

The high level objectives for redevelopment of the MRQ are:

- » To reclaim the Minnesota Riverfront for public access/recreation, open space, natural habitat, as well as unique high density housing options
- » Convert the Burnsville Sanitary Landfill site, following its closure, to an 18-hole championship golf course
- » Create a new 340-acre freshwater lake, following closure of the Kraemer Quarry
- » Redevelop areas adjacent to the east side of the new lake with a mix of land uses, including hotels, offices, residential, and class A office in signature iconic buildings with recreational opportunities linked to the lake and river
- » Aesthetic, purposeful, attractive re-use of properties located at North Gateway along I-35W, an important gateway into the community
- » Redevelop the I-35W corridor with high quality office/showroom development on the west and commercial development on the east



- » Establish transit, walking, and bike trail connections within the MRQ and to other areas of the city and the City of Savage
- » Provide high-tech communications, fiber, wireless and other cutting edge technologies and encourage the development community to install these systems at the time of development and redevelopment

#### MRQ Interim/Transition Strategy

The City recognizes that the ultimate redevelopment of the MRQ will likely take years and perhaps decades. To address the transition period between now and ultimate redevelopment, the Zoning Ordinance Interim Use Permit (IUP) process allows for the temporary use of property for exterior storage/display until conditions arise where permanent uses develop. This is another way of acknowledging that this area is under transition and it will not reach its full potential until mining, landfill and related activities are eventually phased out. Outdoor storage is required to be 100 percent screened, which will support an upgrade in the image of the area.

#### Implementation

Implementation strategies for the Minnesota River Quadrant can be found in the Implementation section later in this chapter.

## Cliff Road Business Park

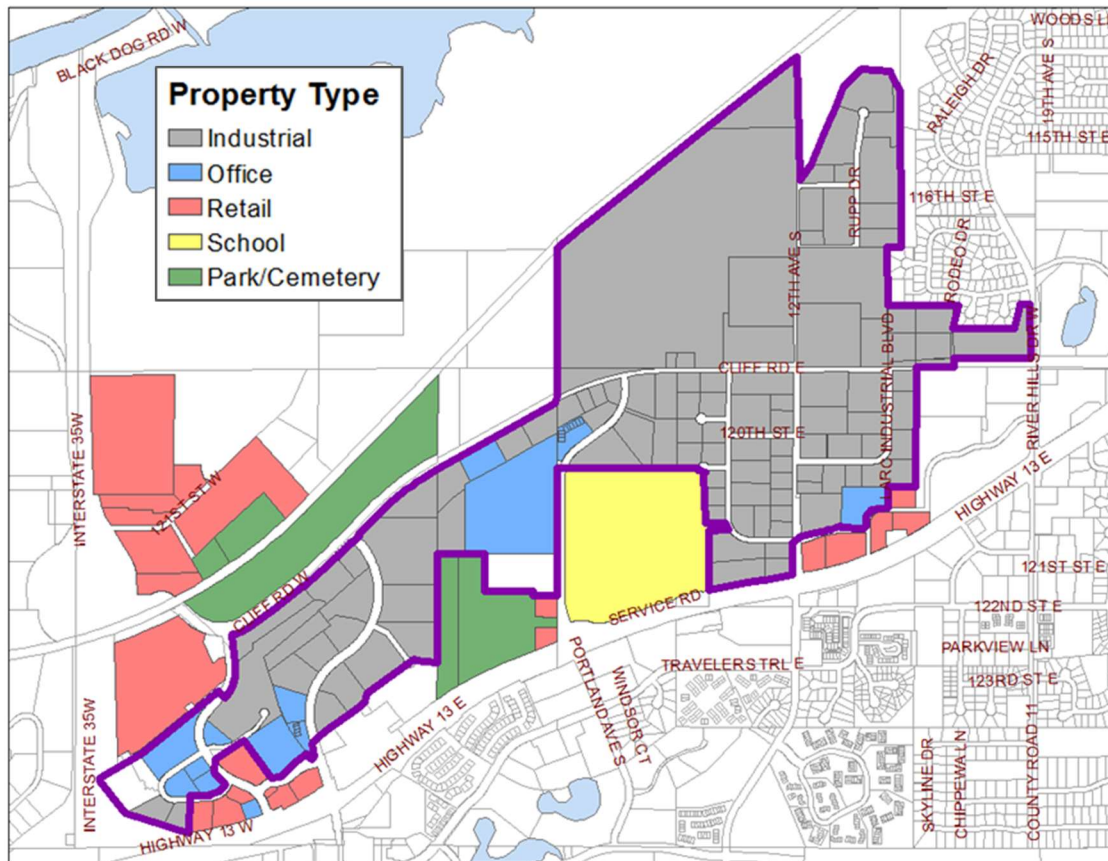
#### Existing Conditions

The Cliff Road Business Park is outlined in purple in the map in Figure 3-12. Its oldest buildings were built in the 1960s, its newest buildings were built in the late 2000s. The core of the area, and first properties developed, is called the LARC Industrial Park. It is centered on the area between Riverwood Drive and Larc Industrial Boulevard. The broader industrial area has no formal designation, but is referred to in this document as the Cliff Road Business Park.

There are a variety of businesses in the Cliff Road Business Park, ranging from manufacturing and technical services, to personal services and indoor sports facilities. While the area has low vacancy, there are some negative perceptions about it due to the age and visual condition of the buildings and yards. That has led to concerns among the public and the business community that conditions may lead to disinvestment and deferred maintenance, and result in further declines in building functionality and appearance. It is an area of focus for the City, with the goal of preserving its long-term viability, and ensuring that it continues to make a positive contribution to Burnsville's economy and image.

Notwithstanding these concerns, the Cliff Road Business Park is also a center of entrepreneurial activity—housing a plethora of viable small businesses, encompassing a wide range of business types and activities.

Figure 3-12: Cliff Road Business Park – Existing Property Types

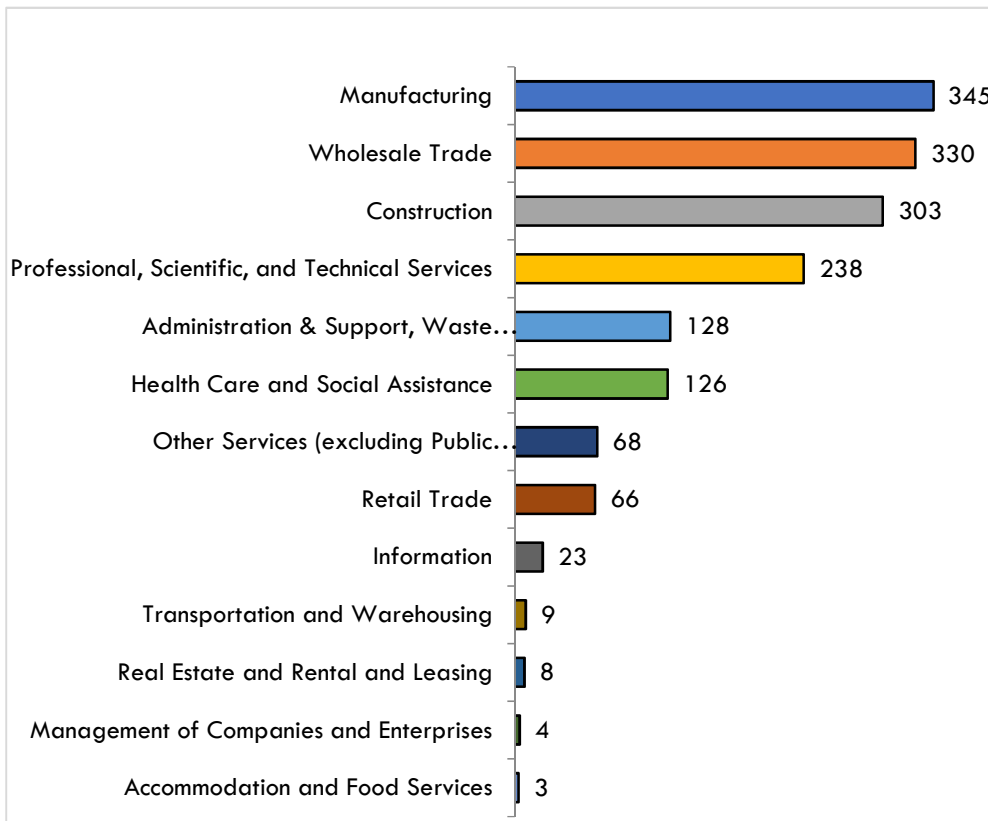


The Cliff Road Business Park follows national and metropolitan patterns in many respects. For the most part, buildings are occupied. A broad mix of businesses are located there, with four industrial sectors employing almost three-quarters of those who work in the area. The dominant sectors are:

- » Manufacturing
- » Wholesale Trade
- » Construction
- » Professional, Scientific, and Technical Services

The mixed appearance of buildings stems from the age of construction. The buildings in the core of the Cliff Road Business Park were built between 1965 and 1980. Most of the other buildings were built between 1980 and 2000. The buildings are small, and have lower clear heights in their warehouse components, compared with newly constructed industrial buildings. Most buildings have multiple tenants. Many house a dozen or more businesses.

Figure 3-13: Cliff Road Business Park – Jobs by NAICS Code

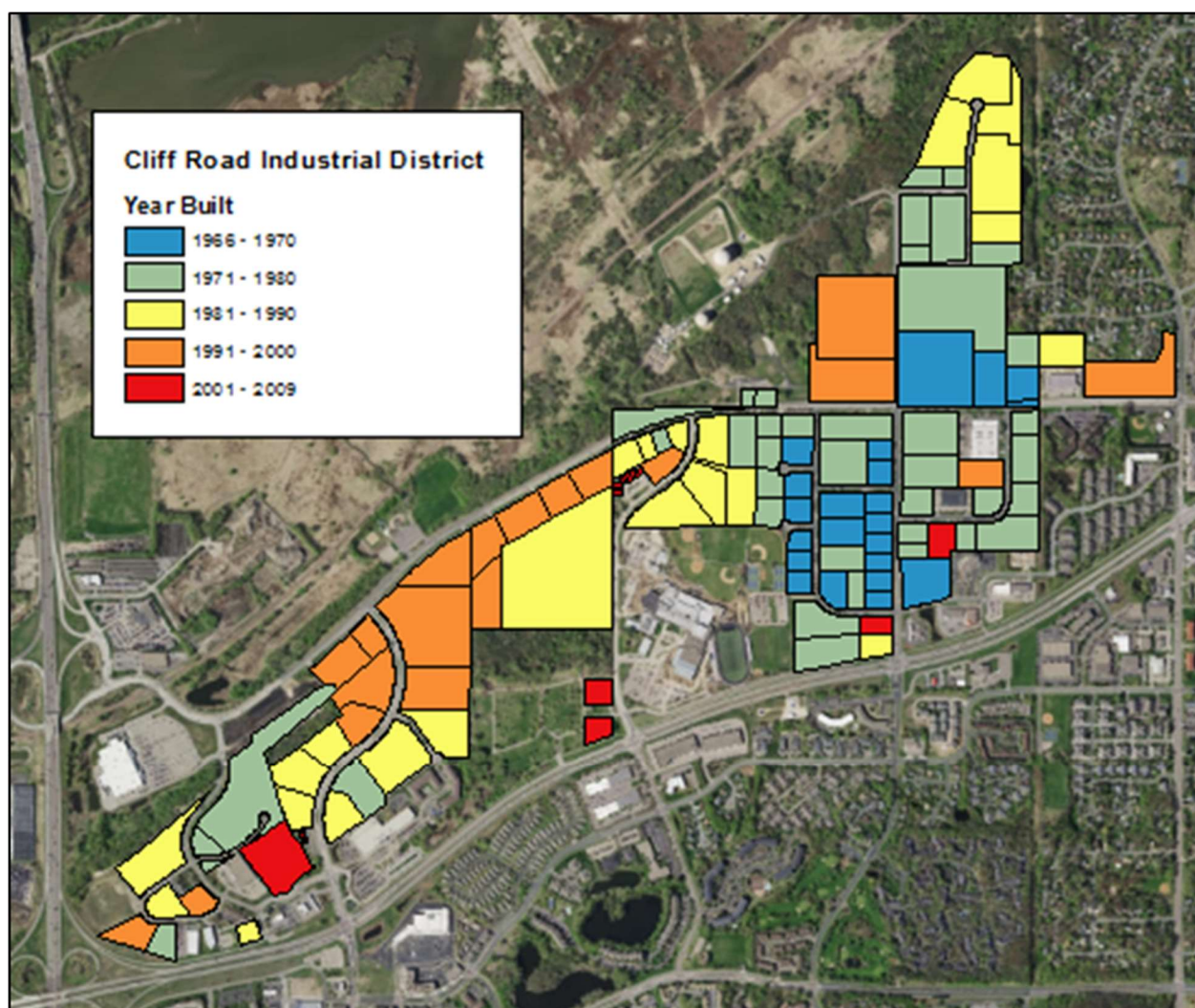


Building occupancy and building owner testimony indicate that, while most of the buildings wouldn't meet today's construction standards, there is still strong demand for the space. Rents tend to be 15 to 20 percent discounted compared to brand new industrial space.

Many building owners continue to invest in the appearance and functionality of their properties, although there have not been many major adaptations and upgrades and little investment in landscaping and yard improvements. Over the years there has been a visible deterioration of parking areas and screening around outdoor storage areas.



Figure 3-14: Cliff Road Business Park – Year Built



### Market Context

The shift in the US industrial economy in recent decades is widely documented and understood. The economy has become more service oriented, and “industrial” areas house a much broader mix of businesses. The term, “Production, Distribution, and Repair” (PDR), is sometimes used to describe the mix of businesses that are found in industrial areas today. PDR includes wholesale businesses, warehousing and distribution, research and development, and contractors’ offices.

Twin Cities industrial and business park areas are in pretty good shape in 2017. Occupancy is high. There is a strong market demand for space, which has led to increases in average asking rents for several years in a row.

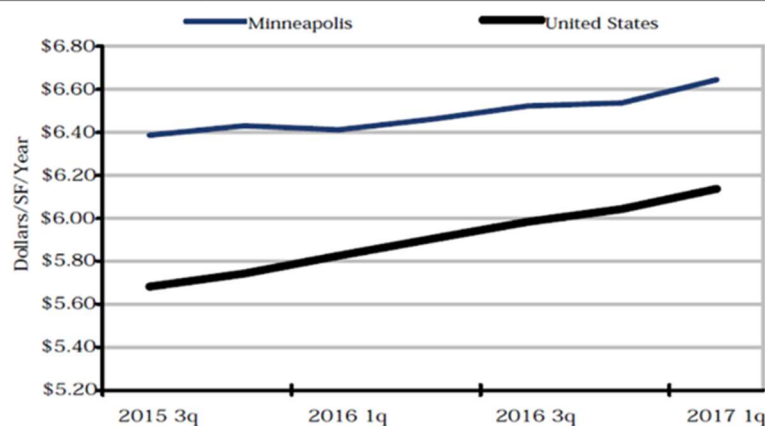
The Cliff Road Business Park has many strengths. The land is flat and the area is well-buffered from nearby residential neighborhoods. It has

excellent access to transportation infrastructure, and it is well positioned as the region's center of gravity has shifted southward. There are amenities nearby, including the Minnesota River, bike trails, and nearby restaurants. The variety of small-to-medium size spaces are ideal for small businesses, business start-ups, and local entrepreneurs, and can help attract new businesses to Burnsville. The City has a reputation of being supportive of business and easy to work with. All of these characteristics add up to a business park that has a lot of inherent value.

Figure 3-15: Rental Rate Comparison – Minneapolis & U.S.

## U.S. Rental Rate Comparison

Based on Average Quoted Rental Rates



Source: Costar

There are weaknesses as well. The older buildings have low clear heights (14') and the configuration of loading docks and interiors are sometimes restrictive. Some of the buildings appear tired, with poor signage, cracked facades and unkempt parking and border areas. Deteriorating physical conditions in the area may be a disincentive for property owners to invest in their own properties, leading to longer-term disinvestment. Some property owners have not reinvested in their properties due to the fact that they are occupied and continue to have positive cash flow.

Transit service to the Cliff Road Business Park is not strong. Parking is not sufficient for some properties. The area lacks identity, or even an identifying label. Unifying elements, such as streetscaping, signage or landscaping themes, are lacking. The encroachment of potentially incompatible uses may be taken as a signal that the area won't be protected for business use over the long term.

### Findings

The Cliff Road Business Park is still viable, and it offers a complementary business setting to the newer Southcross Industrial Park. Start-ups, research, local food production and processing may find these buildings attractive because they are smaller, less expensive, and well located, even if the



lower ceiling heights and configuration issues take some prospective tenants off the table. The Business Park also provides benefits to Burnsville in its job intensiveness, and the relatively high paying jobs it offers. It generates commercial property taxes, and contributes to a balanced city economy.

The Cliff Road Business Park is not likely to see redevelopment of properties in the foreseeable future, but other steps can be taken to ensure the ongoing viability of the area, and its contribution to the city. The City will consider policies and actions that improve the area’s physical and market image, and support property reinvestment.

Figure 3-16: Cliff Road Business Park – Potential Improvements and Amenities

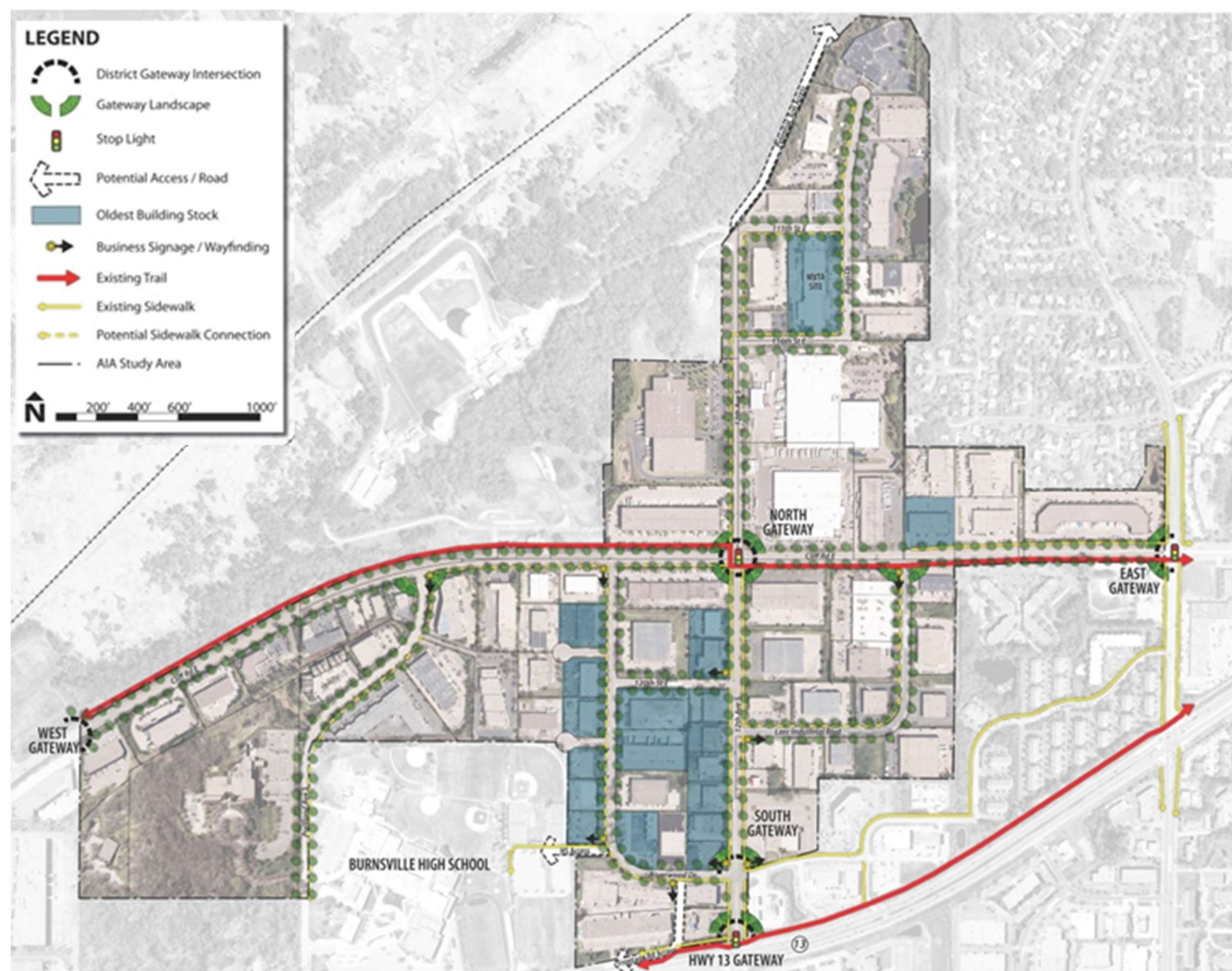


Figure 3-16 on the previous page shows some potential areas of reinvestment and amenities that could help solidify the Cliff Road Business Park identity. These elements include:

- » Streetscape improvements
- » Opportunity areas for Reinvestment
- » Gateways
- » Connections to trails, sidewalks, and transit

## Implementation

Implementation strategies for the Cliff Road Business Park can be found in the Implementation section later in this chapter.

## Burnsville Center Area

### Existing Conditions

The retail area along County Road 42, and anchored by Burnsville Center Mall, is one of Burnsville's signature assets. An important contributor to the quality of life of Burnsville's residents, it offers a range of retail goods and services that meets a broad variety of needs and tastes. And it serves as a retail destination for many who live outside Burnsville.

Burnsville Center Mall anchors this retail area. It is one of eight super-regional malls in the Twin Cities, and the most recent to be built (in 1977), except for the Mall of America. It provides around 1.4 million square feet of leasable area, which is similar in scale to Ridgedale, Southdale, and Rosedale. Property ownership is fragmented. The mall owner, CBL and Associates, owns only the central part of the building, and parts of the parking lot. The four anchor stores are individually owned, and each of the store owners also owns a section of the parking lot that radiates out from the store. This ownership pattern can complicate efforts to adopt a coordinated strategy to reposition the mall.

Table 3-4: Twin Cities Super-Regional Retail Malls

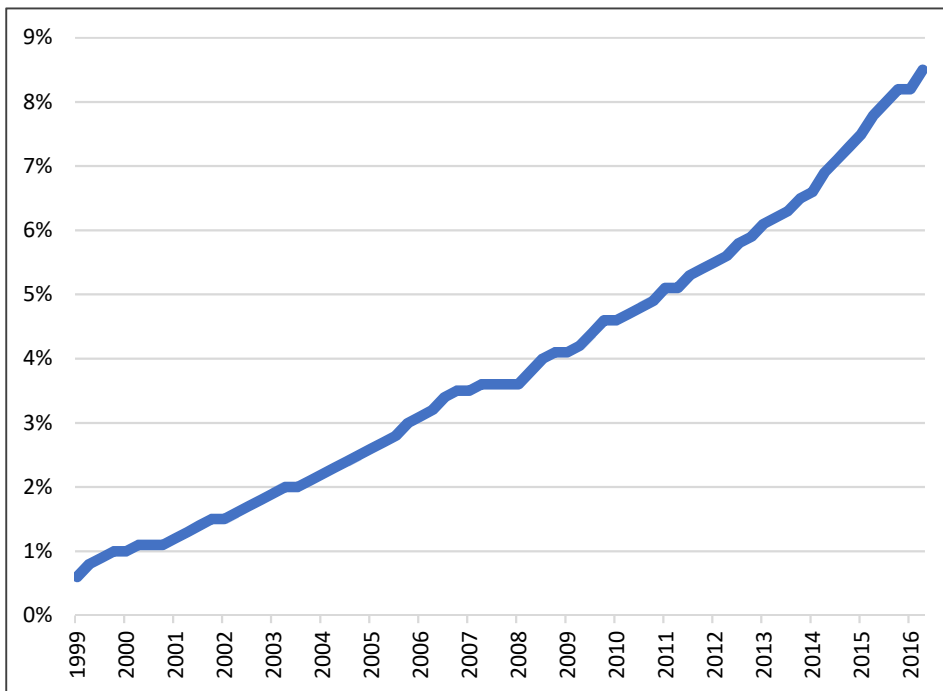
| Center Name         | Year Built | Leasable Area (s.f.) |
|---------------------|------------|----------------------|
| Maplewood Mall      | 1974       | 820,000              |
| Northtown Mall      | 1972       | 940,000              |
| Ridgedale Center    | 1974       | 1,300,000            |
| Southdale Center    | 1956       | 1,340,000            |
| Burnsville Center   | 1977       | 1,360,000            |
| Rosedale Center     | 1968       | 1,380,000            |
| Eden Prairie Center | 1975       | 1,870,000            |
| Mall Of America     | 1992       | 2,770,000            |

## Market Context

The retail market is undergoing rapid changes. Online retail sales have increased dramatically over the past decade and a half. In 2000, online sales represented less than 1 percent of all retail purchases. Today, they comprise over 8 percent of sales, and the trend points to further growth. That cuts into the viability of bricks and mortar retail stores, and is one of the factors behind a shift in retail store types. Book stores, for example, have been very hard hit, while the demand for restaurants has been stable, or even grown.

Regional malls face particular challenges in that their traditional anchors are department stores, and department stores are particularly hard hit in the new retail environment. Many regional malls are facing declining sales and store closures. Some are undertaking major changes to reinvent themselves and restore their cachet. They may be incorporating nontraditional anchors, or adding new retail formats, such as a lifestyle wing with outward facing stores and an emphasis on walkability. Some are giving up parking lot space to support new housing, office, or hotel development.

Figure 3-17: Online Retail Sales as A Percentage of Total Retail Sales



Source: Federal Reserve Bank of St Louis

This macro environment is impacting Burnsville Center Mall, as evidenced by a higher than normal number of vacant store spaces. Some other Twin Cities malls, experiencing similar pressures, have taken major steps to reposition themselves in the new market environment. They are adapting



physically, and may be undertaking strategic planning processes, in collaboration with the public sector.

Table 3-5: Expansion and New Development at Twin Cities Super-Regional Retail Malls

|                                            | Burnsville Center | Ridgedale Center | Southdale Center | Rosedale Center | Eden Prairie Center |
|--------------------------------------------|-------------------|------------------|------------------|-----------------|---------------------|
| Mall Addition                              |                   | X                |                  | X               |                     |
| New Housing Development on Property        |                   |                  | X                |                 |                     |
| New Housing Development, Adjacent Property |                   | X                | X                |                 |                     |

## Implementation

In 2019, the City Council approved the Center Village Vision with the overall goal is to prepare a feasible redevelopment vision that meets the market and community objectives. To enable future development consistent with the vision an additional 165 acres of land will change from BUS to MIX and 5.91 acres will change from LDR to MIX. The area identified is generally located West of 35W, South of McAndrews Road West and adjacent to County Road 42 and County Road 5

Additional implementation strategies for the Burnsville Center Mall Area can be found in the Implementation section later in this chapter.

## Sustainability

Economic development must be imbedded in each of the sustainability areas as well as the Comprehensive Plan chapters. It is therefore woven into other chapters and is a result or outcome of implementing those other approaches. Accordingly, the strategies provided in the sustainability areas must fit within the economic plans for the community, and indeed, should serve to enrich and enhance the local economy. This can be accomplished through innovations and by adding new services, new and more diverse businesses, better operations, and new ways of doing business.

Instead the Economic Development aspect should focus on adopting and rigorously applying sustainability principles and establishing policies that ensure economic development and redevelopment is sustainable. It does this by using the strategies adopted for the individual chapters, and all the other sustainability portions of the plan should be referenced when considering economic development and redevelopment. The ability to accelerate and enhance adoption of sustainability principals can be accomplished by the City promoting and assisting in educating their local

businesses, chamber of commerce, and residents, and providing forums and information sharing platforms.

Redevelopment is similar to economic development, with sustainability imbedded in each of the other chapters and would all apply here as redevelopment occurs. There are certain redevelopment nodes that have been identified in the city for this plan and strategies specific to those sites, in addition to those mentioned in other chapters, is provided.

| Sustainability Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Economic Development Sustainability Approaches                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>The economic factor is imbedded in all strategies identified in the other chapters and those strategies apply here as well.</i></p> <ul style="list-style-type: none"> <li>» Educate the local community and especially businesses on sustainability principals using resources like the following: <ul style="list-style-type: none"> <li>- Natural Step: A simple, science-based tool for analyzing the complex issues associated with sustainable development. The A-B-C-D Analytical approach includes four elements, which are repeated as the business progresses along various pathways towards sustainability. (Awareness, Baseline Mapping, Creating a Vision, Down to Action)</li> <li>- Triple Bottom Line evaluation: an accounting framework that incorporates three dimensions of performance: social, environmental and financial. This differs from traditional reporting frameworks as it includes ecological (or environmental) and social measures that can be difficult to assign appropriate means of measurement.</li> <li>- Circular Economy: A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.</li> </ul> </li> <li>» Hold workshops and forums on sustainability as applied to the local economy in order to form business and resident networks.</li> </ul> |                                                                                                                                                                                                                                                                                                                            |
| Heart of the City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                            |
|  <p>Energy Reduction</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>» Continue to allow rooftop solar</li> <li>» Continue use of walkable and transit-oriented developments</li> <li>» Explore a Brownfield Redevelopment Program to identify and promote the redevelopment of brownfield sites</li> </ul>                                              |
|  <p>Sustainable Water Supply</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>» Ensure new and redevelopment meet the City's water resources management plan development standards</li> <li>» Consider green/living streets policies/standards</li> <li>» Continue stormwater volume control practices in multi-use spaces (recreation, public spaces)</li> </ul> |

|                                                                                                                               |                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Waste Reduction                          | <ul style="list-style-type: none"> <li>» Consider organics recycling (business, residential)</li> </ul>                                                                                                                                                                                                                  |
| <br>Sustainable Food System Opportunities    | <ul style="list-style-type: none"> <li>» Continue to allow farmers markets</li> </ul>                                                                                                                                                                                                                                    |
| <br>Efficient Use of Infrastructure and Land | <ul style="list-style-type: none"> <li>» Continue multimodal connected streets and places</li> <li>» Allow for mixed housing</li> <li>» Continue to require quality architecture and urban design</li> </ul>                                                                                                             |
| <br>Natural Resource Conservation            | <ul style="list-style-type: none"> <li>» Allow for and support electronic vehicle charging stations</li> </ul>                                                                                                                                                                                                           |
| <br>Climate Resiliency                       | <ul style="list-style-type: none"> <li>» Maintain and support the urban compact green environment created</li> <li>» Allow for green roofs</li> </ul>                                                                                                                                                                    |
| <b>Minnesota River Quadrant</b>                                                                                               |                                                                                                                                                                                                                                                                                                                          |
| <br>Energy Reduction                       | <ul style="list-style-type: none"> <li>» Consider utilization of district energy (using lake for heat exchange)</li> <li>» Use walkable and transit-oriented developments where development is planned</li> </ul>                                                                                                        |
| <br>Sustainable Water Supply               | <ul style="list-style-type: none"> <li>» Consider installation of district level greywater reuse infrastructure</li> <li>» Ensure new and redevelopment meet the City's water resources management plan development standards</li> <li>» Implement green/living streets policies/standards upon redevelopment</li> </ul> |
| <br>Waste Reduction                        | <ul style="list-style-type: none"> <li>» Consider organics recycling (business, residential)</li> </ul>                                                                                                                                                                                                                  |
| <br>Sustainable Food System Opportunities  | <ul style="list-style-type: none"> <li>» Support aquaculture as a potential land use</li> <li>» Consider allowing small scale farming on capped landfills</li> <li>» Continue to allow small scale farming in floodplains</li> </ul>                                                                                     |

|                                                                                                                                         |                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Efficient Use of<br/>Infrastructure and Land</p>   | <ul style="list-style-type: none"> <li>» Continue to encourage farmers markets</li> <li>» Create multimodal connected streets and places</li> <li>» Allow for mixed housing</li> <li>» Require quality architecture and urban design upon redevelopment</li> </ul> |
|  <p>Natural Resource<br/>Conservation</p>              | <ul style="list-style-type: none"> <li>» Restore disturbed floodplain, and remediation of the old landfill</li> </ul>                                                                                                                                              |
|  <p>Climate Resiliency</p>                             | <ul style="list-style-type: none"> <li>» Consider an urban compact green environment where residential development is proposed</li> <li>» Allow for green roofs</li> <li>» Implement stormwater reuse (evaporated heat loss)</li> </ul>                            |
| <b>Cliff Road Business Park</b>                                                                                                         |                                                                                                                                                                                                                                                                    |
|  <p>Energy<br/>Reduction</p>                           | <ul style="list-style-type: none"> <li>» Explore rooftop solar</li> <li>» Promote Incentive programs (with utility) for energy efficiency retrofiting</li> </ul>                                                                                                   |
|  <p>Sustainable<br/>Water Supply</p>                 | <ul style="list-style-type: none"> <li>» Stormwater volume control practices in multi-use spaces (recreation, public spaces)</li> </ul>                                                                                                                            |
|  <p>Waste<br/>Reduction</p>                          | <ul style="list-style-type: none"> <li>» Encourage organics recycling (business-scale)</li> <li>» Support pairing complementary industries (i.e. waste becomes raw material for new products)</li> </ul>                                                           |
|  <p>Sustainable Food<br/>System Opportunities</p>    | <ul style="list-style-type: none"> <li>» Support local/cottage food industries</li> <li>» Encourage aquaponics and other sustainable practices</li> </ul>                                                                                                          |
|  <p>Efficient Use of<br/>Infrastructure and Lane</p> | <ul style="list-style-type: none"> <li>» Consider how to incentivize reinvestment by existing business with energy, water, and waste efficient retrofitings</li> </ul>                                                                                             |
|  <p>Natural Resource<br/>Conservation</p>            | <ul style="list-style-type: none"> <li>» Add urban trees</li> <li>» Implement green streets</li> </ul>                                                                                                                                                             |



Climate Resiliency

- » Allow for green roofs
- » Consider how to implement alternative water sources (rainwater harvesting from roof, greywater reuse)

## Sustainability Measures of Success

The following measures of success can be used to assess progress on sustainability initiatives:

- » Establish regular workshops and information sharing forums, including the local chamber of commerce and local businesses.
- » Number of businesses attending programs and initiating sustainability practices.
- » Measure the number of physical improvements made on public or private properties such as rain gardens, solar arrays, wind turbines, community gardens, trail connections, etc.
- » Measuring new jobs created in the community that are a result of sustainability ideas or sustainable-based businesses promoted by the City.

## Implementation

| Economic Development Needs                                                                                                                                                                                                                                                                                                                                    | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>General</b></p> <p>The City of Burnsville has abundant strengths and assets. But assets become diminished over time without ongoing investment and clear messaging to connect them to the City's identity.</p>                                                                                                                                          | <ul style="list-style-type: none"> <li>» Continue to build the offerings of events and activities that draw in commerce to support the local economy</li> <li>» In partnership with Experience Burnsville, review and refine practices for marketing City destinations, assets and activities, so that they consistently build the City's brand identity in the region, and are effective in attracting participation in events, and customers to local businesses</li> <li>» Continue to understand obstacles to attracting development and business investment, and take steps to remove these impediments</li> </ul> |
| <p><b>Heart of the City</b></p> <p>There is a market demand for the type of developments assumed. However, such development may occur very slowly in the absence of public sector support. Most of the illustrated developments would require acquiring property that is already developed in some way, and that adds cost and complexity to development.</p> | <ul style="list-style-type: none"> <li>» Sustain policy support for the range of land use and density outcomes that are desired</li> <li>» Implement clear processes, and a supportive environment, for pursuing development approvals</li> <li>» Review development objectives and guidelines to ensure they are clear and well-defined</li> <li>» Coordination of street and utility extensions with development</li> </ul>                                                                                                                                                                                           |



| Economic Development Needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The nature of the public sector support needed to foster HOC development would vary, depending on several conditions, including land ownership patterns, cost and difficulty of site assembly, and expected future rents. Some of these actions have not been commonly utilized in Burnsville but may be necessary to foster transit-oriented development in the broader Heart of the City area.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>» Enhance park development, where identified</li> <li>» Provide and support gap financing options</li> <li>» Support the pursuit of cleanup or other development funding</li> <li>» Consider site assembly, site preparation as opportunities arise to meet the vision</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p style="text-align: center;"><b>Minnesota River Quadrant</b></p> <p>There are challenges with maintaining an ambitious vision, when implementation of that vision is decades in the future. Shepherding that vision over time requires both flexibility, and good decisions about near term development. Implementation of the MRQ vision and objectives will be complicated, take many years to fulfill, and require the cooperation of multiple private land owners, agencies, and jurisdictions. The transformation of this heavy industrial part of the city to the MRQ vision and objectives will occur through the transition of land uses, intermittent redevelopment, and the sunset of interim uses such as the Burnsville Sanitary Landfill and Kraemer Quarry operations. Short term opportunities will emerge in the southern part of the MRQ, while the entire area north of Cliff Road will need to wait until gravel mining has run its course. This vision is subject to the private landowners' willingness to redevelop and/or sell land for redevelopment purposes.</p> | <ul style="list-style-type: none"> <li>» Support cleanup of polluted sites</li> <li>» Support clearance of land, outdated buildings, equipment</li> <li>» Encourage and be a resource for extensive soils corrections</li> <li>» Relocation of electrical transmission lines</li> <li>» Major transportation/infrastructure improvements</li> <li>» Relocation/redevelopment efforts for current businesses</li> <li>» Foster cooperation between many regional, state, and federal agencies, in addition to the City of Burnsville, Dakota County, and all of the property owners</li> <li>» Be flexible. The commitment to a high quality future, which offers great benefit to the City, needs to be retained. However, the details of the vision need to stay flexible so that it can stay compatible with changing market conditions</li> <li>» Near term development. The policy framework and development review processes will need to act together to ensure that near term incremental development will, in its development type, quality, and location, support the potential for signature development in the long run. Interim uses may be appropriate in some areas</li> <li>» Provide planned public infrastructure</li> <li>» Remove impediments to development, including but not limited to poor foundation soils, and providing other development assistance, such as tax increment financing and other tools</li> </ul> |
| <p style="text-align: center;"><b>Cliff Road Business Park</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p><b>1. Target the Cliff Road Business Park for rehabilitation and building adaptation</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Economic Development Needs    | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | <ul style="list-style-type: none"> <li>» Support functional adaptations, façade improvements, and energy efficiency upgrades to ensure long-term viability of the properties and area</li> <li>» Consider implementing a building evaluation program to identify most effective changes to be made</li> <li>» Develop relationships with creative industrial developers who are expert at repositioning older industrial properties</li> <li>» Consider the creation of a matching grant/loan fund for property adaptations targeted at industrial businesses</li> <li>» Conduct follow-up study to update the 2002 Aging Industrial Study and the City's existing policy/tools supporting reinvestment in aging industrial properties</li> </ul> <p><b>2. Commit to the long-term industrial character of this area</b></p> <ul style="list-style-type: none"> <li>» Review zoning regulations to ensure that all permitted uses are supportive of the industrial character of the area</li> </ul> <p><b>3. Brand the Cliff Road Business Park and strengthen its identity to facilitate business retention and attraction</b></p> <ul style="list-style-type: none"> <li>» Name the Business Park so that it can be identified and marketed by the real estate and business community</li> <li>» Improve the public realm, including streetscape and Park entrances</li> <li>» Promote coordination between property and business owners to encourage signage upgrades, façade improvements, and enhanced landscaping</li> <li>» Identify the Park's distinctive characteristics – entrepreneurial, well-connected to amenities – and enhance them to build on the brand</li> </ul> <p><b>4. Take steps to improve transit service to business areas, and support the expansion of business parking areas as opportunities are available</b></p> <ul style="list-style-type: none"> <li>» Consider and support public or privately shared parking lots for the area as well as a pocket park and gathering area</li> </ul> |
| <b>Burnsville Center Area</b> | <ul style="list-style-type: none"> <li>» Lead a planning/market/development study, such as the study of development scenarios that was done on</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Economic Development Needs                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Injecting new energy into the Burnsville Center Mall will require a close collaboration with the mall ownership, which includes multiple owners and interests. The public sector can play an important role in initiating and sustaining this collaboration, by taking the initiative, inviting the interest of additional potential players, working together to generate an inventory of repositioning strategies, and extending financial and nonfinancial support.</p> | <p>behalf of Minnetonka for Ridgedale Center and Edina for Southdale Center</p> <ul style="list-style-type: none"> <li>» Highlight best practices nationally for repositioning regional malls</li> <li>» Invite local and national developer interest</li> <li>» Highlight the transit-oriented development potential of the area</li> <li>» Don't focus exclusively on the Burnsville Center site. Include nearby development opportunities and retail repositioning opportunities</li> <li>» Capitalize on the Phase 2 Orange Line by examining land uses and connectivity and tools needed to facilitate desired development</li> <li>» Consider a regional place-making concept to create a one-of-a-kind draw for the region</li> </ul> |

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## Chapter 4 - Neighborhoods and Housing

**VISION: PEOPLE FEEL CONNECTED TO THEIR NEIGHBORHOODS.**

People take pride and ownership in their homes and neighborhoods and believe there is a great quality of life in Burnsville. To meet the needs of Burnsville's growing and changing population, the city offers neighborhoods with a diverse mix of high quality housing options, social connectivity, high property maintenance standards, and an attractive community environment.





Table of Contents – Chapter 4

Introduction..... 170

Goals & Policies..... 171

Existing Conditions..... 174

*Neighborhoods Profile* ..... 174

*Housing Profile*..... 175

Future Housing Demand..... 194

*Future Forecasts & Projections*..... 195

*Demographic Projections*..... 196

*Allocation of Affordable Housing Need*..... 199

Future Neighborhood and Housing Needs ..... 202

*Reinvestment in Burnsville’s Aging Housing Stock*..... 202

*Housing Options to Accommodate Burnsville’s Growing and Diversifying Population* ..... 202

*Increased Housing Options to Fit Changing Housing/Neighborhood Style Preferences of*  
    *Current and Future Residents* ..... 203

*Affordable Housing Options for a Broader Range of Household Types and Income Levels* 203

*Stronger Neighborhood Organizations, Identity and Amenities*..... 203

Sustainability ..... 204

Implementation..... 206

*Housing Tools* ..... 211

## Table of Figures – Chapter 4

|                                                                           |     |
|---------------------------------------------------------------------------|-----|
| Figure 4-1: Historical Housing Units by Type, 1964-2010 .....             | 176 |
| Figure 4-2: Style of Housing in Burnsville, 2016 .....                    | 178 |
| Figure 4-3: Year Built of Housing Stock, 2017 .....                       | 180 |
| Figure 4-4: Subdivision Condition, 2013 .....                             | 182 |
| Figure 4-5: Residential Building Permits (Dwelling Units) 2005-2016 ..... | 184 |
| Figure 4-6: Tenure by Age of Householder, 2015 .....                      | 185 |
| Figure 4-7: Value of Owner-Occupied Units, 2000-2015 .....                | 186 |
| Figure 4-8: Owner Occupied Housing by Estimated Market Value, 2015 .....  | 187 |
| Figure 4-9: Burnsville Household Income, 2000-2015 .....                  | 189 |
| Figure 4-10: 2013 Burnsville Senior Housing by Type .....                 | 193 |

## Table of Tables – Chapter 4

|                                                                                      |     |
|--------------------------------------------------------------------------------------|-----|
| Table 4-1: Burnsville Housing Units by Type, 2015 .....                              | 176 |
| Table 4-2: Year Built of Housing Stock, 2015 .....                                   | 179 |
| Table 4-3: Residential Building Permits (Dwelling Units) 2005-2016 .....             | 183 |
| Table 4-4: Tenure by Housing Type (Occupied Units) 2015 .....                        | 185 |
| Table 4-5: Residential Building Permit Valuation (does not include land value) ..... | 188 |
| Table 4-6: Existing Affordable Housing Units 2015 .....                              | 190 |
| Table 4-7: Percent of Household Income Spent on Housing Costs, 2015 .....            | 190 |
| Table 4-8: Housing Cost Burdened Households, 2015 .....                              | 191 |
| Table 4-9: Publicly Subsidized Units .....                                           | 191 |
| Table 4-10: Summary of Burnsville Rental Market 2010-2016 .....                      | 192 |
| Table 4-11: 2016 Comparison of Burnsville & Dakota County Rental Data .....          | 192 |
| Table 4-12: Senior Housing, 2011 .....                                               | 193 |
| Table 4-13: Metropolitan Council Forecasts for City of Burnsville .....              | 196 |
| Table 4-14: Twin Cities Metropolitan Regional Household Income Levels, 2015 .....    | 200 |
| Table 4-15: Affordable Housing Need Allocation for Burnsville 2030 .....             | 200 |
| Table 4-16: Burnsville Future Land Use Designations for Affordable Allocation .....  | 201 |
| Table 4-17: Burnsville Development Potential for Affordable Allocation .....         | 202 |

# Neighborhoods and Housing

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## Introduction

Livable neighborhoods and housing options are fundamental to the foundation of Burnsville and they define “sense of place” and “quality of life” for many residents. Burnsville residents feel that neighborhoods are enjoyable, safe and stable places to live, work and recreate. The livability of Burnsville is so well-regarded by current residents that a current survey indicated 72 percent plan on remaining in the city for at least the next ten years. Burnsville has a variety of diverse neighborhoods that range by size, age, housing types and amenities. Community members show pride and ownership in their neighborhoods and work collaboratively with the City to plan and develop strategies to advance neighborhood viability. As a community that is nearly fully developed, Burnsville’s future housing and neighborhoods are driven by an overarching ideal of maintaining what we have, enhancing what we can, and adapting to meet future needs all within a sustainable framework. The City wants to maintain and encourage the physical and social connectivity of its neighborhoods by identifying needs, addressing challenges, and affecting change in the community.

Within Burnsville’s neighborhoods, there is a variety of desirable housing to meet the needs of residents. Existing housing stock will need consistent maintenance while new housing should be designed to meet the needs and desires of our residents. Neighborhoods are treasured assets to the city and new housing will be integrated and designed to be sensitive to the neighborhoods in which it will be located. New housing will be sustainable incorporating energy efficiency, green construction and flexibility for modification over time based on changing family needs.

As a maturing community Burnsville has many challenges and opportunities to maintain and provide housing choice and life-cycle housing for its residents. Burnsville considers its housing stock to be a critical building block of our neighborhoods and community development efforts. The livability and appearance of neighborhoods and the housing within them, is a quality of life indicator for the community.

As a sustainable community, Burnsville will plan to provide housing opportunities for its workforce, young professionals, families, special needs, immigrants, and senior residents as well as business and corporate owners. Diverse housing supports economic development by keeping existing residents, attracting new people from all social and economic classes and is essential for sustaining an ever changing and developing population. The City has been a leader at providing for workforce and affordable housing and will continue to provide opportunities for additional housing for all segments of the population.

As the city's demographics change and transition, the city will need to accommodate a wider variety of housing types, including mixed use, live/work units, higher end "executive," multi-generational, and transitional housing while maintaining the character of existing neighborhoods. The City will continue to enforce housing and property maintenance codes, and promote programs aimed at home improvement, sustainability, green building practices, and energy efficiency.

This chapter satisfies the requirements of the Mandatory Planning Act and stipulations of Chapter 462C of Minnesota Statutes which requires a housing plan prior to the sale of mortgage revenue bonds. This chapter provides housing goals and policies, a housing profile indicating the status of Burnsville's housing, affordable housing, future housing demand and strategies/recommendations to accomplish the stated goals and policies.

## Goals & Policies

The 2040 Comprehensive Plan establishes the following goals and policies to guide future neighborhood and housing changes in the community. The five neighborhood and housing goals (NH Goals) are high level yet targeted statements of how the community intends to achieve the vision of the Neighborhoods and Housing Plan, which is stated on page 1 of this chapter. The five goals encompass the community's desire for desirable and connected neighborhoods, reinvestment in existing housing, a diverse mix of housing options, and housing affordability. Each neighborhood and housing goal is supported by a set of policies that define the City's preferred directions or methods of action to guide and determine neighborhood and housing decisions.

### **NH Goal 1. Neighborhoods are enjoyable, safe, and stable places to live, work, and recreate.**

NH Policy 1.1. Ensure that new development and redevelopment areas are served by public facilities that enhance neighborhood value and character.

NH Policy 1.2. Establish zoning standards to accomplish high quality, aesthetically pleasing landscapes, buildings and site improvements for all neighborhoods.

NH Policy 1.3. Preserve and enhance the integrity of neighborhoods by prohibiting the intrusion of incompatible uses, and requiring adherence to city code performance standards.

NH Policy 1.4. Ensure that business developments are designed and located to minimize truck traffic through existing residential streets.

NH Policy 1.5. Promote the use of neighborhood improvement grants, community events, and property maintenance code enforcement to sustain and improve Burnsville's neighborhoods.

NH Policy 1.6. Provide neighborhood access to new technology infrastructure, designed to complement residential living environments and aesthetics.

**NH Goal 2. Neighborhoods are better connected to surrounding services and amenities.**

NH Policy 2.1. Improve transit opportunities for all neighborhoods to facilitate access to employment, shopping, educational facilities, and park/recreation areas.

NH Policy 2.2. Encourage infill development to be designed to complement existing neighborhood development character and integrate into surrounding amenities.

NH Policy 2.3. Require pedestrian access and connections to sidewalks and/or trails within all developments.

**NH Goal 3. Quality housing is achieved by promoting and encouraging the upgrade, enhancement and maintenance of existing housing stock.\*<sup>1</sup>**

NH Policy 3.1. Partner with agencies and community groups to institute quality of life improvements at distressed housing sites and encourage reinvestment in older properties to maintain their appearance, functionality and value.

NH Policy 3.2. Promote organization of neighborhood groups to organize residents, identify and address issues and advocate for neighborhood preservation, enhancement and assistance.

NH Policy 3.3. Continue property maintenance inspections to inform property owners of compliance issues and ways to correct problems to bring sites into compliance with property maintenance codes and zoning standards.

NH Policy 3.4. Update ordinances to maintain housing functionality, livability and to address new technologies, market trends and resident needs.

NH Policy 3.5. Assist homeowners in the home remodeling and building permit process through informational referrals on the city website, publications and forums.

NH Policy 3.6. Support sound management and maintenance of rental properties through the rental licensing program.

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<sup>1</sup> \* Indicates a Goal or Policy that refers to the Council's adopted Ends and Outcomes



NH Policy 3.7. Promote reinvestment in existing housing stock to support adaptability and accessibility for senior residents and others with limited physical functions.

**NH Goal 4. Having a diverse mix of housing types throughout the City, including amenity rich multi-family development.\*<sup>2</sup>**

NH Policy 4.1. Promote the addition of a variety of housing types to accommodate all life cycle stages for Burnsville residents.

NH Policy 4.2. Encourage a diversity of housing options within neighborhoods to avoid high concentrations of low and modest-cost housing in any portion of the city.

NH Policy 4.3. Develop sustainable housing that is energy efficient, utilizes green building techniques, and targeted funding programs for housing rehabilitation.

NH Policy 4.4. Capitalize on redevelopment opportunities in transit station areas to increase the diversity of housing types available in Burnsville.

NH Policy 4.5. Promote the addition of new housing types in locations with convenient access to neighborhood services and amenities.

NH Policy 4.6. Increase the diversity of senior housing options relating to level of services, and physical types, such as one-level housing units and accessibility considerations.

NH Policy 4.7. Consider allowing new housing types in Burnsville, such as smaller single-family lots within pocket neighborhoods, accessory dwelling units, and multi-generational housing.

**NH Goal 5. Housing affordability in Burnsville is achieved for a broader range of household incomes, both homeowners and renters.**

NH Policy 5.1. Maintain and enhance Burnsville's existing balance of market rate and affordable housing, which includes Naturally Occurring Affordable Housing (NOAH)

NH Policy 5.2. Maintain strong partnerships with the Dakota County Community Development Agency (CDA), Metropolitan Council and other agencies/programs such as Habitat for Humanity.

NH Policy 5.3. Encourage the incorporation of future affordable housing units (funded by other agencies) as part of mixed-use (with residential) projects and/or as a component of new multifamily projects.

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<sup>2</sup> \* Indicates a Goal or Policy that refers to the Council's adopted Ends and Outcomes

NH Policy 5.4. Participate in the Livable Communities Act Local Housing Incentives Program to meet adopted Liveable Communities Act (LCA) benchmarks.

NH Policy 5.5. Provide opportunities for affordable and workforce housing, recognizing the City is responsible for a share of the 2030 regional affordable housing allocation.

## Existing Conditions

### Neighborhoods Profile

Many of Burnsville's neighborhoods are comprised of single-family homes developed between the mid-1960s and 1990s. Most of these neighborhoods were developed based on typical suburban patterns including cul-de-sac design with homes surrounding natural amenities like lakes/wetlands, wooded areas and parks. The suburban development pattern resulted from the desire of residents to leave more congested areas to find less expensive homes with large yards and more space for the enjoyment of families. While this development pattern provides for secluded and quiet neighborhoods, it also poses challenges to develop connectivity between and among neighborhoods and hampers the ability to provide many public services such as school busing or postal delivery, transit, and other public services in the most cost efficient way.

As Burnsville and the areas south of the Minnesota River grew, so did the need for transportation and other services for residents and local businesses. Today, regional traffic flows through Burnsville to access employment centers and amenities north of the Minnesota River.

Residential neighborhoods that are adjacent to high traffic streets/highways are experiencing more of the negative impacts associated with increased traffic. The larger roadway systems needed to accommodate regional traffic also divide Burnsville into many subareas that are today separated from each other. Part of the challenge for this 2040 Comprehensive Plan Update will be to devise strategies to provide better connections between neighborhoods and other community centers (shopping, parks, employment, schools, churches etc.), where possible or plan to incorporate needed services and amenities within the neighborhoods that are bounded by major roads or other barriers.

Medium-and-high density residential neighborhoods have historically been placed along corridors that can accommodate higher traffic and are close to commercial centers. In addition to these areas, Burnsville is home to three manufactured home parks which are also privately managed and offer various amenities to park residents.

Higher density development can be accommodated with more cost-efficient public services. However, because these neighborhoods are usually located adjacent or close to busy streets, moving residents between their

neighborhoods and parks, and employment and shopping areas can be difficult unless there is care in locating and designing safe, efficient and convenient pedestrian crossings and transit service stops.

Buffering living environments from noise, view of loading/trash handling areas, mitigating odors and lighting from business and employment centers and protecting residential areas from negative impacts of more intensive business uses and heavy traffic are all issues that need to be addressed for neighborhoods to be positive living areas for residents. Several of the high-density residential areas of the city are adjacent to I-35E, I-35W and Highway 13. As traffic continues to increase and the highway facilities are expanded, noise and other impacts on adjacent residential neighborhoods will need to be addressed. Recreation opportunities also need to be provided within the development or in close walking distance that is safe, convenient, and easy to access and has good visibility.

The Heart of the City (HOC) is a mixed-use redevelopment area in central Burnsville designed to provide a mix of high density living options located close to employment, shopping, dining and community gathering places. This area of the city is also planned to take advantage of transit opportunities and to limit individual automobile use. With the anticipated Orange Line Bus Rapid Transit (BRT) stations planned, the ability for mobility along the I-35W corridor with connections through HOC will be very significant in the future. The new Transit Oriented Development (TOD) expectations will shape the future of this area. The first phase of HOC is nearing full development. However, challenges exist to provide parking needed to intertwine the mixed-use, community gathering place with suburban development patterns, and auto-oriented design and major transportation corridors that surround the HOC neighborhood.

## Housing Profile

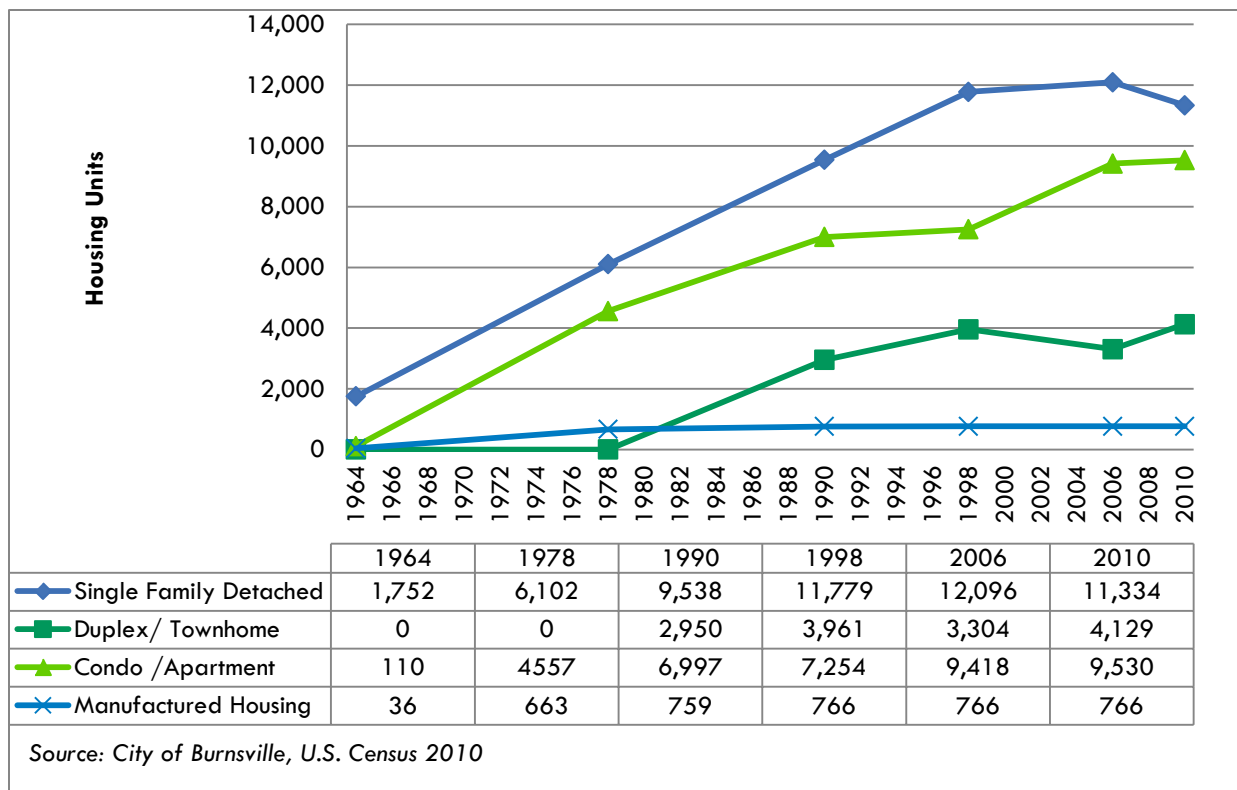
### Current Housing Supply by Type

Figure 4-1 illustrates the growth in housing units between 1964 and 2010. By 1990, the numbers of each type of housing increased dramatically. However, single-family detached homes ceased to be the predominant housing type in the city. Multifamily housing units (consisting of duplex/town homes and condominium/apartments) comprise 53 percent of the city's housing stock. Approximately 47 percent of the housing in Burnsville consists of single-family detached structures. This transition is remarkable considering that single-family homes comprised 92 percent of the total units in Burnsville in 1964.

As of August 2014, the City's multifamily development list contained 10,057 multifamily units and 4,369 townhouse units; out of the multifamily units, there were 2,064 condominium (owned) units and 7,993 apartment (rental) units. It is important to note that this list comprises approved projects not actual units constructed. Many projects are built in phases and

not all phases of all multifamily projects are complete as of the date this section was written (March 2017). Also, some projects never are constructed due to market conditions, financing and other matters.

Figure 4-1: Historical Housing Units by Type, 1964-2010



In 2015, the City of Burnsville had an estimated total of 26,081 housing units according to the Metropolitan Council. The break-down by type can be seen in Table 4-1, below.

Table 4-1: Burnsville Housing Units by Type, 2015

| Housing Type        | Units  | Percent |
|---------------------|--------|---------|
| Single-Family Units | 16,296 | 62.48%  |
| Multi-Family Units  | 9,049  | 34.70%  |
| Manufactured Homes  | 736    | 2.82%   |
| Other               | 0      | 0.00%   |

Source: Metropolitan Council, 2017

### Single Family Detached Housing

A majority of the City's housing units are single-family detached. Many of these homes were built over 30 years ago when Burnsville was a developing community. This large housing stock of older single-family homes has provided the basis for Burnsville's strong, established neighborhoods. However, this also presents challenges. As buildings age,

they require more significant rehabilitation; as well as connecting areas of the community when street and housing patterns are already established. Because this housing type bears the most number of units, it is also challenging for those aging in place to stay in place, and for seniors/empty nesters looking for alternative housing types to stay in the city.

Much of the single-family housing stock in Burnsville consists of ramblers and split-entry homes; however, single-family development in the 1970 - 1980s expanded into a greater variety of architectural types, sizes and styles. By today's standards, most of the homes of this type are regarded as "move-up" homes. Figure 4-2 illustrates the location and style of single-family homes in Burnsville.

#### Single Family Attached Housing

The second-largest percentage of housing unit types are single-family attached housing. This category includes twin homes, duplexes, triplexes, and quadplexes. A windshield survey in 2014 counted 4,385 single-family attached units in Burnsville. These housing types are popular because they are typically more affordable and offer less maintenance. This housing style is often found in medium density residential, high density residential, and mixed use residential areas of the city.

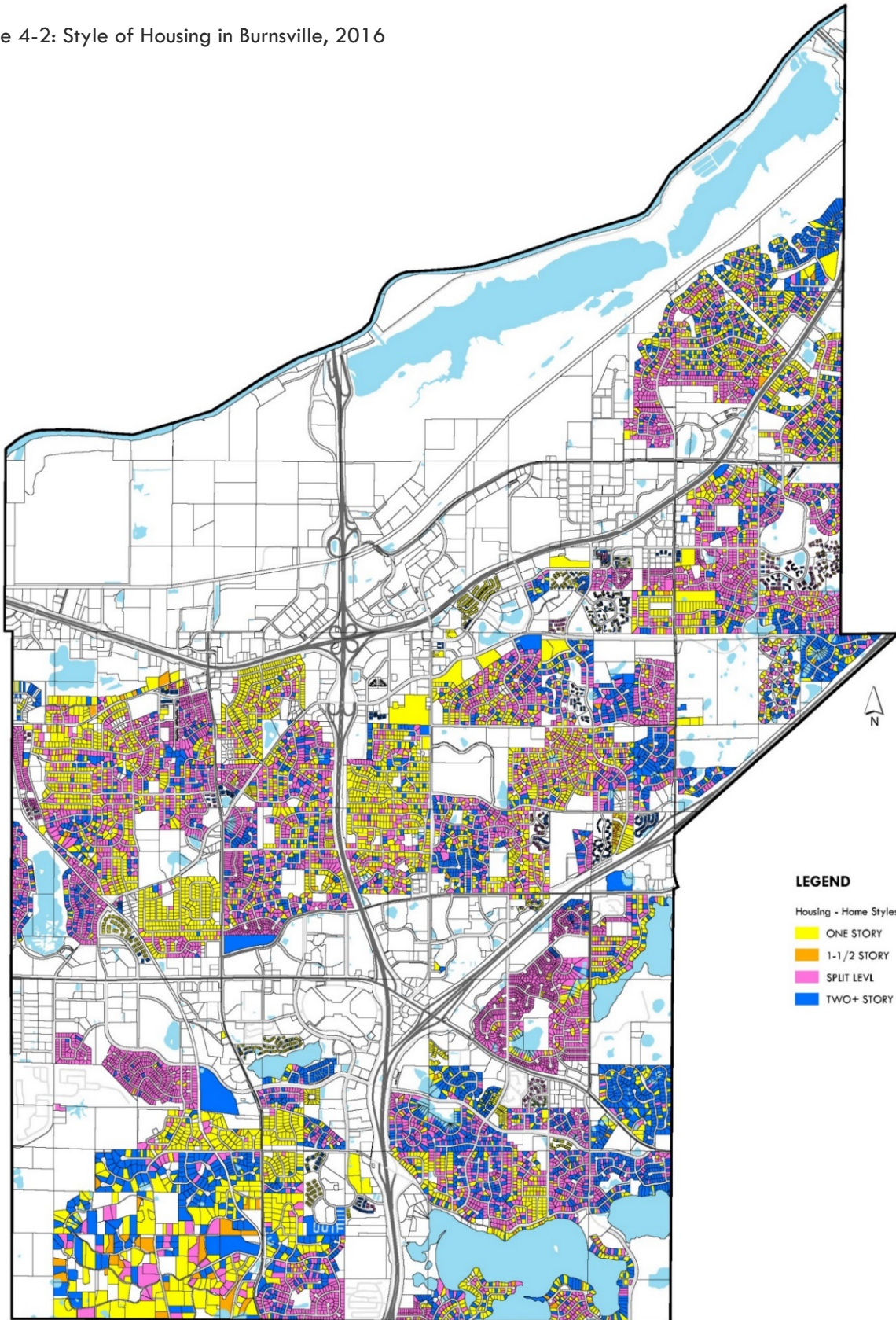
#### Multifamily Housing

Multifamily homes consisting of apartments and condominiums comprise 16 percent of the housing stock in Burnsville according to the 2010 US Census. Construction of multifamily units increased as the amount of available land for residential development decreased. In general, multifamily dwellings typically cost less per unit and efficiently utilize land, utilities, infrastructure investments, and transit.

Future growth in housing and population are likely to be accommodated in multifamily as opposed to single-family detached units due to the fact that Burnsville is fully developed and land available for development is scarce. Multifamily housing has become less and less transitional and offers an alternative housing choice to home ownership which is preferred by many. Multifamily housing can accommodate people of all life-cycles and income ranges and offer a range of amenities. To do so most effectively, necessary support services such as transit stops and recreation areas should be located within a short walking distance of the multifamily housing.



Figure 4-2: Style of Housing in Burnsville, 2016



Source: HKGi, Dakota County GIS, Metropolitan Council  
GIS

### Manufactured Homes

Manufactured housing is generally considered unsubsidized affordable housing and provides owner-occupied housing to a broad range of residents. Burnsville is home to three manufactured/mobile home parks, with a total of 766 lots. People own their unit but do not own the underlying land and as such, they can be faced with enormous relocation costs if the park owner sells the park for another use. To protect mobile/manufactured housing park residents, the Burnsville City Council enacted an ordinance that requires the owner and/or developer to pay reasonable relocation costs to the residents. The City is not aware of any planned park closures.

### Age of Housing Stock

Because most of Burnsville developed between 1970 and 2000, the overall housing stock in the city is beginning to age. Approximately 92 percent of the total housing units that exist today were built prior to 2000. Structures surpassing 20 years of age begin to require major repairs such as siding, roof and furnace replacements, and any lack of regular maintenance begins to show. In 2015, there were a total of 26,108 residential housing units in Burnsville, of which, 69.8 percent were more than 25 years old.

Table 4-2: Year Built of Housing Stock, 2015

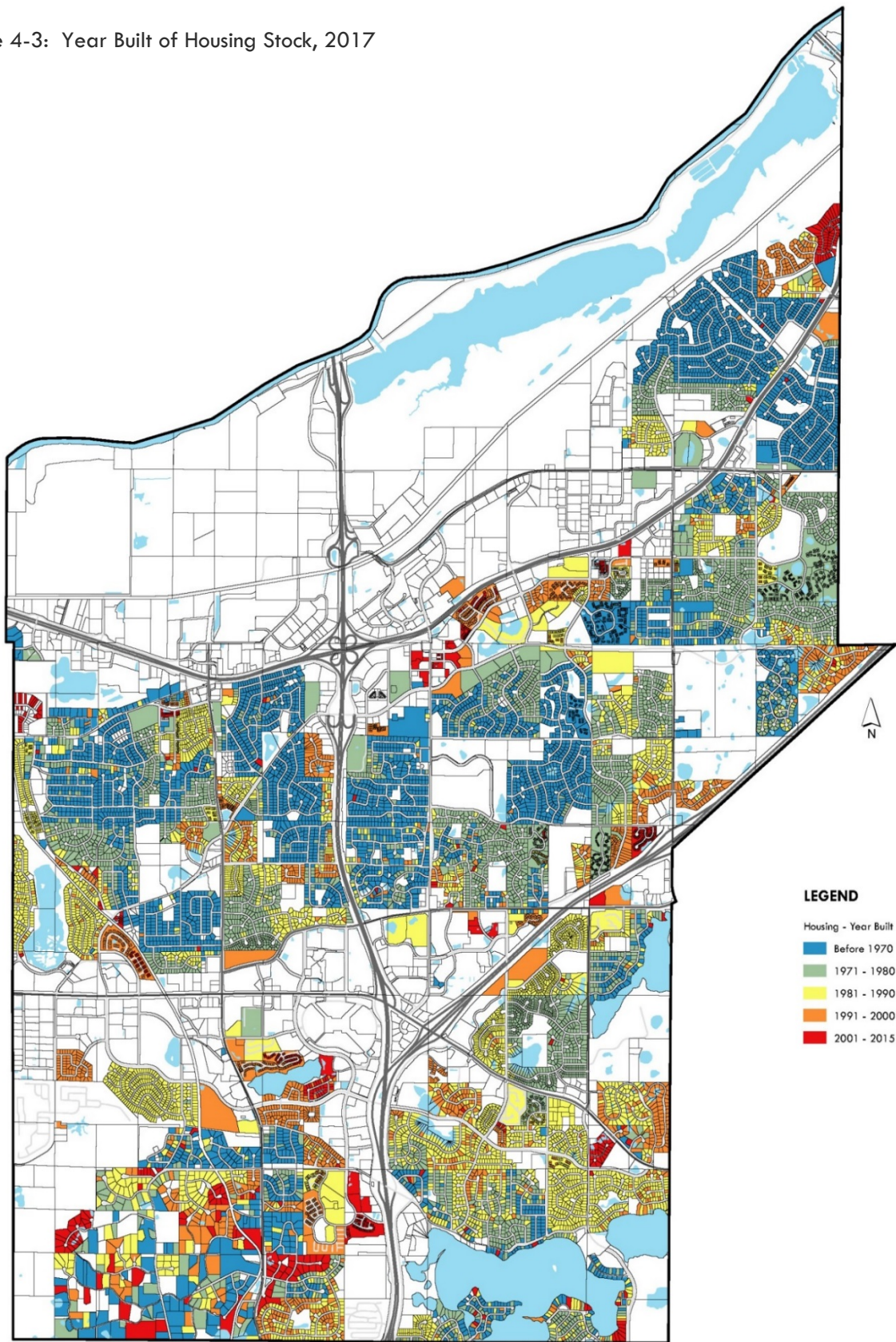
| Year Built          | Units  | Percent |
|---------------------|--------|---------|
| <b>Pre-1960</b>     | 1,123  | 4.3%    |
| <b>1960 – 1969</b>  | 3,940  | 15.1%   |
| <b>1970 – 1979</b>  | 6,995  | 38.0%   |
| <b>1980 – 1989</b>  | 6,187  | 23.7%   |
| <b>1990 – 1999</b>  | 5,679  | 21.8%   |
| <b>2000 – 2009</b>  | 2,059  | 7.9%    |
| <b>2009 – 2015</b>  | 125    | 0.5%    |
| <b>Total – 2015</b> | 26,108 | 100.0%  |

Source: Dakota County Assessor

The current policy of the city is to encourage housing and property maintenance through proactive inspections and code enforcement procedures. Inspectors notify property owners of code compliance issues, provide information on available funds/programs for improvements and work together with owners to achieve compliance with city standards. As the housing stock continues to age, it may be necessary to increase inspections/compliance activities and/or review what tools may be available to assist homeowners in improving or repairing their homes. This may include revisions to policies, financing, ordinances, as well as looking to alternative programs to encourage property maintenance. Figure 4-3 displays locations where older housing stock is located by year constructed.



Figure 4-3: Year Built of Housing Stock, 2017



## Housing Conditions

Burnsville is committed to maintaining its housing supply in good, marketable condition in order to preserve the quality of its neighborhoods and tax base. Housing and property conditions are visible indicators of the health of a neighborhood and community. To monitor single family housing conditions, the City began surveying housing conditions in 1993.

The most recent survey was conducted in 2013 and followed a similar methodology as earlier studies consisting of a drive-by windshield survey of over 11,000 homes including all single-family housing over 15 years of age. The study considered the conditions associated with the following criteria:

- 1) Paint and Siding,
- 2) Trim and Gutters,
- 3) Roofing,
- 4) Landscaping and Lawn,
- 5) Garage and Garage Door,
- 6) Windows,
- 7) Driveway, and
- 8) Sidewalk and Concrete Porch.

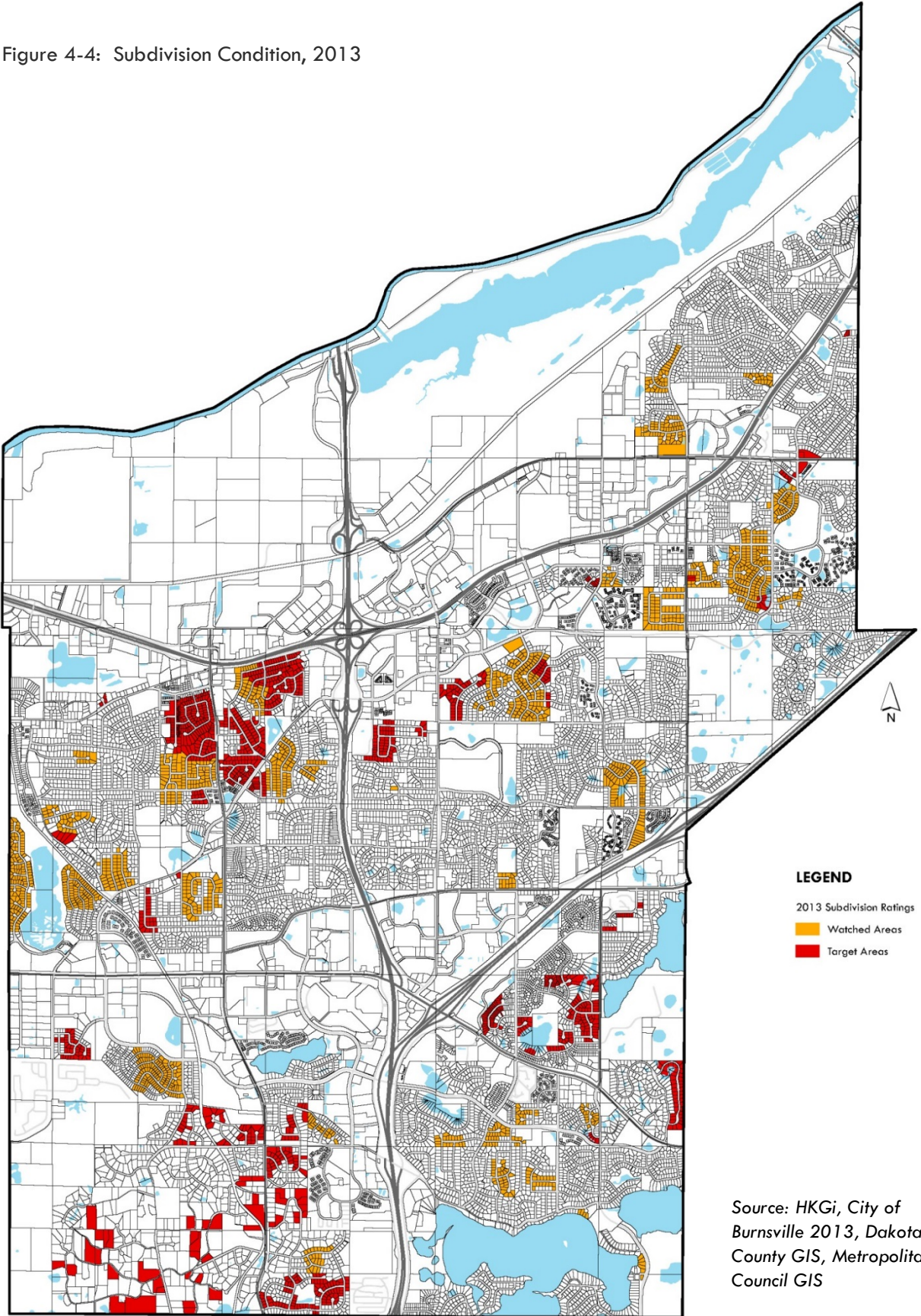
All housing was then rated. The overall housing and subdivision ratings were mapped as shown in Figure 4-4.

“Target” areas represent the highest 15 percent of all subdivisions inspected and “Watch” areas is the next highest 15 percent. The remaining 70 percent of the inventoried subdivisions were considered average. The “Watch” areas are subdivisions that are beginning to show signs of deterioration, where some of the houses will need substantial repair on one or more of the eight elements identified above. “Target” areas are subdivisions where some of the housing is showing immediate signs of distress in multiple categories and indicate where the City should direct immediate attention in the form of rehabilitation loans, grants and/or property maintenance.

The results of the 2013 study found that Burnsville’s housing stock is in very good condition and not in immediate need of substantial rehabilitation. The City will continue its proactive property and housing maintenance efforts. Inspections may be increased for watch and target areas in addition to exploring financial resources to encourage owners to maintain their properties and/or bring them into compliance with current property maintenance codes.



Figure 4-4: Subdivision Condition, 2013





## Building Permits

As illustrated in Figure 4-5 and Table 4-3, the City increased its housing supply by 637 units between 2005 and 2016. The greatest numbers of apartment/condominium permits were issued in 2005, before the Great Recession of 2008-2012. The data clearly shows the impact that the housing crisis and Great Recession had on new housing construction in Burnsville. In the five years between 2006 and 2010, building permits only resulted in 83 units; which is less than half of the total units built in each year from 1999-2005.

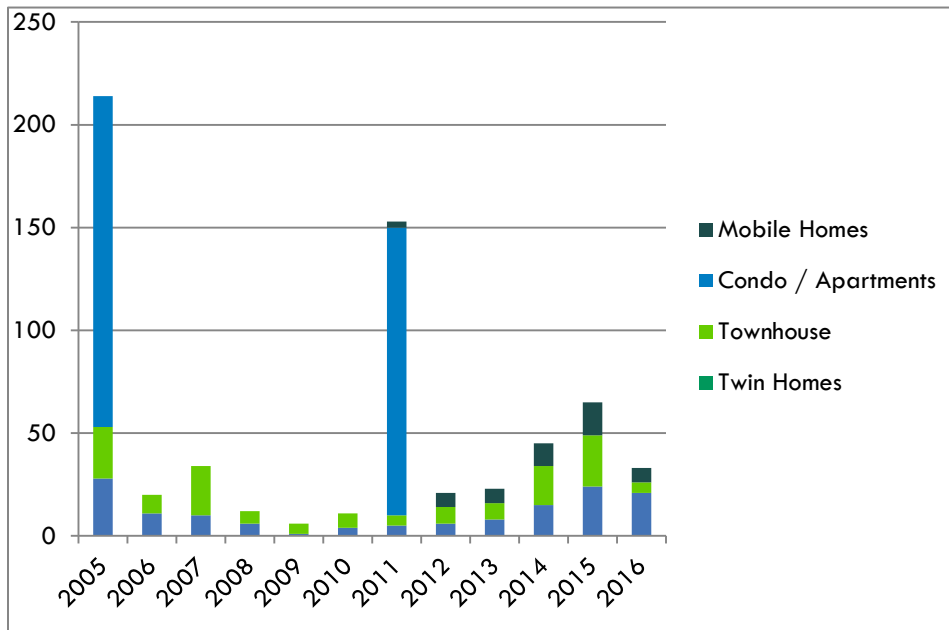
Since Burnsville is over 98 percent developed, building permits for all housing types will never reach the same numbers it experienced during its growth period in the 1980s. Due to increasing land/development costs and the fact that Burnsville has a limited residential land supply, it is anticipated that future residential construction will occur as part of mixed use projects to meet future growth projections, with single-family attached and multifamily units being developed. According to population projections, another 2,610 households will be added to Burnsville by 2040. Most of these additional households will be accommodated through infill development or redevelopment. The challenge for the City will be to encourage development enough over the next 25 years to accommodate the needed average of 105 units per year needed to meet future demand, given the stagnation in building over the last decade.

Table 4-3: Residential Building Permits (Dwelling Units) 2005-2016

|                        | 2005       | 2006      | 2007      | 2008      | 2009     | 2010      | 2011       | 2012      | 2013      | 2014      | 2015      | 2016      |
|------------------------|------------|-----------|-----------|-----------|----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|
| Single-Family Detached | 28         | 11        | 10        | 6         | 1        | 4         | 5          | 6         | 8         | 15        | 24        | 21        |
| Twin Homes             | 0          | 0         | 0         | 0         | 0        | 0         | 0          | 0         | 0         | 0         | 0         | 0         |
| Townhouse              | 25         | 9         | 24        | 6         | 5        | 7         | 5          | 8         | 8         | 19        | 25        | 5         |
| Condo / Apartments     | 161        | 0         | 0         | 0         | 0        | 0         | 140        | 0         | 0         | 0         | 0         | 0         |
| Mobile Homes           | 0          | 0         | 0         | 0         | 0        | 0         | 3          | 7         | 7         | 11        | 16        | 7         |
| <b>Total</b>           | <b>214</b> | <b>20</b> | <b>34</b> | <b>12</b> | <b>6</b> | <b>11</b> | <b>153</b> | <b>21</b> | <b>23</b> | <b>45</b> | <b>65</b> | <b>33</b> |

Source: City of Burnsville, 2017

Figure 4-5: Residential Building Permits (Dwelling Units) 2005-2016



Source: City of Burnsville, 2017

## Vacancy

According to the 2011-2015 American Community Survey, Burnsville has an overall vacancy rate of 4.8 percent. This included an owner-occupied vacancy rate of 0.4 percent. The city's vacancy rate for rental units was 1.8% in 2017 according to Marquette Advisors. The low vacancy rate of both owner-occupied units and rentals shows that there is under-supply of housing units within the city, making it difficult for would-be new residents to move into the city, or for existing residents to move to another property within the city. One possible reason for this under-supply could be that construction projects have not caught up with demand now that the Great Recession is over.

## Tenure

The City is hoping to achieve a healthy balance between homeownership and rentals within Burnsville to serve the needs of existing and new residents. In 2015, 64.3 percent of the housing units were owner-occupied and 34 percent were renter occupied (see Table 4-4).

By comparing the age-breakdown of both owner-occupied units and renter-occupied units, it's clear that younger householders tend to rent, while older households, including senior households, tend to own.

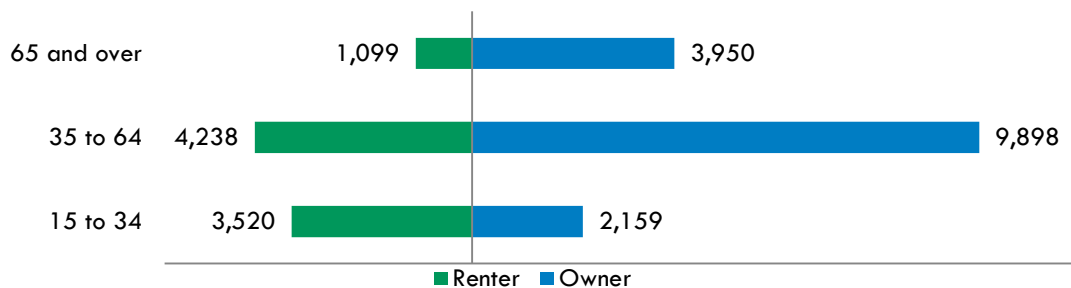
Table 4-4: Tenure by Housing Type (Occupied Units) 2015

|                           | Units         | Percent       |
|---------------------------|---------------|---------------|
| <b>Occupied Units</b>     | <b>24,856</b> | <b>100%</b>   |
| <b>Of Owner Occupied</b>  | <b>15,900</b> | <b>64.33%</b> |
| Single Family Detached    | 10,777        | 43.36%        |
| Single Family Attached    | 3,470         | 13.96%        |
| Multifamily               | 1,103         | 4.44%         |
| <b>Of Renter Occupied</b> | <b>8,874</b>  | <b>35.70%</b> |
| Single Family Detached    | 523           | 2.10%         |
| Single Family Attached    | 1,835         | 7.38%         |
| Multifamily               | 6,472         | 26.04%        |
| Mobile Home & Other       | 44            | 0.18%         |

Source: 2011-2015 ACS Estimates

Figure 4-6 illustrates the breakdown. As demographics shift in Burnsville, it is important to continue to provide a variety of housing types for both renters and owners, at a variety of costs. National Housing trends suggest that as more baby boomers age into retirement (65+), their demand for rentals will continue to increase.

Figure 4-6: Tenure by Age of Householder, 2015



Source: 2011-2015 ACS Estimates

## Housing Cost

The cost of housing is an increasing concern throughout the region. Housing costs influence the ability of both young adults and seniors to remain in the community and can affect the ability of local employers to find workers. Housing costs are influenced by a variety of factors including land cost, labor and materials, community regulations and interest rates. In Burnsville the costs for housing are further affected by the lack of vacant land supply. Redevelopment is typically much more costly as land assembly and clearance costs have to be factored into the equation, however, redevelopment often results in higher density, which can spread those costs over more units. Costs for home ownership continue to rise. A comparison of

2000 and 2015 data shows the increasing value of the owner occupied housing stock in Burnsville.

Looking at the value of owner-occupied units in 2015 based upon American Community Survey data shows that 46 percent of Burnsville’s owner occupied housing units were valued at \$200,000 or less. As seen Figure 4-7 the value of owner-occupied homes has increased significantly in Burnsville since 2000. It’s important for the homeowners of Burnsville to see the value of their property to continue to increase, but it is also important to understand if rising housing values prices out households looking for affordable units to own. The stability and economic benefit of owning a home should be accessible to households of a range of income levels.

Figure 4-7: Value of Owner-Occupied Units, 2000-2015

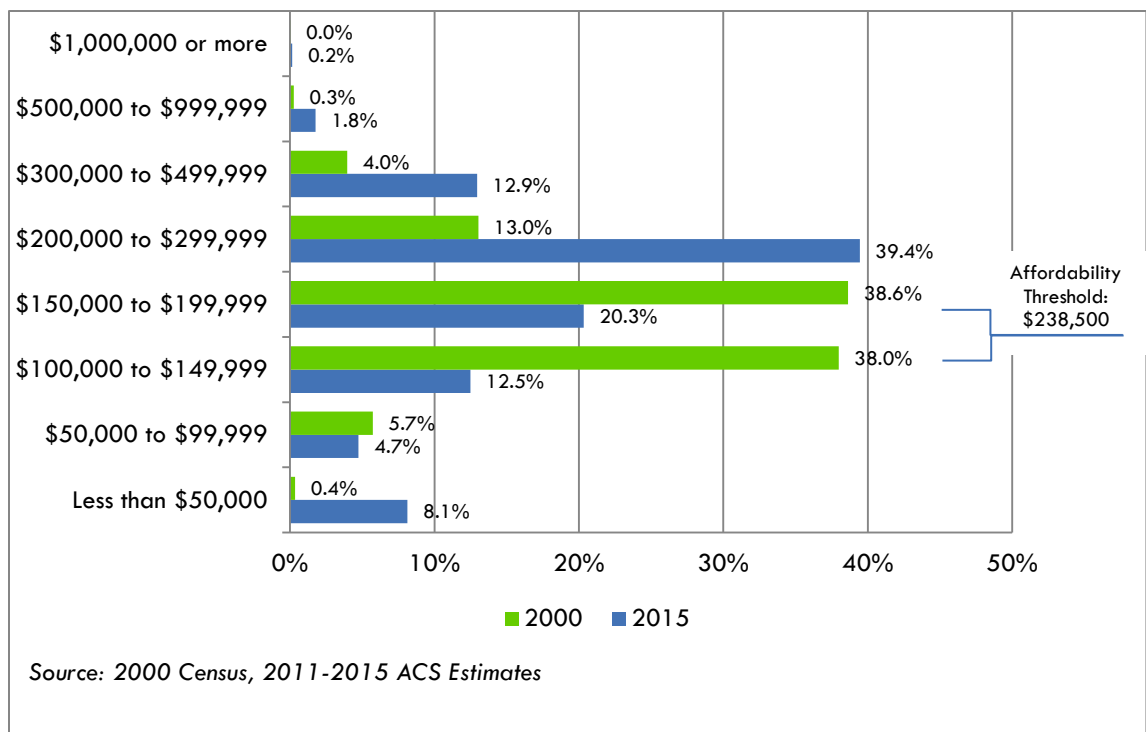
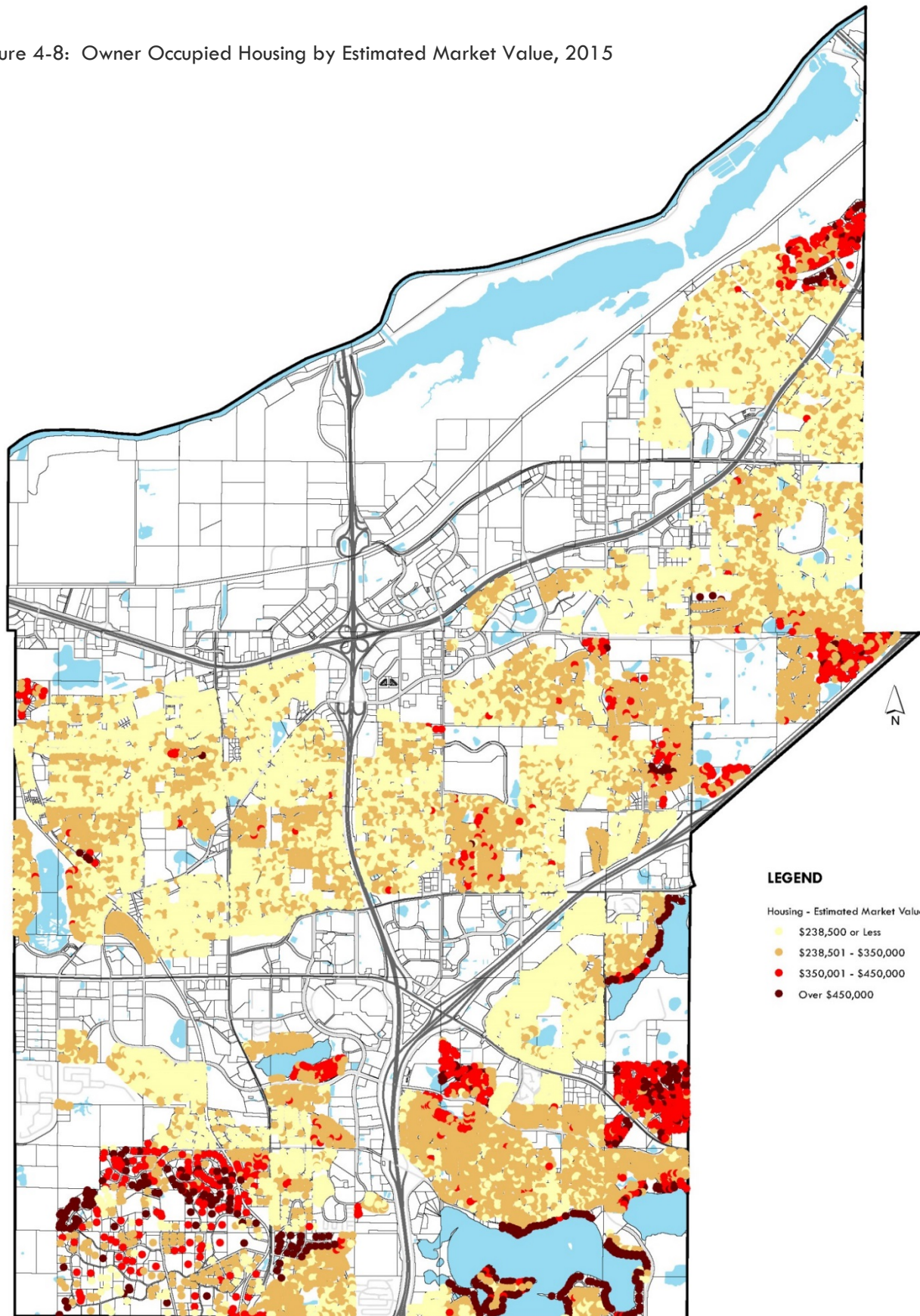


Figure 4-8: Owner Occupied Housing by Estimated Market Value, 2015





Costs for new housing development are significant. The two primary factors influencing typical new home costs are land and construction costs. Labor and materials for construction have significantly increased over the last decade, making new construction very expensive. Other factors include building codes, legislative decisions such as home warranties, and local policies that fluctuate more than ever before. In Burnsville, the costs are further amplified due to redevelopment costs such as land holding, clearing, grading, site constraints, and land assembly. However, this is not unique to fully developed communities. As such, redevelopment sites are best suited for high-density residential, part of mixed-use areas, so that the additional costs may be spread across a number of units, lowering the cost per unit. Table 4-5, indicates building permit values for single-family and townhome new construction in Burnsville from 2011 to 2016. It is important to note that during that time, only one multifamily development, Valley Ridge, with 140 apartments and assisted living units were constructed. During this time period, the average construction value per unit for single-family decreased and townhomes increased.

Table 4-5: Residential Building Permit Valuation (does not include land value)

| Year | New Single Family Units |             |               | New Townhome Units |             |               |
|------|-------------------------|-------------|---------------|--------------------|-------------|---------------|
|      | Units                   | Total Value | Average Value | Units              | Total Value | Average Value |
| 2011 | 5                       | \$1,696,295 | \$339,259     | 5                  | \$750,000   | \$150,000     |
| 2012 | 6                       | \$2,017,905 | \$336,318     | 8                  | \$1,201,990 | \$150,249     |
| 2013 | 8                       | \$2,907,172 | \$363,397     | 8                  | \$1,319,150 | \$164,894     |
| 2014 | 15                      | \$4,960,699 | \$330,713     | 19                 | \$3,067,628 | \$161,454     |
| 2015 | 24                      | \$6,259,392 | \$260,808     | 25                 | \$4,503,045 | \$180,122     |
| 2016 | 21                      | \$5,643,843 | \$268,754     | 5                  | \$933,223   | \$186,645     |

Source: City of Burnsville, 2017

According to a report by the Dakota County Community Development Agency (CDA) the average price of new homes in Burnsville was calculated at \$603,000 for single-family homes and \$198,000 for townhomes/condominiums in 2013, (including both land and buildings). Meanwhile, the average resale price of existing homes was calculated at \$210,400 for single-family homes and \$117,600 for townhomes/condominiums.

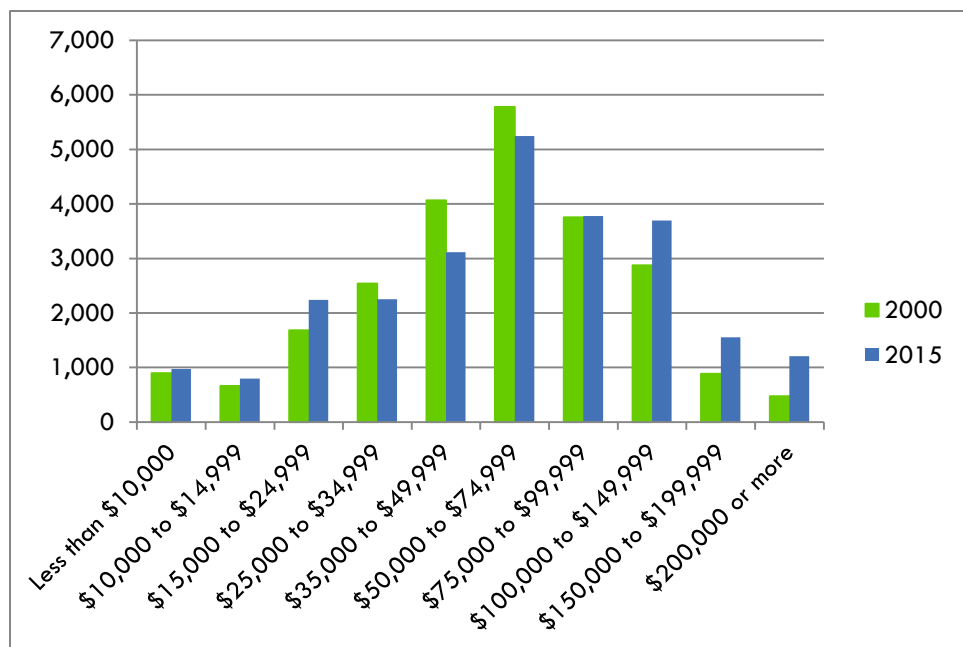
Vacancy numbers, as described earlier, show there is a pent-up demand for owner-occupied housing. New construction of owner-occupied units may be a way to address this demand. However, the areas for new construction for single-family detached housing are very limited. Instead, it may be necessary for new owner occupied single-family attached and multifamily

home units to be built to meet the demand. Looking forward, the City should try to allow for the development of these unit types across income levels, especially providing opportunities for move-up/executive housing/condos. The city's older existing homes are providing opportunities for entry-level first time homebuyers, but this stock needs to be maintained as well.

## Income

Income levels have a significant effect on local housing demand and has the greatest impact on a consumer's housing choice. Figure 4-9 compares household income levels from 2000 to 2015.

Figure 4-9: Burnsville Household Income, 2000-2015



Source: ACS 2011-2015

Measures of affordability often compare housing costs to gross household incomes. The general industry standard is that housing is affordable if housing expenses equal 30 percent or less of gross household income. Units at different costs are considered affordable to different income levels. As seen in Table 4-6 on the following page, Burnsville's existing housing stock is very affordable on a regional scale, with 75 percent of all existing housing units affordable to at least 80 percent Area Median Income (AMI).

Table 4-6: Existing Affordable Housing Units 2015

|                                     | Units Affordable to Households | % of Total Housing Units |
|-------------------------------------|--------------------------------|--------------------------|
| Income at or below 30% of AMI       | 2,113                          | 8.10%                    |
| Income 31% to 50% of AMI            | 5,457                          | 20.92%                   |
| Income 51% to 80% of AMI            | 12,038                         | 46.16%                   |
| <b>Subtotal at or Below 80% AMI</b> | <b>19,608</b>                  | <b>75.18%</b>            |
| Total Housing Units                 | 26,081                         | 100.00%                  |

Source: ACS 2011-2015

Even with a robust supply of affordable housing units, there are still households in Burnsville that spend more than 30 percent of their household income on housing costs. These households experience what is called a “housing cost burden.” The American Community Survey includes a calculation of monthly housing costs as a percent of median household income as an attempt to measure affordability. Table 4-7 illustrates that in 2015, an estimated 30.58 percent of households experienced housing cost burden. 23.20 percent of owner occupied households are experiencing housing cost burden and 43.91 percent of renter occupied households are experiencing housing cost burden in the city.

Table 4-7: Percent of Household Income Spent on Housing Costs, 2015

|                                                                    | Renter Occupied |            | Owner Occupied |            | Total Occupied |            |
|--------------------------------------------------------------------|-----------------|------------|----------------|------------|----------------|------------|
|                                                                    | # Units         | Percent    | # Units        | Percent    | # Units        | Percent    |
| < 20 percent                                                       | 2,169           | 25%        | 8,343          | 52%        | 10,512         | 43%        |
| 20-24 percent                                                      | 1,629           | 19%        | 2,309          | 15%        | 3,938          | 16%        |
| 25-29 percent                                                      | 975             | 11%        | 1,540          | 10%        | 2,515          | 10%        |
| 30-34 percent                                                      | 656             | 8%         | 1,044          | 7%         | 1,700          | 7%         |
| 35% or more                                                        | 3,237           | 37%        | 2,665          | 17%        | 5,902          | 24%        |
| <b>Percent of Households Spending 30% or More on Housing Costs</b> |                 |            |                |            |                |            |
| <b>Burnsville</b>                                                  |                 | <b>45%</b> |                | <b>23%</b> |                | <b>31%</b> |
| <b>Dakota County</b>                                               |                 | <b>46%</b> |                | <b>21%</b> |                | <b>27%</b> |
| <b>Twin Cities Metropolitan Region</b>                             |                 | <b>49%</b> |                | <b>22%</b> |                | <b>31%</b> |

Source: ACS 2011-2015

Unfortunately, the high percentage of households, especially renter-occupied housing units, experiencing housing cost burden is a common reality for the entire Twin Cities metropolitan area. There is a need in Burnsville to find ways to help housing costs to be affordable for all residents.

As shown in Table 4-8, affordability is especially difficult for households with an income less than 50 percent of the metro's Area Median Income (AMI); approximately 18.5 percent of households in Burnsville fit within that category in 2015.

Table 4-8: Housing Cost Burdened Households, 2015

|                                     | Number of Households | % of Total Households |
|-------------------------------------|----------------------|-----------------------|
| Income at or below 30% of AMI       | 2,735                | 10.94%                |
| Income 31% to 50% of AMI            | 1,882                | 7.53%                 |
| Income 51% to 80% of AMI            | 1,246                | 5.00%                 |
| <b>Subtotal at or below 80% AMI</b> | <b>5,863</b>         | <b>23.47%</b>         |
| Total Households                    | 24,990               | 100.00%               |

Source: Metropolitan Council 2015

#### Publicly Subsidized Units

One way to address affordability needs for very-low income households is through publicly subsidized units. According to the Metropolitan Council, Burnsville had the following estimated number of publicly subsidized units in 2015

Table 4-9: Publicly Subsidized Units

| All Publicly Subsidized Units | Publicly Subsidized Senior Units | Publicly Subsidized Units for People with Disabilities | Public Subsidized Units: All Others |
|-------------------------------|----------------------------------|--------------------------------------------------------|-------------------------------------|
| 985                           | 168                              | 41                                                     | 776                                 |

Source: Metropolitan Council 2017

#### Rental Housing

According to the Dakota County CDA, Burnsville accounted for 31.64 percent of the rental market in Dakota County in 2016. Rental rates are influenced by multiple factors including age, location, size and amenities available within the complex. Table 4-10, shows that in the six years between 2010 and 2016, rents have risen dramatically for all rental types in Burnsville.

Table 4-10: Summary of Burnsville Rental Market 2010-2016

|               | <b>2010<br/>Average<br/>Burnsville<br/>Rents</b> | <b>2016<br/>Average<br/>Burnsville<br/>Rents</b> | <b>\$ Amount<br/>of Change</b> | <b>Percent<br/>Change</b> |
|---------------|--------------------------------------------------|--------------------------------------------------|--------------------------------|---------------------------|
| Efficiency    | \$655                                            | \$755                                            | \$100                          | 15%                       |
| One-Bedroom   | \$743                                            | \$926                                            | \$183                          | 25%                       |
| Two-Bedroom   | \$918                                            | \$1,196                                          | \$278                          | 30%                       |
| Three-Bedroom | \$1,172                                          | \$1,497                                          | \$325                          | 28%                       |

Source: Dakota County CDA 2016 Rental Market Survey

When compared to Dakota County, Burnsville's rental rates are similar to those in Dakota County as a whole (see Table 4-11). Both Dakota County and Burnsville had very low vacancy rates for all rental types, indicating that the rise in rental rates may be due to many market factors with the need for more rental housing options.

Table 4-11: 2016 Comparison of Burnsville &amp; Dakota County Rental Data

|                              | <b>0 BR</b> | <b>1 BR</b> | <b>2 BR</b> | <b>3 BR</b> | <b>Totals</b> |
|------------------------------|-------------|-------------|-------------|-------------|---------------|
| # Units Burnsville           | 181         | 2,589       | 3,177       | 607         | 6,554         |
| # Units Dakota County        | 546         | 7,798       | 10,659      | 1,713       | 20,716        |
| % of Burnsville Market       | 2.76%       | 39.50%      | 48.47%      | 9.26%       | 100%          |
| Average Rent - Burnsville    | \$755       | \$926       | \$1,196     | \$1,497     | \$1,157       |
| Average Rent - Dakota County | \$703       | \$916       | \$1,185     | \$1,527     | \$1,083       |
| # Vacancies - Burnsville     | 5           | 42          | 75          | 25          | 147           |
| # Vacancies – Dakota County  | 15          | 125         | 219         | 89          | 448           |
| Vacancy Rate - Burnsville    | 2.76%       | 1.62%       | 2.36%       | 4.12%       | 2.24%         |
| Vacancy Rate – Dakota County | 2.75%       | 1.60%       | 2.05%       | 5.20%       | 2.16%         |

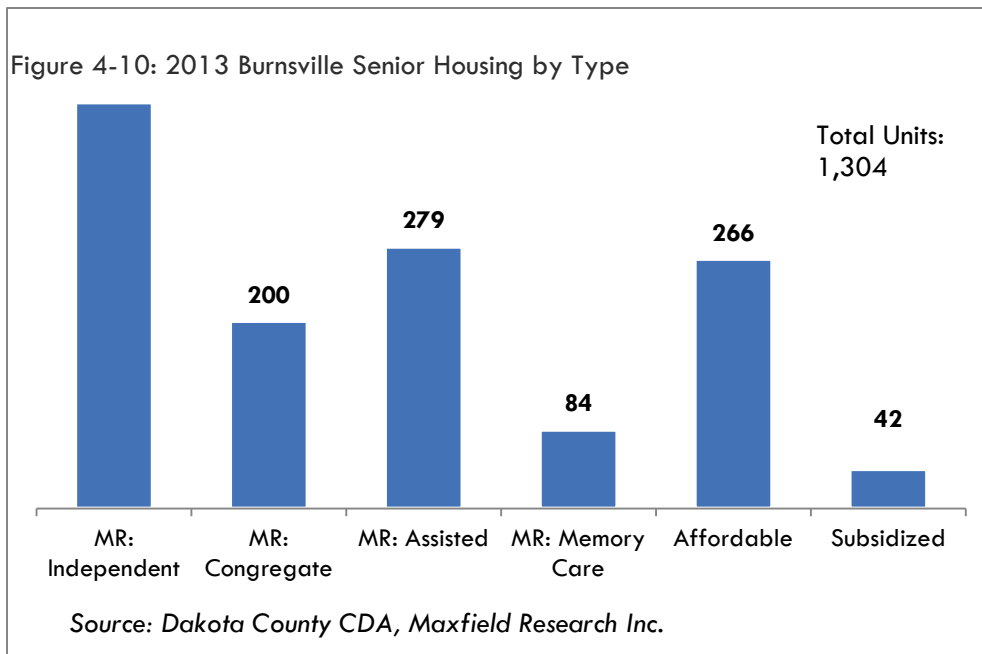
Source: Dakota County CDA 2016 Rental Market Survey

## Senior Housing

As the city's population continues to age, many of those aged 65 years and older will require housing that better accommodates their needs and lifestyles. Burnsville has been a strong leader providing senior housing in a



range of unit types, care and income levels. Most developments have been constructed since 1996. The projects serve a diverse population, with some being subsidized rental (at or below 50 percent of median income), some affordable (at or below 51 to 80 percent of the median income), market rate (MR), and market rate with services including assisted living, memory care and nursing care, as shown in Figure 4-10.



All of the developments are performing well with high occupancy indicating a strong need exists for senior housing not only in the community but the county as whole. Currently, there are 1,304 senior housing units in Burnsville.

Table 4-12 details the existing senior housing units in Burnsville.

Table 4-12: Senior Housing, 2011

| Facility Name - Assisted Living         | # Units    | Facility Name - Independent Living   | # Units      |
|-----------------------------------------|------------|--------------------------------------|--------------|
| Arbors at Ridges                        | 45         | Eagle Ridge Place                    | 60           |
| Cardenas Friendship House (2 locations) | 10         | Ebenezer Ridge Point Apartments      | 42           |
| Carefree Living                         | 95         | Gramercy Club                        | 126          |
| Emerald Crest                           | 60         | Meadowwood Village                   | 92           |
| Leah's Apartments                       | 17         | Parkway Cooperative                  | 102          |
| Regent at Burnsville                    | 60         | Park Ridge Place                     | 66           |
| Rivers Manor                            | 58         | Realife Cooperative (2 Complexes)    | 221          |
| Valley Ridge                            | 60         | Valley Ridge                         | 80           |
| West Apartments                         | 24         | Regent at Burnsville                 | 76           |
|                                         |            | Rivers Estates                       | 120          |
|                                         |            | Woodhurst East Condos                | 50           |
| <b># Assisted Living Units Subtotal</b> | <b>429</b> | <b># Independent Living Subtotal</b> | <b>1,035</b> |

Source: City of Burnsville

In addition to the units identified above, many senior households have moved into market rate townhouse or condominium developments to retain home ownership without extensive maintenance obligations. These opportunities are expanding with the rise in urban style townhome development particularly in the mixed use HOC. The City is looking at future redevelopment opportunities where additional higher density and more urban style development will occur to accommodate not only the needs of the growing senior population, but households at all stages of life that might prefer these developments.

### **Livable Communities Act (LCA)**

The Minnesota Legislature created the Livable Communities Act (LCA) in 1995. The LCA is a voluntary, incentive-based approach to help the Twin Cities metropolitan area address affordable and life-cycle housing needs. Through the LCA program, communities can compete for funds to assist them in carrying out their LCA agreements. The Metropolitan Council awards grants to help participating communities:

1. Clean up polluted land for redevelopment, new jobs and affordable housing
2. Create development or redevelopment that demonstrates efficient use of land and infrastructure through connected development patterns and
3. Create affordable housing opportunities
4. Capitalize on development opportunities around transit stations (TOD) including housing opportunities

The City received two grants totaling \$4.1 million relating to projects at the on-set of the Heart of the City (HOC) redevelopment. As a part of receiving those funds, the City committed to an overall affordability of 20 percent within HOC new development. This will continue as the remaining parcels are developed and more redevelopment occurs within phase one (HOC-1). With two Orange Line stations planned for HOC, the introduction of transit oriented development (TOD) will be incorporated into HOC land use and design, including the opportunities for affordable housing.

To compete for LCA funding, communities must negotiate long-term affordable and life-cycle housing goals with the Metropolitan Council. The City of Burnsville's current goal between years 2011-2020 is to have between 516 – 737 affordable units added and 735 – 1,800 life-cycle housing units added. Goals for 2021-2030 are expected to be negotiated in the near future.

## **Future Housing Demand**

Looking to the future of Burnsville, there are many opportunities and challenges to provide various housing types that will make Burnsville a desirable and livable community. There is a need for maintenance free, one-level housing options in Burnsville. This type of housing is sustainable

and would remain functional as younger families, single residents, seniors and special needs populations utilize this style of housing. The community continues to have a need for live/work units. The City currently allows home occupations (the use of a residential dwelling for business, trade or professional purposes) with certain limitations. Future mixed-use projects could accommodate more intense live/work units in a commercial environment. For example, street level units would be designed for business use and upper levels could be used for loft type or other family living arrangements. This housing option would also be sustainable and promote living close to work environments without the need for automobile use to access employment. At some point in the future, the City may look to revise certain residential standards to allow for a higher intensity of live/work units. Many people indicated that the HOC is a good example of housing choice and mix of values and that this should be a model for future development, to integrate housing, business, entertainment, parks and recreation uses and transit.

The City has also identified a need to provide higher value housing options to provide “move-up” housing for families and corporate/employment leaders. The city’s housing stock does not currently provide many opportunities for higher value homes and it is anticipated that this form of housing will likely be constructed in areas with natural amenities (i.e. wooded areas, adjacent wetlands, rolling topography) and in southwest Burnsville where opportunities for acreage lots are still available. There are a few areas in the city where acreage parcels exist and where executive type housing could be developed however, these sites are privately held by individuals and families that do not have plans to further subdivide their properties at this time.

Burnsville will continue to have healthy demand in the housing market, due to its close proximity to downtown Minneapolis/St. Paul, the MSP International Airport, attractive residential neighborhoods, affordability in the market, housing options, parks and natural amenities. Good schools, ample jobs, natural areas and walkable, amenity-rich, redevelopments such as the HOC, extensive park system, diversity of housing and the numerous recreational lakes and parks continue to attract buyers from throughout the metropolitan area. Burnsville will continue to be a strong leader in providing a wide mix of housing choices and serving the full spectrum of ages and needs locally and regionally. Future creation of high-density mixed use/mixed income projects through, infill, the HOC, the MRQ, mixed use redevelopment, and the Burnsville Center area will meet housing demand for the planning period of 2030 and beyond.

## Future Forecasts & Projections

Forecasts for future housing growth to the year 2040 were prepared by the Metropolitan Council and are shown on Table 4-13. The Metropolitan Council’s 2015 population/household estimates for Burnsville indicated

61,908 people living in 24,990 housing units. Metropolitan Council forecasts show that Burnsville will add 6,592 people and 2,610 housing units by the year 2040 for a total population of 68,500. This results in an average of 105 new units per year for the next 25 years.

Table 4-13: Metropolitan Council Forecasts for City of Burnsville

|            | 2010<br>Census | Forecasts |        |        |
|------------|----------------|-----------|--------|--------|
|            |                | 2020      | 2030   | 2040   |
| Population | 60,306         | 63,500    | 66,000 | 68,500 |
| Households | 24,283         | 25,900    | 26,800 | 27,600 |
| Employment | 31,514         | 36,700    | 39,400 | 41,900 |

Source: Metropolitan Council, U.S. Census 2010

As a fully developed community this new growth can only be accomplished through redevelopment efforts and infill. Most of the remaining vacant residential lands are individual parcels within single-family detached and attached developments that have already been platted. There are only a few undeveloped areas that are large enough to accommodate new subdivisions. These are so limited in space, however, that medium density, high density, and mixed use residential are likely the only uses that make financial sense from a development standpoint.

The City is committed to redevelopment efforts within areas such as the Heart of the City where numerous partnerships, public and private investment and support from agencies such as the Metropolitan Council and Dakota County CDA resulted in a successful mixed-use neighborhood, along with future amenities such as two Orange Line BRT stations. Orange Line BRT stations will require a higher density near the stations as part of transit oriented development (TOD) requirements as set forth in this Plan. In addition to the HOC Orange Line stations, a future station is planned near the Burnsville Center in Phase 2 extension of the Orange Line to the south.

The City is also committed to redevelopment of properties into new uses. This effort will likely occur at aging retail locations along thoroughfares. The opportunity creates not only multifamily, but also can bring commercial/retail/service uses closer to single family neighborhoods making for a more walkable city. Since 2006 no new residential projects have been built within the Heart of the City. The Great Recession contributed significantly to this. As the housing and development market bounces back, it is important for the City to look at possible policies or programs to further promote redevelopment within this area, especially with the eventual location of two Orange Line BRT stations within the HOC.

## Demographic Projections

Looking into the future, the generational and demographic makeup of the community will continue to shift. Today, 13.2 percent of the population is over the age of 65; and 25.0 percent of the population is part of the “Baby Boomer” generation (born between 1945 and 1965). By 2040, that large generation will be over the age of 75. According to the AARP, over 90 percent of aging adults have stayed in the county they’ve been living in, if not the same home. At the same time current trends indicate the “Millennial” generation (born between 1980 and 2000) will continue to move to communities like Burnsville as they seek starter homes for their families. This will result in an increased demand for townhouses, apartments, and condominiums. These units will range from affordable housing for senior citizens and single parents, to amenity-rich townhomes for empty nesters with more disposable income or single people living alone. The aging senior population will demand more assisted living quarters. Burnsville needs to be well-prepared to provide life-cycle housing to accommodate these changing demographics.

As these generational shifts continue, the housing demands of these groups will also shift. Many older adults, especially baby boomers, are resistant to moving into senior-only housing, and would prefer to stay in mixed-generational areas and neighborhoods. According to the National Council on Aging, 77 percent of older adults (age 60+) in the United States plan to stay in their current home for the rest of their life. While communities cannot dictate if senior residents decide to stay in their homes, cities can make it possible for a greater variety of housing to be built to give the option for aging residents to stay within the community. Referred to as “aging in place”, cities can create well-connected neighborhoods with amenities within walking distance of homes. Affordable down-sized options for empty-nesters as well as live-alone seniors can be met within high-density mixed-use neighborhoods. One-level living options, such as condos with accessible elevators or one-floor townhomes, also help residents “age in place”. Providing greater variety of housing options for aging residents will allow them to stay in Burnsville. As the aging population moves to “age-friendly homes within the community, their former homes become available for younger residents and families.

Another demographic shift that will impact future housing needs in Burnsville is the continuing trend of an increasingly diverse population in the city. Burnsville is expected to remain a destination for first- and second-generation immigrant families; this growing population also has unique housing needs. First- and second-generation immigrant households often have more inter-generational living and include family members beyond the nuclear family unit. Community resources such as gathering spaces, translation services, and culturally-appropriate food options are important for these households and their future housing needs.



## Choice

Over the next 20 years, the choices available to residents, workers and to people looking at Burnsville as a place to live or work will be expanded. Burnsville's vitality draws on diversity that exists and will grow in the future. A variety of housing types, jobs, recreational facilities and cultural attractions opens doors of opportunity for larger numbers of people. In addition, as the costs of housing continue to rise, and personal and family needs change, the City may want to consider more housing choices as well as a variety of housing types.

Offering a variety of housing types creates more opportunities for future Burnsville residents such as: access to more jobs and services, improved transit service and the connection of neighborhoods with activity, shopping and recreational areas. Broadening choices means in part that the City will need to be involved with improving transit service such as: improving access to transit, developing bus shelters and bus bench amenities close proximity to where people live and work.

There is a strong desire on the part of the City to have a living environment that will not only attract young adults (25-34 year olds) but also encourage youth to stay in Burnsville. By offering choices for housing, entertainment, recreation, education and employment, Burnsville will be the type of community that young adults desire. In addition to the activities, programs and policies identified as part of this Comprehensive Plan, the City will continue to research and focus attention on other ways to attract and keep young adults in Burnsville.

## Neighborhood Oriented Mixed Use Redevelopment

Through this 2040 Comprehensive Plan Update, the City encourages redevelopment and infill development of neighborhood-oriented-mixed-use centers to provide residents with local service/retail options that can be visited by walking, biking or other personal transit service. Prime locations for neighborhood oriented mixed use are the current locations of aging retail strip centers and future transit station areas, especially within large areas currently dedicated to parking lots. As the city's population ages and becomes more diverse, new opportunities for investment in neighborhood oriented business will occur. By encouraging future redevelopment to be pedestrian- and transit-oriented and to cater to the needs of residents living in close proximity (1/4 mile), existing neighborhoods may be revitalized by the resulting local gathering places. The objective is to provide both desired and necessary services, business and interactive and entertainment establishments that will cater to the needs of neighborhoods such as daycare for youth and older adults, medical services, prescriptions, smaller groceries and places to dine.

## **National Trends Impacting the Future of Housing in Burnsville**

In addition to local demographic and economic trends that will impact housing demand in Burnsville, it is important to note that national trends may also have an impact. It is uncertain to what extent these national trends could have on Burnsville, but they should be carefully considered for proper integration into existing neighborhoods as housing decisions are made.

### **Increase in the number of single-person households**

- » Increase in both young, unmarried people, as well as seniors who live alone
- » Affordability for single-person households is a concern

### **Increasing desire by single-family detached homeowners to add additional units to their properties**

- » Income producing properties
  - Accessory dwelling units
  - Short-term rentals
- » Additional space to care for family members, especially elders
  - Mother-in-law apartments
  - Temporary healthcare dwelling
- » Variety of types of additional units
  - Building addition
  - Over garage
  - Basement unit
  - Carriage House
  - “Tiny house”
  - Trailers

### **Increasing demand for affordable group living (households of unrelated adults)**

- » Special housing needs (rehabilitation, sex offender, etc.)
- » Affordable senior housing that provides opportunities for companionship within the housing units
- » More office space needed in homes with shift toward telecommuting
- » Broadband
- » Well-connected neighborhoods to coffee shops and other daytime facilities

## **Allocation of Affordable Housing Need**

Through its regional planning efforts, the Metropolitan Council has prioritized housing affordability in the Thrive MSP 2040 Regional Policy. The Metropolitan Council determined the allocation of affordable housing needed to meet the rising need of affordable housing across the Twin Cities metropolitan area. Housing is considered “affordable” when no more than 30 percent of household income goes to housing. As such, households

with different income levels have different thresholds of “affordable,” as seen in Table 4-14.

Table 4-14: Twin Cities Metropolitan Regional Household Income Levels, 2015

| Household Size | 30% AMI* | 50% AMI  | 80% AMI  |
|----------------|----------|----------|----------|
| One-person     | \$18,050 | \$30,050 | \$46,000 |
| Two-person     | \$20,600 | \$34,350 | \$52,600 |
| Three-person   | \$23,200 | \$38,650 | \$59,150 |
| Four-person    | \$25,750 | \$42,900 | \$65,700 |
| Five-person    | \$28,440 | \$46,350 | \$71,000 |
| Six-person     | \$32,580 | \$49,800 | \$76,250 |
| Seven-person   | \$36,730 | \$53,200 | \$81,500 |
| Eight-person   | \$40,890 | \$56,650 | \$86,750 |

Source: Metropolitan Council

\*AMI = Area Median Income

The Metropolitan Council has selected the four-person household thresholds as a general measurement for affordable housing needs at each income level. This allocation of affordable housing need is calculated based on a variety of factors:

- » Projections of growth of households experiencing housing cost burden
- » Current supply of existing affordable housing, whether subsidized or naturally occurring
- » Disparity of low-wage jobs and housing for low-wage households within a community

Through these calculations, the Metropolitan Council has determined the Affordability Housing Need Allocation for Burnsville between 2021 and 2030, as shown in Table 4-15.

Table 4-15: Affordable Housing Need Allocation for Burnsville 2030

| Household Income Level | Units      |
|------------------------|------------|
| At or below 30% AMI*   | 127        |
| 31 to 50% AMI          | 69         |
| 51 to 80% AMI          | 70         |
| <b>Total Units</b>     | <b>266</b> |

Source: Metropolitan Council

\* AMI = Area Median Income

The way that communities accomplish this affordable housing allocation is by designating adequate vacant land or redevelopable land at minimum densities (units/acre) that are high enough for affordable housing to be an option. The more units per acre allowed on a site, the less cost per unit to be built. This makes the development an option for both affordable housing and market-rate developers. The affordable housing allocation does not mean that the City must force the building of this many affordable units between 2021- 2030. Rather, through future land use guidance, the City needs to ensure that the opportunity for affordable housing exists by having adequate vacant or redeveloped land guided for higher densities to meet the stated share.

In order to determine if Burnsville can achieve the calculated number of units, which Burnsville residential future land use designations count towards Affordable Housing Allocation Need must be determined. According to the Metropolitan Council, any residential future land use designation that has a minimum density of eight units per acre or more can count towards affordable housing allocation calculations. Table 4-16 features all future land use designations for Burnsville and their minimum units per acre.

Table 4-16: Burnsville Future Land Use Designations for Affordable Allocation

| <b>FLU</b>                 | <b>Min. Units / Acre</b> | <b>Qualify?</b> |
|----------------------------|--------------------------|-----------------|
| Rural Residential          | 0.50                     | No              |
| Low Density Residential    | 2.00                     | No              |
| Medium Density Residential | 4.00                     | No              |
| High Density Residential   | 8.00                     | Yes             |
| Heart of the City          | 20.00                    | Yes             |
| Mixed Use                  | 15.00                    | Yes             |

Source: HKGi, City of Burnsville, Metropolitan Council

Any vacant or redevelopable land designated as High Density-Residential, Heart of the City, or Mixed-Use that are expected to develop between 2021-2030 (as seen in Appendix F) may count toward affordable housing allocation calculations. As seen in Table 4-17, the net developable or redevelopable acres of each applicable land use have been multiplied by the minimum units per acre to determine the minimum number of units that could be developed on this available land.<sup>3</sup>

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<sup>3</sup> Net developable acreage is utilized which removes areas where units cannot be built, such as right-of-way, open water, and wetlands.

Table 4-17: Burnsville Development Potential for Affordable Allocation

| FLU                      | 2021-2030 Acres (Net) | Minimum units per acre | % Res. | Units      |
|--------------------------|-----------------------|------------------------|--------|------------|
| High-Density Residential | 4.47                  | 8.00                   | 100%   | 36         |
| Heart of the City        | 16.15                 | 20.00                  | 75%    | 242        |
| Mixed-Use                | 37.10                 | 15.00                  | 55%    | 306        |
| <b>Total</b>             | <b>57.72</b>          |                        |        | <b>584</b> |

Source: HKGi, City of Burnsville, Metropolitan Council

With the available developable and redevelopable land within areas designated as High-Density Residential, Heart of the City, and Mixed-Use, Burnsville is more than able to meet its allocation of affordable housing need for 2021-2030.

## Future Neighborhood and Housing Needs

### Reinvestment in Burnsville's Aging Housing Stock

- » Existing housing stock includes a mix of single family, multi-family, owner occupied or rental, including manufactured homes
- » The city's aging housing stock will require more significant and expensive maintenance
- » A substantial portion of the city's housing stock is older housing styles (e.g. split level homes) that are affordable, but these housing styles are less desirable today from a buyer's standpoint
- » Deferred housing maintenance can negatively impact neighborhood character and desirability
- » Many of the city's older housing units are considered "naturally occurring" affordable housing, so preservation of aging housing stock provides great opportunities for first-time home buyers as well as households in need of affordable housing

### Housing Options to Accommodate Burnsville's Growing and Diversifying Population

- » Low vacancy rates for rentals and owner-occupied homes creates pent-up demand for housing in Burnsville
- » Burnsville's projected population/household growth will require an average of 105 new housing units per year while the past ten years have had an average of 26 units per year
- » The growing population/households have diverse housing needs:



- Affordable rental housing for young heads of household and seniors (0-2 BR)
  - “Starter” homes in well-connected neighborhoods for young families
  - “Move-up” homes that have investment/expansion potential
  - “Executive” homes
  - Downsizing options for empty-nesters and those shifting in lifestyle
  - Senior housing options, including active, assisted, and affordable
  - Mixed-use neighborhoods with walkability to commerce and amenities as an alternative to traditional suburban development
- » An increasingly diverse population, especially as Burnsville remains a destination for first- and second-generation immigrant families, presents new housing needs: intergenerational living; cultural resources, and connection to community members, services, and resources

## **Increased Housing Options to Fit Changing Housing/Neighborhood Style Preferences of Current and Future Residents**

- » Increase in the number of single-person households
- » Increasing desire by homeowners to add additional units to their property, for income purposes or to provide care for family members, especially elderly
- » Millennials and retiring boomers place an increasing importance on character of neighborhoods, their connectivity to amenities and walkability
- » More people will be working from home or telecommuting in the future, shifting commuting patterns, as well as what residents need out of their housing

## **Affordable Housing Options for a Broader Range of Household Types and Income Levels**

- » An increasing number of people are experiencing a housing cost burden that is not sustainable
- » Preservation of Burnsville’s “naturally occurring” affordable housing, including apartments and manufactured homes

## **Stronger Neighborhood Organizations, Identity and Amenities**

- » Expand neighborhood level coordination and communication with residents and joint participation with civic and neighborhood improvement projects
- » Continue neighborhood initiatives to address issues and provide enhancement mechanisms to maintain and improve neighborhood vitality

by empowering residents to enhance neighborhood vitality Established single-family detached neighborhoods were built in previous decades when connectivity, walkability, and proximity to transit/services were not as much of a priority

## Sustainability

There are some limitations to what the City can implement or regulate within the neighborhood and housing context, since much of this development is driven by the private sector. However, there are many areas where sustainable initiatives can be encouraged, incentivized, and sometimes required. Some of the main areas within sustainability that provide opportunities are related to the turnover and reconstruction of the housing stock, including: energy, water, waste, and use of infrastructure/land. As neighborhoods go through major shifts and development patterns may shift, other opportunities for improving sustainability are also present: energy, water, food systems, use of infrastructure/land, and natural resources. On the surface the options seem limited, however, through some creative thinking, naturally occurring redevelopment and changes in areas within the city, more livable and desirable neighborhoods with less impact on the City’s systems and environment will be created.

| Sustainability Area                                                                                                 | Neighborhood & Housing Sustainability Approaches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Energy Reduction</p>         | <ul style="list-style-type: none"> <li>» Encourage smart energy controls</li> <li>» Continue to allow for solar access</li> <li>» Continue to allow for building-integrated solar systems</li> <li>» Support LEED elements for new buildings</li> <li>» Promote or encourage district energy alternatives</li> </ul>                                                                                                                                                                                                                                                                                                                   |
|  <p>Sustainable Water Supply</p> | <ul style="list-style-type: none"> <li>» Consider adopting water conserving fixtures or irrigation requirements or incentives</li> <li>» Consider harvest and use of stormwater out of ponds/waterbodies – public facilities, parks, golf course, private sites</li> <li>» Consider greywater reuse infrastructure – local and district-level</li> <li>» Continue to implement net zero stormwater discharge (over natural) standards (new/re-development)</li> <li>» Promote rain gardens and natural vegetative landscapes</li> <li>» Implement stormwater volume control in multi-use spaces (recreation, public spaces)</li> </ul> |
|  <p>Waste Reduction</p>          | <ul style="list-style-type: none"> <li>» Consider recycled building material policy (demolition debris and diversion ordinance)</li> <li>» Continue to recycle street surfacing materials</li> <li>» Explore residential compostable waste collection</li> </ul>                                                                                                                                                                                                                                                                                                                                                                       |

|                                                                                                                                   |                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                   | <ul style="list-style-type: none"> <li>» Review and update recycling and composting goals</li> </ul>                                                                                                                                                                                          |
|  <p>Sustainable Food System Opportunities</p>    | <ul style="list-style-type: none"> <li>» Continue to allow for community gardens</li> <li>» Promote farmer's markets</li> </ul>                                                                                                                                                               |
|  <p>Efficient Use of Infrastructure and Land</p> | <ul style="list-style-type: none"> <li>» Consider mixed-use and diversity of housing stock</li> <li>» Increase density near transit and/or walkable centers</li> <li>» Allow for farming on a micro-scale and in public spaces</li> <li>» Create multimodal connected enhancements</li> </ul> |
|  <p>Natural Resource Conservation</p>            | <ul style="list-style-type: none"> <li>» Ensure trail and passive park connections weaved into neighborhoods</li> <li>» Preserve natural areas (via acquisition, if needed)</li> </ul>                                                                                                        |
|  <p>Climate Resiliency</p>                      | <ul style="list-style-type: none"> <li>» Allow for and support cool buildings (passive heating and cooling)</li> <li>» Promote the use of lighter color materials that absorb less heat</li> </ul>                                                                                            |

## Sustainability Measures of Success

The following measures of success can be used to assess progress on sustainability initiatives:

- » Establish quantifiable baselines by measuring/monitoring: resident income range and median, demographics (age, race, ethnicity, employment, housing status), housing values, percentage of affordable housing, vacancy rates of affordable housing, etc., especially in mixed use areas
- » Number of sustainability-focused housing ordinances/policies adopted, programs initiated
- » Routine comparison of baseline and optimized housing policies:
- » Measure the number of physical improvements made on public or private properties such as rain gardens, solar arrays, wind turbines, community gardens, trail connections, etc.
- » Number of “non-traditional” stakeholders attending programs and initiating sustainable housing practices

# Implementation

| Housing Need                                              | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <p>» Reinvestment in Burnsville's Aging Housing Stock</p> | <ul style="list-style-type: none"> <li>» Consider options for private property improvements and cost sharing in coordination with city street reconstruction projects.</li> <li>» Continue partnership with the Dakota CDA to provide funding and administer housing finance programs.</li> <li>» Continue to support Dakota CDA rental rehabilitation programs to enhance the quality of life for tenants and promote long-term affordability of existing housing stock.</li> <li>» Periodically monitor building trends and update ordinances/design standards to allow people to remodel their homes to add desirable contemporary features and keep the existing housing stock desirable and functional.</li> <li>» Encourage developers and homeowners to develop and remodel housing utilizing green and sustainable practices to decrease environmental impacts and increase energy efficiency.</li> <li>» Communicate building standard changes that could encourage home improvement and redevelopment.</li> <li>» Continue city-wide windshield surveys to monitor housing conditions.</li> <li>» Continue housing inspections and compliance activities and/or look to alternative programs to encourage property maintenance.</li> <li>» Coordinate with school districts, local church groups, and civic organizations to utilize volunteers and students for assisting older adults and those with special needs so they can maintain and clean up properties (activities such as paint-a-thons, leaf raking, snow removal etc.).</li> <li>» Periodically review options to increase homeowner awareness of housing maintenance and improvement needs.</li> <li>» Utilize Neighborhood Street Lighting policy to enhance neighborhoods.</li> <li>» Provide education to residents about standard property maintenance issues in several languages and with pictures to illustrate standards.</li> </ul> |

| Housing Need | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                        |
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|              | <ul style="list-style-type: none"> <li>» Host and promote various programs and events to keep neighborhoods clean: spring and fall collection days where Burnsville residents are able to dispose of old appliances, electronics, tires, household hazardous waste and scrap metal or drop-off at the Dakota County ECO-Site, a permanent recycling facility located in Eagan.</li> </ul> |

| Housing Need                                                                                                                          | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <ul style="list-style-type: none"> <li>» Housing Growth to Accommodate Burnsville's Increasing and Diversifying Population</li> </ul> | <ul style="list-style-type: none"> <li>» Review the housing development process and see if there are ways to streamline and reduce costs for developers.</li> <li>» Review zoning code and see if allowed densities could be increased in appropriate areas, especially along transit corridors and in mixed use areas.</li> <li>» Explore the possibility of adding development incentives for higher density projects that meet other City goals (e.g. sustainability, transit proximity).</li> <li>» Encourage developers to provide a variety of living choices within neighborhoods and integrate affordable units into mixed-use redevelopment utilizing a scaled down model similar to HOC.</li> <li>» Adjust development procedures to provide convenient, affordable access to employment, markets, medical services, commercial and retail activities, parks, and recreation, as a way to provide alternative living options, affordable homes and a mix of housing values to accommodate our residents' life-cycle needs and desires.</li> <li>» Retain enough flexibility in the development processes to respond to changing housing market needs.</li> <li>» Periodically review local ordinances to address changing development trends, e.g. modify standards to allow for seniors to stay in independent units with younger relatives, allow more people/generations sharing a home or group of homes.</li> </ul> |



| Housing Need                                                                                                              | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <p>» Increased Housing Options to Fit Changing Housing/Neighborhood Style Preferences of Current and Future Residents</p> | <ul style="list-style-type: none"> <li>» Encourage developers to provide a range of options for those choosing to live alone that include connections to amenities and services.</li> <li>» Periodically review and update ordinances and standards to address changes in the housing market and needs of Burnsville residents including parking standards.</li> <li>» Consider allowing property owners to add accessory dwelling units or care dwelling units to their properties through zoning regulations.</li> <li>» Assess the needs of diverse populations via surveys and data collection.</li> <li>» Promote development of mixed-use projects to accommodate live/work units.</li> <li>» Focus development and redevelopment in mixed-use and higher density areas of the city.</li> <li>» Prioritize transit connections, especially to walkable mixed-use areas of the city.</li> <li>» Enable more affordable housing to be built throughout the city by allowing higher densities.</li> <li>» Undertake a study to determine what efforts could be implemented to attract young adults to Burnsville and to ascertain if current youth are able/desire to remain in Burnsville through adulthood.</li> <li>» Promote development of neighborhood “lifestyle centers” that incorporate amenities and activities people desire. Lifestyle centers could incorporate housing in close proximity to neighborhood retail and commercial services, medical services and parks/trails. Include connectivity to parks and schools, transit and public gathering places. Future lifestyle centers could be connected to key areas of the city such as the MRQ, HOC, Burnsville Center and major recreational areas.</li> <li>» Promote a variety of upscale housing opportunities in the city.</li> <li>» Ensure there are connections to recreation system with development projects.</li> </ul> |

| Housing Need                                                                                                                            | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <ul style="list-style-type: none"> <li>» Affordable Housing Options for a Broader Range of Household Types and Income Levels</li> </ul> | <ul style="list-style-type: none"> <li>» Utilize Dakota County CDA for administration and expansion of programs to help households with affordability challenges.</li> <li>» Allow higher densities as a means to increase development of affordable housing.</li> <li>» Promote the development of housing along transit corridors, and mixed-use employment centers so that transportation costs may be lowered for households.</li> <li>» Explore eliminating the existing discretionary EAW requirement for residential developments with more than 20 units per acre.</li> <li>» Consider adopting Federal Fair Housing policy or ordinance.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Housing Need                                                                                                                            | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>» Stronger Neighborhood Organizations, Identity and Vitality</li> </ul>                          | <ul style="list-style-type: none"> <li>» Provide opportunities for neighborhoods to organize to help maintain properties.</li> <li>» Support homeowner associations.</li> <li>» Increase communication about existing neighborhood improvement programs such as the annual tree sale, block grants, cul-de-sac improvement grants etc.</li> <li>» Study ways to create connections between neighborhoods and ways to connect neighborhoods to surrounding amenities.</li> <li>» Invest in neighborhood connection improvements such as sidewalks.</li> <li>» Utilize neighborhood assets such as parks, named/designated trails, parkways, prominent buildings or other features unique to each area of the city to create/enhance community identity at a neighborhood level.</li> <li>» Enforce vehicle speed limits in neighborhood streets through the use of speed trailers and various traffic calming tools.</li> <li>» Change zoning to allow mixed uses which include commercial and services closer to neighborhoods to make them more walkable.</li> <li>» Engage residents in the design and planning stages for public infrastructure improvements, such as investments in streets, storm water pond design, landscaping public spaces, and considering aesthetic impacts associated</li> </ul> |

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|  | <p>with public improvement projects and how these improvements affect the livability of the areas where they are constructed.</p> <ul style="list-style-type: none"> <li>» Work with the development community to locate and design housing in new and redevelopment areas that focus on park front property with a recreation orientation and feel.</li> <li>» Support and encourage participation in community wide garage sale event</li> </ul> |
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## Housing Tools

To achieve its share of the metro's affordable housing need, the City has several tools that are available. For example, the City can work with the Dakota County Community Development Agency (CDA) on building or financing units in Burnsville. (The Dakota County CDA serves as the city's housing department and is the administrator of federal/state entitlements directed towards affordable housing.) In addition to partnering with the CDA, the City could use statutory tools such as Housing Tax Increment Financing (TIF) or inclusionary housing ordinances. The CDA has established housing TIF districts in Burnsville and the City may consider the creation of new housing TIF. However, much of the newer multifamily construction (townhomes) in recent years has been deemed affordable without assistance.

| Tool                                      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Circumstances & Sequence of Use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Housing Need                                                                                                                                                                                                                                                              |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Community Development Block Grants (CDBG) | <p>CDA administers CDBG program on behalf of Dakota County. Funding is split between Municipalities (75 percent) and Countywide Activities (25 percent). These county-wide programs include:</p> <ul style="list-style-type: none"> <li>» Homeowner well-sealing program</li> <li>» Septic system repair</li> <li>» Fair housing activities</li> <li>» Home Improvement Loan Program (described below)</li> </ul> <p>CDBG funding can be used for programs under the following categories:</p> <ul style="list-style-type: none"> <li>» Safety/Blight hazard removal</li> <li>» Public service (Senior, Youth)</li> <li>» Public facility improvement</li> <li>» Direct homeownership assistance</li> <li>» Rehabilitation (Housing)</li> </ul> | <p>Following HUD's schedule of annual CDBG allocations, the City will continue to reserve a large portion of our CDBG allocation each year to continue our home rehabilitation loans and grant programs for low- and moderate-income homeowners. These could include improvements to moderate-income home owners, as well as developments providing a percentage of affordable housing within mixed use, high density, or medium density residential areas</p> <p>Historically this percentage has been approximately 50% that has fluctuated based on the amount of funding actually received.</p> | <ul style="list-style-type: none"> <li>» Reinvestment in Burnsville's aging housing stock</li> <li>» Affordable housing options for a broader range of household types and income levels</li> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul> |

| Tool                                       | Description                                                                                                                                                                                                                                                                                                                                      | Circumstances & Sequence of Use                                                                                                                                                   | Housing Need                                                                                                                                                                                                |
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| HOME – Home Investment Partnership Program | CDA administers the HOME program for Dakota County. They allocate funding from a consortium with Anoka, Ramsey, Washington, and Dakota Counties as well as the Cities of Coon Rapids and Woodbury. Funds are used to develop affordable medium and high density housing development.                                                             | The City will continue to support the CDA's efforts for the procurement and spending of HOME funds to provide rental assistance to very-low, low, and moderate income households. | <ul style="list-style-type: none"> <li>» Reinvestment in Burnsville's aging housing stock</li> <li>» Housing growth to accommodate Burnsville's increasing and diversifying population</li> </ul>           |
| Emergency Solution Grants (ESG)            | <p>CDA program that looks to address emergency housing needs. Funds may be used for five components:</p> <ul style="list-style-type: none"> <li>» Street outreach</li> <li>» Emergency shelter</li> <li>» Homelessness prevention</li> <li>» Rapid re-housing assistance</li> <li>» HMIS (Homeless Management Information System)</li> </ul>     | The City will work with the CDA as needed to ensure the CDA and its non-profit partners have a referral network to ensure funds can reach the greatest need.                      | <ul style="list-style-type: none"> <li>» Housing growth to accommodate Burnsville's increasing and diversifying population</li> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul> |
| Home Improvement Loan Program              | <p>Administered through CDA utilizing CDBG and MHFA funds to provide rehabilitation loans to low- and moderate-income homeowners for projects ranging from:</p> <ul style="list-style-type: none"> <li>» Window replacement</li> <li>» Roofing and siding replacement</li> <li>» HVAC updates</li> <li>» Kitchen or bathroom remodels</li> </ul> | The City will continue to allocate CDBG funds and to refer those that may benefit from said programs to the CDA.                                                                  | <ul style="list-style-type: none"> <li>» Reinvestment in Burnsville's aging housing stock</li> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul>                                  |
| MHFA Rehabilitation Loan Program           | CDA administers Minnesota Housing Finance Agency loan funds through their Home Improvement Loan Program (above). MHFA Rehabilitation Loan Program funds are specifically meant to serve very low-income homeowners at or below 30 percent AML.                                                                                                   | The City will support, through its partnership with the CDA, the application of funds through the MHFA, to provide very low-income homeowners with these funds                    | <ul style="list-style-type: none"> <li>» Reinvestment in Burnsville's aging housing stock</li> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul>                                  |



| Tool                                      | Description                                                                                                                                                                                                                                                                                                                 | Circumstances & Sequence of Use                                                                            | Housing Need                                                                                                                                                                                                                                                      |
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| Weatherization/<br>Weatherization<br>Plus | CDA program utilizing funding from federal low-income Weatherization Assistance Program (WAP), providing weatherization services to homeowners and renters.                                                                                                                                                                 | The City will continue to refer those that may benefit from said programs to the CDA.                      | <ul style="list-style-type: none"> <li>» Reinvestment in Burnsville's aging housing stock</li> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul>                                                                                        |
| Housing<br>Counseling                     | <p>CDA provides free one-on-one sessions as well as in-depth classes for a fee regarding a variety of topics for homeownership and financing.</p> <ul style="list-style-type: none"> <li>» Homebuyer counseling</li> <li>» Homebuyer education</li> <li>» Refinance counseling</li> <li>» Foreclosure counseling</li> </ul> | The City will continue to refer those that may benefit from said programs to the CDA.                      | <ul style="list-style-type: none"> <li>» Housing growth to accommodate Burnsville's increasing and diversifying population</li> <li>» Increased housing options to fit changing housing/neighborhood style preferences of current and future residents</li> </ul> |
| First Time<br>Homebuyers<br>Program       | CDA provides low-interest mortgage financing for first time-homeowners.                                                                                                                                                                                                                                                     | The City will continue to refer those that may benefit from said programs to the CDA.                      | <ul style="list-style-type: none"> <li>» Housing growth to accommodate Burnsville's increasing and diversifying population</li> <li>» Increased housing options to fit changing housing/neighborhood style preferences of current and future residents</li> </ul> |
| Senior Housing<br>Program                 | The CDA has partnered with Dakota County to develop and construct affordable senior housing throughout the county.                                                                                                                                                                                                          | The City will continue to work with the CDA to assist in finding appropriate sites for affordable housing. | <ul style="list-style-type: none"> <li>» Affordable housing options for a broader range of household types and income levels</li> </ul>                                                                                                                           |
| Workforce<br>Housing<br>Program           | The CDA partners with private corporations to fund the construction of workforce housing for moderate-income families. These developments often utilize low income housing tax credits in their financing as well.                                                                                                          | The City will continue to work with the CDA to assist in finding appropriate sites for affordable housing. | <ul style="list-style-type: none"> <li>» Housing growth to accommodate Burnsville's increasing and diversifying population</li> <li>» Affordable housing options for a broader range of household types and income levels</li> </ul>                              |

| Tool                                             | Description                                                                                                                                                                                                                                                                                                                            | Circumstances & Sequence of Use                                                                                                                                                                                                                                                                        | Housing Need                                                                                                                                                                                                                                                        |
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| HOPE (Housing Opportunities Enhancement) Program | CDA and Dakota County program to provide gap-financing for the acquisition, new construction, and preservation of affordable housing – both rental and ownership. HOPE assisted units are rental units affordable to households at or below 50 percent AMI, or homeownership units affordable to households at or below 80 percent AMI | The City will continue to support the CDA in its HOPE funding program.                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>» Housing growth to accommodate Burnsville's increasing and diversifying population</li> <li>» Affordable housing options for a broader range of household types and income levels</li> </ul>                                |
| Low-Income Housing Tax Credits                   | CDA allocates Minnesota housing tax credits to housing developers for projects that have subsidized units. The CDA has also been a developer of units that utilize low-income housing tax credits.                                                                                                                                     | The City will continue to support Low Income Housing Tax Credit (LIHTC) allocations from Dakota County CDA. Additionally, the City will continue to support Dakota County CDA's efforts to monitor and pursue the extension of LIHTC properties with affordability requirements that are set to expire | <ul style="list-style-type: none"> <li>» Housing growth to accommodate Burnsville's increasing and diversifying population</li> <li>» Affordable housing options for a broader range of household types and income levels</li> </ul>                                |
| Housing Improvement Areas (HIA)                  | CDA program to provide homeowners associations loan funding to make improvements to common areas within their subdivisions. The City has an adopted HIA policy.                                                                                                                                                                        | The City will review and approve HIA applications consistent with adopted policies and funding availability                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul>                                                                                                                                                      |
| Tax Increment Financing (TIF)                    | State Statutes allow for the use of TIF for affordable housing. The Dakota County CDA administers the existing ones located in the city.                                                                                                                                                                                               | The City will continue to work with the CDA in securing a broad range of funding sources to advance affordable housing in the City, especially when projects include housing opportunities affordable to very low- and low-income households                                                           | <ul style="list-style-type: none"> <li>» Increased housing options to fit changing housing/neighborhood style preferences of current and future residents</li> <li>» Affordable housing options for a broader range of household types and income levels</li> </ul> |
| Tax Abatement                                    | State Statutes allow for the City to abate city portion of property taxes for various purposes including affordable housing.                                                                                                                                                                                                           | The City does not plan on using Tax Abatement for residential development                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                     |

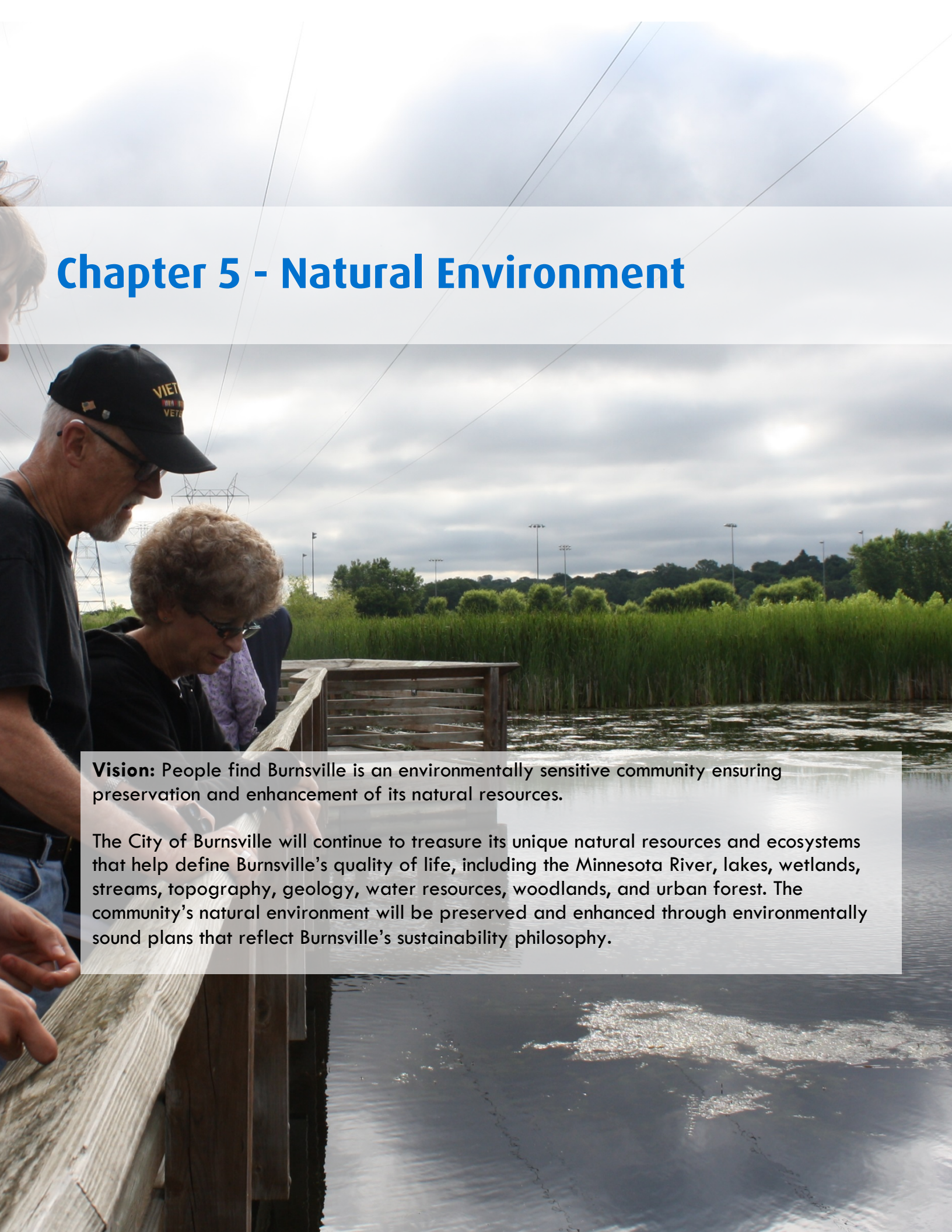
| Tool                                   | Description                                                                                                                                                                                                                                                                                                                                   | Circumstances & Sequence of Use                                                                                                                                                                                                                                                                                                                      | Housing Need                                                                                                                                                                                                                                                                |
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| Housing Bonds                          | Housing Bond financing is a tool that can provide direct financing or indirect conduit financing support. The City is not a direct financier of housing projects and relies on the CDA to finance public affordable housing programs in the City. The City from time to time may engage in conduit financing for affordable housing projects. | The City will continue to work with the CDA to identify a variety of housing funding options on project specific basis. Further, the City will consider conduit bonding on a case by case basis that meet the overall goals and objectives of the City, especially if the project provides housing affordable to very low- and low-income households | » Affordable Housing Options for a Broader Range of Household Types and Income Levels                                                                                                                                                                                       |
| Home Remodeling Grants                 | Dakota County CDA grant which provides up to \$4,500 to assist low-to-moderate single-family homeowners in bringing their homes up to code.                                                                                                                                                                                                   | The City will continue to support CDA affordable housing tools.                                                                                                                                                                                                                                                                                      | » Reinvestment in Burnsville's aging housing stock<br>» Increased housing options to fit changing housing/neighborhood style preferences of current and future residents                                                                                                    |
| Land Bank Twin Cities                  | Land Bank is a Twin Cities-based organization specializing in land acquisition, development and preservation, as well as real estate financing and brokering.                                                                                                                                                                                 | The City does not plan on becoming an active partner with the Land Bank for development                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                             |
| Tax Base Revitalization Account (TBRA) | Program through the Livable Communities Act promoting Brownfield redevelopment, job creation, and affordable housing with link to existing transit.                                                                                                                                                                                           | The City will apply for grant funding as qualified projects arise.                                                                                                                                                                                                                                                                                   | » Increased housing options to fit changing housing/neighborhood style preferences of current and future residents<br>» Affordable housing options for a broader range of household types and income levels<br>» Stronger neighborhood organizations, identity and vitality |

| Tool                                             | Description                                                                                                                                                                                                          | Circumstances & Sequence of Use                                                                                                                                                                                                                                                                             | Housing Need                                                                                                                                                                                                                                                                                                                              |
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| Livable Communities Demonstration Account (LCDA) | Program through the Livable Communities Act promoting development/redevelopment to create efficient and connected jobs housing, and services.                                                                        | The City would strongly consider supporting/sponsoring an application to Livable Community Account programs for residential proposals that provide units that are affordable to very low-, low-, or moderate-income households, especially if those projects are within Transit Oriented Development areas. | <ul style="list-style-type: none"> <li>» Increased housing options to fit changing housing/neighborhood style preferences of current and future residents</li> <li>» Affordable housing options for a broader range of household types and income levels</li> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul> |
| Local Housing Incentives Account (LHIA)          | Program through the Livable Communities Act to preserve and create affordable housing.                                                                                                                               | The City would strongly consider supporting/sponsoring an application to Livable Community Account programs for residential proposals that provide units that are affordable to very low-, low-, or moderate-income households.                                                                             | <ul style="list-style-type: none"> <li>» Affordable housing options for a broader range of household types and income levels</li> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul>                                                                                                                             |
| Transit Oriented Development (TOD) Program       | Program through Livable Communities program that utilizes LCDA and TBRA funding for TOD projects that promote mixed-use walkable developments.                                                                       | The City would strongly consider supporting/sponsoring an application to Livable Community Account programs for residential proposals that provide units that are affordable to very low-, low-, or moderate-income households, especially if those projects are within Transit Oriented Development areas  | <ul style="list-style-type: none"> <li>» Increased housing options to fit changing housing/neighborhood style preferences of current and future residents</li> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul>                                                                                                |
| Rental Licensing Program                         | City Code requires that all residential rental properties obtain a rental license with inspections of every unit every three years to ensure all rental properties are maintained in compliance with City standards. | The City will continue to implement a rental licensing program to maintain housing stock.                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>» Reinvestment in Burnsville's aging housing stock</li> <li>» Stronger neighborhood organizations, identity and vitality</li> </ul>                                                                                                                                                                |

| Tool                                                      | Description                                                                                                                                                              | Circumstances & Sequence of Use                                                                                                                                              | Housing Need                                                                                                                                                                                                                     |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inclusionary Housing Ordinances                           | State Statutes that allow for cities to adopt an ordinance requiring developers to provide for a certain number of affordable housing units under certain circumstances. | Given the current amount of affordable housing, the City does not need to adopt inclusionary policy at this time or in the near future.                                      |                                                                                                                                                                                                                                  |
| Annual Home Improvement Seminars                          | The City hosts several home improvement seminars throughout the year.                                                                                                    | The City will continue to provide resources for residents to improve and maintain their homes.                                                                               | <ul style="list-style-type: none"> <li>» Reinvestment in Burnsville's aging housing stock</li> <li>» Increased housing options to fit changing housing/neighborhood style preferences of current and future residents</li> </ul> |
| Habitat for Humanity                                      | The City partners with organizations such as Twin Cities Habitat for Humanity and others to provide affordable home ownership opportunities in Burnsville.               | The City will continue to advise of potential sites for Habitat for Humanity homes.                                                                                          | <ul style="list-style-type: none"> <li>» Affordable housing options for a broader range of household types and income levels</li> </ul>                                                                                          |
| Site Assembly                                             |                                                                                                                                                                          | The City does not plan on actively assembling sites for residential development at this time                                                                                 |                                                                                                                                                                                                                                  |
| Guiding land at densities that support affordable housing | Medium and High densities are deemed to more opportunistic to provide future affordable housing.                                                                         | See our future land use plan and projected housing needs section of the housing chapter of this comprehensive plan                                                           | <ul style="list-style-type: none"> <li>» Tool to address multiple housing needs and improve our housing strategy capacity in general</li> </ul>                                                                                  |
| Fair Housing Policy                                       | Fair housing policy is a means to identify how the City will advance Federal Fair housing requirements.                                                                  | The City adopted a Fair Housing Policy in 2018                                                                                                                               | <ul style="list-style-type: none"> <li>» Tool addresses multiple housing needs and improve our housing strategy capacity in general</li> </ul>                                                                                   |
| Zoning and Subdivision Ordinances                         | Adopted ordinances are the way the city implements the Comprehensive Plan                                                                                                | The City will continue to review our zoning and subdivision ordinances on an ongoing basis to identify any regulations that inhibit the housing priorities in this document. | <ul style="list-style-type: none"> <li>» Tool addresses multiple housing needs and improve our housing strategy capacity in general</li> </ul>                                                                                   |

| Tool                     | Description                                                                                                                                                                                   | Circumstances & Sequence of Use                                                                                                                                                                                                                                                                                   | Housing Need                                                                                                       |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Accessory Dwelling Units | Accessor Dwelling Unit attached and/or detached                                                                                                                                               | The City adopted an ADU ordinance in 2018                                                                                                                                                                                                                                                                         | » Increased housing options to fit changing housing/neighborhood style preferences of current and future residents |
| Micro Units              | The City reduced minimum apartment size to allow micro units to increase density                                                                                                              | The City adopted the ordinance in 2018                                                                                                                                                                                                                                                                            | » Increased housing options to fit changing housing/neighborhood style preferences of current and future residents |
| Community Land Trust     | An organization that works to provide permanently affordable homeownership opportunities. A CLT acquires land and holds the land they own “in trust” forever for the benefit of the community | The City is supportive of non-profits or the CDA establishing a community land trust in Burnsville                                                                                                                                                                                                                | » Affordable housing options for a broader range of household types and income levels                              |
| Local 4d Tax Incentive   | A possible program where cities help apartment building owners obtain property tax reductions if they agree to keep a certain percentage of their rental units affordable                     | The City will consider the appropriateness of a local 4d tax incentive policy when Burnsville housing stock is no longer considered significantly affordable or when a specific project meeting affordable housing or redevelopment priority is presented or in partnership with the CDA                          | » Affordable housing options for a broader range of household types and income levels                              |
| NOAH Impact Fund         | Program through the Greater Minnesota Housing Fund to preserve naturally occurring affordable housing (NOAH)                                                                                  | The City will consider exploring opportunities with Minnesota Housing Fund on the use of NOAH when existing Burnsville housing stock is no longer considered significantly affordable or when a specific project meeting affordable housing or redevelopment priority is presented or in partnership with the CDA | » Affordable housing options for a broader range of household types and income levels                              |



A photograph of a man and a woman looking over a wooden railing at a body of water with reeds under a cloudy sky. The man is wearing a black cap with 'VIET' and 'VET' on it, and the woman is wearing sunglasses. The background shows a line of trees and some utility poles.

## Chapter 5 - Natural Environment

**Vision:** People find Burnsville is an environmentally sensitive community ensuring preservation and enhancement of its natural resources.

The City of Burnsville will continue to treasure its unique natural resources and ecosystems that help define Burnsville's quality of life, including the Minnesota River, lakes, wetlands, streams, topography, geology, water resources, woodlands, and urban forest. The community's natural environment will be preserved and enhanced through environmentally sound plans that reflect Burnsville's sustainability philosophy.

## Table of Contents – Chapter 5

|                                                           |     |
|-----------------------------------------------------------|-----|
| Introduction.....                                         | 222 |
| Goals & Policies.....                                     | 222 |
| Geology.....                                              | 229 |
| Rivers and Streams .....                                  | 233 |
| Soils.....                                                | 236 |
| Open Space Protection .....                               | 241 |
| Tree Preservation .....                                   | 242 |
| Steep Slopes .....                                        | 242 |
| Floodplain Management.....                                | 243 |
| Shoreland Management.....                                 | 243 |
| Air Quality .....                                         | 244 |
| Solid Waste .....                                         | 245 |
| Natural Resources Management Plan .....                   | 249 |
| 2007 Natural Resources Inventory.....                     | 250 |
| Natural Resources Management on Public Property.....      | 253 |
| Natural Resources Management on Private Property.....     | 260 |
| Wetland Protection and Management Plan .....              | 262 |
| Introduction.....                                         | 262 |
| Wetland Background Information .....                      | 265 |
| Wetland Inventory and Functions and Values Analysis ..... | 268 |
| Water Resources Management Plan .....                     | 270 |
| History.....                                              | 270 |
| Purpose .....                                             | 271 |
| Existing Conditions.....                                  | 271 |
| Current Issues.....                                       | 274 |
| Emerging Issues .....                                     | 277 |
| Natural Environment Sustainability .....                  | 278 |
| Sustainability Approaches.....                            | 278 |
| Sustainability Metrics .....                              | 282 |
| Implementation .....                                      | 283 |

Table of Figures – Chapter 5

Figure 5-1: Soil Erodibility Map.....239

Figure 5-2: Septic System Location Map .....240

Figure 5-3: Watershed District Boundary Map .....264

Figure 5-4: Wetland Management Plan Map .....266

Table of Tables – Chapter 5

Table 5-1. General Soil Type Descriptions.....236

Table 5-2: Priority Sites for Management .....254

Table 5-3: Summary of 1998 & 2006 Wetland Classifications.....269

Table 5-4: Goals to Accomplish Wetland Protection & Management Plan.....270

Table 5-5: Physical Lake Data Summary.....272

Table 5-6: Lake Water Clarity Goals.....273

Table 5-7: Base Flood Elevations (BFEs) for Major Water Bodies.....274

Table 5-8: 2016 Draft Impaired Waters Summary .....275

# Natural Environment Plan

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## Introduction

Burnsville's rich environmental assets, including the Minnesota River Valley, bluffs, lakes, wetlands and wooded areas, natural open space, and views of the Minneapolis skyline are unique and defining characteristics. Rolling hills with varied topography, plant life, wildlife and natural habitat, combined with our close proximity to the Twin Cities metropolitan area make Burnsville an attractive place to live and work. As redevelopment and infill development of vacant properties occurs, Burnsville's adaptive challenge is to physically and mentally link these new and redeveloped areas to its existing fabric.

The Natural Environment Plan seeks to enhance and preserve the unique natural resources and the beautiful setting that defines Burnsville. This Chapter outlines how the City will plan for and maintain its natural environment. The Natural Environment Plan is comprised of several larger management plans: The 2007 Natural Resources Master Plan, the 2017 Wetland Protection and Management Plan, and the 2017 Water Resources Management Plan. Applicable environmental sections of previous Burnsville Comprehensive Plan Updates are also incorporated herein.

## Goals & Policies

The 2040 Comprehensive Plan establishes the following goals and policies to guide future natural environment efforts in the community. The 12 natural environment goals (NE Goals) are high level yet targeted statements of how the community intends to achieve the vision of the Natural Environment Plan, which is stated on page 1 of this chapter. The 12 goals encompass the community's desire for natural resources protection, open space conservation, water resources conservation, Minnesota River Valley enhancements, sustainable development practices, Minnesota River Quadrant's (MRQ) high quality natural resource and recreational values, solid waste management, composting, organics recycling, energy conservation, noise pollution, and partnerships. Each natural environment goal is supported by a set of policies that define the City's preferred directions or methods of action to guide and determine natural environment decisions.

**NE Goal 1.** Promote protection, conservation, and enhancement of natural resources within Burnsville for the community's long-term use.

NE Policy 1.1. Encourage and assist businesses, organizations, and private residents in their efforts to enhance and



improve the community's natural environment and conserve natural resources.

NE Policy 1.2. Manage the community's wildlife resources to protect and preserve native habitat and wildlife, and to protect human safety.

NE Policy 1.3. Develop, redevelop, and maintain an organized system of open space, trails for biking and running, greenways, corridors, and active and passive parks to improve community character and protect natural resources.

NE Policy 1.4. Encourage residents' use and appreciation of the wildlife refuge and other community parks, recreation and open space areas.

NE Policy 1.5. Continue to enforce all environmental protection zoning standards related to restrictive soils, woodlands, wetlands, floodplains, shorelands, bluffs, steep slopes and erosion control, to preserve and protect sensitive and other natural areas of community importance.

NE Policy 1.6. Protect native vegetation, such as trees, understory growth, prairies, and other wildlife habitat through implementation of the Natural Resources Master Plan.

NE Policy 1.7. Approve and permit projects designed to reclaim contaminated lands and restore natural resources where appropriate.

NE Policy 1.8. Continue programs to regulate the use of private individual sewage treatment systems per County and State requirements and to protect ground and surface waters of Burnsville.

**NE Goal 2.** Preserve, enhance, and restore the Minnesota River Valley as a natural area and for public use with compatible private amenities.

NE Policy 2.1. Maximize appropriate recreational opportunities, business and economic activities in concert with overall river valley development.

NE Policy 2.2. In addition to open space preservation, promote recreation and cultural opportunities associated with the Minnesota River corridor.

NE Policy 2.3. Participate with other organizations, agencies and land owners to enhance, and restore the Minnesota River and adjacent lands for public use and as valuable wildlife habitat.

NE Policy 2.4. Regulate the quarrying of resources such as sand,

dirt, gravel and peat to mitigate potential visual and environmental impacts such as dust, noise and erosion.

- NE Policy 2.5. Continue to manage impacts of land uses such as landfills, aggregate mining and others on the environment by collecting appropriate host fees or other funds to mitigate the impacts of the use on community infrastructure.
- NE Policy 2.6. Continue to work with the U.S. Army Corps of Engineers and Lower Minnesota River Watershed District to allow dredge material sites at the Burnsville Sanitary Landfill Inc. (BSLI) landfill and Kraemer sites on a short term, interim basis provided the sites are out of view of the Gateway Area. Discourage dredge spoil sites in other areas of the MRQ and east of I-35W.
- NE Policy 2.7. Support the Minnesota Pollution Control Agency (MPCA) and Environmental Protection Agency's (EPA) efforts to close Freeway Landfill in an environmentally sustainable manner.
- Support a closure plan that primarily addresses any future environmental impacts (e.g. Minnesota River water quality, ground water impacts) and provides for economic development opportunity as part of a remediation project.
  - Support the use of economic development tools such as the creation of a State New Market Tax Credit program and extension of the existing TIF District 7 to assist in the closure of the landfill and redevelopment of the MRQ.
  - Support minimizing the impact and cost of remediation on smaller jurisdictions if the landfill is closed through Superfund.



**NE Goal 3.**    Employ feasible sustainable practices that promote development and maintain or enhance economic opportunity and community well being while protecting and restoring the natural environment.\*<sup>1</sup>

- NE Policy 3.1.    Continue and expand environmental education and awareness programs to include the proper use and disposal of such pollutants as hazardous waste, fertilizers, pesticides, and non-point source pollutants, and encourage public and private recycling and source reduction programs.
- NE Policy 3.2.    Promote greater efforts in recycling by creating broader opportunities for recycling across government, businesses and residents in the community.
- NE Policy 3.3.    Evaluate all future development and redevelopment to ensure restoration and preservation of natural resources.
- NE Policy 3.4.    Promote the efficient use of existing and new energy resources and the protection of solar access in municipal, commercial and residential developments.

**NE Goal 4.**    Protect, improve and recognize the importance of preserving the community's valuable water resources and open space.\*<sup>2</sup>

- NE Policy 4.1.    Work with the regional and state agencies, as well as the local water management organizations, to meet the water quality goals established for the Minnesota River and other waters in Burnsville.
- NE Policy 4.2.    Develop programs to preserve, maintain, further enhance and prevent degradation of surface water resources and interconnected groundwater resources, including lakes, ponding areas, drainage areas, and wetlands by:
  - Protecting lakes and other water bodies from negative impacts of development, including

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<sup>1</sup> \*Indicates a Goal that references the Council's adopted Ends and Outcomes

<sup>2</sup> \*Indicates a Goal that references the Council's adopted Ends and Outcomes

pollution, sedimentation, and native vegetation removal.

- Protecting both surface and ground water from pollutants, including hazardous waste, fertilizers, and pesticides.
- Protecting surface water from intrusive vegetation that would disturb or destroy its natural ecosystem.
- Evaluating the use of mitigation measures in the development process to preserve and enhance existing wetlands through the development process.

NE Policy 4.3. Build strong relations with lake associations and homeowners to collaborate on lake, wetland, forestry and other natural resources programs.

NE Policy 4.4. Continue to monitor and implement new technologies to meet and exceed water quality and quantity goals for the community.

NE Policy 4.5. Actively encourage the use of rain water gardens, green roofs, natural infiltration systems, porous pavers/pavement and other technologies to filter and divert storm water from lakes, ponds and wetlands.

**NE Goal 5. Partner with private and public sector organizations to maximize the preservation of natural resources.**

NE Policy 5.1. Support county, regional, federal and state agencies and non-profit/private organizations to explore and nurture innovative technologies/programs that further Burnsville's environmental goals and policies.

NE Policy 5.2. Actively manage wetlands, including runoff management, and maximize opportunities to preserve such areas through partnerships with county, state, regional, federal and private programs.

NE Policy 5.3. Protect public health by requiring on-site sewage systems and private wells to conform to state, county, and City requirements.

NE Policy 5.4. Consider implementing all reasonable opportunities to reduce and control noise, light, visual and air pollution.

NE Policy 5.5. Collaborate with other agencies and the private sector to accomplish cleanup of polluted sites.

- NE Policy 5.6. Partner with other government agencies to provide viable greenway and natural habitat corridors that connect to existing and planned facilities/natural areas.
- NE Policy 5.7. Collaborate with other agencies to streamline and simplify the regulatory structure for administration of surface water management programs at all levels of government. Pursue options that reduce administrative and reporting costs and redirect those funds toward improving water resources.

**NE Goal 6.** Ensure that the development of the MRQ is not only a commercial success, but that high quality natural resource and recreational values are also achieved.

**NE Goal 7.** Support new options for solid waste management focusing on best management lifecycle practices

- NE Policy 7.1. Research and implement tools to reduce or eliminate waste or utilize waste products as a resource instead of a liability.
- NE Policy 7.2. Create new emphasis on recycling materials from businesses and households by exploring new technologies for recycling. Encourage recycling programs for businesses, improve communications with owners/managers and residents of multi-family housing to utilize recycling options.
- NE Policy 7.3. Increase participation of youth/students in recycling and reuse programs.
- NE Policy 7.4. Coordinate waste management consistent with the Regional/Dakota County Solid Waste Master Plan.

**NE Goal 8.** Create a new emphasis on composting (yard waste).

- NE Policy 8.1. Encourage compost-at-home processing/backyard collection with usable bins on-site at residences.
- NE Policy 8.2. Research the feasibility of a city curbside pickup program for compostables.
- NE Policy 8.3. Continue to inform all residents and businesses about the responsibility and opportunities for proper management of yard waste materials.

**NE Goal 9.** Create a new emphasis on management of organics recycling (food waste).

- NE Policy 9.1. Encourage participation in food waste reduction programs by providing residents, businesses and organizations information on programs such as Food Waste Prevention, Rescued Food to People, Food to Animals, and Organics Recycling (composting).

- NE Policy 9.2. Seek grants and other assistance as needed to implement programs.

**NE Goal 10. Encourage conservation of water resources.**

- NE Policy 10.1. Increase education and enforcement of the watering restrictions for residences and businesses. Encourage the use of monitoring systems designed to provide irrigation when needed as opposed to those based on timing systems alone.
- NE Policy 10.2. Educate property owners and businesses about future cost savings with the use of native plantings, less manicured lawns and tree plantings.
- NE Policy 10.3. Encourage new construction and redevelopment to install low flow showerheads, faucets, toilets, and appliances that are water saving.

**NE Goal 11. Make sustainable energy conservation a focus and priority through planning, education and incentives.**

- NE Policy 11.1. Consider implementing sustainable and green building practices into City operations.
- NE Policy 11.2. Consider incorporating sustainable principles into development review and other programs following adoption of the City's sustainability plan.
- NE Policy 11.3. Work with partners to provide education and incentives where appropriate to encourage the private sector to utilize energy efficient construction and site development practices.
- NE Policy 11.4. Continue to capitalize on alternative energy sources including, but not limited to: solar, wind and thermal energy.

**NE Goal 12. Identify and reduce noise pollution in areas where people live and work to improve quality of life in Burnsville.**

- NE Policy 12.1. Continue to work with the Metropolitan Airports Commission to reduce noise impacts associated with the airport and airline operations.
- NE Policy 12.2. Continue to work with MnDOT, other agencies, property owners and developers to mitigate noise from railroads, and freeways and busy roadways pursuant to Minnesota Rules 7030.0030.

# Natural Environment Overview

## Geology

According to the Minnesota Geological Survey, the upper bedrock formations beneath the City of Burnsville are composed of rock formed between 453 and 505 million years ago, during the Early Paleozoic age. This bedrock was formed by deposited sediments when the southeastern part of the state was covered by shallow seas. The unconsolidated materials that overlie these bedrock deposits include glacial, terrace and non-glacial deposits. Much of this material was deposited through a variety of geological processes associated with the advances and retreats of glaciers between two million and ten thousand years ago. The retreat of these glaciers left behind ancient glacial lakes and rivers that eroded and cut into the deposited sediments, forming river valleys, and then cut into the river valleys, forming deep terraces. The most significant land form in the city, the Minnesota River valley, is the product of these geological forces and was formed by the Glacial River Warren, the largest of the ancient glacial rivers.

## Bedrock Geology

The bedrock beneath the city consists of a series of formations. The porous formations that transmit groundwater serve as aquifers and may provide groundwater for various uses. The less porous formations serve as confining layers that limit the direction and rate of groundwater movement. Northern Burnsville is a covered karst area characterized by subterranean fractures and caverns in the limestone.

The City of Burnsville relies on groundwater aquifers and surface water to meet the water needs of the community. The municipal water supply is drawn from wells in the Jordan Sandstone Aquifer and, to a lesser extent, from deep wells in the Mt. Simon-Hinckley Sandstone Aquifer and also from two surface water intakes located at the Kraemer Quarry.

According to the Geologic Atlas of Dakota County, the Prairie du Chien Aquifer is not a permitted source of potable water in the river terrace and floodplain area. This area lies between the Savage border to the west and Nicollet Avenue to the east, the Minnesota River to the north and Burnsville Parkway to the south. In this area, the Prairie du Chien Aquifer is highly susceptible to contamination due to the unconsolidated glacial and alluvial deposits which overlay the bedrock formation in this part of the city.

## Jordan Sandstone

The Jordan Sandstone that underlies the Prairie du Chien Group is primarily composed of a layer of poorly-cemented sandstone, approximately 90-feet thick. This bedrock is the second unit of the main aquifer serving the Twin City Basin. As with the Prairie du Chien group, the

primary natural recharge area of this aquifer occurs beneath the upland areas and away from the major stream valleys.

#### **Mt. Simon - Hinckley Sandstone**

This deep aquifer may be up to five formations (three confining beds and two aquifers) below and hydraulically-isolated from, the Jordan Sandstone Aquifer. It is approximately 255-feet thick in the city, provides a moderate to high water yield and is the second most significant aquifer in the Twin City basin. According to the Dakota County Geological Survey, the static water level of this aquifer has been artificially raised by recharge from the overlying aquifers located near an older multi-aquifer well, which is cased and grouted to the Jordan, but is open to cross-aquifer flow between the Franconia and Hinckley Aquifers. The type of recharge associated with this multi-aquifer well changes the natural local direction of flow.

#### **Surficial Geology**

Burnsville's bedrock formations are covered with varying depths of unconsolidated glacial materials, rocks and sediments. This cover material, or overburden, varies in depth from less than ten feet in parts of the Minnesota River Valley to over 400 feet at Buck Hill. The glacial deposits and the bedrock topography are both important sources of groundwater. The relationship between surface and bedrock topography affects where and how the groundwater moves. According to the *Geological Atlas of Dakota County*, a groundwater aquifer's susceptibility to pollution is, in part, determined by the length of time required for surface water to infiltrate through the soil and other geologic materials and to travel through the aquifer to the point where it is discharged or pumped.

An estimate of the various geological formations' sensitivity and the resulting susceptibility of the underlying Prairie du Chien Aquifer to waterborne contamination were prepared by the Minnesota Geological Survey. This estimate was based on the known characteristics of the overlying materials (rock and sediment), while the sensitivity ratings were based on the estimated time it takes for water soluble pollutants to travel from the surface to the Prairie du Chien Aquifer. Sensitivity to pollution is related to the ability of the overlying materials to absorb and hold, transform, dilute or control the rate at which contaminants flow into or through the aquifers. The degree of the bedrock aquifers' susceptibility to contamination is generally determined by the thickness of the overlying unconsolidated sediments. Areas possessing less than five feet of sediment, as well as those possessing less than ten feet of the highly-permeable terrace deposits are considered to offer no drift protection for the bedrock aquifer.

The Geologic Atlas of Dakota County, Plate 7-Pollution Sensitivity, prepared by the Minnesota Geological Survey, illustrates that the most sensitive areas with the shortest travel times in the City of Burnsville are



generally located in the outwash terraces along the bluff line and in the floodplain. Outwash terraces are composed of material deposited by melt water streams beyond active glacier ice. A large area that begins just east of I-35W, extending to the Savage border between Highway 13 and the river, along with a smaller floodplain area in the Black Dog Preserve, east of I-35W, possess very high sensitivity ratings, indicating that water-borne contaminants may travel from the surface to the aquifer in as little as a few hours to a few months.

It is important to note that much of the areas shown to be high to very highly sensitive to pollution are within the Minnesota River Valley and that studies indicate the Minnesota River and river valley serve as groundwater discharge areas rather than recharge areas. In other words, the natural groundwater in this area flows from the glacial overburden and St. Peter and Prairie du Chien-Jordan Aquifers into the river and associated river valley lakes, wetlands and springs rather than from the surface downward into the aquifers. This natural direction of flow limits the transmission of contaminants downward into the deeper aquifers and, instead, tends to divert surface contamination into the Minnesota River.

Currently, the dewatering of the Kraemer Quarry, and the drawdown of the high-capacity city well field to the northeast of the I-35W/Highway 13 interchange, affect the flow of the Prairie du Chien-Jordan aquifers. The Kraemer dewatering changes the direction of flow around the quarry, allowing ground water to percolate down toward the bedrock from the alluvial materials under the southern portion of the freeway landfill.

Based on modeling and testing completed as part of the Freeway Landfill analysis by the City, Minnesota Pollution Control Agency (MPCA) and Dakota County, the Kraemer Quarry dewatering intercepts any contaminants from the landfills and pumps them to the Minnesota River prior to them reaching the City intake. The City has tested intake water quarterly since 2012 for contaminants present in landfills and has not had any test results indicating any landfill contaminants are present.

It is critical that both the Freeway Landfill and Dump are closed properly to prevent contamination of the City's water supply when the Kraemer Quarry ceases dewatering operations and groundwater flow patterns return to normal.

In addition, the operation of the high-output city pumps temporarily reverses the natural flow of the groundwater from the lower layer of the Prairie du Chien Aquifer, causing it to leak into the underlying Jordan. During these periods of pumping, the glacial drift deposits overlying the bedrock and the lower level of the Prairie du Chien Aquifer in this particular area have the potential to become a temporary source of recharge and storage.

## Ground Water Quality

Prior to extensive human settlement, the Jordon Sandstone Aquifer exhibited a state of equilibrium, with gradual seasonal and yearly fluctuations in water level. The primary recharge areas occurred beneath the porous upland areas, away from the river valley. According to the Geologic Atlas of Dakota County, outwash deposits located on the moraines probably serve as localized recharge areas for buried outwash, and the small enclosed lakes and wetlands on the moraines recharge the water table and the shallow aquifers.

Various studies of the water quality of Dakota County's lakes have been conducted since the 1970s. Some of the findings are related to the quality of groundwater in the city. Fertilizer and stormwater runoff were found to increase nutrient concentrations, including nitrogen and phosphorous, in the lakes, ponds and recharge areas, possibly increasing the amount of nitrates in the upper-level aquifers. In addition, the use of road salt and snowmelt runoff have elevated the level of chloride. If contaminated, these aquifers may release non-point source pollution through the river valley discharge areas into the rivers. Both the upland and river valley wetland systems can effectively reduce this type of non-point contamination by utilizing the nitrogen and phosphorous for plant growth.

Although the groundwater in the aquifers that serve the city is hard to very hard and high in calcium, magnesium and bicarbonates, it is suitable for most uses. The Prairie du Chien-Jordan Aquifer is commonly supersaturated with ferrous iron that, if untreated, causes rust staining and an iron taste. While sulfate concentrations are very low, dissolved solids have increased county-wide. Chlorides and nitrates are increasing within Dakota County and Burnsville, and nitrates have exceeded drinking water standards in some observation wells within the County. Nitrate contamination from feed lots, fertilizer and on-site sewage treatment systems may be entering the groundwater through the upland recharge areas or through inadequately protected wells. As part of the City's Wellhead Protection Plan, the plan identifies a Wellhead Protection Area (WHPA) and from that plan the City adopted a Wellhead Protection Overlay Zoning District to prevent certain types of land uses within the WHPA.

## Mineral Deposits and Resources

### Sand and Gravel

Within Burnsville, virtually all of the areas identified as sand and gravel resources consist of ice contact glacial deposits or river terraces. See Aggregate Resources Map (Figure 11) in Chapter 2 - Future Land Use Guide Plan for reference to aggregate resource locations. These deposits have proven to be more limited than those of the glacial outwash plains in some of the adjacent communities, such as Apple Valley and Lakeville and, over the years, only relatively small and scattered sand and gravel mining operations have existed within the city. Although the Geologic Atlas of

Dakota County identifies significant areas within Burnsville as potential primary or secondary sand and gravel resources, they can no longer be considered an economic resource since nearly all of the land overlying these possible deposits has been developed.

### Bedrock

According to the Geological Atlas of Dakota County, the bedrock formations within Dakota County primarily are used as sources of limestone or dolomite for crushed aggregate. The Prairie du Chien group is classified as a primary bedrock resource due to its superior physical properties and greater thickness. Within Burnsville, a substantial area of Prairie du Chien sandy dolostone is being quarried from the floodplain west of I-35W and north of the Union Pacific railroad line as part of the Kraemer Quarry site. While this quarry will continue in operation for some time, it is anticipated that its limestone resources will be exhausted within the 2040 planning period; after which the quarry excavation will be converted to a 350-acre freshwater lake.

## Rivers and Streams

The Minnesota River forms the northern boundary of Burnsville, is the main water body in the city and is of regional significance. The 6.25-mile portion lying within the city possesses an average width of approximately 300-feet and an elevation of approximately 685-feet mean sea level. Although the river is relatively narrow and winding, the Army Corps of Engineers dredges the river bottom in order to maintain a navigable channel that is 100-feet wide and nine-feet deep. This channel provides barge traffic with access to the industries located in the floodplain along the river as far upstream as Shakopee. The Minnesota River Port area extends along the river from the west side of I-35W into Savage. There are two barge terminals in the city: the US Salt site located west of the I-35W Bridge on the south shore of the Minnesota River and Port Cargill East which is located on the south shore of the Minnesota River along the western corporate limits of Burnsville. The City of Savage contains several active barge terminals for C.H.S., Porte Cargill West, Superior Minerals Co., Mosaic Corporation and Porte Bunge.

The I-35W Bridge is the only Minnesota River crossing in Burnsville. East of I-35W, the river valley includes Black Dog Lake, a U.S. Fish and Wildlife Refuge a major floodplain and its associated wetland system. The Black Dog Power Plant, several transmission lines and an east-west Union Pacific Railway are also located within the river valley. The valley varies in width from as little as 2,000 feet from the bluffs to the river near the Black Dog Plant to over 6,000 feet along I-35W.

West of I-35W, the river valley widens to over 8,000 feet. The Burnsville Sanitary Landfill, Kraemer Quarry, the Chicago Northwestern rail line and a variety of commercial and industrial developments are located in this area which starts descending into the valley immediately west of I-35W.

This terraced valley includes smaller wetland areas, both in and out of the floodplain, and a substantial area of river bottom woodlands in northwest Burnsville.

### Minnesota River

The portion of the Minnesota River flowing through Burnsville is classified by the Minnesota Pollution Control Agency as a 2C Fisheries and Wildlife Preservation Water. This is described as a rough fishery river suitable for boating but not recommended for swimming. The river is also classified for a variety of other uses including industrial consumption and transport, agriculture, wildlife, scenic enjoyment and navigation. The Burnsville portion of this river system's hydrology is unusual in that the floodplain lakes and marshes are primarily fed by groundwater and have relatively high water quality.

Conversely, the rest of the river possesses one of the poorest water qualities in the Twin Cities metropolitan area. Studies indicate the river has serious water quality problems with organic and nutrient loads, which contribute to intermittent violations of the MPCA dissolved oxygen and ammonia standards. The river also is contaminated with other toxic substances, including heavy metals and polychlorinated biphenyls (PCB's), as evidenced by the elevated level of PCB's measured in fish samples taken from a 200-mile stretch of the river. PCB's are a group of organic chemicals which can be odorless or mildly aromatic solids or oily liquids. They were formerly used in the United States as hydraulic fluids, plasticizers, adhesives, fire retardants, way extenders, de-dusting agents, pesticide extenders, inks, lubricants, cutting oils, in heat transfer systems, carbonless reproducing paper. PCB's may cause health problems if found in amounts greater than the health standard set by the United States Environmental Protection Agency (EPA). Most of the pollution in the river, both point and non-point source contamination, originates upstream. This is due to inadequate municipal and industrial waste handling, agricultural runoff, stormwater runoff, and on-site sewage treatment.

### Non-Point Pollution Sources

According to the Lower Minnesota River Watershed District (LMRWD) 509 Plan, an assessment of the water quality of the river and of the probable pollution sources from areas upstream of Shakopee revealed that non-point sources contributed to the highest percentage of the organic pollutants carried by the river. The agricultural lands upstream from the District, as well as the urbanized land to the north, contribute the most non-point source pollution. Non-point source pollution is carried from the land to the water in stormwater and snow melt runoff as well as from percolation through the soil and through the atmosphere. Unlike point source pollution, it cannot be traced to a single source or pipe. These non-point source pollutants may include sediments, nutrients, toxic chemicals and fecal bacteria.

The LMRWD indicates that erosion is one of the primary causes of non-point source pollution in the Minnesota River. Erosion of croplands, as well as gully, stream bank and roadside erosion in developing areas are major sources of sediment. Within Burnsville, very little cropland remains.

However, sediment problems caused by roadside and gully erosion may occur in areas with highly erodible soils along the river bluffs and in areas with slopes over 12 percent and where intensive development is allowed.

The LMRWD concluded that the best way to reduce non-point source loading and improve water quality was to require comprehensive changes in the land management practices throughout the entire Minnesota River drainage area. More comprehensive land management practices would control surface runoff and reduce wind and water erosion. In urban areas, changes entail sedimentation/retention ponding, construction site runoff controls, vegetative buffer controls along waterways and the proper use of fertilizers and pesticides. The City of Burnsville will continue to work with the Metropolitan Council and the local watershed management organizations to achieve the non-point source reduction goals established for the Minnesota River.

#### Point Source Pollution

Point source pollution is discharged from an identifiable source into the water at a specific point and can be traced to a single source or pipe. Point-source pollutants may include sediments, nutrients, toxic chemicals and fecal bacteria. Hazardous waste sites, sanitary sewer lines, on-site sewage treatment, storm sewer discharge, certain utility lines and pipelines, and all commercial and industrial uses that handle or store hazardous materials have the potential to adversely affect the environment. Dakota County maintains a map inventory of polluted sites in the County, and shares this data with the City. Known sources where contamination has been found and information related to the status of the sites are all provided through the Minnesota Pollution Control Agency website:

<https://www.pca.state.mn.us/data/whats-my-neighborhood>.

#### Other Rivers and Streams

The Lower Minnesota Watershed District east of I-35W contains several unique water resources and rare species. The most notable water resources are the Black Dog Fen and three streams, two of which are Minnesota Department of Natural Resources (DNR) designated trout streams. The trout streams and the Black Dog Fen are both fed by groundwater from natural springs. As such, the hydrology of this area is a critical issue. It should be noted that no trout have been documented in these streams for many years.

Limiting the amount of impervious surface cover is critical for the maintenance of viable trout stream habitat. Increased impervious cover causes water temperatures to rise and oxygen concentrations to decline. Trout require cold, well-oxygenated water, and studies have shown that

impervious cover in excess of ten percent of the stream watershed area results in significant degradation of the trout habitat.

These streams are protected from encroachment by the City's Shoreland regulations, and the federally protected open space between the bluff and the Minnesota River. However, the small streams may carry storm and snowmelt runoff, which potentially contain a high amount of suspended solids, oxygen-demanding material, nutrients, pesticides and toxins from non-point sources in the drainage area.

Portions of Burnsville are located in the watersheds of two additional area rivers. The Credit River flows to the Minnesota River through the eastern half of the City of Savage. Part of the southwest corner of Burnsville, including a large wetland area located in the Kelleher Park, drains toward the west to the Credit River. Located to the south of the city, the Vermillion River flows through the central part of Dakota County, toward the east to the Mississippi River. A portion of the city around Lake Alimagnet is included in the Vermillion River Watershed. The waters of this area are conveyed through the City's storm drainage system into Lake Alimagnet.

## Soils

The City of Burnsville contains a number of different soils of various origins and properties. Many of the soils were formed in the glacial deposits and weathered bedrock, while others were formed in more recent alluvial, or stream deposited, materials. Together with the associated geological land-forms and vegetative cover, these soils form a complex system greatly impacting development, the environment and the quality of life within the city. In 1980 the Soil Conservation Service completed the Dakota County Soil Survey which indicates general soil classifications for the top five feet of soil. This survey includes a soil classification and map where soil associations are grouped based on patterns of the major and minor soil, topographic relief and drainage. Table 5-1, below, provides a brief descriptions of the soil types:

Table 5-1. General Soil Type Descriptions

| Soil Particle Size    | Soil Texture Class                                                   | Permeability                      |
|-----------------------|----------------------------------------------------------------------|-----------------------------------|
| Coarse to very coarse | Sand, loamy sand                                                     | High to Medium                    |
| Moderately Coarse     | Sandy Loam                                                           | Medium-Low                        |
| Medium                | Loam, silt loam, silt                                                | Low                               |
| Moderately Fine       | Sandy clay, sandy clay loam, silty sandy clay loam, silty clay, clay | Very Low to Virtually Impermeable |



The following generalized information provides a useful, simplified overview of the distribution of soils with similar characteristics within the city. The four generalized soil groups identified by the Natural Resources Conservation Service (formerly Soil Conservation Service) include:

#### Colo-Algansee-Minneiska

Nearly Level, Silty and Loamy Soils on Floodplains - this area includes the floodplain and the lower terrace of the Minnesota River in the northern part of the city.

#### Waukegan-Wadena-Hawick

Level to Very Steep, Silty, Loamy and Sandy Soils on Outwash Plains and Terraces – this area includes the bluffs and middle terrace of the Minnesota River Valley as well as the drainage basin around Crystal Lake, which is in the southern part of the city. The soils in this area exist on outwash plains and terraces, and on slopes ranging from zero to 50 percent. These porous soils are frequently droughty, subject to erosion on steep slopes and are usually unsuitable for on-site sewage treatment systems.

#### Lester-Blooming-Merton

Nearly Level to Steep, Loamy and Silty Soils on Uplands – this soil group is found above the river terraces and along the west side of the moraine in the western part of the city. The soils of the group are generally found in the western upland part of the city on gently to moderately steep slopes between one and 18 percent. These porous soils are frequently droughty, subject to erosion on steep slopes and are mostly unsuitable for on-site sewage treatment systems.

#### Kingsley-Mahtomedi

Gently Sloping to Very Steep, Loamy and Sandy Soils on Upland and Pitted Outwash Plains – the soils in this group can be found throughout the city, in the uplands above the bluff lines and river terraces. These soils vary from well to excessively drained and may be found on gently sloping to very steep slopes ranging from three to 40 percent. These areas are typically complex and characterized by short, irregularly-shaped slopes and poorly-drained or closed depressions. The soils are frequently droughty, subject to erosion on steep slopes and are mostly unsuitable for on-site sewage treatment systems, due to slow permeability and the potential for side slope seepage.

The *Soil Survey of Dakota County* includes more detailed information and mapping of the soils within the city. Although this more specific information is useful in identifying potential development problems associated with these soils, development constraints and soil suitability must be determined by on-site testing in order to verify soil conditions. The City has addressed the relationship of soils to development in the Environmental Overlay District chapter in the Zoning Ordinance.

## Soil Erosion

The City of Burnsville established a Soil Erosion Overlay District as part of the Environmental Overlay District (Chapter 8 of the Zoning Ordinance). The district includes standards designed to reduce erosion and runoff associated with development activities in steep slopes and areas with unstable soils. The purpose of the district is to reduce the siltation and pollution of water bodies and streams by preserving significant features and conditioning development in a manner that minimizes threats of excessive erosion and runoff. This district regulates development on soils, slopes and groundwater levels which are either unsuitable for development or require corrective measures. Industrial uses with bulk storage of chemicals and hazardous waste disposal are prohibited on unsuitable soils. Residential developments require special construction techniques, while on-site sewage systems require a conventional soil system that will overcome these restrictive conditions to be modified, installed and maintained.

## Restrictive Soils Overlay District

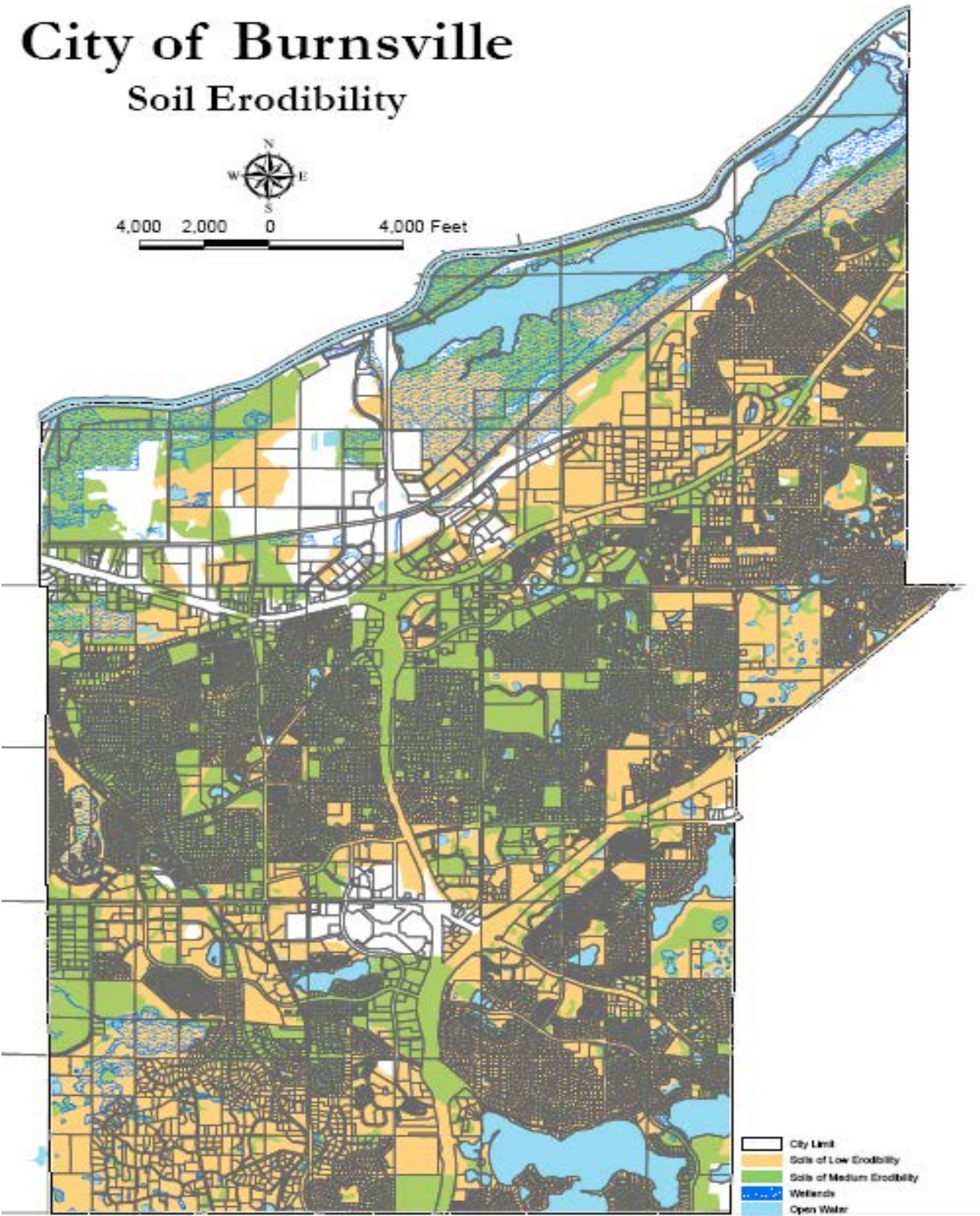
The City designated a Restrictive Soils Overlay District as part of the Environmental Overlay District Chapter (Chapter 8) of the Zoning Ordinance. The Soil Erosion Overlay District establishes standards intended to reduce soil erosion, sedimentation, contamination of ground and surface waters; protect natural resources; and minimize environmental damage and the high cost of correcting these damages. This district regulates development on soils, slopes and groundwater levels which are either unsuitable for development or require corrective measures.

Figure 5-1: Soil Erodibility Map on the following page illustrates the general areas of the city where low erodible soils (shown in yellow) or medium erodible soils (shown in green) are located within Burnsville.

Figure 5-1: Soil Erodibility Map

# City of Burnsville

## Soil Erodibility



February 14, 2008



Figure 5-2: Septic System Location Map



## On-Site Septic Systems

Septic systems are of concern to the natural environment for several reasons, and primarily contamination to waterbodies and water supply wells. As a fully developed city, Burnsville has fewer and fewer systems as site redevelop. However, those that remain, do have to be monitored as they continue to age. The City has adopted an Individual Sewage Treatment System (Chapter 11) of the Zoning Ordinance. This chapter establishes a minimum lot size for the use of individual systems and sets installation, operation and maintenance standards, technical requirements, inspection, permit requirements and enforcement provisions for all existing and proposed on-site treatment systems within Burnsville. These systems are further regulated under the City's Shoreland Overlay District and Floodplain District standards of the Zoning Ordinance. The City's on-site septic system ordinance is in conformance with Dakota County and State requirements. Failing septic systems are of concern to the natural environment. Properly managed systems can benefit natural systems by replenishing groundwater after treatment. Figure 5-2 on the previous page illustrates the properties where septic systems existed as of November 2017.

## Open Space Protection

The character of the natural setting and man-made landscaped areas contribute significantly to the quality of life in a maturing city such as Burnsville. Since open space retains the character of the natural environment and provides visual relief from the built environment, Burnsville recognizes that open space preserves natural resources and community character, and provides areas for recreation and transitions between land uses with differing intensities. The 2040 Comprehensive Plan Update integrates systems of parks and trails, land uses and streets to provide the framework for the open space network. Open space is a designated land use category on the 2040 Future Land Use Guide Plan Map in Chapter 2 – Future Land Use Guide Plan, and is implemented through zoning by classifying public and private open space areas with the Conservancy District zoning designation.

The Burnsville Zoning Ordinance includes regulations specifically designed to preserve open space. Overlay districts curtail development in woodlands and on sites with steep slopes and sensitive soils. Setbacks and landscaping are required to preserve the character of the community, to provide adequate areas to screen parking, loading and storage and to provide separation between the built environment and natural features like lakes/wetlands. Green space requirements and landscape standards exist for each of the zoning districts. The 2007 Natural Resources Master Plan provides additional guidance for the preservation of the remaining natural resource systems within Burnsville.

## Tree Preservation

The 2000 Comprehensive Plan set forth goals and policies to protect established woodlands. The Zoning Ordinance contains woodland protection standards as part of the Woodland Overlay District. The purpose of this overlay district (which covers the entire city) is to preserve the trees and woodlands within Burnsville for the important ecological, recreational and aesthetic functions they serve. Development must be conducted in a manner that will preserve the maximum amount of woodland and accommodate thresholds by zoning districts for reforestation; stipulate protection measures and requires a survey and evaluation of all trees that are to be preserved by agreement. The woodland standards include any tree or stand of trees and other associated vegetation, including understory trees, shrubs, grasses and leaf litter. The Commercial Recreation District (CRD), zoning district has been created since the adoption of the 2000 Comprehensive Plan. As part of the implementation program for this plan update, the zoning and subdivision ordinances will be reviewed to address tree preservation and green space standards for the CRD district.

The City's progressive Woodland Overlay District protects trees. The Landscape Ordinance encourages new plantings, promotes the use of native species and helps to facilitate the reforestation of the city. The City will continue in this direction and develop a city-wide shade tree program. The City is establishing a boulevard tree planting policy to increase tree cover within Burnsville, improve the appearance of road corridors and improve the neighborhood living environments. Detailed information related to woodlands is provided in the 2007 Natural Resources Master Plan.

In April of 2013, the City adopted an Emerald Ash Borer Management Plan. The plan included inventories and surveys of Ash and other tree species in City boulevard areas, within City Parks, in vital areas and woodlands, and on private property. Refer to the Emerald Ash Borer Management Plan for detailed survey findings. Annually, the City strategically treats high-quality and removes low-quality trees. Remaining funds are utilized to replace trees.

## Steep Slopes

Areas with steep to very steep slopes in the City of Burnsville generally coincide with the complex glacial moraines, or kettle and kame landforms, as well as with the river terraces and associated bluff lines. Steep slopes, as defined by the City's Zoning Ordinance include all areas with a slope gradient between 12 and 18 percent (12 to 18 feet of vertical change per 100 feet of horizontal change). Very steep slopes include all areas with a gradient in excess of 18 percent.



As a rule, steep slopes are covered with unstable soils and sensitive vegetation. Once disturbed by construction, vegetation removal or changes in the surface drainage from the area above the slope, the areas become extremely prone to erosion and increase the risk of landslides or mudslides. Moreover, the erosion of these sensitive slopes increases sedimentation and non-point source pollution of streams, ponds and lakes. Currently, the City addresses issues related to development on or near highly erodible soils, steep slopes and river bluffs in Chapter 8, Environmental Overlay Districts of the Zoning Ordinance. Grading, excavation, slope protection and re-establishment of vegetation cover are all regulated. Best management practices are required for any work conducted within or near slope areas of the city.

## **Floodplain Management**

The City administers floodplain management regulations as part of its Zoning Ordinance to allow residents and business owners to participate in the Federal Emergency Management Agency (FEMA) flood insurance program. The FEMA program is administered on a state level by the Minnesota Department of Natural Resources (MnDNR). In order for the City to participate in the FEMA program, it had to adopt floodplain management standards for regulating the use of lands adjoining protected waters. The City's regulations are consistent with the MnDNR model floodplain regulations.

The floodplain boundaries have been established by the MnDNR and subsequent re-studies (Earley Lake, Twin Lakes and Cam Ram Wetland) have been completed by the City. The floodplain regulations for Burnsville include three districts: the floodway, the flood fringe and general flood plain. In 2011, FEMA issued updated flood maps for Burnsville as part of a county-wide project. The City also adopted an updated flood plain ordinance to correspond with the new FIRM maps. All of the flood maps are available for review on the City's website at [www.burnsville.org](http://www.burnsville.org) and on FEMA's website at <https://msc.fema.gov>.

## **Shoreland Management**

The MnDNR regulates the use of the lands adjoining public waters through shoreland management regulations. The City implements these regulations as part of its Zoning Ordinance. The City established a Shoreland Overlay Zoning District and implemented regulations consistent with the State's Shoreland Management Rules. The statutory boundary of the Shoreland District includes all land within 1,000 feet of the shore of a public water/lake, and within 300 feet of a protected water course (public water as defined by MnDNR) or the landward extent of a designated floodplain (that part of the floodplain that lies beyond the river/stream channel). For administrative reasons, this requirement applies only to lakes ten acres or larger in size, with a minimum drainage area of two square miles, and that

have been classified by the MnDNR as either Natural Environment, Recreational Development or General Development waters. The City adopted its Shoreland Overlay Zoning District with State-approved boundaries based on the actual topographic drainage divides (areas where higher topography such as a raised road or railroad bed separates the water from adjacent lands) and differ from the statutory boundary. The State-approved boundary is delineated on the Zoning Map and includes areas around Black Dog Lake, Crystal Lake, Lake Alimagnet, Twin Lakes, Wood Lake, Earley Lake, Keller Lake, and Horseshoe Lake and along the Minnesota River.

## Air Quality

The lack of current monitoring and documentation limits the identification of specific air-quality problem areas in the City of Burnsville. Generally, any area that is currently experiencing significant traffic congestion may require future evaluation and monitoring as traffic continues to increase. According to the Minnesota Pollution Control Agency (MPCA), vehicular emission problems potentially could develop around the Burnsville Center.

If an area subsequently fails to meet state and federal air quality standards, the City will be required to develop and implement measures to bring that area into compliance. Such measures may include roadway changes, traffic management plans or development limitations. It is important for the City to be aware of the potential for air quality problems around the more intensely utilized areas and of the relationship between development intensity, traffic congestion and air quality.

## Noise

Within the City of Burnsville, excessive noise levels have not been an acute problem. The City addresses noise control in its Zoning Ordinance and requires noise levels to be regulated by MPCA standards. Chapter 7 – Transportation Plan includes information related to aircraft and highway noise.

Potential noise-related problems are mainly localized and associated with traffic along the freeways and major roadways. As traffic volumes continue to rise, additional areas may be affected by an increase in noise levels. In addition, those areas already affected may experience an increase in the duration and intensity of highway noise. The City is aware of the relationship between increased traffic and noise levels that are in close proximity to sensitive land uses, and has required noise testing and mitigation in these circumstances. Minnesota Rule No. 7030.0030 establishes noise standards and gives local municipalities the authority to regulate and to take all reasonable measures within its jurisdiction to prevent land use activities within certain noise area classifications prescribed in the rule. The noise rule may apply to residential development adjacent to highways. The City will work with land owners at the time of

development to ensure that the appropriate noise mitigation measures such as, but not limited to, noise walls are installed by the developer as part of the project approval. A goal to this effect is incorporated under the general Goals & Policies section of this Chapter.

An issue that the City may need to address with future development of the MRQ is noise associated with the Union Pacific (UP) Railroad. The UP Line is generally parallel to Highway 13, between Highway 13 and the Minnesota River. It travels through industrial areas west of I-35W and crosses the interstate in the Cliff Road interchange area with grade-separation. It travels through Burnsville from Savage on the west to Eagan on the east-northeast. The UP Line carries between five and ten trains per day through Burnsville. It has at-grade crossings at the following locations: Washburn Avenue, Dupont Avenue and Cliff Road. There is also a private at-grade crossing for Xcel Energy. Rail noise has not been a major issue along the UP Line in the past due to the fact that the railroad tracks are located near the Minnesota River bottom and the crossing locations where train whistles sound are all in the industrial zoned areas of the city. The Future Land Use Guide Plan indicates that residential land use will be allowed in the northern part of the MRQ (between the future quarry lake and I-35W). Noise protection may need to be a consideration for development in the MRQ to address freeway and railroad noise.

Another future noise issue may arise in the event that the Canadian Pacific (CP) Railroad resumes use of the tracks that run from Lakeville to Savage through the southwest part of Burnsville. The CP Line has not been utilized by the railroad for a number of years. Much of the properties adjacent to this line are zoned, guided by the Comprehensive Plan and developed as residential. As part of the 2000 Trails Master Plan, the City identified an interest in the railroad corridor for a potential greenway/trail system. In 2002, the State legislature eliminated further evaluation of commuter service on this line (referred to as the Dan Patch Line). Because so much of the land in Burnsville adjacent to the CP Line has developed with residential homes, noise and other land use compatibility issues may need to be addressed in the future based on the ultimate use of the railroad property.

## Solid Waste

In the City of Burnsville, the solid waste materials produced by homes and businesses are removed by private haulers and deposited in landfills within Dakota County. Unlike Hennepin County, Dakota County does not designate which landfill or facility receives a community's waste; haulers are free to take the waste to any licensed waste facility but must follow statutory requirements. The MPCA requires that waste in the seven-county Twin Cities metro area be brought to waster burners to keep that at full capacity prior to waste being brought to a landfill. This is a challenge in Dakota County as there are no waster burners located in the county.

Sanitary landfill facilities have been and remain necessary to meet the waste disposal needs of both the city and region. However, it is important to understand that they are both limited in their capacity and life and that they have significant effects on the community, both during operations and after they are closed. The City of Burnsville possesses one active landfill (Waste Management Inc. site within the MRQ).

### **Burnsville Sanitary Landfill/Waste Management Inc.**

The first mining permit was issued in the 1950s for this area and it is believed that land filling was occurring prior to this time. The earliest City records date back to 1968, for Edward Kraemer and Sons (EKS) Conditional Use Permit (CUP) application. Records indicate the landfill was pre-existing. In 1971, the MPCA issued a permit to the landfill which covered the original 85-acre site where land filling had been occurring. There have been many land use clearances approved by the City since then and landfill permits issued by the MPCA, and Dakota County. The landfill is expected to continue operation for many years. When it is closed, final post closure plans call for an 18-hole championship golf course, public access, interpretive area near the river, and several trails local and regional.

The landfill site is currently accessed via a public crossing from Washburn Avenue to the south. Permanent groundwater monitoring wells are in place on the site.

Upon closure, the hill formed by the approved landfill will cover roughly 140.9 acres, possess very steep side slopes (3:1) and a high point 100 feet above the river valley. The hill formed by the expanded landfill will reach approximately 163 acres in size and 100 feet in height. After the closure, a 20-year post closure-monitoring phase begins.

### **Freeway Landfill**

The Freeway Landfill is a retired landfill located along the west side of I-35W in the floodplain south of the Minnesota River. This 189-acre site includes a former quarry, 58 acres of undeveloped land and an inactive landfill. The major portion of this landfill (125 acres) originally opened in June 1969. It was operated under an MPCA permit after October 1971 and has been inactive since November 1988 when MPCA Solid Waste Rules were implemented. This portion of the site was filled and compacted through a multi-layer cell process to an elevation of 720 feet mean (average or middle point) sea level, approximately 30 feet above the original grade. After the facility operators stopped accepting waste, the landfill was capped as specified in the original permit with a two-foot cover of low permeability soil and seeded grass cover. The landfill is on the Permanent List of Priorities (PLP), an annually updated State listing of verified hazardous waste sites that represent a threat to public health or the environment and are priorities for cleanup.

As it exists today, the landfill is not properly lined. If the waste in the landfill is not excavated and placed in a properly lined landfill, when the dewatering operations are discontinued, some of the waste will be submerged below the water table. This has the potential to contaminate the future quarry lake and Minnesota River. The Freeway Landfill has a high priority ranking in the MPCAs Closed Landfill Program (CLP) which increases the likelihood of corrective action being performed. Likewise the Freeway Dump, which is located in the City's Wellhead Protection Area will have portions of waste submerged when quarry dewatering ceases if it is not closed properly. This could contaminate the City's wells.

It is the City's priority to have a proper clean-up and closure of the landfill. It is considered by the City to be its single most important environmental issue. The City is supportive of the MPCA and EPA's efforts to close Freeway Landfill in an environmentally sustainable manner. The City supports a closure plan that primarily addresses any future environmental impacts (e.g. Minnesota River water quality, ground water impacts) and provides for economic development opportunity as part of a remediation project. The City supports the use of economic development tools such as the creation of a State New Market Tax Credit program and extension of the existing TIF District 7 to assist in the closure of the landfill and redevelopment of the MRQ. The City also supports minimizing the impact and cost of remediation on smaller jurisdictions if the landfill is closed through Superfund.

### **Old Freeway Dump**

The old Freeway Dump is now a driving range and is located in the floodplain adjacent to the east side of I-35W; approximately 1,320 feet north of the 121st Street West/Cliff Road interchange off of I-35W. This 27.5-acre dump ceased operations in the late 1960s to early 1970s. The old Freeway Dump remains on the PLP.

The principal concern related to this dump is the potential for aquifer contamination during drawdown caused by extended or continuous operation of the municipal well field located approximately 2,000 feet to the south. The dump is located within the City's Drinking Water Supply

Management Area. Under current groundwater flow conditions which are influenced by quarry dewatering, the groundwater flow in this area is towards the quarry and Minnesota River. The dump will have portions of waste submerged when quarry dewatering ceases if it is not closed properly. In the future when quarry dewatering ceases, there is the potential under certain well pumping conditions for the dump area to impact City's wells. Proper closure of the dump prior to cessation of quarry dewatering is a high priority for the City groundwater supply protection.

## Solid Waste Management Plan

In 1996, the City established a Solid Waste Management Committee. The Committee published a report with goals and recommendations about Burnsville's residential waste management system. The City revisited the Solid Waste Management program in 2001, and the goals for the management plan are as follows:

- » Build local expertise and cooperation. Haulers, City staff and landfill operators need to better understand the complex issues in waste management and plan effective future strategies.
- » Foster public education and involvement.
- » Promote cost effective, environmentally sound and safer collection service such as: maintaining choice for residents while still addressing issues of street wear, safety and environmental concerns.
- » Continue to monitor and evaluate waste management programs. This will allow the City to promote innovations in waste management.
- » Promote organized neighborhood waste collection to obtain solid waste collection block rates.

As a result of the studies, several neighborhoods have organized to reduce the number of haulers servicing their homes and using their streets. The City enacted a day-specific hauling program in 2009 where haulers schedule days of the week for collection to areas of the community to limit the days of the week that large trucks are deployed through neighborhoods. This program benefits neighborhood-aesthetics as trash and recycling will be set out for pick up one day per week. The other six days, no trash and recycling would be visible from the street. The City has adopted a day-specific hauling map which divides the community into districts for individual residential collection based on the day of the week in which garbage, refuse, recyclables and yard waste are collected by a licensed collector.

Dakota County is in the process of updating their Solid Waste Master Plan. This plan will have new requirements for the City related to solid waste, recycling and organics. It is anticipated the City will need to update our plan in future.

## Recycling

In 1989, legislation was enacted in response to the Governor's Select Committee on Recycling and the Environment. This legislation, the SCORE Bill, placed responsibility on counties to implement recycling and specified that by 1993 they must be recycling 35 percent of all recyclable solid waste and materials. Since 1989, Dakota County has attached requirements for funding community waste programs in order to attain its phased recycling goals. To meet these objectives, the City currently requires that private haulers offer voluntary residential curbside and apartment pickup of recyclable materials, which collect magazines, newspapers, catalogues, corrugated cardboard, aluminum, tin and bi-



metal cans, glass bottles and jars, plastic bottles and office paper. A drop-off site in Dakota County accepts household hazardous waste in addition to recyclables and is located in Eagan on South Highway 149, just north of Yankee Doodle Road.

In 1996, the City's Solid Waste Management Committee recommendations also included coordinating educational efforts with haulers, targeting schools for recycling education, encouraging haulers to recycle additional types of materials and increasing recycling in multi-family units. The Committee also recommended in its report that the role of the recycling coordinator be expanded.

The Cities of Burnsville, Eagan, and Apple Valley formed a recycling program partnership in the early 2000's called Dakota Valley Recycling (DVR). DVR applies for an annual grant to Dakota County to run a program that promotes waste reduction programs with a consistent message throughout the four communities. In 2016, the City of Lakeville became a part of DVR.

### Composting

There is a privately-operated composting center that opened east of the Burnsville Sanitary Landfill site in 1990. Today, the composting center continues to accept leaves, grass and branches. Composting is also allowed on individual properties within Burnsville. Performance standards are addressed within the City Code, Title 7. Composting education and best practices programs are offered occasionally through Dakota County and the City of Burnsville.

## Natural Resources Management Plan

### History of the Plan

In 1999, the first Natural Resources Master Plan (NRMP) for Burnsville was completed. The plan was built on information derived from extensive field work, and the vision of the 1997 City Council's Ends Statement on the Environment. The master plan suggested strategies to protect, preserve and manage natural resources, and to educate the community.

The 2007 Plan was commissioned to update the 1999 plan. It did so by:

1. Evaluating changes in the quality of Burnsville's natural resources since that time
2. Updating the strategy for protecting and managing natural resources
3. Providing an added level of specific management actions and goals
4. Providing an urban forest management plan for natural areas and for developed parks, streets and parking lots

The approved 2007 NRMP is an addendum to this Comprehensive Plan as Appendix H. The following is a summary of the 2007 Plan updated to

include efforts that have been accomplished to date and changes in management strategies.

### **Purpose and Approach**

The purpose of the NRMP is to evaluate the quality of existing natural resources in the City; identify strategies to protect, preserve and manage those resources; educate the community about the importance of doing so; and lastly, to educate the community on how to carry this out.

The NRMP sets forth a strategy for managing and therefore preserving Burnsville's terrestrial resources. The plan does not cover topics such as solid waste, potable water use, and waste water.

## **2007 Natural Resources Inventory**

The Natural Resources Inventory was a systematic accounting of the status of Burnsville's natural resources. In an effort to focus management strategies, the Natural Resources Inventory has been broken into two parts. The first is the assessment of publicly owned natural areas that have not been developed, and the second is the assessment of publicly owned trees in the built environment.

### **Natural Areas Inventory**

The public upland natural areas owned by the residents of Burnsville have been field evaluated to identify land cover type and for ecological quality. The ecological quality assessment of the public upland natural areas evaluated the degree of ecosystem degradation as the result of human disturbance over time.

Despite the efforts implemented with adoption of the 1999 NRMP, natural communities in Burnsville continue to experience a decrease in biodiversity. This is common throughout the Twin Cities metropolitan area, as native woodlands are rapidly deteriorating due to two primary influences: the invasion of exotic plant species such as European buckthorn and garlic mustard, and deer over population. There are other causes, but these are the most direct and easiest to control. Since 1999, extensive invasion of buckthorn has occurred. The result of this alarming rate and extent of invasion is that the vast majority of plant species in Burnsville's woodlands no longer have the ability to regenerate. The density of buckthorn poses a significant strain on the ability of oaks, the historic native dominant trees of the area, to regenerate. With the change in tree species, many song bird, mammal, amphibian and reptiles will be extirpated (locally extinct) from the city, along with countless plant species. Deer browse is also negatively impacting Burnsville's forests. A good effort is in place to control the population.

### **Historic Conditions**

For purposes of formulating a natural resources management approach, it has been helpful to review the native plant communities of Burnsville prior to European settlement. Although it is not necessarily possible or desirable

to restore undeveloped lands of Burnsville to the communities shown on the map, it serves as a guide in thinking about what is suited for the local environmental conditions.

Prior to European settlement, most of the area that is now Burnsville was wooded to some extent while the remainder was open water, prairies or wetlands. Four different types of wooded areas could be found. These are listed in order of land covered by each community:

1. Oak Openings and Barrens (often called oak savannas). Fire dominated these areas, minimizing the presence of trees intolerant of fire such as maples and basswood. The result was an open park-like vista of scattered oaks growing amongst herbaceous woodland and prairie plants. Little of the expansive pre-settlement oak savanna remains in Minnesota.
2. Big Woods Forest. Fire was rare in these wooded areas and species such as sugar maple, basswood and elm made up a large portion of the canopy, though oaks, ash, ironwood and bitternut hickory could also be found. The forest canopy was continuous, or nearly so. Shade tolerant plants such as spring ephemeral wildflowers and ferns grew on the forest floor. The Trust for Public Land reports that only 0.01 percent of the original Big Woods remains in Minnesota. Remnants of the Big Woods are home to rare species like the dwarf trout lily.
3. Aspen-Oak Land. This was likely a transition area (in time and in space) between oak savannas and the Big Woods forest. After a long period without fire, shrubs and trees intolerant of fire would colonize an area. Aspen are a pioneer species that can colonize Openings and Barrens. Old oaks remained, growing high above young aspen creating a canopy that was varied in height and with varying amounts of shade on the forest floor. Other pioneer tree species such as boxelder and paper birch were likely found here as well, but in smaller numbers. Aspen-Oak land is frequently found in Burnsville today. Typically, they are former oak savannas that have been colonized by a variety of trees in the absence of fire.
4. River Bottom Forests. These forests are still found along the Minnesota River. Tree diversity is not high but the function of these forests in facilitating silt deposition and filtering stormwater cannot be understated. Cottonwood, elm and silver maple are common. Flooding may be frequent or seldom, but soil moisture is typically in ample supply. Dutch Elm Disease has lowered the number of elms found in these forests over the past half-century, yet they still persist.

### **Built Environment Tree Inventory Process**

An inventory of publicly owned trees in the built environment was undertaken in the fall and early winter of 2006. Built environment trees, for the purpose of this Plan, are defined as those trees that exist outside of

natural areas, such as trees in groomed (developed) parks, in parking lots, in lawns and along streets. The inventory is broken into two components: the developed city parks inventory and the street tree inventory. Both inventories are updated to reflect trees that have been planted or removed on an annual basis.

Sample-based inventory techniques were used to tally and assess trees in maintained areas of parks and on city road right-of-ways. The assessment determined the effectiveness of current tree planting and maintenance programs and makes recommendations for future plantings and maintenance needs.

To that end, several parks were selected to represent typical developed parks throughout the city. Park age, park size, usage and location within the city were factors used in park selection so that the selected parks were a faithful representation of all parks. Similarly, several neighborhoods were selected for a right-of-way inventory to represent different areas of the city with respect to such factors as age of the neighborhood, street width and traffic volume.

It should be noted here that the Emerald Ash Borer insect has been located in Dakota County and is likely in Burnsville already, but not yet located at the time of this document being published. The City has utilized the inventories described below to manage ash trees by treating ash trees in good condition, removing ash trees in poor condition and replacing removed trees to the greatest extent possible.

#### Developed City Parks Inventory

Developed parks are those groomed parks in which trees grow within lawn. In 2007, a total of 467 trees were tallied, identified, measured and assessed in six parks: Burnhaven, Highland Forest, Sue Fischer Memorial, Echo, Wolk and South River Hills. This sampling allowed for statistical analysis of the trees in city parks.

Thirty-six different species were found with green ash the most common accounting for over 21 percent of all trees.

The average diameter of all surveyed trees is 9.56 inches. All trees were rated for condition based on a scale of "0-10" with rating of "0" representing a dead tree while "ten" represents a hypothetical, perfect tree.

- » Trees rated in the "1-3" range are of poor quality and condition. No amount of pruning or other maintenance will improve the quality to great degree.
- » Trees in the "4-5: range are of fair quality and condition.
- » Trees in the "6-7" range are good overall.
- » Those few trees ranged "8 or 9" are very good to excellent.

Most trees in the 2007 inventory fall in the “2-8” range with an average condition of 4.9.

Analysis of this data brings out several items of note. First, one species (green ash) is more than twice as common as the next most common species while the differences in representation between other species is relatively small. In other words, Green Ash accounts for too much of the overall park tree population which increases the exposure to tree loss from a single pest such as Emerald Ash Borer. A lesser proportion of the city’s urban forest would be lost from such an event if the city’s tree population were more evenly distributed among many species. Of a positive note, all other trees are more evenly distributed among the remaining species.

Second, the average condition of 4.9 is more typical of a natural, unmaintained woodland in the Twin Cities metropolitan area rather than a maintained park. This hints to the need to increase tree pruning frequency in developed parks.

Finally, Oak trees of any species are rarely found planted in the maintained areas of City parks despite being common in Burnsville’s woodlands and historically one of the most common and important native trees in Burnsville. In fact, all Oak species together only account 2.1 percent of all trees and most of the ten trees counted in this inventory are swamp white oaks. This Plan suggests that Oaks be a high-priority species for new plantings in Burnsville.

#### **Burnsville Boulevard Tree Inventory**

City staff completed an inventory of boulevard trees in 2010-2012 that counted ash trees and the total trees located on City property within 15 feet of all of the streets in the City. Ash trees (3,040 ash trees) were found to be 24.5 percent of the total boulevard tree population (12,401 total trees).

## **Natural Resources Management on Public Property**

### **Priorities for Natural Areas Management**

Undeveloped land owned by the residents of Burnsville has been field evaluated for ecological quality and has been ranked to determine where to most effectively invest a limited natural resources budget to preserve Burnsville’s highest ecological quality lands. All public lands in Burnsville are decreasing in ecological quality primarily due to invasive species. In order to guide decisions on where best to invest in preserving or restoring ecological quality, a priority ranking system was developed.

#### **Priority A**

Sites with rare species, and sites where plant community (especially forest understory) recovery is highly probable. These sites have a significant number of native species present which can serve as a seed source for reproduction. These sites will receive first priority for management funding.

### Priority B

Sites where plant community (especially forest understory) recovery is possible, but likelihood of success unknown. A seed bank study would be necessary to determine the likelihood of recovery. These sites will be managed by volunteer groups if they step forward. City staff will attempt to provide direction for volunteer groups to make them more effective. The “Polka-Dot” Forest Regeneration Program will be made available for Priority B sites. Table 5-2: Priority Sites for Management lists publicly-owned sites that rank for management as Priority A or B.

Table 5-2: Priority Sites for Management

| Priority | Park Name/RMU                              | General Quality Range | Outcome to Effort Ratio |
|----------|--------------------------------------------|-----------------------|-------------------------|
| A        | Alimagnet RMU                              | M                     | High                    |
| A        | Bluff Valley RMU                           | M                     | Moderate–Low            |
| A        | City Center RMU                            | M                     | Moderate                |
| A        | Crystal Lake RMU                           | M                     | High                    |
| A        | Forest Heights                             | H-L                   | High                    |
| A        | Judicial Park                              | H-M                   | High                    |
| A        | Kraemer RMU                                | H-L                   | High                    |
| A        | Quarry RMU                                 | H-M                   | High                    |
| A        | Southwest RMU                              | M-L                   | Moderate                |
| A        | Sunset Pond RMU                            | M                     | High                    |
| A        | Terrace Oaks RMU                           | M-L                   | Moderate                |
| B        | Chateaulin                                 | M-L                   | Moderate                |
| B        | Crosstown West                             | M-L                   | Moderate                |
| B        | Hollows                                    | M-L                   | Low                     |
| B        | Krestwood                                  | M                     | Moderate                |
| B        | Neill Park                                 | M                     | Moderate                |
| B        | North River Hills                          | M-L                   | Moderate                |
| B        | Wellington Crest/Water Tower (north slope) | M                     | Moderate                |

All other public properties owned by the residents of Burnsville will not be managed for invasive species at this time. These sites lack biodiversity due to invasive species encroachment and past land use. Restoration would require considerable expense and effort. Due to limited funding, these sites will not receive management through the City or by volunteers until all higher priority sites have been fully funded and managed. If strong resident interest for restoring any of these properties arises, City staff will attempt to provide direction to guide a restoration effort if possible and valuable. The “Polka-Dot” Forest Regeneration Program will be made available for these sites.



Individual site management plans have been created for the sites listed in Table 5-2. The management plans set forth on-the-ground strategies for controlling invasive species and allowing for native plant community regeneration. These plans can be found on the City's web site at [www.burnsville.org](http://www.burnsville.org).

Resource Management Units (RMUs) as defined in the 1999 NRMP are high concentrations of natural resource sites and important lakes and rivers. RMUs were created based on the concept that important resources are to be protected at the core of a resource complex. Following this concept, high priority areas are core sites for preservation and management.

The City's updated Parks Master Plan (2017) also identifies strategies and priorities related to natural resources improvement. The Plan provides a framework for level of service by park facility type and use. The Plan indicates an above average level of park resources for the community compared to other communities, with the need to add or reclassify natural areas. It also provides recommendations under Improvement Areas with one priority being High Quality Natural Areas, which is related to the community's natural environment.

### **Greenways and Corridors**

Greenways and corridors potentially serve as movement pathways for plants and animals and bridge-disjointed complexes of natural communities. Often they are linear and follow streams and rivers. Power line corridors can, to some extent, function as corridors for animal movement. However, these areas are strictly maintained to exclude the type of taller, forested growth that makes for more effective corridors. The scale of a greenway varies from a minimum of 200 feet in most cases to several thousand feet in the case of large river valleys. The Minnesota River Valley is an example of a large scale corridor.

Potential greenways were identified after being analyzed in the 1999 NRMP. It was found that no significant linear greenways or corridors run through Burnsville, other than the Minnesota River Valley which runs along the northern border of the city. This area should be the focus of any efforts to connect areas managed by Burnsville, State and federal government agencies.

### **Natural Resources Management Strategies for RMUs and Individual Parks**

Individual management strategy maps have been created for each of the Priority A and B sites listed in Table 5-2. Management for each site focuses on invasive species control. Within each site, invasive species control begins within that area that is of the highest ecological quality. It is important to protect these areas of highest biodiversity first in order to prevent further species extirpation. Common buckthorn, hybrid honeysuckle and garlic mustard are the primary invasive plant species in wooded areas, whereas

spotted knapweed, leafy spurge and brome grass are encroaching into prairies and meadows.

After securing highest quality nodes within each site, management should proceed into areas of diminishing ecological quality. Removing invasive seed source from around the highest quality node reduces the likelihood of re-colonization. Invasive species removal continues in an outwardly manner as illustrated on the management maps until invasive species have been removed from the parcel. At that point, the site should be evaluated for native species reintroduction with an emphasis on pollinator species, and kept on a maintenance schedule to remove occasional invasive species re-colonization.

### Example Restorations

Since 2007, the City has undertaken multiple large-scale, grant supported habitat restoration projects in priority natural areas, including at Terrace Oaks Park, Alimagnet Park, Rudy Kraemer Nature Preserve and Kelleher Park. The projects involved removal of invasive species, like common buckthorn and native plant restoration.

One example of the City’s restoration efforts was a 19-acre restoration at Terrace Oaks Park which was initiated in 2015. This two-phase project removed buckthorn and other woody species and converted the area from an overgrown woodlot back to the historic savanna that had once occurred there. The project has provided improved wildlife habitat, protection of existing Oak trees and promotes the regeneration of young Oaks. The project has increased the usability and aesthetics of the area for park users.

Before



After



In addition to restoring habitat in existing natural areas, the City has also converted multiple low-use turf areas to native habitat, providing pollinator habitat, water quality benefits and reducing City maintenance costs.

Examples of these areas:

- » Civic Center Prairie - 1.9 acres
- » Ice Arena Prairie – 2.0 acres
- » Water Treatment Plant Prairie – 0.7 acres
- » Lac Lavon Prairie – 0.5 acres

In spring of 2010, the City created a demonstration prairie near City Hall by converting a 1.9-acre turf area to native plants. The planting eliminated the need for typical lawn maintenance such as fertilization, herbicide to kill weeds and weekly mowing. The deep roots of the native prairie plants will improve water quality by allowing for increased infiltration of runoff water. The deep roots also increase carbon storage and reduce the effects of global warming. Since projects like these also reduce maintenance costs, they generally pay for themselves in seven to ten years.

### **Buckthorn Removal Strategies**

Buckthorn removal in Burnsville’s natural areas is given high priority in this plan. Techniques and cost for its removal varies upon the extent of invasion on a site and the accessibility of the site for restoration crews. A five-year process was developed. Typically provided by a contractor, this process involves an intensive buckthorn removal event the first year to extricate all standing plants. After initial removal, four years are committed to intensive seedling management to kill resprouting stumps and to kill small seedlings that will germinate from seed stored in the ground. After the fifth year of control by a contractor, volunteers are used to walk each site (once per year) to pull any new seedlings that might venture onto the site. It is necessary to continue this once a year volunteer event indefinitely because birds spread buckthorn seed.

### **Polka Dot Forest Regeneration Program**

Some of the forests of Burnsville have evolved from land that was completely cleared for agriculture in the last century. Once farming ceased, the land was left fallow, then colonized by undesirable tree species such as boxelder, Siberian Elm and Amur Maple. These fast growing, weak wooded trees do not support a diversity of ground plain species, and are poor wildlife habitat. In the ecological inventory these forests rate as low quality, and they do not meet the criteria for management priority. Therefore, a concerted effort for management is not planned.

The “Polka Dot” Forest Regeneration Program is designed to restore a minimal level of diversity to these forests by clearing small patches of undesirable vegetation and planting native trees, primarily Oaks. These patches of Oaks would grow and over time provide a seed source for the native forest to expand. In the future when resources become available to fund forest regeneration projects, restorationists will be able to build from these nodes of established native trees.

The program will be funded by grants or donations from local groups interested in seeing the forests of their neighborhood restored. Staff will be made available to coordinate site preparation and planting, but much of the establishment and maintenance work will be conducted by volunteers.

### **Prairie Management and Regeneration**

Prairies and savanna remnants are an important component of the diverse natural features in Burnsville. As with many other cities and towns in southern Minnesota, Burnsville exists in part because the proximity of Big Woods timber and the prairie's rich soils made the area attractive to settlers. The City recognizes this connection between its natural resources and its history, and continues to work toward maintaining the quality of those resources, including its prairie and savanna remnants.

An additional valuable function of prairies has become increasingly recognized in recent years. That is the ability of prairies to sequester, or hold, carbon. Carbon dioxide, or CO<sub>2</sub>, is a major greenhouse gas contributing to climate change. Prairie plants, unlike typical turf grasses, develop long roots that extend deep into the soil, and are long-lived. CO<sub>2</sub> taken up by the prairie plants goes into the formation of the roots and is held there for the life of the plant. Even after the plants die, the carbon in their roots remains in the soil as part of other processes in the carbon cycle.

Moreover, since prairie plants have evolved to the climate of the Upper Midwest, it takes far less effort to maintain them. Mowing, fertilizing and other maintenance activities that are normally important and intensive on turf grasses are not as vital and can even be unnecessary in prairie communities. Since these maintenance activities consume and release CO<sub>2</sub> and other carbon compounds, the use of prairie plantings can further reduce overall carbon release. The low maintenance requirements of prairie also save the City the time and expense that is required for upkeep of turf grass areas.

By protecting and expanding its prairie and savanna remnants, Burnsville recognizes both the historic and current value of these unique plant communities and the pollinator species which they support. Burnsville prepared the "City of Burnsville Prairie and Savanna Areas Management Plans" in 2005 and updated the plans in 2006. The NRMP provides a detailed, comprehensive set of management goals and strategies for each of six areas within the city that have notable prairie and/or savanna restorations and remnants. Species lists, suggested plant palettes, information on monitoring and tools for maintenance are also reviewed.

### **Pollinator Program**

The decline of pollinator populations and other beneficial insects from a variety of factors including habitat loss, pesticides, and parasites has led to significant concern by bee keepers, conservation professionals, legislators, and the public. These species provide a foundation for food production,

food webs and native plant populations. A decline in pollinators affects us all. Reversing this trend is important to our ecosystem as well as to human health and well-being.

The following strategies should be part of the City's pollinator policy:

1. Plant a variety of native flowering plants prairie habitats in the City
2. Encourage planting native flowering plants in home gardens, or natural landscapes (with bloom times from April to October)
3. Provide a variety of natural habitats for nesting sites and clean water sources
4. Avoid pesticide use and purchase pollinator plants (and seeds) that have not been treated with systemic pesticides
5. Help increase awareness about the need to protect pollinators

### Addressing Climate Change

One impending force that will affect Burnsville's natural resources is climate change. Predictions indicate that Burnsville will experience more days over ninety degrees, increased wind, more intense but less frequent storm events, and less snow cover with higher average winter temperatures, among others. The ecosystem evolved under conditions other than what is now expected. This means that climate changes will affect natural resources. Increased drying of soils and lower water levels in lakes, wetlands and streams, stressed trees, frequent drought, intense (but infrequent) storm events, and many other effects will result. More information can be found on the Minnesota Department of Natural Resources website at

[http://www.dnr.state.mn.us/climate/climate\\_change\\_info/index.html](http://www.dnr.state.mn.us/climate/climate_change_info/index.html).

Preparation for these changes should begin now and can happen in many ways. It is important to capture stormwater where it falls and infiltrate it into the ground for use by trees and to recharge ground water. This is suggested in the Water Resources Management Plan through an infiltration requirement, and should be expanded throughout the city. It is important to shade buildings and pavement to keep ambient air temperatures moderate and save on energy costs. An urban forest canopy cover of fifty percent will block winter winds, also saving on energy costs. The tree canopy cover of Burnsville in 2007 was 24.5 percent. It is important to pay attention to changes in our forests and wetlands to be sure that species are not being displaced by forces under our control (such as by invasive plant species and over grazing by deer). The challenges will become more evident in the next few years.

The strategies brought forward in this plan all focus on the protection of natural resources, but at the same time strengthen them to face environmental change. Much can be done to sequester carbon and to reduce the release of greenhouse gases, while also saving energy costs and dependence on foreign oil.



## Natural Resources Management on Private Property

Burnsville's natural resources are not confined to public property. Our ecosystem reaches across public and private land, and beyond city limits. All properties affect neighboring lands so it is important to take a consistent ecological management approach throughout Burnsville.

This plan suggests two avenues of influencing the management of private property natural resources. The first approach is through education programs and the second is through direct assistance programs.

### Education Programs

When residents understand environmental issues and the effect they are having on natural resources, they become motivated to change their behavior. Knowledge is crucial for the preservation of Burnsville's natural resources. Burnsville's public land is surrounded by private property. When both are managed to the ecological advantage, the expense and difficulty in managing both drops considerably.

Valuable information regarding Burnsville's natural resources could be provided to the residents of Burnsville. The next page lists possibilities. One issue, however, looms greatest as a threat to natural areas in town—invasive plant encroachment in our woodlands. Two species are severely degrading the woodlands, and to control them requires that residents remove these species from their property in concert with the efforts taken on public property. The invasive species of greatest concern are common buckthorn and garlic mustard.

#### Buckthorn Education Program

An internet-based buckthorn education program is currently being used. Busy residents are most apt to investigate an issue if the information is presented in an easy-to-access format on their home computers. The guide can be found on the City's website at <http://www.burnsville.org/index.aspx?nid=818>

Topics to address in this program include buckthorn identification and life cycle, the impact of buckthorn on woodlands and wildlife within the city, and techniques for removing buckthorn and prevention of its re-colonization. The City includes regular articles on buckthorn in the City's quarterly newsletter, the Burnsville Bulletin, and has buckthorn publications available at City buildings which are also distributed at public events. The City also offers an annual buckthorn workshop for its residents.

#### Garlic Mustard Education Program

Garlic mustard is an herbaceous, woodland understory plant that is invading metropolitan woodlands at an astonishingly fast rate. It quickly reproduces and displaces native wildflowers, ferns and grasses, completely eliminating them wherever it establishes.



Residents should understand how Garlic Mustard affects the environment, how to identify it, and how to eradicate the plant. Additional information on the program can be found on the City's website at <http://www.burnsville.org/documentcenter/view/10115>.

### **Tree Planting Education Program**

Most of the private land in the city was developed several decades ago. Therefore, many of the trees planted are now reaching maturity and the tree canopy is beginning to close. As such, many of the benefits of trees are being realized. The issue is not "plant more trees" but rather, improve the quality of the urban forest.

### **Direct Assistance Programs**

Publicly supported programs motivate private property owners to care for their land in an ecologically sound manner, and improve the overall quality of natural resources. Burnsville's existing programs illustrate this success.

Current programs include:

- » The bare-root tree sale each spring
- » The Neighborhood Water Resources Grant Program

### **Buckthorn Brush Pick-up Program**

One of the primary deterrents for residents in removing buckthorn from their property is the difficulty of disposing brush that accumulates in the process. Most residents do not own the equipment required to remove the brush. The Buckthorn Pick-up Program is available by application to groups of three or more residents. City crews pick up buckthorn cuttings from these neighborhood groups and haul the debris to the City's compost site. An additional component of the program is the buckthorn bag initiative which provides city residents designated bags for buckthorn cuttings that can then be hauled to the City's compost site during specified weekends in the spring and summer for free disposal. The Neighborhood Buckthorn Pickup Program works in tandem with the education program. The City also offers other buckthorn related assistance programs, like the buckthorn weed wrench rental and the free buckthorn disposal at the City's compost site. These programs help educate the public and incentivize residents to remove buckthorn.

### **Native Herbaceous Plant Sale Program**

Herbaceous plants are those non-woody herbs that grow in natural areas such as: prairie, savanna or woodland. Many of these species have been extirpated from local environments by invasive plant species, lack of burning, deer browse, and other causes. Because the seed source is gone, they may not regenerate after the destructive force is eliminated; for example, after buckthorn is removed. The City hosts an annual sale featuring native herbaceous plants. As part of this program, residents purchasing native plants also receive information on where the plant is

intended, how to prepare the site, and how to plant and maintain the plants.

### **Emerald Ash Borer Program**

The City of Burnsville's 2013 Emerald Ash Borer Management Plan (EAB) dedicates funding over ten years to treat nearly 3,000 “legacy” public ash trees in parks and boulevards, remove others that are in poor condition or become infested, and plant new trees.

In 2016, the City treated 1,244 ash trees on public property, and removed 270 that were in poor condition. An additional 1,200 public Ash trees will be treated in 2017 and another 270 poor-quality trees removed.

Many of public Ash trees being treated grow in street boulevards or right-of-ways. The standard right-of-way for residential properties extends 15 feet into yards from the curb. Ash trees growing within boulevards are considered public trees and, if they are of good quality, will be treated to protect them from EAB.

Residents with boulevard Ash trees scheduled for treatment will be notified by postcard before treatment occurs. Ash trees on private property but not within the boulevard right-of-way are the responsibility of the property owner.

## **Wetland Protection and Management Plan**

### **Introduction**

The following is a summary of the recently updated 2017 Wetland Protection and Management Plan (WPMP) along with recommendations for incorporating the 2015 Minnesota Buffer Law. The 2017 WPMP was first adopted in 1998, updated in 2008 and again in 2017. The 2017 WPMP is hereby adopted as an addendum to this Comprehensive Plan.

The 2017 WPMP update includes:

- » Updated inventory of the wetlands in the city; including accurate mapping, functions and values analysis, and classification
- » Differentiation of jurisdictional and regulated wetlands from other water features
- » Development of regulatory and non-regulatory options for wetland preservation and protection
- » Identification of potential wetland mitigation sites within the city
- » Refinement of a GIS-based wetland management system

*Wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated*

*soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas*

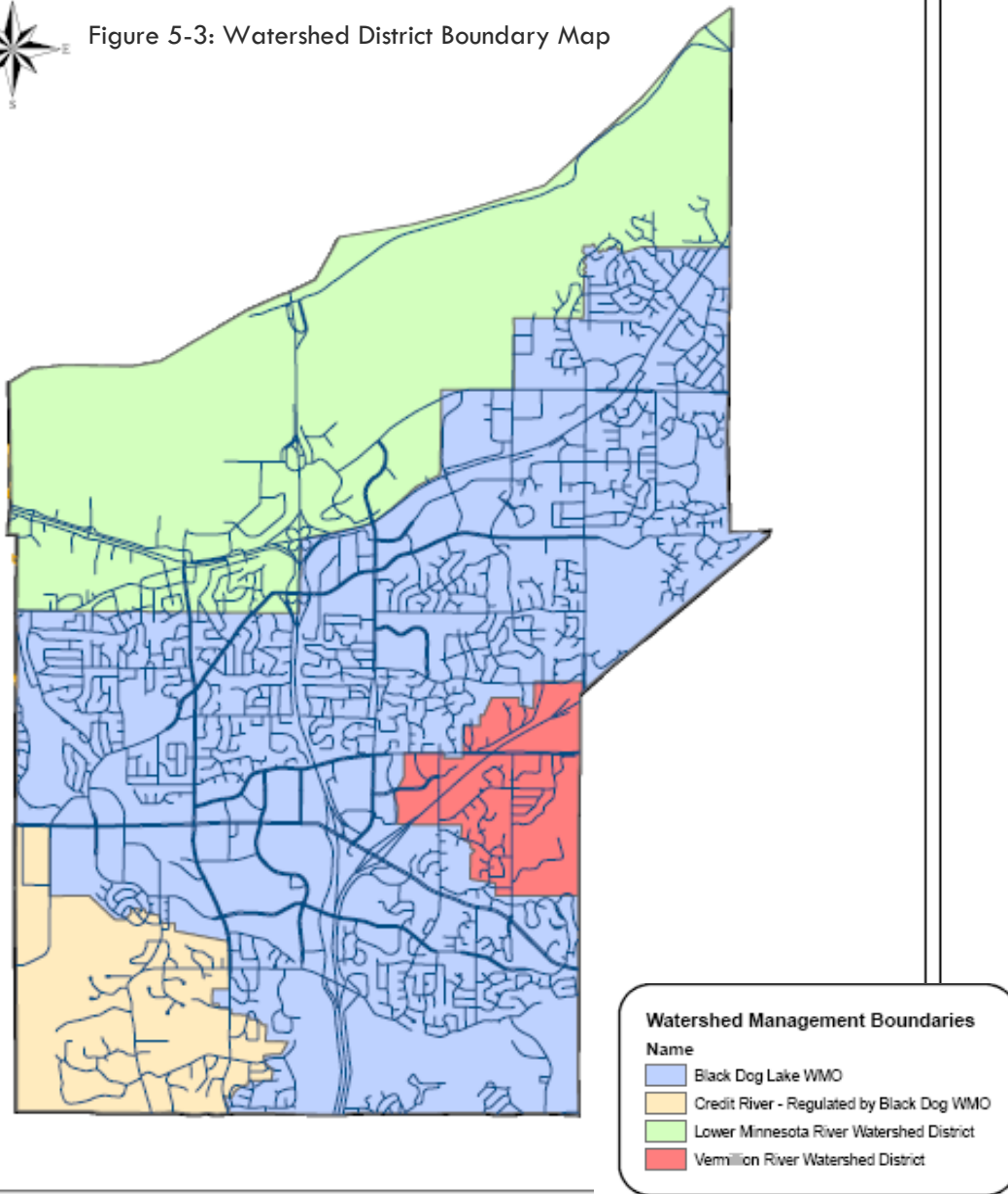
– Federal Register

Wetlands are characterized by unique vegetative communities that are adapted to anaerobic conditions that result when soils are saturated for extended periods of time. Saturated soils also develop unique physical and chemical characteristics that distinguish them from other upland soils. Of the 17,249 acres that Burnsville covers approximately 2,713 acres, or 16 percent, are wetlands or other water features. These surface water resources include several lakes, 233 wetlands, 94 storm water or other created ponds, and portions of three designated trout streams that are located wholly or partially within the city. Wetlands alone constitute 1,759 acres, or about ten percent of the city area. One of the most prominent features in the city is the Minnesota River and the extensive backwater and wetlands associated with it. The Minnesota River associated wetlands and Black Dog fen within the Minnesota Valley National Wildlife Refuge account for 843 acres, or just over half of the wetland resources within the city limits.

The 2017 WPMP was developed to provide the City with an updated wetland inventory and functions and values analysis, enhanced management strategies to preserve and protect the wetland resources, and to comply with local watershed organizations plans. The City includes portions of four watersheds; the Black Dog, Lower Minnesota River, Vermillion River, and Credit River (Figure 5-3: Watershed District Boundary Map). These watersheds are managed by several watershed organizations, of which the City is an active member. The regulatory framework developed in this Plan will be incorporated into the City's existing planning and zoning regulations and implemented by ordinance.



Figure 5-3: Watershed District Boundary Map



Wetlands within the city have been classified into three categories to provide a range of protection standards: Protection, Improvement, and Management. The three categories are unchanged from the 1998 inventory and Plan. The exception to this is the automatic classification of any Outstanding Resource Waters as Protection. The validity of the 1998 classification system was tested using the Minnesota Routine Assessment Method Version 3.0 (MnRAM) to see if the older classes continue to accurately represent the wetland functions and values. Comparison of a subsample of the of the 1998 inventory to the MnRAM-derived

classifications demonstrated that the older inventory was equal or more conservative than the more current methods, and was therefore still acceptable.

## Wetland Background Information

### Wetland Inventory

The City of Burnsville has numerous wetland resources; however, several are worth noting for their unique or outstanding values. The following paragraphs summarize some of the unique water and natural resource features within the city. The results of the 2006 inventory are shown in Figure 5-4 which includes the management classification for each wetland. The official inventory will reside within the City's GIS database.

#### Minnesota Valley National Wildlife Refuge

The majority of the wetlands along the Minnesota River are included within the Minnesota Valley National Wildlife Refuge (MVNWR). The area lying between the railroad grade and the Minnesota River is part of the Black Dog Unit of the Refuge, and is under the authority of the U.S. Fish and Wildlife Service. These lands are managed in accordance with the "Minnesota Valley National Wildlife, Recreation Area, and State Trail: Comprehensive Plan, July 1984." The plan was produced by the Department of the Interior, U.S. Fish and Wildlife Service, and the Minnesota Department of Natural Resources.

#### Black Dog Fen and Scientific and Natural Area

The Black Dog wetland complex is located within the Minnesota Valley National Wildlife Refuge south of Black Dog Lake and is a designated calcareous fen by Minnesota Rules (part 7050.0180, Outstanding Resource Waters). Fens are unique wetlands, in that they are hydrologically supported by upwelling of calcium-rich groundwater. Fens commonly harbor unique aquatic vegetation, and are often identified as critical wildlife habitat.

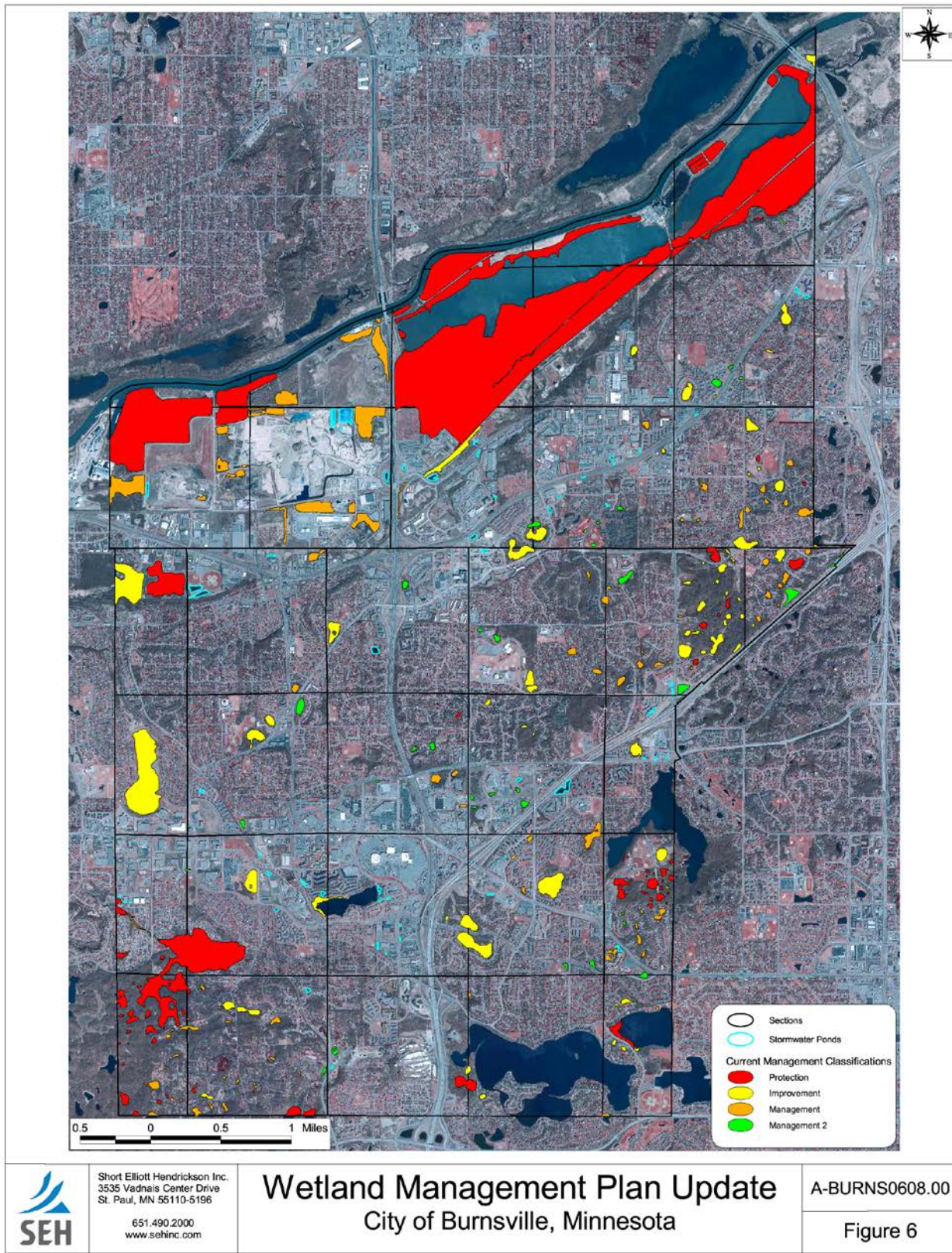
The Black Dog Scientific and Natural Area (BDSNA) is a designated protected area, which includes portions of the Black Dog fen. The BDSNA also includes areas of wet meadow and mesic prairie. The BDSNA is managed by the MnDNR and the Nature Conservancy.

#### Kelleher Park and Murphy-Hanrehan Park Reserve

Located in the southwest portion of the city, Kelleher Park and Murphy-Hanrehan Park Reserve areas have been designated as high-priority sites in the City's Natural Resources Master Plan. Dakota County's Biological Survey also indicates that this area has critical habitat and state-listed plant species. The Kelleher Park wetland is also monitored through the Wetlands Health Evaluation Program (WHEP). This area is relatively undeveloped, and has high quality uplands, and a high density of wetlands overall.



Figure 5-4: Wetland Management Plan Map





## Lakes, Streams and Storm Water Ponds

### Lakes

The City of Burnsville is blessed with numerous lakes and other water bodies. Most lakes are deeper than six feet, which is considered to be deep water habitat, and therefore do not meet the jurisdictional criteria of a wetland. This is typically true for lakes that are also identified as Public Waters by the MnDNR, for which administration of the Wetland Conservation Act (WCA) does not apply for areas below the Ordinary High Water (OHW) elevation. For this reason, the management of lakes is not included in this Plan. Many lakes, however, do have wetland fringe areas that may extend above the OHW, or have never had an OHW established. In these instances, the WCA would still have jurisdiction. The City has identified goals and policies for the protection of lakes in the Water Resources Management Plan.

### Streams

While the city has abundant wetlands and lakes, it is relatively sparse in streams and other linear waterways. Linear features include ditches, grassed swales, and other areas designated for conveyance of surface waters.

Burnsville does have designated trout streams in the northeast portion of the city. These include Unnamed Trout Stream Segment #7, One Mile Creek (also identified as Segment #4), and a very small portion draining into Harnack Creek (Segment #1). All of these drain into the Minnesota River through the Black Dog Lakes. These trout stream segments are several remnant trout streams identified by the DNR as part of its' Metro Trout Stream Watershed Protection Initiative.

The Minnesota River forms the northern boundary of the city, and is an important navigable waterway. This section of the river has extensive wetlands associated with it, many of which are of high quality and receive significant state and federal protection. The entire area east of I-35W along the river is within the Minnesota Valley Wildlife Refuge. The river west of I-35W is primarily just the main channel, but has several docking facilities.

### Storm Water Ponds

In 2006, a total of 95 basins used as storm water treatment ponds were mapped within the city. The total area of these features within the city is approximately 61 acres. Of the ponds mapped, 35 were included in the 1998 inventory, but were determined to currently function for storm water treatment. These 35 basins have been included in the inventory, but have been classified as a unique management classification. The purpose of this additional classification is to remove wetland management standards from these basins. These basins, however, were likely to have been wetland prior to conversion for storm water treatment. Historically, natural wetlands were used extensively for storm water treatment, either through restricting

outflows or excavating wetlands to create additional open water areas and storage volume. While this practice has since been discouraged, many of the older storm water ponds were likely wetlands that have been converted. These basins would still be regulated by the Wetland Conservation Act, but would be treated by this Plan as a special category of wetland exempt from much of the protection guidelines.

## Wetland Inventory and Functions and Values Analysis

### Classification of Wetland Basins

Each basin within the city has been classified into one of four categories. These categories are the basis for which protection standards have been established. The 1998 inventory attributed classifications based on the Natural Resource Evaluation and was supplemented with data from the city's 1994 Storm Water Management Plan, the Dakota County Biological Survey and other sources. The database and supplemental information were used to determine the classification of each wetland basin by sorting the data according to total points and applying the ranking strategy. The resulting classifications include the following:

- » Protection Areas - Basins with Native Grades of A or B, sites with complete Community Structure, any sites supporting rare species, and any sites within or adjacent to significant natural communities as identified by the Dakota County Biological Survey. This is comparable to the Preserve Classification used in the MnRAM.
- » Improvement Areas - Basins with three of four of the Community Structure criteria, sites greater than ten acres in size, Minnesota Department of Natural Resources Protected Waters and Wetlands (Public Waters), and basins within existing city parks that are not classified as Protection Areas. Although there is some overlap, this classification is similar to the Manage I and Manage II MnRAM classifications.
- » Management Areas - Remaining wetlands, but generally of low quality and located outside of protected areas. These wetlands are also likely to receive untreated storm water runoff, but have not been altered to enhance treatment capabilities. This classification is comparable to the Manage II and Manage III MnRAM classifications.
- » Management II Areas – These basins include any of the water features that may have been historic wetlands, and would remain subject to the requirement of the WCA. These basins would not be subject to city wetland protection standards, however, as they no longer function as natural wetlands.

Table 5-3: Summary of 1998 & 2006 Wetland Classifications

| Classification | Number of Basins |      | Total area (acres) |       |
|----------------|------------------|------|--------------------|-------|
|                | 1998*            | 2006 | 1998*              | 2006  |
| Protection     | 77               | 63   | 1,521              | 1,310 |
| Improvement    | 92               | 76   | 887                | 248   |
| Management     | 145              | 94   | 272                | 171   |
| Management II  | 0                | 35   | 0                  | 35    |
| Totals         | 314              | 268  | 2,680              | 1,764 |

*\*Note that the 1998 Plan included ponds and lakes, while the 2006 Plan does not*

Table 5-3 summarizes the final results of the 2006 wetland classification, which accounts for the adjustment of elevating Critical Resource wetlands to Protection status.

## Wetland Management Priorities and Objectives

Regulatory layers of protection are implemented at the state, local or federal level and from a variety of agencies to regulate and manage wetland resources. Some of these agencies include the WCA, the MnDNR, the United States Army Corps of Engineers, the Watershed Management Organizations and the City of Burnsville's own regulatory and non-regulatory planning tools.

The City of Burnsville is the Local Government Unit (LGU) responsible for implementation of the Water Conservation Act (WCA) within the boundaries of the city. The WCA is enforced through Chapter 8 of the City's Zoning Code, Environmental Overlay Districts. The Environmental Overlay District Ordinance provides for the protection of wetlands and other natural resources, including restrictive and erosive soils, woodlands, floodplains and Shoreland areas.

### Wetland Protection and Management Plan Strategies

It is a priority for the City to maintain and improve the quality of the natural resources in the community. Table 5-4 lists the goals and methods to accomplish wetland protection.

Table 5-4: Goals to Accomplish Wetland Protection & Management Plan

| Goal Number | Goal                                                      | Method of Accomplishment                                                                                                                                         |
|-------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.          | Regulatory responsibility                                 | Maintain primary responsibility for managing water resources at the local level but continue coordination and cooperation with other agencies and organizations. |
| 2.          | Manage wetland resources to improve functions and values  | Establish appropriate protection criteria based on wetland functions and values.                                                                                 |
| 3.          | Identify short and long term management strategies        | Achieve water quality standards in lakes, streams, and wetlands consistent with their designated uses and established classifications.                           |
| 4.          | Identify wetland buffer standards                         | Protect and rehabilitate wetlands to maintain or improve their functions and value.                                                                              |
| 5.          | Identify effects of storm water on wetlands               | Minimize soil erosion and sedimentation in wetlands. Improve water quality.                                                                                      |
| 6.          | Identify wetland restoration opportunities                | Use GIS and available resources on restorable wetlands to identify likely areas of wetland restoration. Identify opportunities to control invasive species.      |
| 7.          | Provide data on wetlands to city residents and developers | Provide information and educational resources to improve knowledge and promote an active public role in management of water resources.                           |

# Water Resources Management Plan

## History

The City's first comprehensive drainage plan was completed in 1966. The 1966 drainage plan addressed extreme fluctuations in water levels on Crystal Lake. On several occasions in the late 1960s and in the early 1970s, it became necessary to pump the lake to lower its level. The City ultimately decided to install a gravity storm sewer system so that the discharge (i.e., lake level) would not be subject to the uncertainties of a mechanical pump. The next major hurdle was to construct a large lake/pond north of County Road 42 near the Savage and Burnsville border. The "new" Sunset Pond was created to accept the surface water from the new homes and businesses in west central Burnsville and the outflow of water from Crystal Lake. Shortly after completion of Sunset Pond, the downstream pipes were installed and the Crystal Lake outlet was finally in place.

In 1994, the City completed its first generation local water resources plan (Comprehensive Stormwater Management Plan, OSM). The City completed its second generation plan in 2002 which focused on addressing water quality and quantity (flooding) issues. The third generation plan was completed in 2008 and provided updates to the water quality goals and development design standards. In 2014, the third generation plan was

amended to include a minor update focusing on development design standards and updating precipitation frequency estimates published in Atlas 14. The City's most recent WRMP plan update was completed and adopted by the City in 2017. The 2017 Water Resource Management Plan is hereby adopted as an addendum to this Comprehensive Plan.

## Purpose

Minnesota Statutes, §103B.201 to 103B.255 and Minnesota Rule, Chapter 8410 comprise the State's Metropolitan Surface Water Management Program (MSWMP). These Statutes and Rules require the preparation of local (City) water management plans. The purposes of the water management programs required by Minnesota Statutes §103B.205 to 103B.255 are to:

- » Protect, preserve and use natural surface and groundwater storage and retention systems
- » Minimize public capital expenditures needed to correct flooding and water quality problems
- » Identify and plan for means to effectively protect and improve surface and groundwater quality
- » Establish more uniform local policies and official controls for surface and groundwater management
- » Prevent erosion of soil into surface water systems
- » Promote groundwater recharge
- » Protect and enhance fish and wildlife habitat and water recreational facilities
- » Secure the other benefits associated with the proper management of surface and groundwater

## Existing Conditions

### Drainage Patterns

Burnsville lies within the larger Minnesota River Basin. Within Burnsville, the Minnesota River Basin includes several smaller watershed units including the following three:

- » Vermillion River Watershed
- » Black Dog Watershed
- » Lower Minnesota River Watershed

In general, the land within Burnsville slopes from south to north toward the Minnesota River. At the southern end of the watershed, an upland ridge slopes down to Crystal Lake. This transition corresponds roughly to the jurisdictional boundary between the Black Dog Watershed Management Organization and the Lower Minnesota River Watershed District. Some areas in east central Burnsville in the vicinity of Alimagnet Lake drain to the

east to Alimagnet Lake and ultimately to the Vermillion River and are within the jurisdictional boundary of the Vermillion River Watershed District.

### Surface Water Resources

The City of Burnsville covers approximately 17,282 acres, of which approximately 2,821 acres, or 16 percent, are wetlands or other water features. One of the most prominent features in the city is the Minnesota River and the extensive backwater and wetlands associated with it. The following table provides a summary of the major waterbodies located wholly or partially within the city.

Table 5-5: Physical Lake Data Summary

| Name        | Surface Area (ac) | Watershed to Surface Area Ratio | Average Depth (ft) | Maximum Depth (ft) |
|-------------|-------------------|---------------------------------|--------------------|--------------------|
| Alimagnet   | 109               | 12.8                            | 5                  | 11                 |
| Crystal     | 292               | 7.4                             | 10                 | 37                 |
| Earley      | 28                | 31.4                            | 4                  | 8                  |
| Horseshoe   | 12                | NA                              | NA                 | NA                 |
| Keller      | 63                | 22.4                            | 5                  | 7                  |
| Lac Lavon   | 60                | 3.2                             | 15                 | 32                 |
| Sunset Pond | 60                | 21                              | 4                  | 9                  |
| North Twin  | 5                 | 34                              | 6.6                | 12                 |
| South Twin  | 12                |                                 | 3.6                | 11                 |
| Wood Pond   | 9                 | 18                              | NA                 | 18                 |

Two of the lakes, Lac Lavon and Crystal, are classified as Metropolitan Council priority lakes which is used by Metropolitan Council to focus its limited resources and support the environmental review process for proposed development. Many of the waterbodies and wetlands are also classified as public waters which are designated as such to indicate which lakes, wetlands, and watercourses over which MnDNR has regulatory jurisdiction authorized by Minnesota Statutes, Section 103G.201.

Burnsville had three designated trout streams identified in the 2002 WRMP that were based on data from MnDNR's protected waters database and one (planned) future trout lake. These trout waters include:

- » Unnamed Trout Stream #1
- » Unnamed Trout Stream #4 (Naas Creek)
- » Unnamed Trout Stream #7.

MnDNR has initiated work to better represent the actual waters that can sustain trout and update their official lists and mapping accordingly. Following MnDNR's proposed removal of trout streams from the official list, local residents and Trout Unlimited initiated efforts to investigate the potential restoration of Unnamed Stream #4 (Naas Creek) and keep it on



the list. The organization convinced the MnDNR to keep Naas Creek and nearby Harnack/Black Dog Creek in Eagan (which was also in danger of being removed from the list) as a protected waterway and to research both streams' potential for restoration.

Burnsville has numerous water bodies totally or partially within its borders that are used for water based recreation. The City has two water bodies which are used for a variety of motorized boat recreation: Crystal Lake and Alimagnet Lake. Crystal Lake has a public boat launch and is very heavily used by motorized boats. Alimagnet Lake only has a public canoe launch making motorized boat launching difficult and as a result of the motorized use tends to be limited to lakeshore owners. Internal combustion motors are prohibited on all other lakes and ponds in Burnsville with the exception of Keller Lake, which has a five-horsepower limit. Electric trolling motors are allowed on all lakes except Sunset Pond.

The public does use other lakes in Burnsville for water-related recreation such as non-motorized boating, fishing, hiking on trails adjacent to water and birdwatching. The primary lakes are Keller Lake, Lac Lavon, Sunset Pond, Earley Lake and Wood Lake. The City has parkland adjacent to each of these as well as Crystal and Alimagnet Lakes.

The water quality goal setting process for Burnsville lakes revolves around their recreational suitability and strives to achieve water quality equal to or better than state water quality standards. The water quality objectives of the WRMP are centered on Burnsville lakes that support a full range of recreation uses including swimming. The City has established specific water quality goals for significant water bodies based of community input and diagnostic studies. The City Council established the lake clarity goals shown in Table 5-6.

Table 5-6: Lake Water Clarity Goals

| Lake                | City of Burnsville Clarity Goal (meters) <sup>2</sup> | MPCA Clarity Standard (meters) | 3-Year Average Clarity (meters) <sup>1</sup> |
|---------------------|-------------------------------------------------------|--------------------------------|----------------------------------------------|
| Alimagnet           | 1.3                                                   | 1.0                            | 0.8                                          |
| Crystal             | 2.1                                                   | 1.4                            | 2.2                                          |
| Earley              | 1.7                                                   | 1.0                            | 1.7                                          |
| Keller <sup>3</sup> | 1.8                                                   | 1.0                            | 0.8                                          |
| Lac Lavon           | 3.6                                                   | 1.4                            | 4.2                                          |
| Sunset Pond         | 1.7                                                   | 1.0                            | 1.8                                          |
| Twin South          | 1.4                                                   | 1.0                            | 1.9                                          |
| Wood Pond           | 1.7                                                   | 1.0                            | 1.9                                          |

<sup>1</sup> Based on years 2014, 2015, and 2016 of monitoring data.

<sup>2</sup> Summer Average secchi disk reading

<sup>3</sup> A Use Attainability Analysis is planned to reevaluate the goal for Keller Lake

## Floodplains

In 2016, the Federal Emergency Management Agency (FEMA) published a revised Flood Insurance Study (FIS) for Dakota County. This study and corresponding Flood Insurance Rate Maps (FIRMs) supersede the previous county-wide FIS published in 2011. The initial (2011) county-wide FIS incorporated two Letters of Map Revision (LOMR). Updated base flood elevations were established for Twin Lakes and Earley Lake (SEH, 2004) in central Burnsville and for the Cam Ram Wetland Area (SEH, 2005) in southwest Burnsville. These LOMRs were reviewed and approved by MnDNR and FEMA.

Burnsville's local flood ordinance does not specifically include elevations, but instead refers to the official FEMA map panels. The extent of the changes from 2016 are provided below showing both the 2011 and 2016 elevations for the major water bodies. All waters were adjusted by 0.1 foot to account a datum adjustment by MnDNR (confirmation is pending).

Table 5-7: Base Flood Elevations (BFEs) for Major Water Bodies

| Lake            | 2011 FEMA FIS<br>1% Chance Flood | 2016 FEMA FIS<br>1% Chance Flood |
|-----------------|----------------------------------|----------------------------------|
| Alimagnet Lake  | 959.0                            | 959.1                            |
| Crystal Lake    | 936.0                            | 936.1                            |
| Earley Lake     | 911.9                            | 912.0                            |
| Keller Lake     | 936.0                            | 936.1                            |
| North Twin Lake | 923.8                            | 923.9                            |
| South Twin Lake | 923.5                            | 923.6                            |

## Current Issues

The following items have been identified as the leading surface water related problems Burnsville currently faces:

- » Water quality
- » Water quantity/flooding
- » Aquatic vegetation management
- » Erosion prevention and sediment control

## Water Quality

Improving and maintaining water quality within receiving water bodies is currently and projected to continue to be the highest priority issue for the City. Water quality is driven by several factors including the type of land use and impervious cover within the contributing watershed and the extent of water quality treatment practices (or BMPs) installed or implemented throughout the watershed. Where receiving water bodies currently do not meet current state water quality standards or City goals, the primary mechanism to get the desired result is to implement additional physical

BMPs, maintain and/or improve the function of existing physical BMPs and/or improve the effectiveness of management practices within the watershed.

The MPCA updates the 303(d) Impaired Waters list every two years, with the most recent draft list published in 2016. Table 5-8 summarizes the waters within Burnsville on the draft 2016 Impaired Waters list.

Table 5-8: 2016 Draft Impaired Waters Summary

| Water Body Name | Affected Designated Use | Pollutant or Stressor                                    | TMDL Plan Approval Year |
|-----------------|-------------------------|----------------------------------------------------------|-------------------------|
| Crystal Lake    | Aquatic Consumption     | Mercury in Fish Tissue                                   |                         |
| Crystal Lake    | Aquatic Recreation      | Nutrient/eutrophication biological indicators            | 2011                    |
| Keller Lake     | Aquatic Recreation      | Nutrient/eutrophication biological indicators            | 2011                    |
| Lac Lavon       | Aquatic Consumption     | Mercury in fish tissue                                   | 2007                    |
| Minnesota River | Aquatic Consumption     | Mercury in fish tissue/water column                      | 2008                    |
| Minnesota River | Aquatic Consumption     | PCB in fish tissue                                       |                         |
| Minnesota River | Aquatic Life            | Dissolved oxygen                                         | 2004                    |
| Minnesota River | Aquatic Life            | Nutrient/eutrophication biological indicators, turbidity |                         |
| Lake Alimagnet  | Aquatic Recreation      | Nutrient/eutrophication biological indicators            | 2015                    |

*TMDL = Total Maximum Daily Load*

The City has taken an active role in developing Total Maximum Daily Load (TMDL) studies and implementation plans for the nutrient/eutrophication impairments to these waters (the MPCA is leading the efforts to address mercury impairments on a much larger scale). The City partnered with the Black Dog Watershed Management Organization (WMO) to complete TMDL studies on Crystal and Keller Lakes which was approved by the EPA in September 2011. Earley Lake was also assessed during this study but was delisted and taken off of the 303(d) Impaired Waters list in 2010. The Vermillion River Watershed Joint Powers Organization (VRWJPO) completed the Vermillion River Watershed Restoration and Protection Strategy project in 2015 which addressed 27 impaired water bodies, one of which was nutrient impairment for Lake Alimagnet. The portion of the City that drains to the Vermillion River also has E. Coli bacteria and dissolved oxygen impairments.

### Water Quantity/Flooding

Several of the more substantial historic flooding issue areas have been subject to extensive analyses and capital improvements such that they no longer pose a significant risk; however, some flooding issues still remain. Starting in southeast Burnsville with Keller and Crystal Lakes, the city has a

chain of connected water bodies that are connected through a series of storm sewer pipes. The system routes to the north and west through South and North Twin Lakes, then through Earley Lake and Sunset Pond before discharging through a large box culvert into the Minnesota River. This system has been the subject of extensive modeling and evaluation of high waters for decades. These study recommendations are to be reevaluated in light of new rainfall frequency data and the updated model.

### **Aquatic Plant Management**

Aquatic plants are an essential part of lake and wetland communities and managing aquatic plants is an important factor in achieving the City's water resources goals. Managing aquatic plants can help toward improving water quality, creating or maintaining healthy aquatic habitat conditions, improving recreational use and enhancing the aesthetic value of Burnsville's lakes. More specifically, healthy aquatic plant communities:

- » Remove coliform bacteria and nutrients from the water and lake bottom
- » Help prevent shoreline erosion by breaking up wave action
- » Provide natural food and shelter for fish and wildlife
- » Are one of the primary producers in aquatic food chain and affect the chemical, physical and biological -characteristics of our lakes. For instance, a one-acre stand of bulrush can remove an amount of phosphorus equal to that present in wastewater created by 33 persons during the four-month growing season

The City has had an Aquatic Plant Management (APM) Policy that provides the basis for the City's overall strategies and program to manage aquatic plants. The policy was updated as part of the 2017 WRMP update based on extensive input from lakeshore residents and lake users during the public input process in 2016-2017. The primary strategies include education and technical assistance as well as completing aquatic plant management in portions of selected water bodies.

### **Erosion prevention and sediment control**

Although stream bank erosion and sedimentation is a natural process, they can be accelerated as a result of human activities which increase peak flow rates and can severely damage stream bank vegetation, cause bottom scour and accelerate the erosion process. Ponds and drainage facilities are impacted by erosion and sediment from a variety of sources including construction sites and street sanding in the winter which can create pond performance and maintenance issues. As the sediment builds up over time, it reduces the capacity of the drainage system and the pollutant removal capabilities of ponds by reducing storage volume below the outlet, and reduces infiltration rates. Extending the life of facilities involves source control and elimination of the material that causes the problem.

## Emerging Issues

The WRMP provides some basic background to a few of the known future issues the City is or will be facing. One of the methods the City plans to get ahead of these issues and to increase awareness is to develop education programs in the local schools on an annual basis. The topics below provide a good starting point for such a program.

### Invasive Species

Invasive species are species which are not native and cause economic or environmental harm, or harm to human health. The MnDNR is the heading the State's efforts to curb the spread and minimize harmful effects of nonnative species. One aquatic invasive species of particular concern throughout Minnesota is zebra mussels.

Zebra mussels are a devastating aquatic invader that once introduced, can quickly overtake a lake. Just one of the zebra-striped, clam-like creatures which grow to the size of a fingernail – can produce 30,000 to 40,000 eggs per season. Zebra mussels can form dense colonies on rocks, wood, metal and cement surfaces. They out-compete native mussel species for food and oxygen. The overall impact of an infestation would be a diminished recreation use of a particular lake.

### Groundwater Sustainability

The community requires a safe and reliable source of drinking water now and for future generations, which makes it essential to preserve and protect the groundwater aquifers which supply the City's drinking water. Burnsville has developed a multi-layered groundwater model focusing on the Burnsville well field, Kraemer Quarry, Black Dog Fen and Savage Fen. The model will be utilized in design of groundwater withdrawal and minimization of impacts to protected surface waters. The City is currently a member of the Southwest and Southeast Metro Water Supply Work Groups. The City is committed to working with these groups to provide a sustainable regional water supply.

### Climate Change

Minnesota experiences a wide variation in climate conditions (droughts and floods, heat and cold); however, even with these wide variations, climatologists have found four significant climate trends in the upper Midwest (Minnesota Weather Almanac, Seeley, 2006):

- » Warmer winters
- » Higher minimum temperatures
- » Higher dew points
- » Changes in precipitation trends

The City recognizes the importance of resiliency and in a water resources context resiliency can be attributed to the ability to adapt to the climate-

related variability and reduce the vulnerability of the community to extreme events. The City has, for example, amended the stormwater management standards to recognize the updated Atlas 14 depths and distributions and will endeavor to continue to adapt its policies and standards with the climate change trends.

### **Maintenance of the Stormwater System**

The City owns and operates more than 240 stormwater ponds and sediment collection devices throughout the City. The sediment collected in these ponds has been found to contain potentially hazard metals and other chemicals. Prior to removal of the sediment, it must be tested for the level of chemicals present. If found to exceed regulatory levels, the material excavated must be placed in a licensed landfill.

## **Natural Environment Sustainability**

The natural environment not only provides for present generations, but should be considered a critical investment in future generations. In many cases, the scale of current impacts to the natural environment are such that the chances of future generations accessing their fair share these resources are endangered. Moreover, the consequences of impacts to the natural environment may seriously limit the carrying capacity of the natural resources.

The City is building these sustainability approaches on a strong foundation of the Sustainability Guide Plan, one of the first such plans in the state of Minnesota. In the Sustainability Guide Plan, the City established how it would make its own facilities and operations more sustainable through fourteen best practice areas. The City has made significant strides in many of these areas, including energy conservation and environmentally-preferable purchasing. The City has also reached Level 5—the most advanced level—in the GreenSteps Cities program. The City has achieved this success by doing more than implementing practices, but by measuring our progress year-to-year and building on positive momentum.

### **Sustainability Approaches**

One of Burnsville's responsibilities as a municipality is to undertake activities and assume responsibility for the conservation and management of the natural environment within and adjacent to the city's boundaries. The approaches below are examples of actions the City can take to be more sustainable across all aspects of the natural environment area.



## Natural Environment

|                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Energy<br/>Reduction</p>                           | <ul style="list-style-type: none"> <li>» Take advantage of opportunities for sustainable land uses, compact housing and open spaces</li> <li>» Take advantage of integrated park and wildlife corridor opportunities to create better wildlife as well as human bike/pedestrian connections and travel</li> <li>» Encourage low-maintenance, native, pollinator-supporting landscaping</li> <li>» Consider establishing fossil fuel reduction goals</li> </ul>                                                                                                                                                                                                               |
|  <p>Sustainable<br/>Water Supply</p>                   | <ul style="list-style-type: none"> <li>» Reduce usage of pesticides when maintaining public property.</li> <li>» Implement land restoration projects to restore/maintain infiltration and native landscapes</li> <li>» Identify and capitalize upon water reuse projects</li> <li>» Contribute to pollutant reductions necessary to bring impaired waters into compliance with state water quality standards</li> <li>» Pursue stormwater management initiatives by participating in local/regional partnerships to develop innovative and consistent practices</li> <li>» Identify and eliminate illegal discharges into the City's sewer and stormwater systems</li> </ul> |
|  <p>Waste<br/>Reduction</p>                          | <ul style="list-style-type: none"> <li>» Continue and expand communication efforts regarding waste reduction and hazardous waste management</li> <li>» Promote waste minimization and efforts to move away from high energy methods of waste disposal</li> <li>» Consider innovative ways to expand rates of composting yard wastes (e.g. at-home programs), food wastes, and biodegradable waste streams (e.g. paper-based waste) in coordination with Dakota County</li> </ul>                                                                                                                                                                                             |
|  <p>Sustainable Food System<br/>Opportunities</p>    | <ul style="list-style-type: none"> <li>» Encourage/incentivize pollinator management</li> <li>» Allow additional permaculture neighborhood gardens on city park turf areas to reduce intensive maintenance</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|  <p>Efficient Use of Infrastructure<br/>and Land</p> | <ul style="list-style-type: none"> <li>» Explore adopting a conservation subdivision ordinance</li> <li>» Promote environmentally-sound in-fill development</li> <li>» Review the current tree permitting/conservation codes to determine whether updates are needed</li> <li>» Protect steep slopes, bluffs, and other sensitive environmental features</li> </ul>                                                                                                                                                                                                                                                                                                          |
|  <p>Natural Resource Conservation</p>                | <ul style="list-style-type: none"> <li>» Explore adopting an invasive species ordinance</li> <li>» Conduct programs to remove/mitigate invasive species</li> <li>» Consider the need to adopt a zoning overlay district for natural resources</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                     |

|                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Climate Resiliency                         | <ul style="list-style-type: none"> <li>» Encourage/incentivize alternative fuels</li> <li>» Diversify City's energy profile</li> <li>» Explore incorporating local energy generation and storage in coordination with parks/open spaces in the city</li> <li>» Target vulnerable areas in City's infrastructure to make improvements to these high risk facilities which will help protect natural features</li> </ul> |
| <b>Natural Resource Management Plan</b>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <br>Energy Reduction                           | <ul style="list-style-type: none"> <li>» Develop robust urban forest and implement LID to reduce energy usage to combat urban heat island effect</li> <li>» Continue City's low cost tree sale and Emerald Ash Borer tree replacement program</li> <li>» Adopt a street tree ordinance</li> <li>» Work with solar industry to strategically locate community solar gardens</li> </ul>                                  |
| <br>Sustainable Water Supply                   | <ul style="list-style-type: none"> <li>» Increase green space and usage of infiltration techniques to replenish groundwater</li> </ul>                                                                                                                                                                                                                                                                                 |
| <br>Sustainable Food System Opportunities     | <ul style="list-style-type: none"> <li>» Promote community gardens to replace turf grass areas</li> </ul>                                                                                                                                                                                                                                                                                                              |
| <br>Efficient Use of Infrastructure and Land | <ul style="list-style-type: none"> <li>» Utilize stormwater harvest and use to decrease potable water demand</li> <li>» Update City Code to utilize green infrastructure where effective</li> <li>» Prevent future development in highly vulnerable erosion and degradation areas</li> <li>» Work with partners to conserve land</li> </ul>                                                                            |
| <br>Natural Resource Conservation            | <ul style="list-style-type: none"> <li>» Continue natural vegetation conversion for passive park areas</li> </ul>                                                                                                                                                                                                                                                                                                      |
| <br>Climate Resiliency                       | <ul style="list-style-type: none"> <li>» Utilize more green infrastructure practices on public and private sites</li> </ul>                                                                                                                                                                                                                                                                                            |

## Wetland Protection and Management Plan

|                                                                                                                            |                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Energy Reduction                      | <ul style="list-style-type: none"> <li>» Investigate if geothermal systems could be combined with wetlands areas due to moist soil conditions</li> </ul>           |
| <br>Sustainable Water Supply              | <ul style="list-style-type: none"> <li>» Restore wetlands to promote groundwater recharge</li> </ul>                                                               |
| <br>Sustainable Food System Opportunities | <ul style="list-style-type: none"> <li>» Consider special use permits for food collection or vegetation harvest in wetland systems</li> </ul>                      |
| <br>Natural Resource Conservation         | <ul style="list-style-type: none"> <li>» Implement wetland restoration projects identified in inventory</li> <li>» Enforce buffer zones around wetlands</li> </ul> |
| <br>Climate Resiliency                   | <ul style="list-style-type: none"> <li>» Continue protection of wetlands to provide water and natural habitat storage/capacity in the landscape</li> </ul>         |

## Water Resources Management

|                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Sustainable Water Supply                 | <ul style="list-style-type: none"> <li>» Utilize green infrastructure where effective and appropriate</li> <li>» Implement daylighting of surface water resources strategies (restore natural channels and corridors) where appropriate</li> <li>» Shift the emphasis of stormwater infrastructure towards capture, infiltration, and utilization</li> </ul> |
| <br>Waste Reduction                          | <ul style="list-style-type: none"> <li>» Use locally sourced materials for best management practices (compost, sand, etc.)</li> </ul>                                                                                                                                                                                                                        |
| <br>Efficient Use of Infrastructure and Land | <ul style="list-style-type: none"> <li>» Review standards in place for consistency with a conservation subdivision ordinance</li> <li>» Promote environmentally-sound in-fill development</li> </ul>                                                                                                                                                         |

|                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Natural Resource Conservation</p> | <ul style="list-style-type: none"> <li>» Identify and capitalize on opportunities to convert vegetation to passive park spaces</li> <li>» Promote water quality goals</li> <li>» Support the MPCA and EPA's efforts to close Freeway Landfill and Dump in an environmentally sustainable manner.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|  <p>Climate Resiliency</p>            | <ul style="list-style-type: none"> <li>» Promote green infrastructure where possible in public and private projects</li> <li>» Continue to implement strategies to manage risk of water assets and natural features</li> <li>» Complete resiliency studies to determine which sections of the City's storm water management infrastructure and natural resources have the highest risk of failure due to climate change or other scenarios. Identify, fund and make improvements to address concerns</li> <li>» Complete resiliency studies to determine consequence levels if certain sections of the City's storm water management infrastructure and natural resources fail; identify, fund and make improvements to address concerns</li> </ul> |

## Sustainability Metrics

The following measures of success can be used to assess progress on sustainability initiatives:

### Natural Resources

1. Public awareness, understanding and support for natural resources conservation and sustainability as measured in city surveys
2. Number and type of trainings and workshops on Natural Resources and Sustainability
3. Acres of land under development or converted to native landscapes or pro-pollinator vegetated
4. Number of volunteers and total time spent in preserving or restoring natural resources

### Wetlands

1. Measures of public awareness of the importance of wetlands as measured in city surveys;
2. Total wetland area protected by legal or other instruments
3. Number and total area of wetlands created, restored or credits purchased
4. Number and coverage of wetland buffers, inspected, installed and maintained

### Water Resources

1. Measures of public awareness of the importance of water supply and water quality as measured in city surveys
2. Water Clarity and Water clarity goals for Burnsville's lakes.  
Number of ponds cleaned out and volume of material removed.  
Provide volume of material removed impacted by Poly-Aromatic

Hydrocarbons (PAHs)

3. Occurrence and spread of aquatic invasive species
4. Number of Illicit Discharge reports and investigations
5. Number of new stormwater management best management practices provided on private property because of development or redevelopment

## Implementation

| Natural Environment Area | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Natural Resources        | <ul style="list-style-type: none"><li>» Implement the natural areas restoration strategies identified in the Natural Resources Management Plan</li><li>» Implement the recommended strategies for the management of built environment found in the Natural Resource Management Plan</li><li>» Implement the urban forest management strategies identified in the Natural Resources Master Plan which are designed to preserve and protect the trees within Burnsville; and require reforestation of areas cleared by development; this includes the Emerald Ash Borer plan</li><li>» Monitor trees in maintained areas of parks and along the city streets to assess the effectiveness of the strategies laid out in the Natural Resource Management Plan, identify new pests and stressors, and closely follow existing, chronic problems such as Oak Wilt, Dutch Elm Disease and invasive exotics</li><li>» Consider the establishment of buffer standards (minimum 50 foot width) for lands located adjacent to major natural open space areas such as Murphy-Hanrehan Park Reserve, Rudy L. Kramer Nature Preserve and the Minnesota Valley National Wildlife Refuge</li><li>» Implement activities to achieve the adopted water conservation, surface water and water quality goals of the community</li><li>» Continue implementation of the Wellhead Protection Plan and Drinking Water Protection Overlay District to protect groundwater supply through the use of zoning restrictions and inspections</li><li>» Periodically update ordinances to include the most current technology and implement best management practices to ensure the continued protection of area lakes, rivers and natural resources</li><li>» Implement best management practices to control and treat stormwater as redevelopment opportunities arise</li><li>» Enhance the education/public relations campaign regarding costs and benefits for landfills versus recycling, composting and reuse of collections</li><li>» Research how residents of multiple-family developments can establish organic collections and how to expand collections of organics to single family neighborhoods. Consider a pilot project (similar to Chanhassen</li></ul> |

| Natural Environment Area | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | and Hutchinson), to allow for yard waste and organics to be mixed for collection                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Wetlands                 | » Review current ordinances for possible changes that may be needed to implement the Wetland Protection and Management Plan and Water Resources Management Plan. Implement the strategies identified in the Wetland Protection and Management Plan                                                                                                                                                                                                                                                                                                     |
| Water Resources          | » Implement the recommended strategies identified in the Water Resources Management Plan<br>» Partner with Kraemer Mining and Manufacturing (KMM) to establish water quality goals, a healthy lake fishery, protection measures for future drinking water resources, development standards, and to establish shorelines that are naturally shaped and aesthetically pleasing<br>» Continue Sustainable Infrastructure approach in all city street reconstruction or upgrade projects to mitigate runoff issues, both from the road and tributary lands |
| Sustainability           | » The City will consider updating and expanding communitywide it's Sustainability Guide Plan; the updated sustainability plan will look to the future, refine the sustainability initiatives and ideas identified here, and serve to better target and prioritize implementation activities, timelines, and measures of success                                                                                                                                                                                                                        |





## Chapter 6 - Community Enrichment

**VISION:** Community members are actively engaged and have access to quality parks, facilities, programs and services that meet the changing needs of the community and create positive experiences for all.

The City of Burnsville believes that empowering all community members to participate in community activities, volunteerism, learning and decision-making will benefit the entire community. Burnsville will provide quality recreational programs and facilities and support the efforts of other partners to provide cultural, educational, and support services for all community members. Burnsville, in conjunction and cooperation with schools, public/private organizations and institutions will work together to provide the guidance, support, and attention that community members need to be healthy, successful and engaged in the community.



Table of Contents – Chapter 6

Introduction..... 287

Plan Goals and Policies..... 287

Needs Summary ..... 289

    Diverse Community Needs ..... 290

    Youth Needs..... 290

    Senior Needs..... 291

    School Needs ..... 291

    Arts Needs..... 292

Supportive Community Environment ..... 292

City-Led Programs, Services and Events..... 294

    City of Burnsville Parks, Recreation and Facilities..... 294

    City of Burnsville Public Safety Programs ..... 296

    Public Education ..... 299

    Senior Services ..... 299

School Districts..... 299

    Programs, Services, and Events..... 301

    Burnsville-Eagan-Savage - Independent School District 191 ..... 302

    Rosemount-Apple Valley-Eagan - Independent School District 196..... 303

    Lakeville - Independent School District 194..... 304

Community Partners’ Programs, Services and Events ..... 305

Volunteer Opportunities..... 312

Sustainability ..... 313

    Sustainability Measures of Success ..... 315

Table of Figures – Chapter 6

Figure 6-1: School District Boundary Map ..... 300

# Community Enrichment Plan

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## Introduction

Community Enrichment is a non-traditional topic for a Comprehensive Plan; however, it is integral to the fabric of the community. In addition to facilities, infrastructure, services and programs, there are less tangible but significant values that create and maintain community values, sense of place and how people feel about Burnsville. Many Burnsville residents choose to live out their entire lifecycle here. This is because Burnsville provides services, housing options and community amenities that allow residents to stay within the community from young to old – to “age-in-place”.

Community Enrichment includes those things that add value and maintain people’s interest in living, working, recreating and doing business in Burnsville. As the community ages, Burnsville continues to emphasize the importance of safe and enjoyable neighborhoods, quality housing, good schools, local shopping, places to work, recreate and interact with the natural environment.

The City strives to actively engage community members in local government and ensure everyone has equal access to quality parks, facilities, programs and services that meet the changing needs of residents, business, and visitors. An objective of the Community Engagement Plan is to outline Burnsville’s coordinated approach to promote community-wide involvement in a variety of physical, artistic, health building, education, civic, recreation, cultural, and other activities that together build community and form the fabric of the city.

## Plan Goals and Policies

The 2040 Comprehensive Plan establishes the following goals and policies to guide future community enrichment efforts in the community. The six community enrichment goals are high level yet targeted statements of how the community intends to achieve the vision of the Community Enrichment Plan, which is stated on page 1 of this chapter. The six goals encompass the community’s desire for a youth-supportive city and organizational philosophy, community partnerships/joint ventures, innovative recreation programs, senior-oriented programs, and programs that reflect the community’s increasingly diverse population. Each community enrichment goal (CE Goal) is supported by a set of policies that define the City’s preferred directions or methods of action to guide and determine community enrichment decisions.



**CE Goal 1.** Youth find Burnsville a nurturing and supportive community to learn, grow, and participate in recreational and personal development activities.\*<sup>1</sup>

CE Policy 1.1. Support community programs for the professional and civic development of youth, such as career fairs, student internships and mentoring programs.

CE Policy 1.2. Continue to support the efforts of the three independent school districts, the YMCA, athletic associations such as the Burnsville Athletic Club, and other organizations that provide youth athletics and recreation programs within Burnsville.

**CE Goal 2.** The City's organizational philosophy promotes healthy development of all Burnsville youth.

CE Policy 2.1. The City will partner with schools, the business community, and community-based organizations to develop programs and activities for Burnsville's youth.

CE Policy 2.2. Support 360 Communities in their efforts to provide services and programs to families and children.

CE Policy 2.3. Continue to support post-secondary education providers to locate facilities in Burnsville.

**CE Goal 3.** Strong, sustainable partnerships with school districts, YMCA, other community organizations, and businesses maximize joint ventures for a broad range of programs, community services and facilities, meeting locations, learning, job skills training and employment opportunities.\*<sup>2</sup>

CE Policy 3.1. Partner with schools and businesses to offer internship and volunteer opportunities with various City departments to provide youth opportunities to learn and participate with local government.

CE Policy 3.2. Provide and promote volunteer opportunities in the community and recognize volunteers for the services they provide.

CE Policy 3.3. Increase communication and program participation for youth and families, including participation in the community's celebrations.

---

<sup>1</sup> \* Indicates a Goal of Policy that refers to the Council's adopted Ends and Outcomes

<sup>2</sup> \* Indicates a Goal of Policy that refers to the Council's adopted Ends and Outcomes

**CE Goal 4.** Innovative recreation programs result in increased participation.

CE Policy 4.1. Without duplicating existing programs, provide/maintain recreational activities and athletic programs independently or in cooperation with other partners and support/refurbish existing community facilities.

CE Policy 4.2. Actively seek input to identify new recreation trends and to keep program offerings timely, interesting and fun.

**CE Goal 5.** Social, recreational, and educational programs provide opportunities and facilities for senior residents' participation.

CE Policy 5.1 Develop recreational programs, services, and events for seniors that address the differing needs of two segments of the senior population: more active activities for the 50-62 age group and somewhat less active for the 62+ age group.

CE Policy 5.2 Provide educational, recreation and social interaction opportunities that are oriented and accessible for seniors year-round.

**CE Goal 6.** Community enrichment opportunities are created or adapted to meet the needs of the community's increasingly diverse residents.

CE Policy 6.1 Make meaningful connections with diverse populations in the community through active community partnerships.

CE Policy 6.2 Develop more inclusive planning and outreach processes that enable the participation of a broader range of residents in identifying needs, addressing challenges, and affecting improvements in the community's enrichment programs, services, and events.

CE Policy 6.3 Adapt programs, services, and events to meet the lifestyles of a changing community, such as translation of information, childcare provisions, alternative locations/times, etc.

## Needs Summary

Over the last decade, the City has been proactive about assessing the community enrichment needs of its residents through several planning efforts. The following needs were identified through analysis of the 2017 Park & Recreation System Master Plan, 2016 Residential Study, 2016 Senior Survey, and 2013 Youth Needs Assessment. These identified needs may require action on the part of the City, private enterprises, public agencies, or partnerships between them.

## Diverse Community Needs

Burnsville's overall demographics are trending toward a more diverse population that is aging. This relatively recent trend highlights a need for the parks department to continue working on new methods of engagement and communication with these residents. Capturing their needs and desires will help the park system continue to adapt and meet the most needs for the most people.

While the core program areas are currently well-suited to address the programmatic needs of the current population demographic, the City should be mindful of the wide range of income levels among Burnsville families when pricing out program offerings and special events. City Policy should balance cost recovery yet provide programs that are affordable for residents at all income levels.

As the population continues to age, program mix should continue to be regularly assessed to ensure both active and inactive adults at 55+ have program opportunities. As these demographics change, the relative importance of each program area and park infrastructure may evolve as well.

Programmatic changes may involve:

- » Translated materials and websites for residents who do not speak English as their first language
- » Provision of childcare
- » Alternatives/Shifts in program locations and times
- » More inclusive planning and outreach
- » Diversity of staff
- » Diversity of training

## Youth Needs

- » More programming for youth after school including athletic opportunities and supervised play at parks
- » Future programs focused on arts, music and dance
- » More part-time job and volunteer opportunities for youth
- » There is a need for coordinated, yet age appropriate, programming to allow for siblings of varying ages to participate at the same time, at the same place
- » 16 percent of 7th/9th graders surveyed do not always feel safe after school
- » Promote events and programs through schools and on the Internet including social media.



## Senior Needs

- » Provide more recreational programming including a walking group
- » Provide programs that allow for exploring local parks, hiking, and grandparent/grandchild activities
- » Host educational presentations including topics about health and wellness

## School Needs

The City of Burnsville maintains a strong partnership with the Burnsville-Eagan-Savage Independent School District (ISD) 191. ISD 191 geographically covers 73 percent of Burnsville and operates many schools and related facilities in Burnsville. It is also the largest employer in the city. The City and ISD 191 share many of the same constituents and have common interests related to youth activities, programs, and education. ISD 191 is a major land owner and user of municipal services. The vitality of the City and school district are interdependent. School district decisions and issues all have impacts to the City's services, economic development, land use, transportation, parks/recreation and utility functions. For instance, two significant socio-economic changes facing the school district currently are the increasing percentage of students qualifying for free or reduced price lunch (49 percent in 2016/2017 vs. 43 percent in 2012/2103) and the increasing number of students whose first language is not English (school district families speak 84 different languages at home). These changes also have impacts on the City's operations and programs. Similarly, the City's decisions, programs, infrastructure issues, livability and economic viability impact the school district.

With regard to a diversifying and aging population, these factors impact most districts and cities in Minnesota and in particular, the Twin Cities metropolitan area. Demographic projections from the Metropolitan Council and State Demographer indicate that society is becoming older and more diverse. The City views this as a positive opportunity with some service challenges. Each of the school districts provide education and programming to youth from diverse backgrounds and cultures.

The schools provide an opportunity to open communications and provide links to families. Similarly, because schools are located within neighborhoods, they can serve as activity centers that could provide for future elder care, community services, possible business incubator space and/or senior resident programs/services in addition to the current youth education and programs.

Education will continue to be important for the community. Burnsville is home to one of two State Work Force Center's (WFC). Metropolitan State University and Inver Hills Community College have partnered with the WFC in Burnsville to offer classes at the WFC. This very unique partnership

provides higher education at a location that is focused on assisting people to find and keep meaningful employment. Schools of all kinds contribute to the viability and opportunities of those that live in the city. The age groups that comprise student population may also change in the future as more older adults and seniors seek education to learn about new technologies, careers, and life changes. The way schools and cities provide services/programs will change based on the diversifying and aging population. However, continued partnerships to jointly use financial resources and facilities will help meet common objectives.

## Arts Needs

The Ames Center, formerly known as the Burnsville Performing Arts Center, was a central component of the livability for the Heart of the City. When combined with Nicollet Commons Park, the Ames Center was planned to be the central public gathering space for Burnsville. Providing for the arts and theater is a key element for Community Enrichment. This is the place where the community gathers for local events, celebrations and to enjoy cultural activities.

## Supportive Community Environment

Providing a positive, supportive community environment for all people in Burnsville is a major responsibility that requires a long-term community-wide commitment to provide the assets and support individuals need to be successful. The process of learning how to do this requires a network of parents, teachers, City leaders, workers, businesses, neighbors and members of the faith community to educate, train, shelter, nurture, finance, assist and mentor.

Whenever possible, organized programs should be available within neighborhoods (parks, schools, churches etc.), that are accessible to all. Transportation routes and modes (walk, bike, automobile, etc.,) should also be considered and where possible, transit use should be encouraged. Unique programming and venues should be encouraged to teach new skills, promote self-confidence, and spark interest in new and shared experiences.

In addition to organized programming, regular interaction with the public is important. Engaging the public in the civic process through service on City commissions, providing input or feedback through emails, attendance at community events and festivals, open houses, public hearings, new business ribbon cuttings, and school events are all means by which civic interactions occur. The City and many partners including school districts, charitable organizations, health providers, the faith community, Dakota County and others provide direct contact and programs aimed toward educating and assisting residents and business owners to become part of the fabric of Burnsville. All of these entities engage residents to assist them with issues,

become familiar with Burnsville and encourage interaction with neighbors and participation within the community.

As people participate in programs and donate time and energy to civic activities like community gardening participating in community tree planting events, volunteering, attending school events, and enjoying parks and natural areas, they begin to cultivate relationships which build a sense of place. Initiatives promoting increased resident involvement are fundamental for a successful community. Programs that offer interaction between people of all ages, gender, culture, ethnicity and ability should be encouraged to promote better understanding, improved relationships and community involvement which in turn enhances the living, working and natural environment in Burnsville.

To ensure that Burnsville continues to thrive as a supportive community environment for all, the City will need to continue to examine its services and programs so it will continue to meet the changing needs of its increasingly diverse and older residents. To accomplish this, the City will continue to adjust how it approaches development, how it provides services and programs to the public and how it communicates with the residents. Consideration will be given to how diverse members of the community are impacted, can be involved in, and become active stakeholders in the city. If the City successfully creates places, infrastructure, services and reasons for community interaction, it will achieve an open, positive, safe and enjoyable community that will continue to be a place people seek to live, recreate, work and do business throughout their lifetimes.

Schools provide an opportunity in which the City can reach new residents. Children learn languages, meet others, quickly become familiar with local culture, and make friends easily, and kids are often the conduit to parents and older siblings to familiarize them with the new community. Through education and interaction with teachers and neighbors, sense of community and civic relationships tend to take place. The City recognizes the importance of schools and promotes interaction with the schools through police, fire and other staff presentations and interactions with kids. The City will continue to have active communication and interaction with each school district in its boundaries to reach out and educate children and teens about Burnsville. These interactions promote positive relationships with families and open channels to conversations as well as civic participation which are essential for community building. The City can more actively work with school districts and other organizations to reach out to our residents, including youth. This partnership can encourage civic participation and active interactions such as offering volunteer opportunities that expose people to public service and governance matters.

# City-Led Programs, Services and Events

The following is a summary of programs, services and events offered by the City of Burnsville.

## City of Burnsville Parks, Recreation and Facilities

The Parks, Recreation and Facilities Department offers a wide variety of recreational programs, activities and facilities year round that improve the lives of users and residents while enhancing the image of the City of Burnsville. Programs and services are designed to foster social, intellectual, physical and emotional development, promote health and wellness, increase cultural unity, provide a safe environment, support economic development and program facilities that meet the needs of our customers which all contribute to making Burnsville a leading community in which to live, work and thrive. The following services are provided:

- » Coordinate year round recreation programs for all ages
- » Plan community special events
- » Develop parks and trails and promote and create opportunities for use
- » Rent meeting room space in City buildings, athletic fields and parks for events and activities
- » Mobilize volunteers
- » Publicize services

Current community enrichment activities include coordinating movies, music and special events within the parks for the enjoyment of all residents and visitors to Burnsville. Youth and family events occur throughout the summer at Nicollet Commons Park in the Heart of the City including “Rockin’ Lunch Hour” and “Flicks on the Bricks.” Many parks are equipped with amenities such as frisbee golf, pickleball courts, tennis, basketball, skating rinks, indoor and outdoor hockey rinks and a host of other amenities promoting healthy activities. The City also partners with organizations to provide healthy activities such as paddle board rentals for park patrons at Crystal Lake Beach. The City’s Birnamwood Golf Course is open to everyone from youth to seniors. The City programs and coordinates pre-school, youth and adult baseball, softball, soccer, tennis and hockey. The City also provides all day camps including “Kids of Summer,” “Camp Xtreme,” and summer playground programs throughout the community.

## Scholarship Assistance for Youth Recreation Programs

The City offers scholarship assistance program for Burnsville’s youth to participate in the City’s recreation programs. Scholarship assistance is available for all youth programs sponsored by the City including at the Ice

Center and Birnamwood Golf Course. To be eligible for assistance, the participant must be a resident of the City of Burnsville.

### **Community Gardens**

The City of Burnsville offers two community gardens for residents. Gardens are located at Neill Park and Wold Park. Plots are available for use from May through Late October for a nominal fee.

### **Community Events**

The City of Burnsville has a rich history of celebrations and community events that are offered throughout the year. These events have evolved and continue to do so as the community changes.

- » International Festival of Burnsville takes place in July and is a free festival featuring entertainment, food, crafts and festivities representing all corners of the world. The event is full of music, food and fun with an ethnic flare and is held at Nicollet Commons Park.
- » I Love Burnsville Week is held in June and is a week-long celebration and chance to “show the love” for Burnsville. Family friendly events include a 5K race, appliances and electronics drop-off, softball tournament, mountain bike race, senior activities and other activities.
- » Burnsville Fire Muster is held in September and is a long standing multi-day community event featuring a fire truck and community parade, demonstrations by emergency personnel, fireworks, music and a carnival.
- » Halloween Fest is held in October at Nicollet Commons Park. The festival includes an illuminated treat trail, music, activities and more. Families are encouraged to attend in costume.
- » Burnsville Winter Lighting is held in November and is sponsored by the Burnsville Community Foundation. The Heart of the City is lit up each year with more than 200,000 mini lights, 200 streetlight snowflakes and 30-foot tree. The ceremony is held annually the day before Thanksgiving and offers entertainment by local youth choirs and holiday treats.

### **Community Waste Collection & Recycling Events**

The City sponsors two community-wide waste collection and recycling events in the spring and fall of each year. The City also coordinates the annual City-wide garage sales for homeowners.

### **Senior Recreational and Educational Programs**

The City offers a variety of recreational, educational and social programs for seniors 62+ such as seasonal nature walks, public safety workshops including scams/internet safety, fire safety, and police forensics, and other workshops on home care, decluttering and aging in place. The City also offers recreational and social programs and events to encourage seniors to maintain active lifestyles and meet others who share similar interests.

Examples of senior-oriented activities include pickleball, a Valentine's Day event (Chocolate and Hearts), and the Spring Aging & Wellness Expo.

### **Ames Center**

In 2009 a performing arts center opened in the Heart of the City. The facility, now called the Ames Center, serves as a hub for culture and arts in the community. With its modern building design and park for a front yard, this facility is regionally recognized as a premiere facility for various performing arts as well as artistic media which can be found in the center's art gallery. This public building provides for a multitude of experience from music, to comedy, to dance, and theater. It is utilized by performers who attract a very broad range of ages and cultures on a regular basis. It is also a community center with space that can host various public and private events.

## **City of Burnsville Public Safety Programs**

The Burnsville Fire and Police Departments coordinate a variety of programs and services to provide a feeling of safety and security of the community.

### **Events**

#### **Citizens Academy**

The 11-week program helps to familiarize the public with common police procedures and form lasting relationships with the officers who serve their community. The Academy is offered annually. Only able to accommodate a certain number of residents, the program is at maximum capacity most years.

#### **Night to Unite**

Neighborhoods are invited to join together to heighten crime and drug prevention awareness, strengthen neighborhood spirit and police/community partnerships. Burnsville has participated in this national event for over 20 years. With approximately 100 parties visited by police, fire, and other city staff annually.

### **Services/Programs**

#### **Neighborhood Block Captains – Neighborhood Watch**

Officers are assigned to a neighborhood in their patrol areas to build relationships with block captains and better facilitate communications concerning neighborhood issues. In 2016, there were 120 active neighborhood block captains in Burnsville.

#### **Mobile Volunteer Network**

Mobile Volunteer Network (MVN) is a 48-member volunteer group that helps out at community events throughout the year and is ready to help public safety and emergency personnel at a moment's notice in the event of an emergency or disaster. The MVN participates in programs such as the Burnsville Heart Restart, which is a program to train 6,000 people in



Burnsville on how to provide CPR. The trainings are offered at churches, businesses, local community groups and in private residences.

### Community Resources Unit (CRU)

The Community Resources Unit (CRU) is a crucial part of police operations. CRU officers work to keep residents feeling connected to their neighborhoods through community building, partnerships and collaborative efforts in problem solving. The CRU works with apartment managers, rental unit owners, tenants, group homes, youth, neighborhoods, support to both the patrol and investigations divisions and with City Code Enforcement.

### Crisis Intervention Team (CIT)

The Crisis Intervention Team (CIT) was created to provide training for police officers for responding to individuals with mental illness. Crisis intervention gives frontline officers the tools to better communicate with people who may be experiencing a mental health crisis.

### Safe Routes to School/Walk to School Day

In 2011, Burnsville police and public works staff met with school officials to develop a “safe routes to school” program for Echo Park Elementary. The program includes custom signs the City posts (with the school’s penguin mascot) along the safe route. The school promotes the program to students and parents. The safe routes are maintained by the City all year around so kids can safely get to school. The City and school districts work together to plan safe routes which is promoted annually on Walk to School Day. Additionally, the City, in collaboration with its school districts, promotes International Walk to School Day - a global event where communities from over 40 countries walk and bike to school on a single day. Walk to School Day is observed every October.



### B.L.U.E. in the School Program

B.L.U.E. stands for “Building, Learning, Understanding, Educating” and is an innovative program initiated in 2005 by the Burnsville Police Department where neighborhood police officers are assigned to each elementary school in the city. B.L.U.E. in the School is a departmental and school district program in which officers interact with school children and teachers during the year and at special school events. The goal of the program is to develop a law enforcement connection with students, teachers and staff within our schools. This connection is achieved with weekly visits by officers to the elementary schools located within their patrol areas. By developing these relationships police officers become a resource for school staff while building foundations for the future with students through positive interaction. These interactions with grades K-6 have been achieved by:

- » Greeting students to and from buses
- » Walking the hallways
- » Giving classroom



- » Patrolling crosswalks presentations
- » Eating lunch with students » Attending teachers' meetings
- » Reading to students » Chaperoning school events
- » Attending recess » Advising staff

### Twelve Days of Christmas

Police Officers provide special gift bags to local families in need during the holidays.

### Police Department Car Seat Checks

The City has several officers that attend continuing education and training to be certified as Child Passenger Safety Technicians. Residents can schedule an appointment for a car seat check. Appointments are offered on a monthly basis.

### Fire Department Annual Open House

The Fire Department hosts an annual open house where residents are invited to come to the fire stations to learn about the department in a fun, family-friendly environment. During the event the public can see fire, rescue and paramedic equipment and vehicles and can visit with fire fighter/paramedics who serve their community.

### Alcohol & Tobacco Compliance

The Police Department hosts training events for businesses and vendors in an effort to help educate point-of-sales employees in stopping alcohol and tobacco sales to minors.

### Commercial Vehicle and Traffic Enforcement

The Police Department works closely with school bus companies that operate within Burnsville in an effort to identify and prosecute drivers who violate the school bus stop arms. The City is also committed to reduce speeding in Burnsville in addition to targeting patrols to problem areas of the community.

### Domestic Abuse Response Team (DART)

Domestic violence is a pattern of behavior used to exert power and control over another person through fear, intimidation, violence, sexual assault or psychological attacks. Domestic violence is far reaching, affecting not only the victim, but other family members, including children who may witness the abuse. Burnsville Police are committed to continued efforts in providing education on the patterns of domestic violence and how to be protected from further violence.

### Burnsville Beyond the Yellow Ribbon

Beyond the Yellow Ribbon is a nonprofit entity working in partnership with the City to offer a comprehensive program to connect service members and their families with community support, training, services and resources.

## Public Education

The Burnsville Fire Department offers the following programs and activities:

- » *Juvenile Fire Setter Program.* This program provides counseling and follow-up to children suspected of starting fires or playing with fire.
- » *Fire Safety Training for Youth.* The Fire Department provides fire safety training to youth in elementary schools and delivering fire and safety presentations to kindergartners, second and fourth graders.

## Senior Services

Community Development Block Group (CDBG) funds are used in partnership with the Dakota County Community Development Agency (CDA) for projects for senior residents providing Appliance and Furniture Removal Program funds and Dakota Area Resources and Transportation (DARTS) Chore Services to assist with snow removal and yard maintenance.

## School Districts

The City of Burnsville is served by three public school districts:

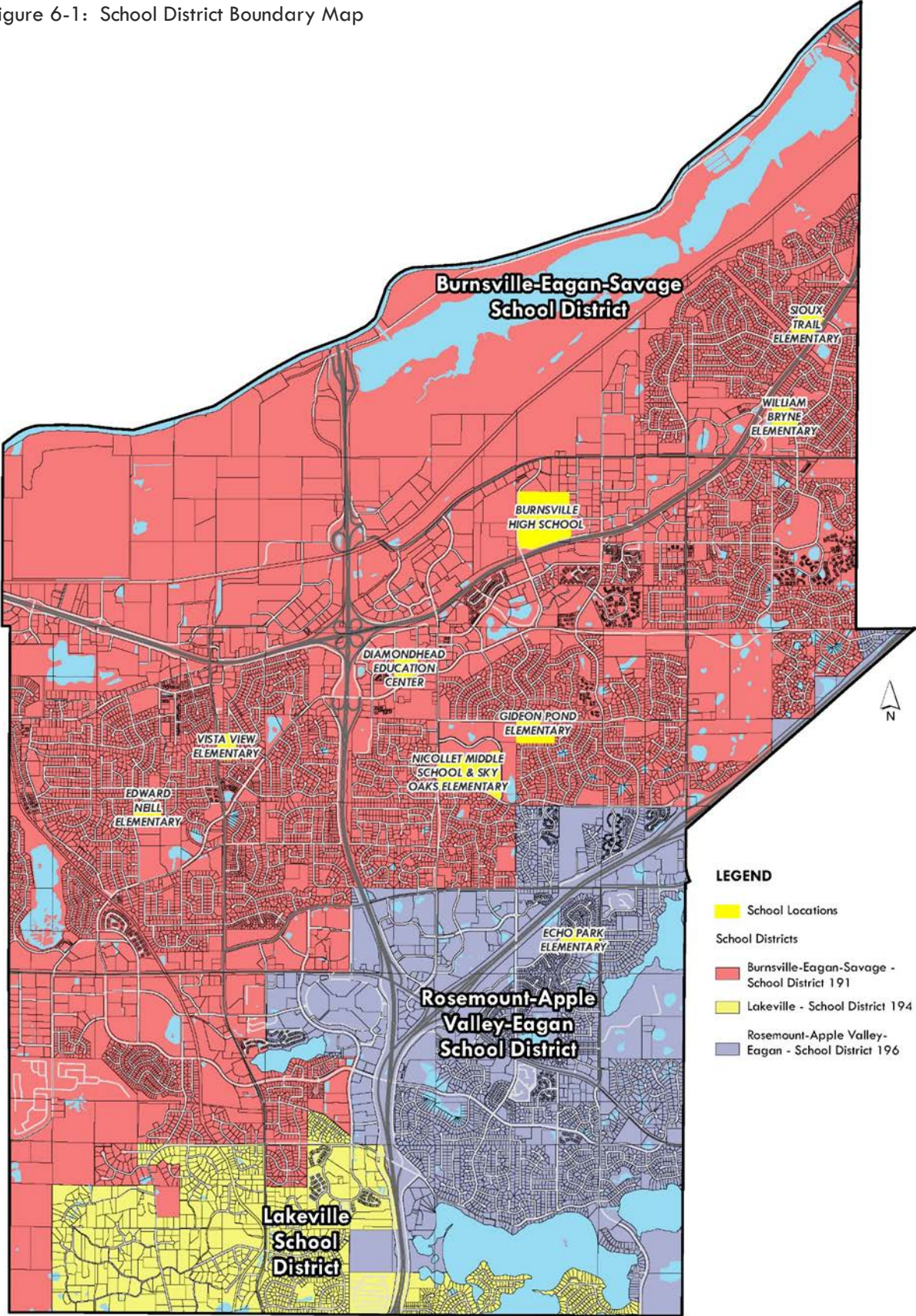
- » Burnsville/Eagan/Savage Independent School District 191
- » Lakeville Independent School District 194
- » Rosemount/Apple Valley/Eagan Independent School District 196

The school district boundaries are shown on Figure 6-1 on the following page. ISD 191 is the largest district in Burnsville and covers 73 percent of the city. ISD 196 is the second largest school district in Burnsville covering 19 percent of the city. ISD 194 is the smallest district in the city covering 8 percent of Burnsville.

Burnsville's three school districts offer educational programs and a majority of the public services for Burnsville's youth. The City recognizes that the viability of schools is directly related to the viability of the community and local economy. As such, the City supports each of the three districts. Schools are more than buildings where students receive education. Schools, to a major extent, define Burnsville's sense of place for many people. Students, parents, organizations and businesses relate their neighborhoods, city and many community experiences with schools. Athletic events, plays, concerts, parent/teacher conferences and the large number of educational programs/school functions bring residents together, provide a sense of pride and association and can rally the community around a certain event or issue. The City considers partnerships with all of the school districts fundamental to the community structure and success. Joint programs, use of facilities, operations, and communications efforts are welcomed and encouraged by the City.



Figure 6-1: School District Boundary Map



Based on the recent and projected trends for Burnsville's demographics, school enrollment numbers have been and could continue to be challenging in the school districts serving Burnsville. As an almost fully developed community with an aging population, school districts could experience continued decreases in the number of households with school-age children. Future growth will be dependent on families moving into the homes of aging residents who will move into new housing oriented to the preferences of senior residents. To attract new families to Burnsville, it will be important for the community to offer high quality and competitive schools, job opportunities, and quality of life amenities, e.g. convenient parks, businesses, and walkable destinations to neighborhoods. Additionally, due to Minnesota's school choice program which allows students to open enroll into districts outside of their boundaries, it is critical that Burnsville's school districts stay focused on understanding families' needs and preferences for school programs and are able to keep Burnsville families in the community's schools rather than losing them to neighboring school districts.

## **Programs, Services, and Events**

Community enrichment activities that involve City relationships with the school districts are identified below:

### **Burnsville Promise Initiative**

The Burnsville Promise initiative started in 2016 to address the growing need for having a skilled workforce as a retention and attraction tool for business. The mission is to ensure all Burnsville students pursue post-secondary education and secure meaningful employment.

### **School Resource Officers Program**

The City partners with School District 191 by placing police officers at the high school. The officers work with school staff to update safety and security plans in the schools and build strong relationships with students. The officers regularly conduct presentations in classrooms on topics such as bullying, social media, theft prevention, chemical use, violence and career exploration.

### **Burnsville ISD 191 High School Addition**

In 2016, remodeling and site improvements were completed at Burnsville High School. Building expansions created additional space for physical and health education, computer sciences, community locker rooms, gym space, weight room and dance studio. This part of the expansion was designed to accommodate both student and community needs. The One91 Activities Center, which opened in 2017, offers memberships, daily use, fitness classes and recreational leagues for the public. Facilities include an indoor walking track, cardio room, weight room, dance studio, and gyms for open use, league play and user groups.

### **Burnsville Community Television (BCTV) Studio**

In partnership with ISD 191, the Burnsville Community Television studio is located at Burnsville High School. Public, Education and Government (PEG) cable programming allows students and volunteers to participate in the video production process.

The City collaborated with ISD 191 and a private telecommunications infrastructure company by sharing costs to extend City fiber optic cable into Burnsville high school to deliver IT services to the studio and police officers at the high school, and provide an alternate Internet path for ISD 191. Community members are welcome to schedule time in the BCTV studio to film and edit educational programming or to take part in a television production class. The facility includes a 976-square foot studio with a green screen, tele-prompters, a high-end control room, editing stations, and set storage. BCTV also provides equipment check out for individuals or groups wishing to film in an off-site location.



### **Burnsville-Eagan-Savage - Independent School District 191**

ISD 191 serves the majority of the city and is Burnsville's largest employer with almost 1,400 employees. It operates ten elementary schools, three middle schools, one traditional high school, and one alternative high school program.

ISD 191 is the 17th largest district in Minnesota and 14<sup>th</sup> largest district in the Twin Cities metropolitan area (based on student enrollment). The district's student enrollment numbers have been steadily declining since the 2001-2002 school year and the most recent projections show this decline continuing out to the 2022-2023 school year. In 2016-2017, the district had 8,870 students with projections showing a decline to 8,065 students by 2022-2023.

This enrollment decline has been attributed to the increase in the average age of the community's population. As families in Burnsville continue to move through the typical lifecycle, the number of homes that contain school age kids continues to decline. Many residents have chosen to stay in their homes which means fewer homes have school age kids and the availability of housing for attracting new families can be limited in a fully developed community. In addition, students are able to choose what school they attend due to Minnesota's open enrollment law. ISD 191 has been experiencing an increase in resident students choosing to attend a school outside the district, with the Rosemount - Apple Valley – Eagan and Prior Lake-Savage districts being the most popular choices. ISD 191 has initiated a number of efforts to decrease this outflow of resident students. All school buildings within ISD 191 have been constructed or completely renovated since 1995.

In 2015, two referenda were approved by voters in the school district. A \$65 million building bond allowed the district to reconfigure grade levels into K-5 elementary schools, 6-8 middle schools and a 9-12 high school,



and included \$52.5 million for expansion of the high school to accommodate a larger student population, including additional classrooms and a new athletics and activity center. A ten-year, \$2.5 million annual technology levy allows the school district improve its technology resources for students and develop district-wide technology equity. As a result, ISD 191 is in the midst of a major redesign called "Vision One91" that encompasses its buildings, programming, technology and more. This major initiative is aimed at preparing the district's students to be "Future Ready and Community Strong."

Current district policy is that all Kindergarten through 6<sup>th</sup> grade students who live one mile or more from school, and secondary students who live 1.5 miles or more from school, shall be transported. The district provides school bus transportation for students and will drop them off at child care facilities that are located within the student's school attendance area with parental approval. The district also offers bus transportation for students to St. John the Baptist Catholic School (located in the City of Savage) and to other private schools within the boundaries of ISD 191 as part of a "pay-to-ride" program.

ISD 191 participates in the College in the Schools (CIS) program through the University of Minnesota - Twin Cities (U of M). Through the CIS program, high school junior and senior students are able to take a U of M course at their high school. Burnsville High School currently offers 13 courses that qualify for college credits with the student's grade actually recorded on an official U of M transcript. Students receive U of M credits that are also recognized by many other colleges and universities. Burnsville High School has been the top high school in the CIS program with the highest number of college credits achieved. This translates into significant cost savings for Burnsville High School students when they enter college.

### **Gifted & Talented Institute**

The Burnsville-Eagan-Savage School District 191 offers a summer Gifted & Talented Institute where students from several area school districts attend. Students entering grades 1 through 8 can choose from a wide variety of classes such as web design, animation, music composition and theory, games of skill and logic, science, world languages and more. The institute is supported by fees paid by parents and grants. The institute is a collaboration of four south metro school districts: Burnsville-Eagan-Savage, Lakeville, Rosemount-Apple Valley-Eagan, and Prior Lake-Savage.

## **Rosemount-Apple Valley-Eagan - Independent School District 196**

Located in the southeast portion of Burnsville, ISD 196 is the second largest school district by area serving Burnsville. According to ISD 196, the district encompasses 110 square miles and includes all or part of seven cities (Rosemount, Apple Valley, Eagan, Burnsville, Lakeville, Inver Grove Heights,

Coates) and the townships of Empire and Vermillion. ISD 196 serves approximately 28,000 students and is the fourth largest school district in the Twin Cities metropolitan area as well as the state. While the school district's enrollment experienced slight declines from 2007 to 2013, it has more recently seen slight growth each year. Some of the top employers in ISD 196 are located in Burnsville, including Burnsville Center and Fairview Ridges Hospital.

District 196 has 19 elementary schools (grades K-5), including five elementary magnet schools that focus on arts and science, international studies, leadership, and STEM (science, technology, engineering and math); six middle schools (grades 6-8), including one magnet school; four high schools (grades 9-12); an optional School of Environmental Studies at the Minnesota Zoo for juniors and seniors; an Area Learning Center alternative high school for those more successful in a non-traditional setting; a K-12 special education school for students with emotional and behavioral disabilities (Dakota Ridge), and a special education school serving young adults ages 18-21 (Transition Plus).

District 196 Community Education is part of ISD 196, serving the cities of Apple Valley, Burnsville, Coates, Eagan, Inver Grove Heights, Lakeville, and Rosemount, and the townships of Empire and Vermillion. Community Education is a philosophy of education that provides a process of identifying community needs and community resources and matching the two together to promote the total development of the individual and of the community. This program creates the opportunity for local residents, community schools, agencies and institutions to become active partners in addressing education and community concerns. Community Education embraces the belief that education is a lifelong process. It expands the concept of education from kindergarten-grade 12 to all community members, such as early childhood programs, after school and youth enrichment programming, adult enrichment classes, and swim lessons.

## **Lakeville - Independent School District 194**

The Lakeville School District covers the smallest area of Burnsville. It primarily serves southwest Burnsville and the neighborhoods located along the south shore of Crystal Lake. ISD 194 covers 86 square miles within Dakota and Scott Counties. The District serves Lakeville, parts of Burnsville and Elko New Market, and three townships (Eureka, Credit River and New Market). The student population has doubled in the past decade to over 11,100 students and is expected to approach 15,000 over the next 20 years.

There are eight elementary schools (grades K-5), three middle schools (grades 6-8), two high schools (grades 9-12) and an Area Learning Center for students in grades 8-12. The District's second high school, Lakeville South High School opened in the 2005-2006 school year. ISD 194 closed Crystal Lake Elementary in 2011.

Student enrollment is expected to increase in ISD 194 over the long term (the next twenty years), based on continued development within the district. Depending on population growth and the extension of the Metropolitan Council's Metropolitan Urban Services Area (MUSA) sanitary sewer line, the District will recommend changes to its school capacity as needed. ISD 194 is making every effort to avoid overbuilding and continues to exercise caution in making long term plans for new facilities. All school buildings have had repair or improvement projects recently. All buildings provide instruction for computer literacy, access to technology and the internet. The district has installed a number of technology upgrades including a fiber optic network.

ISD 194 offers students a full and varied curriculum with focus for older students on math, technology, media, and science. Preschool, early childhood family education, before and after school care and general youth and adult classes are offered through community education. Family literacy, youth enrichment programs and special education with a wide range of service delivery models are offered including: home-based services for infants and toddlers and a variety of school-based services both within the school district and through Intermediate School District 917. Lakeville District 194 provides unique programming options for students with Autism Spectrum disorders, emotional or behavioral disorders, developmental cognitive delays, and early childhood special education.

The Lakeville School District's Community Education program was initiated in 1972. It was inspired by the philosophy which held that school facilities should be open to communities beyond the normal school day because of their value in community building and because they belonged to the taxpayers. The birth of community education was also inspired by the feeling that education is not just for children aged 5 to 18; but education is for people from the "cradle to the grave" and public schools have a responsibility for educating all ages.

## Community Partners' Programs, Services and Events

There are a multitude of organizations, churches, clubs and businesses that provide activities, programs and services in the community; it is not possible to name all entities. The following is a sample of programs and activities provided by community partners for the City of Burnsville:

### Safe Summer Nights

An annual event where the Burnsville Police, Fire Department and Dakota County Sheriff's Office showcased several aspects of police equipment to community members. The event is held in a local neighborhood.

### **Dakota County Drug Task Force (DCDTF)**

Dakota County Drug Task Force (DCDTF) continues to focus law enforcement efforts on individuals involved in the sale, distribution and use of illegal narcotics. The task force consists of 17 active agents (licensed police officers and deputies) from the Apple Valley, Burnsville, Eagan, Farmington, Hastings, Inver Grove Heights, Lakeville, Mendota Heights, Rosemount, Savage, South St. Paul and West St. Paul Police Departments, and Dakota County Sheriff's Office. By combining resources and experience, the task force has become one of the most effective drug task forces in the state, often viewed as a model for multi-jurisdictional cooperation. Its goal is to protect residents by targeting both street-level user/dealers and large-scale manufacturing/distribution incidents, and providing community outreach through education.

### **Community Emergency Response Team (CERT)**

Burnsville fire and police personnel work collaboratively with Richfield Police Department and Bloomington Public Health to offer training to 25 residents from various communities.

### **Baseball Association 191**

Baseball Association 191 is a non-profit sport and recreation club that was incorporated in 1988. This organization provides competitive baseball for Burnsville youth ages sixteen and older. The teams are known as the Burnsville Rattlers, Pythons, Cobras and Combats.

### **Black Dog Swimming**

Black Dog Swimming is a non-profit year-round competitive swim team offering high-quality, professional coaching and technique instruction for all ages and skill levels for more than 40 years. Goals are to encourage swimmers and families to have fun while developing a high level of self-esteem, goals, sportsmanship, physical fitness, and a positive outlook. Practices are run out of the Burnsville school district pools located at Burnsville High School and Eagle Ridge Junior High.

Membership is open to any swimmer age six to twenty-five who has minimal proficiency in any of the four competitive strokes.

### **Burnsville Athletic Club (BAC)**

The Burnsville Athletic Club (BAC) is a volunteer based non-profit organization dedicated to the development of the community's youth through sports. The BAC provides sports supervision and administration for youth athletic activities. In-house sports are open to all members or families residing within the boundaries of ISD 191. In-house league play is limited to play within the teams of the BAC and concludes with a tournament. Traveling sports require try-outs, are competitive level and typically participate in games and tournaments throughout the Twin Cities metropolitan area.

### **Burnsville Youth Hockey (BHC)**

Burnsville Youth Hockey (BHC) maintains a “one of a kind” training center, which is located directly across from the Burnsville City Hall. Individual players or teams may utilize the training center for various “off-ice” training including shooting cages, strength training equipment and mini floor hockey. BHC offers youth hockey leagues for girls and boys; it is a non-profit endeavor utilizing volunteers and parents to help staff events, tournaments and district playoffs.

### **Burnsville Work Force Center**

Located on County Road 42 in the Southcross Business Park, the Burnsville Workforce Center (WFC) is one of two WFCs located in Dakota County. Services include job training, job searching assistance, resume writing, and classes. Interview assistance, job counseling, and state employment training access are also available to qualified individuals. This WFC is unique because it offers classrooms space for Metropolitan State University and Inver Hills Community College. The goal of both organizations are to provide resources and education for those seeking to reach fulfilling employment.

### **360 Communities (<https://www.360communities.org/>)**

360 Communities supports communities from 50 locations throughout Dakota and Eastern Scott Counties. 360 Communities continues to be increasingly active in the community to build strong families and communities through services that prevent violence, ensure school success, and promote long-term self-sufficiency and families that struggle with financial difficulties, underemployment, domestic violence, addictions, mental health, and lack of parenting skills, unstable housing and cultural barriers. Programs and services of 360 Communities that provide support within the City of Burnsville include:

- » Community Education Speaking Engagements
  - Annually, over 450 Burnsville residents are served through community education with topics including sexual assault services, domestic violence, intervention prevention and new American services.
- » Violence Protection
  - 360 Communities provides the only 24-hour safe homes for women and children in Dakota County, called the Lewis Houses.
- » Partners for Success in Schools
  - School-based family support workers link families with 360 Communities services and other resources that prevent violence, ensure school success and promote long-term self-sufficiency.
- » Armful of Love
  - Annually, the Armful of Love holiday giving program matches 670 Burnsville families and 1,600 families agency-wide, in need with sponsors who bring joy to the season of giving.

- » Early Childhood: An Ounce of Prevention
  - Participating families receive home visiting services from pregnancy through age four to nurture and support the parent/child relationship and develop parenting skills.
- » Volunteers
  - Annually, hundreds of Burnsville 360 Communities volunteers donate their expertise and time to strengthen the Burnsville community and carry out the 360 Communities mission.
- » Long-Term Self-Sufficiency
  - Family resource centers in neighborhoods throughout Dakota County provide families in crisis with immediate help while focusing on finding long term solutions to prevent future crisis and promote long-term self-sufficiency.

### Burnsville Youth Collaborative

The Burnsville Youth Collaborative (BYC) began in the fall of 2014 and exists to provide leadership for local organizations to partner with youth to develop, empower, and prepare them for success. The goal of BYC is to bring out-of-school time opportunities to youth in Burnsville to continue to meet the growing needs in the area. An after-school program is offered at three middle schools - Nicollet, Metcalf and Eagle Ridge - targeting students in 6<sup>th</sup> to 8<sup>th</sup> grades to provide academic and enrichment activities. The program, transportation and a meal are all available to students at no cost. While the after-school program at Nicollet Middle School has been in place since its move from the City of Burnsville's "The GARAGE" in 2016, the programs at Metcalf and Eagle Ridge began in 2017. The program utilizes staff from both the School District and YMCA along with partners from the Burnsville area. The partners include the City of Burnsville, ISD 191, District 191 Community Education, the Burnsville YMCA, and the non-profit organization Twin Cities Catalyst Music.

### YMCA

The YMCA is a nonprofit social services organization dedicated to building strong kids, strong families and strong communities. It is for people of all faiths, races, ages, sexual orientations, abilities, and incomes. Caring, honesty, respect and responsibility are the foundational values of all YMCA programs and services. The Minnesota Valley YMCA located in Burnsville offers the following amenities: indoor pool, water feature, whirlpool, sauna, swim lessons, gym, fitness center, running/walking track, group exercise, personal training, active metabolic training, Pilates classes, drop-off child care and a teen center.



### The Garage

The GARAGE was formerly the City of Burnsville's youth recreation, afterschool program and all-ages music venue. In 2016, the City Council turned The GARAGE weekend music program over to Twin Cities Catalyst





Music, (TCCM) and moved the afterschool program to Nicollet Middle School. The afterschool program is now managed by the BYC through an agreement with ISD 191. TCCM is a non-profit organization and leases The GARAGE from the City. The GARAGE, while operated by a non-profit organization remains an all-ages, alcohol-free music venue and is a place where young people can perform, see and open for touring artists, train in event projection, record music, and practice arts journalism. It's also a place for youth to develop knowledge and skills from artists and industry professionals. In addition to shows featuring local and national artists, The GARAGE also hosts various programs such as Garage Music News, a youth-run music magazine that gives young people a voice. Music Industry workshops are offered in areas such as social media, artist management, graphic design, music journalism and concert videography. Internships are available in event booking, live sound production, music journalism, concert photography and graphic design.

### **Other Youth Engagement**

The city has other youth-oriented facilities including a skateboard park located adjacent to The GARAGE; Birnamwood Golf Course, a par 27 course where junior and adult golf leagues, clinics and other events are held; parks with playgrounds and other recreational facilities for youth; Nicollet Commons Park with water features, and community activities; active and passive athletic fields; the Burnsville Ice Center; community gardens; beaches and trails.

City youth leadership opportunities include a Youth Advisory Board consisting of 13 members who meet monthly to plan and provide a voice for students to express their interests and plans for programming. The City provides opportunities for youth representatives on City Parks & Natural Resources Commission and Comprehensive Plan Advisory Committee.

The City hires youth as interns, warming house attendants, Kids of Summer, and park staff among others. This not only provides good experience for youth but is valuable because it showcases how youth add value and positively influence our community.

### **Burnsville Community Foundation**

The Burnsville Community Foundation is a non-profit organization founded in 1998. Its mission is “to create and provide art and amenities in the City of Burnsville. The Foundation has sponsored, commissioned, developed, and funded numerous public art projects and community amenities in Burnsville. Through the Foundation people can purchase engraved pavers in Nicollet Commons Park, contribute to public art and sculpture projects, contribute an architectural bench or refuse container for public space, adopt a snowflake and support Winter Lighting in the Heart of the City.

### **Burnsville Historical Society**

The Burnsville Historical Society is an all-volunteer group dedicated to telling Burnsville's story in a way that engages folks of all ages. This is a creative online historical society that also puts on exhibitions at Burnsville's Ames Center.

### **Burnsville Lions Club**

The Burnsville Lions Club has been in existence since 1966 and has raised money and donated much to the City and the community. Some donations included: an electronic scoreboard at Pates Stadium and Burnsville High School, monetary pledge to the Minnesota Valley YMCA building in Burnsville, equipment purchases for the police and fire departments, giving flowers on Valentine's Day to residents of area nursing homes, construction of the Burnsville Lions Playground at Cliff Fen Park, and programs supporting summer camps for the disabled, various hearing, sight and service dog providers and other charitable activities, programs and events.

### **Burnsville Rotary Club**

The Burnsville Rotary Clubs have been active in the community and provide scholarships to Burnsville High School students. Participation in Rotary is so high that there are two Rotary Clubs: the Noon Club and the Breakfast Club. The Rotary Clubs also sponsor activities such as park clean-up and the Interact Club at Burnsville High School, which is a group of students aimed at serving the community and being actively engaged in the Rotary.

### **Burnsville Senior Center**

The Burnsville Senior Center is located at the Diamondhead Education Center and is a vibrant hub of activities and resources for local seniors. The Senior Center is operated by the ISD 191, and invites older adults to become members and take part in activities such as senior workshops, wellness seminars, defensive driving, coffee talks and more.

### **Dakota Area Resources and Transportation for Seniors (DARTS)**

Dakota Area Resources and Transportation (DARTS) provides a network of valuable information and resources to people of all ages and foster the health of the community by helping people remain active and connected to one another. DARTS provides easy, affordable, and personalized ride options for individuals and groups. Programs include housekeeping services, outdoor chores, handyperson service for household tasks and home modification assessment and construction services for increased mobility and accessibility.

### **Volunteer Organized Seminars (VOS)**

Volunteer Organized Seminars (VOS) is a group of volunteers who organize seminars for parents throughout ISD 191. The group's goal is to provide seminars that will support parents in their efforts to raise well-educated, responsible children.

### **Boy Scouts of America**

Boy Scouts of America is a non-profit organization, and the Burnsville Boy Scouts of America are part of the Northern Star Council. Boy Scouts provide a number of activities in Burnsville including: Scouting for Food (last Saturday every April) and Friends of Scouting fundraising drive. They also participate in patriotic events, flag ceremonies, and government meetings.

### **Girl Scouts of the USA**

Girl Scouts of the USA is open to all girls, ages 5-17 and all adults aged 18 who meet certain criteria. Burnsville is part of the Girl Scouts of Minnesota and Wisconsin River Valleys Chapter. Girl Scouts has four program age levels designed to meet girls' developmental, educational, emotional, and social needs as they grow.

### **Dakota County Library**

Dakota County operates nine libraries within the County. The Burnhaven Library is located at 1101 West County Road 42 in Burnsville. A number of programs are offered by the Dakota County Library system for people of all ages. Parents learn how to foster early literacy skills to prepare their children for learning to read. Librarians answer questions about books and library services, and teach parents how to interest their children in books.

Some of the youth oriented websites that are provided relate to help with homework, internet safety, great reads, cool links, hot happenings and resources for parents and teachers. InfoTrac sites are designed for different age groups and search magazines, newspapers, and reference books for information on current events, the arts, science, popular culture, health, etc. Junior Reference Collection provides homework help in biography, literature, history, science, and multiculturalism and includes primary documents and full-text magazine and newspaper articles. The Opposing Viewpoints Resource Center provides a complete one-stop source for information on controversial social issues and access to viewpoint articles, topic overviews, statistics, primary documents, links to websites, and full-text magazine and newspaper articles. World Book Online includes all articles from the print version of the encyclopedia and dictionary, plus additional articles, updated monthly.

### **South of the River Recreators (S.O.R.R.)**

South of the River Recreators (S.O.R.R.) provides adult athletic leagues (ages 18 years and older) and a variety of sports activities including: broomball, kickball, dodge ball, and soccer. S.O.R.R. coordinates league play with municipal parks and recreation departments from Burnsville, Lakeville, Apple Valley, Eagan, Farmington, Savage and Rosemount. Eligible players must live or work full-time in the communities south of the Minnesota river. The cities provide access to the facilities, fields, and beaches, post schedules, provide game weather status, and post information on websites and perform administrative functions. S.O.R.R. also provides two family events throughout the year. Adult leagues and

programs including hockey, kickball and bocce ball are offered in addition to family programs, and running events.

### **Youth Athletic Associations**

A key goal of the City's Recreation Department is to provide a rich variety of recreational opportunities to youth in the most efficient manner possible. To achieve this goal, the City emphasizes partnerships with volunteer organizations to plan, organize and implement youth recreational programs both as a means of containing service costs and as a method of enduring a community-based program. Further discussion of these organizations follows in the Community Partners' Programs, Services and Events section of this Chapter.

## **Volunteer Opportunities**

The City of Burnsville has a long history developing and maintaining partnerships with residents, organizations and other agencies to provide services and develop unique ways to resolve issues and address community problems. The City believes that volunteerism helps to foster a sense of community pride, bring people out of their homes and businesses, become involved with neighbors, feel good about their community, and encourage them to make the city a better place to live, work and play. By encouraging more volunteerism and providing civic opportunities, the community will increase the number of people who have the ability to easily transition into leadership roles community-wide.

The volunteer network for the City is a source of community pride and demonstrates the strong level of commitment residents have to their city. Volunteers provide an invaluable resource to the community and are highly respected by City officials and staff for their assistance and efforts in a host of public service areas. The City has a variety of volunteer opportunities available from one-time events such as the International Festival to group efforts such as Adopt a Park, commissioner roles, and ongoing in-house volunteer options such as document imaging at City Hall. There are more than 460 people who volunteer their services and contribute thousands of hours of time each year to the City. Volunteers are instrumental in the City's ability to provide services efficiently.

In addition, there are many volunteer opportunities for people of all ages and abilities offered through organizations, agencies, schools, and faith communities within the city:

### **360 Communities**

360 Communities has a network of five food shelves, two domestic violence shelters, resource centers and programs that support school success from birth through high school graduation.

## **Dakota County**

Dakota County offers a variety of volunteer opportunities including walking group leaders, wetland health evaluation and more.

## **DARTS**

DARTS is an organization that connects people to services and partnerships that improve their quality of life, help people age well, and enable people to engage in their communities. Volunteer opportunities include yard work, snow shoveling and other important activities that help people remain in their own homes.

## **Mobile Volunteer Network**

The Mobile Volunteer Network (MVN) is a 48-member disaster preparedness group that helps out at community events throughout the year and is ready to assist public safety and emergency personnel at a moment's notice in the event of an emergency or disaster. The MVN participates in programs such as the Burnsville Heart Restart, which is a program to train 6,000 people in Burnsville on how to provide CPR. The trainings are offered at churches, businesses, local community groups and in private residences.

## **Lake Water Quality Monitoring**

The City also works with lake homeowner's associations, residents and other agencies to improve and monitor the water quality in area lakes. Monitoring by resident volunteers takes place within eight community lakes where volunteers gather water clarity data every two weeks from April to October.

# **Sustainability**

Burnsville's community enrichment program envisions an organized, interactive partnership between the government and its residents. This partnership is a critical component in the pursuit of sustainability. It is more than just a democratic ideal; community involvement is essential to the effective implementation and maintenance of sustainability programs. Public participation fosters a sense of ownership, increasing the level of investment in a program's successful outcome. This inclusive approach to policymaking utilizes the broad diversity of ideas and abilities a population offers. It anticipates roadblocks, and allows for proactive, constructive solutions. Taking the time to cultivate authentic community engagement will deliver "triple bottom line" results: sustainability that impacts economic prosperity, environmental quality, and social equity. Moreover, Burnsville strives to understand and improve the interaction between economic systems, ecological systems, and societal needs.

| Sustainability Area                                                                                                             | Community Enrichment Sustainability Approaches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Energy Reduction                           | <ul style="list-style-type: none"> <li>» Publicly recognize and reward successful sustainability projects</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <br>Sustainable Water Supply                   | <ul style="list-style-type: none"> <li>» Continue hands-on activities, including education/ field trips that support learning about wastewater, stormwater, watershed, energy and other issues related to conservation</li> </ul>                                                                                                                                                                                                                                                                                                                                             |
| <br>Waste Reduction                            | <ul style="list-style-type: none"> <li>» In conjunction with local civic organizations and other communities, continue to organize periodic Zero Waste Days</li> <li>» Continue volunteer programs to pick up litter in public places, e.g. Adopt-a-Park, Adopt-a-Street</li> <li>» Continue to promote an awareness program to encourage donation of materials to re-use organizations</li> <li>» Continue implementation of a “Pay-As-You-Throw” program that utilizes a volume-based disposal fee system to encourage residents and contractors to reduce waste</li> </ul> |
| <br>Sustainable Food System Opportunities    | <ul style="list-style-type: none"> <li>» Facilitate community engagement on local food systems</li> <li>» Support growing, harvesting, selling and delivery of locally-grown produce</li> <li>» Work with Dakota County to identify areas with limited access to traditional food markets</li> <li>» Consider identification of additional publicly-owned sites that may be suitable for community gardens and urban farms, work with advocacy groups to make these sites available</li> </ul>                                                                                |
| <br>Efficient Use of Infrastructure and Land | <ul style="list-style-type: none"> <li>» Create multimodal connected neighborhoods</li> <li>» Connect sidewalks/trails to amenities such as parks and open space</li> <li>» Establish a trail system or other non-motorized public access to amenities</li> <li>» Facilitate community engagement in planning and land use decisions</li> <li>» Diversify stakeholder groups targeted for land use decision-making outreach/engagement</li> <li>» Encourage improved access to jobs and community opportunities</li> </ul>                                                    |
| <br>Natural Resource Conservation            | <ul style="list-style-type: none"> <li>» Highlight innovative and successful activities</li> <li>» Develop environmental education, interpretive facilities, programs that develop an interdisciplinary/ interconnected understanding of ecologic systems (kiosks in natural area)</li> </ul>                                                                                                                                                                                                                                                                                 |



|  |                                                                                                                                                |
|--|------------------------------------------------------------------------------------------------------------------------------------------------|
|  | » Reduce light pollution and promote dark skies by limiting the brightness of exterior fixtures and shielding adjacent uses from light sources |
|--|------------------------------------------------------------------------------------------------------------------------------------------------|

## Sustainability Measures of Success

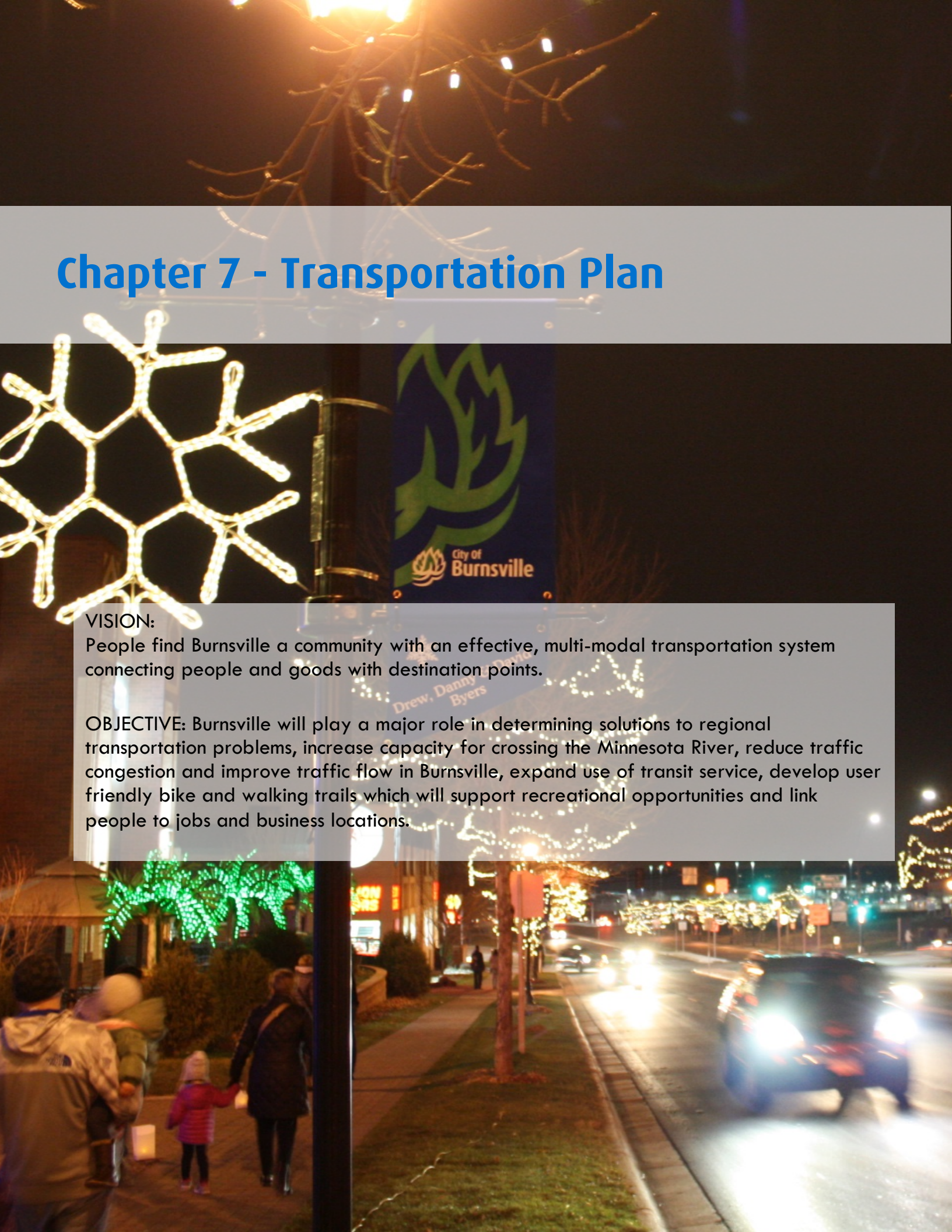
The following measures of success can be used to assess progress on sustainability initiatives:

1. Measure public engagement throughout City operations and outreach.
2. Percentage of decision-making processes with a public feedback track.
3. Measure how often “next steps” in a decision-making process are informed and prioritized in accordance with public feedback.
4. Measure how effective public feedback platforms and mediums are at reaching an equitable representation of the public.
5. Measure how the timing of public feedback solicitation affects the outcomes of decision-making processes.
6. Number of new programs and services for vulnerable and disadvantaged stakeholder groups.

## Implementation

| Community Enrichment Need | Strategies/Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety                    | » Use the City’s many safety-oriented programs and events as opportunities to interact with all segments of the community and to gain their input on other community enrichment needs and desires.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Recreation/fitness/health | » Provide healthy living information in publications to residents, businesses and programs directed to youth.<br>» Coordinate with school districts, agencies, entertainment venues and others, such as Burnsville Center and the YMCA, to offer healthy food and recreation alternatives.<br>» Coordinate physical education and recreational activities between the City’s park & recreation department and school districts’ after-school programs.<br>» Consider establishing walking and bicycling programs such as walking groups, walkathons with incentives, health fairs, and bicycle/skate board/in-line skating safety events.<br>» Consider providing healthy food and beverage choices in all municipal |

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|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | vending machines.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Social interaction | <ul style="list-style-type: none"> <li>» Create or support a web portal that is a convener of all youth activities to make it easier for them to know what opportunities are available and encourage their participation in said community offerings.</li> <li>» Consider supporting or hosting more community events and creating partnerships to implement.</li> <li>» Marketing the many events we have going on the community to create an awareness for the public of how they could be engaged socially.</li> </ul>                                                                                                                                                                                                            |
| Lifelong learning  | <ul style="list-style-type: none"> <li>» Identify and support the marketing of life-long learning and volunteering opportunities. Consider creating or hosting a web portal that convenes the various opportunities throughout the community.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Transportation     | <ul style="list-style-type: none"> <li>» Establish a City “Safe Routes to School” (SRTS) initiative that leverages funding from the federal SRTS program designed to improve the conditions and quality of bicycling and walking to community schools.</li> <li>» Provide students with information about low cost transit services such as Minnesota Valley Transit Authority (MVTA), DARTS and others to improve their travel options to community facilities and places in Burnsville.</li> </ul>                                                                                                                                                                                                                                 |
| Cultural           | <ul style="list-style-type: none"> <li>» Leverage the City’s cultural facilities, such as the Ames Center and Nicollet Plaza, to coordinate collaboration between and expansion of cultural organizations, facilities, and events in the city.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Civic              | <ul style="list-style-type: none"> <li>» Identify and implement ways to increase active communication and interaction with youth and their parents, including civic related classes, offering volunteer opportunities that build on school course offerings, and other activities that expose youth to public service and governance matters.</li> <li>» Work with school districts and neighborhood organizations to reach out to community members to assist the City with activities such as the Breeding Bird Survey, wetland monitoring, lake monitoring, Community Emergency Response Teams (CERT) and other activities, which provides educational benefits as well as volunteer opportunities for these programs.</li> </ul> |

The background image shows a city street at night. On the left, there are large, illuminated snowflake-shaped light decorations. In the center, a sign for the 'City of Burnsville' is visible, featuring a green leaf logo. The street is lined with trees wrapped in warm white lights. In the foreground, a car with its headlights on is driving towards the viewer. On the left side, a family (a man, a woman, and a child) is walking on a sidewalk. The overall scene is festive and well-lit.

## Chapter 7 - Transportation Plan

### VISION:

People find Burnsville a community with an effective, multi-modal transportation system connecting people and goods with destination points.

OBJECTIVE: Burnsville will play a major role in determining solutions to regional transportation problems, increase capacity for crossing the Minnesota River, reduce traffic congestion and improve traffic flow in Burnsville, expand use of transit service, develop user friendly bike and walking trails which will support recreational opportunities and link people to jobs and business locations.

Table of Contents – Chapter 7

Introduction..... 321

Transportation Plan Goals & Policies ..... 322

Existing Transportation Conditions ..... 327

    Roadway Overview ..... 327

    Existing Capacity Analysis..... 336

    Crash Information..... 340

    Existing Transit Service ..... 343

    Non-Motorized Transportation..... 348

    Other Transportation Sectors..... 350

Planning Context – Studies, Projects, Issues..... 352

    CSAH 42 Corridor ..... 352

    Trunk Highway 13 (TH 13) Corridor Study..... 352

    Trunk Highway 13 (TH 13) and Nicollet Avenue Multi-Use Pedestrian Bridge ..... 353

    Minnesota River Quadrant (MRQ) Redevelopment ..... 353

    Cliff Road West Relocation ..... 355

    Dakota County East-West Transit Study..... 357

    Dakota County 2030 Transit Plan ..... 358

    Dakota County 2030 Transportation Plan..... 358

    Planned Improvement Summary ..... 359

Future Transportation System..... 359

    Future Roadway Needs ..... 359

    Roadway Network Planning ..... 371

    2040 Transit Plan..... 378

    Autonomous Vehicles..... 381

    Transportation Demand Management ..... 383

    2040 Non-Motorized Transportation Plan ..... 383

Sustainability ..... 400

Implementation Plan..... 403



## Table of Figures – Chapter 7

|                                                                                                                                |     |
|--------------------------------------------------------------------------------------------------------------------------------|-----|
| Figure 7-1: Regional Location Map.....                                                                                         | 327 |
| Figure 7-2: 2016 Heavy Commercial and Total Daily Traffic Volumes .....                                                        | 328 |
| Figure 7-3: Jurisdictional Road Classification Map .....                                                                       | 330 |
| Figure 7-4: Functional Road Classification Map .....                                                                           | 332 |
| Figure 7-5: Existing Roadway Congestion Levels.....                                                                            | 339 |
| Figure 7-6: Crashes 2011 – 2015.....                                                                                           | 342 |
| Figure 7-7: Metropolitan Council Transit Market Areas Map.....                                                                 | 343 |
| Figure 7-8: Metropolitan Council 2040 Transitway System Map.....                                                               | 345 |
| Figure 7-9: Transit Service and Facilities .....                                                                               | 347 |
| Figure 7-10: Existing Trails and Sidewalks .....                                                                               | 349 |
| Figure 7-11: Land Use and Transportation Changes (Current Interchanges).....                                                   | 354 |
| Figure 7-12: Cliff Road West Realignment .....                                                                                 | 355 |
| Figure 7-13: Cliff Road West Extention.....                                                                                    | 356 |
| Figure 7-14: Corridors Recommended for Further Consideration.....                                                              | 357 |
| Figure 7-15: Metro Council Active-Based Model Structure.....                                                                   | 361 |
| Figure 7-16: Transportation Analysis Zones .....                                                                               | 362 |
| Figure 7-17: Projected 2040 Daily Traffic Volume .....                                                                         | 365 |
| Figure 7-18: 2040 Number of Lanes.....                                                                                         | 366 |
| Figure 7-19: 2040 Projected Roadway Congestion Levels.....                                                                     | 370 |
| Figure 7-20: Roadways with Potential Jurisdictional Classification Transfers.....                                              | 372 |
| Figure 7-21: Proposed Functional Classification Map .....                                                                      | 374 |
| Figure 7-22: MnPass System Vision.....                                                                                         | 377 |
| Figure 7-23: METRO Orange Line .....                                                                                           | 379 |
| Figure 7- 24: Metropolitan Council Regional Bicycle Transportation Network .....                                               | 386 |
| Figure 7-25: Met Council Regional Bicycle Transportation Network with Burnsville Existing and Planned Trail Network.....       | 387 |
| Figure 7-26: Met Council Regional Bicycle Transportation Network with Regional Employment Clusters and Activity Center Nodes.. | 388 |
| Figure 7-27: 2040 Metropolitan Regional Trail Search Corridors (South Metro) .....                                             | 390 |
| Figure 7-28: Future Sidewalk and Trail Network .....                                                                           | 393 |
| Figure 7-29: Cliff Road Improvement Trail Project Alignment.....                                                               | 394 |
| Figure 7-30: Lake Marion Regional Trail – Kelleher Park Trail-Proposed Alignment (2017) .....                                  | 395 |
| Figure 7-31: Lake Marion Regional Trail – Rose Bluff Segment Proposed Alignment (2016) .....                                   | 396 |

## Table of Tables – Chapter 7

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| Table 7-1: 2016 Miles of Roadway by Jurisdictional Classification ..... | 329 |
| Table 7-2: Principal Arterial Summary.....                              | 333 |
| Table 7-3: “A” Minor Arterial (Reliever) Summary .....                  | 334 |
| Table 7-4: “A” Minor Arterial (Expander) Summary.....                   | 334 |

Table 7-5: “B” Minor Arterial Summary ..... 334

Table 7-6: Collector Roadway Summary ..... 335

Table 7-7: Roadway Segment Level of Service (LOS) Description ..... 336

Table 7-8: Generalized Average Daily Traffic Thresholds for Capacity..... 337

Table 7-9: Generalized Average Daily Traffic Lower Limit Thresholds for By Level of Service..... 338

Table 7-10: Existing Congestion Levels (2016)..... 340

Table 7-11: City of Burnsville Socio-Economic Data Summary in the Regional Model ..... 363

Table 7-12: Existing and 2040 Roadway Capacity Deficiencies Comparison..... 367

Table 7-13: Planning Level Capacity Analysis Summary for Segments with Poor LOS (2040)..... 368

Table 7-14: Miles of Roadway by Jurisdictional Classification with Potential Transfers..... 372

Table 7-15: Burnsville Access Management Guidelines..... 375

Table 7-16: Regional Bicycle Transportation Network in Burnsville..... 385



# Transportation Plan

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## Introduction

Transportation systems facilitate all motorized and non-motorized movement through Burnsville, determine the interconnectivity that is necessary and include all of the elements that contribute to vehicle and pedestrian circulation. This Chapter provides information about Burnsville's transportation system and provides guidance for decision-makers for investments to enhance and maintain the system into the future. The use of this Chapter to address all aspects and components of the transportation system in conjunction with the other plan chapters, and creates the environment for a livable community. The Metropolitan Council updated regional transportation plans with the adoption of the 2040 Transportation Policy Plan (TPP).

Being south of the Minnesota River, I-35W bisects Burnsville and is the major access corridor and transportation link between Burnsville and the regional center of Minneapolis. Additionally, I-35E connects to I-35W in central Burnsville and is the major access corridor and transportation link between Burnsville and St. Paul. Access to the interstate highway system has provided strong economic opportunities for the city and contributed to the continued growth and success of the Burnsville Center and surrounding business districts. In addition to the interstate highways, State Trunk Highway 13 (TH 13) and County State Aid Highway (CSAH) 42<sup>1</sup> bisect the community. Together, these major corridors have established strong market opportunities for local business and an employment base for Burnsville.

Good transportation systems spurred significant residential development from the 1970s through the 1990s. The expansion of the Twin Cities metropolitan region south, east and west of Burnsville has added to traffic congestion along these and other transportation corridors. Today, residents and businesses feel the negative impacts of traffic congestion particularly during peak traffic periods. Part of local traffic problems stem from the city's location as well as reliance on the automobile for commuting within the larger Twin Cities metropolitan area for employment and entertainment. Engaged residents have expressed that they would like to minimize through traffic within their neighborhoods and create a sense of identity at primary entries to the city.

There is also a need to increase regional and local transportation alternatives to the automobile. Through community surveys as well as the

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<sup>1</sup> Other chapters referred to CSAH 42 as County Road 42.

Parks and Recreation Master Plan and 2040 Comprehensive Plan Update processes, strong support was expressed for a system of trails to provide residents with safe and enjoyable access to services, parks, schools, natural areas, the Heart of the City (HOC) and to the Minnesota River Quadrant (MRQ) area.

As a fully developed city, it is necessary to maintain, even enhance, the existing transportation infrastructure, and adapt to meet changing technologies and societal needs. This presents a challenge as infrastructure resources will continue to become increasingly scarce. As Burnsville looks to 2040, the transportation plan identifies goals, policies and strategies to guide the City in its quest to deliver a diverse transportation infrastructure that will efficiently meet the community's needs and address safety. The plan identifies future deficiencies and expands on the use of Bus Rapid Transit (BRT), MnPASS lanes and autonomous vehicles.

## Transportation Plan Goals & Policies

The 2040 Comprehensive Plan establishes the following goals and policies to guide future transportation efforts in the community. The future transportation goals are high level yet targeted statements of how the community intends to achieve the vision of the Transportation Plan, which is:

***People find Burnsville a community with an effective, multi-modal transportation system connecting people and goods with destination points.***

The goals encompass safety, efficiency, sustainability and the environment as they relate to the community's desire for a community roadway system, regional transportation, transit, multi-modal facilities, new transportation technologies, noise pollution, and transportation development in the MRQ. Each transportation goal (Transp. Goal) is supported by a set of policies that define the City's preferred directions or methods of action to guide and determine transportation decisions.

### **Transp. Goal 1. Play a major role in determining solutions to regional transportation problems.**

Transp. Policy 1.1. Coordinate with neighboring cities, counties, the Metropolitan Council, the Minnesota Department of Transportation, the Minnesota Valley Transit Authority and other agencies involved in transportation planning to provide interconnections and advocate for the most effective transportation system for Burnsville.

Transp. Policy 1.2. Aggressively support improvements to increase capacity, decrease congestion, maintain the economic well-being of adjacent businesses, and improve the safety of all major corridors.

Transp. Policy 1.3. Increase river crossing capacity through enhanced transit, congestion management, and travel demand management, and provide alternatives to congestion such as: bus-only shoulders, MnPASS lanes and other initiatives to increase person throughput within existing transportation corridors.

Transp. Policy 1.4. Continue to implement “official mapping” as a tool to preserve and obtain right-of-way for future roadways and corridors in addition to subdivision platting of public right-of-ways.

**Transp. Goal 2. Community roadway system is maintained at a reasonable cost.\*<sup>2</sup>**

Transp. Policy 2.1. Establish community standards for roadways and require the on-going maintenance and replacement of the aging transportation infrastructure.

Transp. Policy 2.2. Leverage alternative local, State and federal funding options for capital improvements.

**Transp. Goal 3. Develop and advocate for a transportation system that efficiently and safely moves people and goods.**

Transp. Policy 3.1. In response to neighborhood requests, continue to review the design of neighborhood streets and develop neighborhood-funded street modifications that will discourage through-traffic and speeding.

Transp. Policy 3.2. Continue to monitor traffic safety and congestion data and develop strategies and projects to increase safety and transportation system operations.

Transp. Policy 3.3. Require safe and adequate ADA access and pedestrian connections as required by law.

**Transp. Goal 4. Develop and advocate for an environmentally sensitive and sustainable transportation system.**

Transp. Policy 4.1. Incorporate natural resources conservation into transportation plans to meet environmental requirements.

Transp. Policy 4.2. Incorporate sustainability practices in the development, maintenance and modification to the transportation system.

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<sup>2</sup> \* Indicates a Goal of Policy that refers to the Council’s adopted Ends and Outcomes

**Transp. Goal 5. Work to integrate multiple methods of transportation into the existing and future transportation system that are safe and convenient.\*<sup>3</sup>**

Transp. Policy 5.1. Support enhanced transit service and METRO Orange Line Phases 1 and 2.

Transp. Policy 5.2. Coordinate with Dakota and Scott Counties, the State of Minnesota, Metropolitan Council and other agencies/organizations to develop and implement a Recreational Trail Master Plan.

Transp. Policy 5.3. Coordinate efforts with the appropriate agencies/jurisdictions to develop the proposed Lebanon Hills-Lake Marion Regional Trail Search Corridor that will eventually connect to Murphy-Hanrehan Park Reserve, the Minnesota Zoo, Lebanon Hills Regional Park, the Mississippi River Regional Trail and Spring Lake Regional Park Reserve.

- Complete the Lake Marion Regional Trail Segment between Sunset Park and Murphy-Hanrehan Park Reserve improving access from southwest Burnsville to the trail network and Regional Park.
- Coordinate efforts to accommodate the proposed Lake Marion Greenway connection to connect Murphy-Hanrehan Park Reserve north to the Minnesota River Greenway through the northeast corner of Scott County and western Burnsville in Dakota County.

Transp. Policy 5.4. Coordinate with the City of Savage, Scott and Dakota Counties and the Metropolitan Council to identify the area where the Minnesota River Greenway and Black Dog segment of the Big Rivers Regional Trail will be connected. Focus on the westerly extension of 124th Street as a possible trail corridor for the new connection.

Transp. Policy 5.5. Continue to participate in programs such as “Safe Routes to Schools” to improve connections and safe walking/biking access to neighborhood schools.

Transp. Policy 5.6. Continue to monitor and update ordinances and procedures to allow intensified development along transitways and ensure future development is effectively linked to the transitway through compact, walkable environments.

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<sup>3</sup> \* Indicates a Goal of Policy that refers to the Council’s adopted Ends and Outcomes

Transp. Policy 5.7. Implement a system of consistent signs, lights, and landscaping that will unify public parks, trails, bikeways, and major street corridors.

Transp. Policy 5.8. Work with the Canadian Pacific railroad to utilize the rail corridor for future trail purposes and to provide a connection to Lakeville and Savage trails in the event the rail line is abandoned.

**Transp. Goal 6. Mitigate traffic congestion and improve traffic flow in all areas of the community.**

Transp. Policy 6.1. Promote telecommuting, car-pooling, staggered work hours and/or other Transportation Demand Management programs to reduce traffic congestion and single occupancy vehicle trips on major roads during peak commuting times.

Transp. Policy 6.2. Continue to require developers to provide and pay for traffic studies when required by the City or other agency with jurisdiction over the study area.

**Transp. Goal 7. Protect City interests regarding airport, rail and highway noise pollution and minimize noise in Burnsville.**

Transp. Policy 7.1. Continue to work with the Metropolitan Airports Commission (MAC) and the Noise Oversight Committee and be involved with monitoring/participation of noise implementation and mitigation efforts for airport and flight operations that impact Burnsville.

Transp. Policy 7.2. Insist on Federal Aviation Administration (FAA)/MAC compliance with the environmental documents and runway usage plans adopted by the MAC prior to the opening of runway #17/35.<sup>4</sup>

Transp. Policy 7.3. Continue to enforce protection standards as required by State statutes for airspace protection.

Transp. Policy 7.4. Review future residential development adjacent to state and county roadways for consistency with State statutes related to noise walls and noise reduction building practices for dwellings.

Transp. Policy 7.5. Continue to work with railroads, agencies and neighborhood groups to mitigate noise from train whistles and railroad operations.

**Transp. Goal 8. Continue to support transit.**

Transp. Policy 8.1. Support MVTA as a primary transit provider in the city.

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<sup>4</sup> MAC Noise Program Office website - <http://www.macnoise.com/>

- Transp. Policy 8.2. Support Metro Transit and BRT.
- Transp. Policy 8.3. Continue to partner with Dakota County to improve infrastructure related to transit improvements.
- Transp. Policy 8.4. Support Minnesota Valley Transit Authority (MVTA) to provide transit-related improvements and encourage maximum use of public transit throughout Burnsville.
- Transp. Policy 8.5. Coordinate development review and transportation improvements to maximize transit opportunities.
- Transp. Policy 8.6. Continue to coordinate with transit providers and bus bench licensee's to assure that all fixed- route transit stops are accessible year-round including snow removal.
- Transp. Policy 8.7. Support development of additional circulator services and intra-community service for Burnsville and other south of the river communities.

**Transp. Goal 9. Utilize available funding sources to receive land and cash payments for development of the city's park and trail systems.**

- Transp. Policy 9.1. Continue to require dedication of land and/or cash in lieu of land (pursuant to Minnesota Statutes) at the time of subdivision to implement the City's Park Master Plan and Trails Master Plan.
- Transp. Policy 9.2. Periodically review and update park dedication requirements for consistency with State statutes and to accomplish the City's public park and trails goals.
- Transp. Policy 9.3. Study the impacts of mixed-use developments on the City's parks and trails systems and develop dedication requirements that are consistent with State law.

**Transp. Goal 10. Account and plan for the assimilation of new transportation technologies.**

- Transp. Policy 10.1. Monitor the development of autonomous vehicles and work toward the legal, land use, infrastructure and supporting service changes needed for implementation.
- Transp. Policy 10.2. Encourage the installation of charging stations on private property and implement a plan for public charging stations.
- Transp. Policy 10.3. Monitor the use and impacts of app-based transportation providers.

**Transp. Goal 11. Work to coordinate the development of the transportation needs of the MRQ development.**

- Transp. Policy 11.1. Work with MnDOT and Dakota County to determine the access needs of MRQ to the state and county roadway systems.



# Existing Transportation Conditions

## Roadway Overview

### Overview

The City of Burnsville, within the regional roadway network is depicted on Figure 7-1. Burnsville is a second-tier suburb outside the I-494 beltway and south of the Minnesota River. Important regional roadways that pass through or run adjacent to the city are: I-35W, I-35E, CSAH 42 and Trunk Highway (TH) 13. Trunk Highway 77 (Cedar Avenue) passes through Burnsville's northeast corner. Cities adjacent to Burnsville are: Savage, Lakeville, Apple Valley, Eagan, and Bloomington (across the Minnesota River). Existing daily vehicular and heavy commercial (truck) traffic volumes are shown in Figure 7-2.



Figure 7-1: Regional Location Map

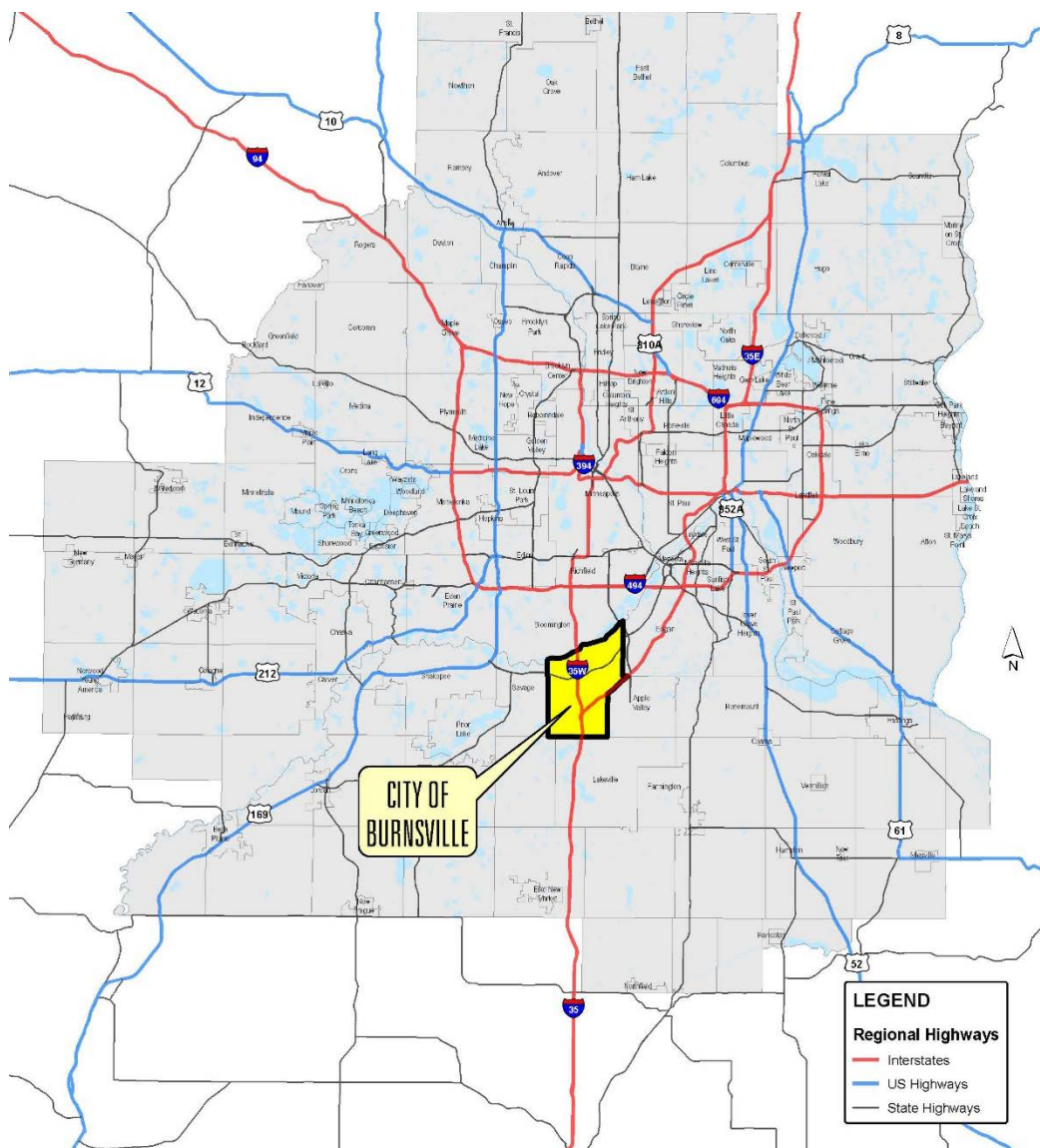
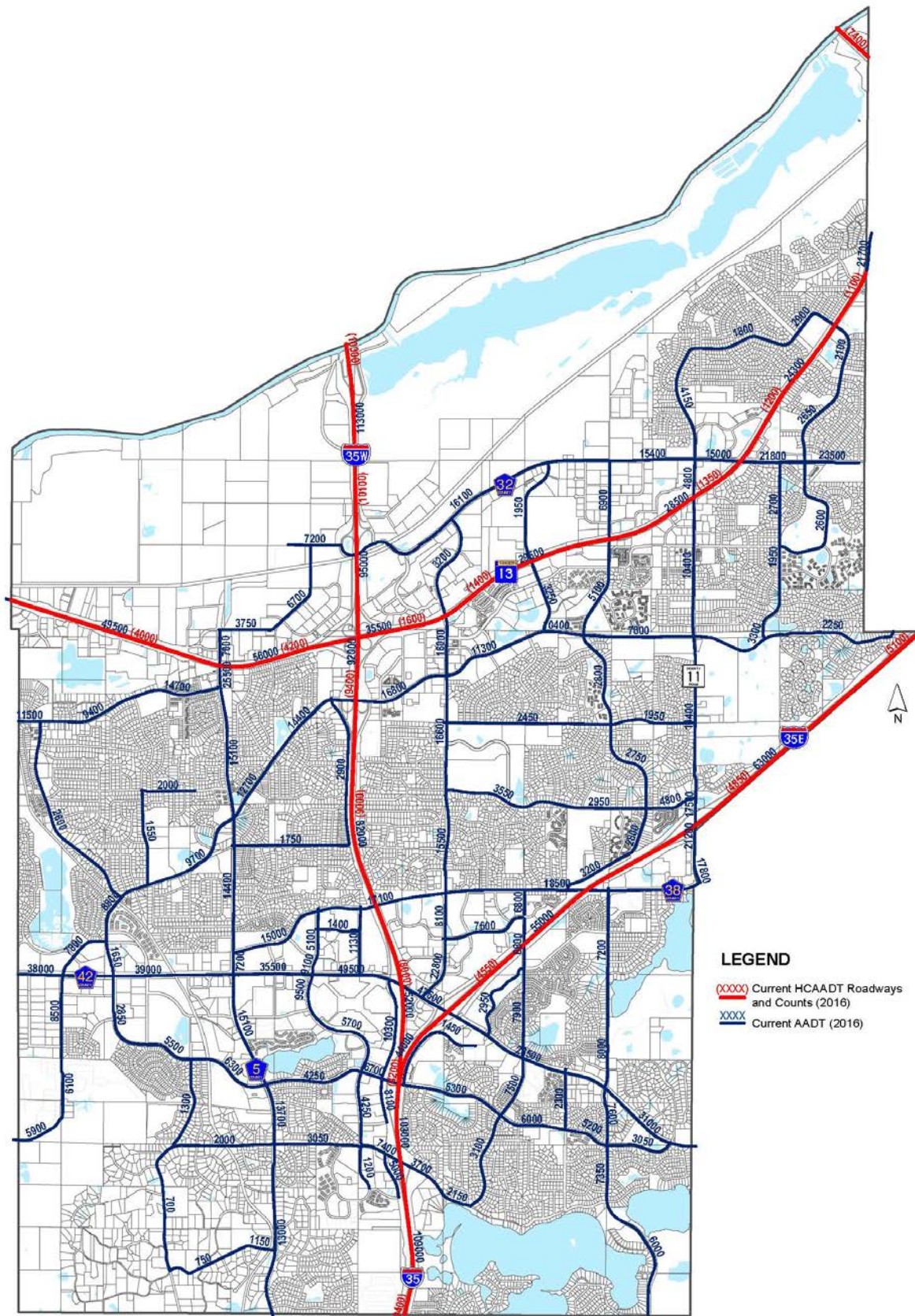


Figure 7-2: 2016 Heavy Commercial and Total Daily Traffic Volumes



## Jurisdictional Classification

Roadways are classified on the basis of which level of government has jurisdiction over the facility. The three levels of government that have roadway jurisdiction are the State of Minnesota (MnDOT), Dakota County, and the City of Burnsville. MnDOT regulates and maintains the Trunk Highway (TH) system. Dakota County regulates and maintains the County State Aid Highway (CSAH) and County Road (CR) system. The City regulates and maintains its local streets, including Municipal State Aid (MSA) streets. A map showing the jurisdictional classifications of Burnsville's roadways is provided on Figure 7-3 on the following page.

Table 7-1 displays the current miles of roadway by jurisdictional classification within Burnsville. The Dakota County 2030 Transportation Plan identifies proposed jurisdiction changes from county to state for CSAH 42 in Dakota and Scott Counties and for CSAH 32 (from TH 13 to I-35E). The City has several concerns associated with the proposed jurisdiction changes related to level of response, maintenance and access control. The City has communicated these concerns to Dakota County.

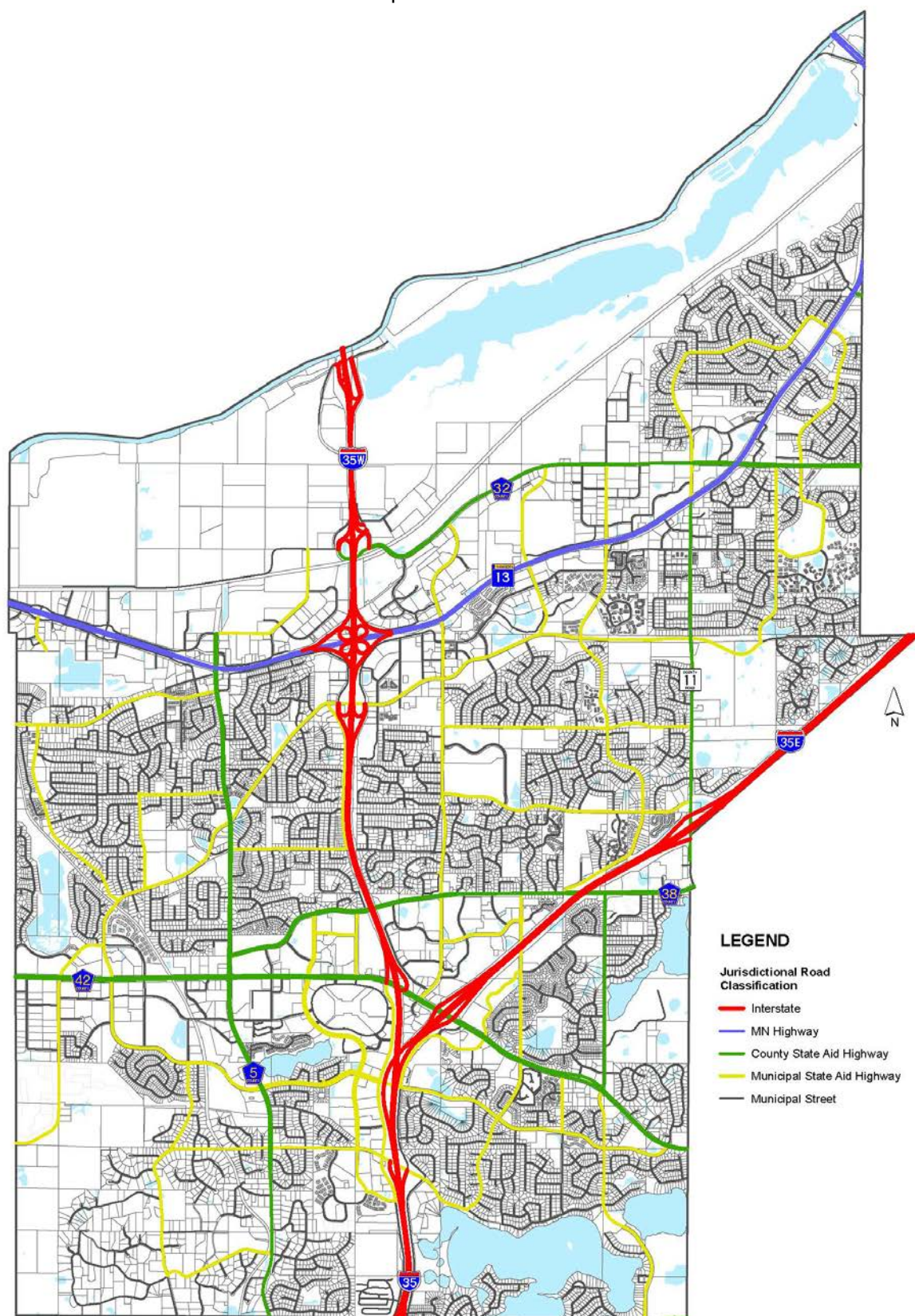
Table 7-1: 2016 Miles of Roadway by Jurisdictional Classification

| JURISDICTION                           | MILES  |
|----------------------------------------|--------|
| Minnesota Department of Transportation | 15.34  |
| Dakota County                          | 17.89  |
| City of Burnsville                     | 224.55 |

SOURCE: City of Burnsville



Figure 7-3: Jurisdictional Road Classification Map



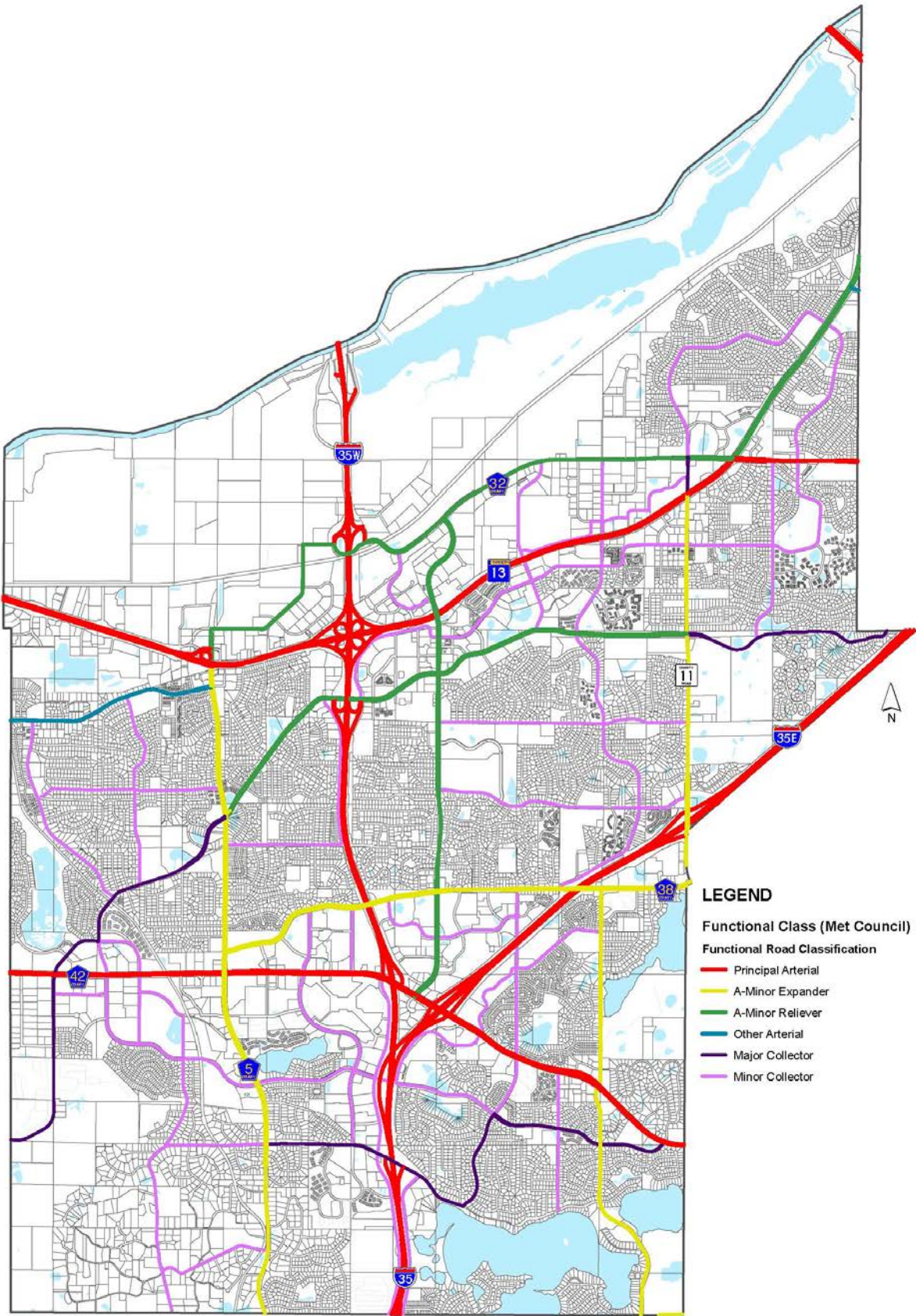
## Functional Classification

The functional classification system is the creation of a roadway and street network which collects and distributes traffic from neighborhood streets to collector roadways to arterials and ultimately the Metropolitan Highway System. Roads are placed into categories based on the degree to which they provide access to adjacent land versus provide higher-speed mobility. Functional classification is a cornerstone of transportation planning. Within this approach, roads are located and designed to perform to their designated function.

The functional classification system used in the City of Burnsville is shown on Figure 7-4 and conforms to the Metropolitan Council standards. The Metropolitan Council has published these criteria in Appendix D – Functional Classification Criteria and MnDOT Access Guidance of the 2040 Transportation Policy Plan (TPP). This document separates roadways into four types of street classifications: principal arterials, minor arterials, collectors, and local streets. These classifications address the function of state, county, and city streets from a standpoint of the safe and efficient movement of traffic through Burnsville while providing satisfactory access to residents and businesses located within the city.



Figure 7-4: Functional Road Classification Map





### Principal Arterials

Principal arterials consist primarily of interstate highways and other freeways or expressways, most of them owned and operated by MnDOT, with six under the jurisdiction of counties or cities. Principal arterials connect the metropolitan centers to major commercial concentrations. At present, principal arterials connect with other principal arterials, select minor arterials, collectors, and some local streets. In the future, new connections to principal arterials should be limited to other principal arterials and select “A” minor arterials.

Table 7-2: Principal Arterial Summary

| Principal Arterial Roadways |                   |                   |       |                                       |
|-----------------------------|-------------------|-------------------|-------|---------------------------------------|
| Roadway                     | From              | To                | Lanes | Existing Daily Traffic Volumes (2015) |
| I-35                        | South City Limits | I-35E             | 6     | 105,000                               |
| I-35E                       | I-35              | East City Limits  | 4     | 41,500-61,000                         |
| I-35W                       | I-35              | Minnesota River   | 4-7   | 51,000-112,000                        |
| TH 13                       | West City Limits  | I-35W             | 4     | 56,000                                |
| TH 13                       | I-35W             | Cliff Road        | 4     | 28,500-35,500                         |
| TH 13                       | Cliff Road        | North City Limits | 4     | 24,300                                |
| CSAH 32                     | TH 13             | East City Limits  | 4     | 23,800                                |
| CSAH 42                     | West City Limits  | I-35E             | 6     | 36,900-47,500                         |
| CSAH 42                     | I-35E             | East City Limits  | 4-6   | 29,500                                |

SOURCE: MnDOT

### Minor Arterials

Minor arterials supplement the Metropolitan Highway System in several ways:

- » Minor arterials connect the urban service area to cities and towns inside and outside the region
- » Minor arterials interconnect rural centers in the region to one another and to those just outside the region
- » Minor arterials provide supplementary connections between the two metro centers and the regional business concentrations
- » Minor arterials connect major traffic generators within the central business districts and the regional business concentrations

Table 7-3: "A" Minor Arterial (Reliever) Summary

| <b>A Minor Arterial (Reliever) Roadways</b> |             |                      |              |                                                   |
|---------------------------------------------|-------------|----------------------|--------------|---------------------------------------------------|
| <b>Roadway</b>                              | <b>From</b> | <b>To</b>            | <b>Lanes</b> | <b>Existing Daily Traffic Volumes (2014-2015)</b> |
| Nicollet Avenue                             | CSAH 42     | CSAH 32 (Cliff Road) | 4            | 3,200 – 22,800                                    |
| Burnsville Parkway                          | CSAH 5      | I-35W                | 4            | 12,700 – 14,400                                   |
| Burnsville Parkway                          | I-35W       | CSAH 11              | 4            | 7,600-16,800                                      |
| CSAH 32                                     | I-35W       | TH 13                | 4            | 15,400-17,000                                     |
| Kenwood Trail/DuPont                        | TH 13       | Cliff Road           | 2-4          | 3,300                                             |

SOURCE: MnDOT

"A" Minor (Reliever) roadways provide direct relief for traffic on Metropolitan Highway Principal Arterials.

Table 7-4: "A" Minor Arterial (Expander) Summary

| <b>A Minor Arterial (Expander) Roadways</b> |                   |                  |              |                                                   |
|---------------------------------------------|-------------------|------------------|--------------|---------------------------------------------------|
| <b>Roadway</b>                              | <b>From</b>       | <b>To</b>        | <b>Lanes</b> | <b>Existing Daily Traffic Volumes (2014-2015)</b> |
| CSAH 5                                      | South City Limits | CSAH 42          | 4            | 12,200-14,400                                     |
| CSAH 5                                      | CSAH 42           | TH 13            | 4            | 16,200-25,500                                     |
| CSAH 38                                     | CSAH 5            | CSAH 11 (West)   | 4            | 15,000-18,500                                     |
| Lac Lavon                                   | CSAH 46           | CSAH 42          | 2            | 6,000-7,600                                       |
| CSAH 11                                     | CSAH 42           | CSAH 38          | 2            | 8,000                                             |
| CSAH 11/38 (McAndrews)                      | CSAH 38 (West)    | East City Limits | 4            | 18,500                                            |
| CSAH 11                                     | CSAH 38 (East)    | TH 13            | 4            | 10,400-21,200                                     |

SOURCE: MnDOT

"A" Minor (Expander) roadways provide connections between developing areas outside the I-94/I- 694 Beltway and connect Principal Arterials.

Table 7-5: "B" Minor Arterial Summary

| <b>B Minor Arterial Roadways</b> |                  |           |              |                                              |
|----------------------------------|------------------|-----------|--------------|----------------------------------------------|
| <b>Roadway</b>                   | <b>From</b>      | <b>To</b> | <b>Lanes</b> | <b>Existing Daily Traffic Volumes (2016)</b> |
| Williams Drive                   | West City Limits | CSAH 5    | 3            | 9,400-14,700                                 |

SOURCE: MnDOT

All other minor arterials are considered "B" minor arterials, which serve the same function as "A" minor arterials but are not eligible for federal funding.

## Collectors

The collector system provides connection between neighborhoods and from neighborhoods to minor business concentrations. Collectors also provide supplementary interconnections between major traffic generators within the metro centers and regional business concentrations. Mobility and land access are equally important. Direct land access should predominately be to development concentrations.

Table 7-6: Collector Roadway Summary

| Collector Roadways       |                    |                     |        |
|--------------------------|--------------------|---------------------|--------|
| Roadway                  | From               | To                  | Lanes  |
| Crystal Lake Road        | I-35W              | Portland Avenue     | 2      |
| Portland Avenue          | Crystal Lake Road  | Southcross Drive    | 2      |
| Burnsville Parkway       | CSAH 11            | East City Limits    | 2      |
| Judicial Road            | South City Limits  | Rosemount Drive     | 2      |
| Judicial Road            | CSAH 42            | Burnsville Parkway  | 2      |
| Judicial Road            | Burnsville Parkway | Williams Drive      | 2      |
| Judicial Road            | Southcross Drive   | Rosemount Drive     | 2      |
| Rosemount Drive          | Southcross Drive   | CSAH 42             | 2      |
| 150th Street             | Judicial Road      | CSAH 5              | 2      |
| 155th Street             | Judicial Road      | CSAH 5              | 2      |
| 143rd Street             | CSAH 5             | Burnhaven Drive     | 2      |
| Aldrich Avenue           | CSAH 42            | CSAH 38             | 4      |
| Aldrich Avenue           | 136th Street       | Burnsville Parkway  | 2      |
| Burnhaven Drive          | CSAH 38            | 150th Street        | 4      |
| 136th Street             | Burnsville Parkway | W Frontage Road     | 2      |
| Upton Avenue             | Burnsville Parkway | Williams Drive      | 2      |
| Highland Drive           | Judicial Road      | CSAH 5              | 2      |
| Buck Hill Road           | South City Limits  | CSAH 42             | 2 to 4 |
| Corporate Center Drive   | Burnsville Parkway | Southcross Drive    | 2      |
| Chicago Avenue           | Crystal Lake Road  | CSAH 42             | 2      |
| Grand/Plymouth/Evergreen | Southcross Drive   | CSAH 11             | 2      |
| Nicollet Boulevard       | CSAH 38            | Portland Avenue     | 2 to 4 |
| 134th Street             | Nicollet Avenue    | CSAH 11             | 2      |
| 130th Street             | Nicollet Avenue    | CSAH 11             | 2      |
| Parkwood Drive           | CSAH 38            | CSAH 32             | 2 to 4 |
| Travelers Trail          | Burnsville Parkway | Parkwood Drive      | 2 to 4 |
| 122nd Street             | Parkwood Drive     | E River Hills Drive | 2      |
| River Ridge              | Nicollet Avenue    | CSAH 32             | 2      |
| Portland Avenue          | Southcross Drive   | CSAH 38             | 2      |
| Southcross Drive         | Portland Avenue    | CSAH 42 East        | 4      |
| Southcross Drive         | Portland Avenue    | CSAH 42 West        | 4      |
| Kennelly Road            | Burnsville Parkway | CSAH 32             | 2      |
| W River Hills Drive      | CSAH 32            | TH 13               | 2 to 4 |
| E River Hills Drive      | CSAH 32            | TH 13               | 2      |
| Maple Island Road        | South City Limits  | Crystal Lake Road   | 2      |

SOURCE: MnDOT

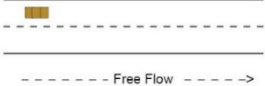
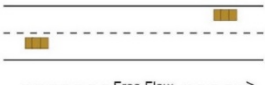
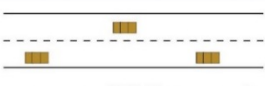
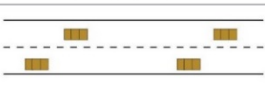
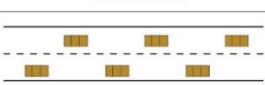
## Local Streets

The local street network provides the most access and the least mobility within the overall functional classification system. They allow access to individual homes, shops, and similar traffic destinations. Through traffic should be discouraged by using appropriate geometric designs and traffic control devices such as medians, planted boulevards, signage, and others.

## Existing Capacity Analysis

In general, the capacity of a roadway is a measure of its ability to accommodate a certain volume of moving vehicles. The segment level of service (LOS) in this context refers to a quantitative comparison between the existing volume on a roadway and the maximum volume of traffic the roadway can be expected to accommodate in its present configuration. Based on the ratio between existing traffic volumes and roadway capacity, a level of service from “A-F” is assigned. Table 7-7 displays the level of service categories, approximate volume-to-capacity (V/C) ratio, and a general description of the traffic operations. LOS “D” is the desired threshold for traffic operations. At this service level, traffic is generally expected to experience restricted flow during peak travel periods. The V/C ratio represents utilization of the roadway capacity. A V/C greater than 1.05 indicates that congestion is beyond acceptable levels or at forced flow.

Table 7-7: Roadway Segment Level of Service (LOS) Description

| Level of Service | Volume/Capacity (V/C) Ratio | Traffic Flow Density                                                                | Description                                                                                                 |
|------------------|-----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>A</b>         | 0.00 < 0.65                 |  | <b>Free Flow</b><br>Low volumes and no delays                                                               |
| <b>B</b>         | 0.65 < 0.75                 |  | <b>Stable Flow</b><br>Low volumes and speeds dictated by travel conditions                                  |
| <b>C</b>         | 0.75 < 0.85                 |  | <b>Stable Flow</b><br>Speeds and maneuverability closely controlled due to higher volumes                   |
| <b>D</b>         | 0.85 < 0.95                 |  | <b>Restricted Flow</b><br>Higher density traffic restricts maneuverability and volumes approaching capacity |
| <b>E</b>         | 0.95 < 1.05                 |  | <b>Unstable Flow</b><br>Low speeds, considerable delays and volumes at or slightly over capacity            |
| <b>F</b>         | 1.05 and above              |  | <b>Forced Flow</b><br>Very low speeds, volumes exceed capacity and long delays with stop-and-go traffic     |

The roadway capacities are based on the daily capacity in the Highway Capacity Manual and the hourly capacity in the Metropolitan Council Model.

## Vehicle Capacity Analysis

A general planning level capacity analysis is intended to help identify general congestion concerns; it is not intended to be a substitute for a more detailed level of service (LOS) analysis, including methodologies established in the Highway Capacity Manual (HCM). Planning level capacity analysis was used to evaluate the existing roadway system to identify segments approaching-capacity, at-capacity, or over-capacity. In this analysis, existing daily traffic volumes were compared to capacity thresholds based on roadway functional classification and number of travel lanes.

Table 7-8 contains a summary of generalized traffic thresholds for specific roadway types, levels of service, and number of traffic lanes. These values were developed based on information from the HCM, the Metropolitan Council Regional Travel Demand Model, and planning and engineering staff judgment. The actual capacity of a roadway is influenced by additional factors such as access frequency, speed, traffic control, and intersection treatments. These factors may result in the actual capacity of a roadway varying from the planning level capacities as listed.

In accordance with MnDOT guidelines, the traffic level analysis uses the LOS "D/E" boundary as the indicator of acceptable traffic operations and congestion. LOS "D" (At-Capacity) is generally considered an acceptable operating condition during peak hours in urban areas such as the Twin Cities. Traffic volumes that exceed the upper limit of the LOS "D" threshold would be at- or over-capacity. Table 7-8 and Table 7-9 reflect roadway capacity and thresholds for LOS.

Table 7-8: Generalized Average Daily Traffic Thresholds for Capacity

| Facility Type                 | Number of Lanes | Daily Capacity |
|-------------------------------|-----------------|----------------|
| Metered Interstate Freeway    | 8               | 147,000        |
|                               | 6               | 110,000        |
|                               | 4               | 73,000         |
| Un-Metered Interstate Freeway | 6               | 99,000         |
|                               | 4               | 66,000         |
| Expressway                    | 6               | 62,000         |
|                               | 4               | 41,000         |
| Divided Arterial              | 6               | 54,000         |
|                               | 4               | 36,000         |
|                               | 2               | 18,000         |
| Un-Divided Arterial           | 6               | 48,000         |
|                               | 4               | 32,000         |
|                               | 2               | 16,000         |
| Collector                     | 4               | 21,000         |
|                               | 2               | 10,000         |

*Note: Estimated based on freeway daily capacity in HCM and hourly capacity in the Metro Council ABM model. City of Burnsville is designated as suburban/developing area type (along with developed, rural, business and residential cores)*

Table 7-9: Generalized Average Daily Traffic Lower Limit Thresholds for By Level of Service

| Facility Type                 | Number of Lanes | B      | C       | D       | E       | F       |
|-------------------------------|-----------------|--------|---------|---------|---------|---------|
| Metered Interstate Freeway    | 8               | 95,600 | 110,000 | 125,000 | 140,000 | 154,000 |
|                               | 6               | 71,500 | 82,500  | 93,500  | 105,000 | 116,000 |
|                               | 4               | 47,500 | 54,800  | 62,100  | 69,400  | 76,700  |
| Un-Metered Interstate Freeway | 6               | 64,400 | 74,300  | 84,200  | 94,100  | 104,000 |
|                               | 4               | 42,900 | 49,500  | 56,100  | 62,700  | 69,300  |
| Expressway                    | 6               | 40,300 | 46,500  | 52,700  | 58,900  | 65,100  |
|                               | 4               | 26,700 | 30,800  | 34,900  | 39,000  | 43,100  |
| Divided Arterial              | 6               | 35,100 | 40,500  | 45,900  | 51,300  | 56,700  |
|                               | 4               | 23,400 | 27,000  | 30,600  | 34,200  | 37,800  |
|                               | 2               | 11,700 | 13,500  | 15,300  | 17,100  | 18,900  |
| Un-Divided Arterial           | 6               | 31,200 | 36,000  | 40,800  | 45,600  | 50,400  |
|                               | 4               | 20,800 | 24,000  | 27,200  | 30,400  | 33,600  |
|                               | 2               | 10,400 | 12,000  | 13,600  | 15,200  | 16,800  |
| Collector                     | 4               | 13,700 | 15,800  | 17,900  | 20,000  | 22,100  |
|                               | 2               | 6,500  | 7,500   | 8,500   | 9,500   | 10,500  |
| V/C Ratio                     |                 | 0.65   | 0.75    | 0.85    | 0.95    | 1.05    |

Note: Estimated based on freeway daily capacity in HCM and hourly capacity in the Metro Council ABM model.

City of Burnsville is designated as suburban developing area type (along with developed, rural, business and residential cores)

The LOS for roadways in Burnsville was obtained by comparing the traffic level thresholds with the most recent available daily traffic counts (2015).

Figure 7-5 and Table 7-10 on the following pages display the results of the capacity analysis completed for the existing conditions.



Figure 7-5: Existing Roadway Congestion Levels

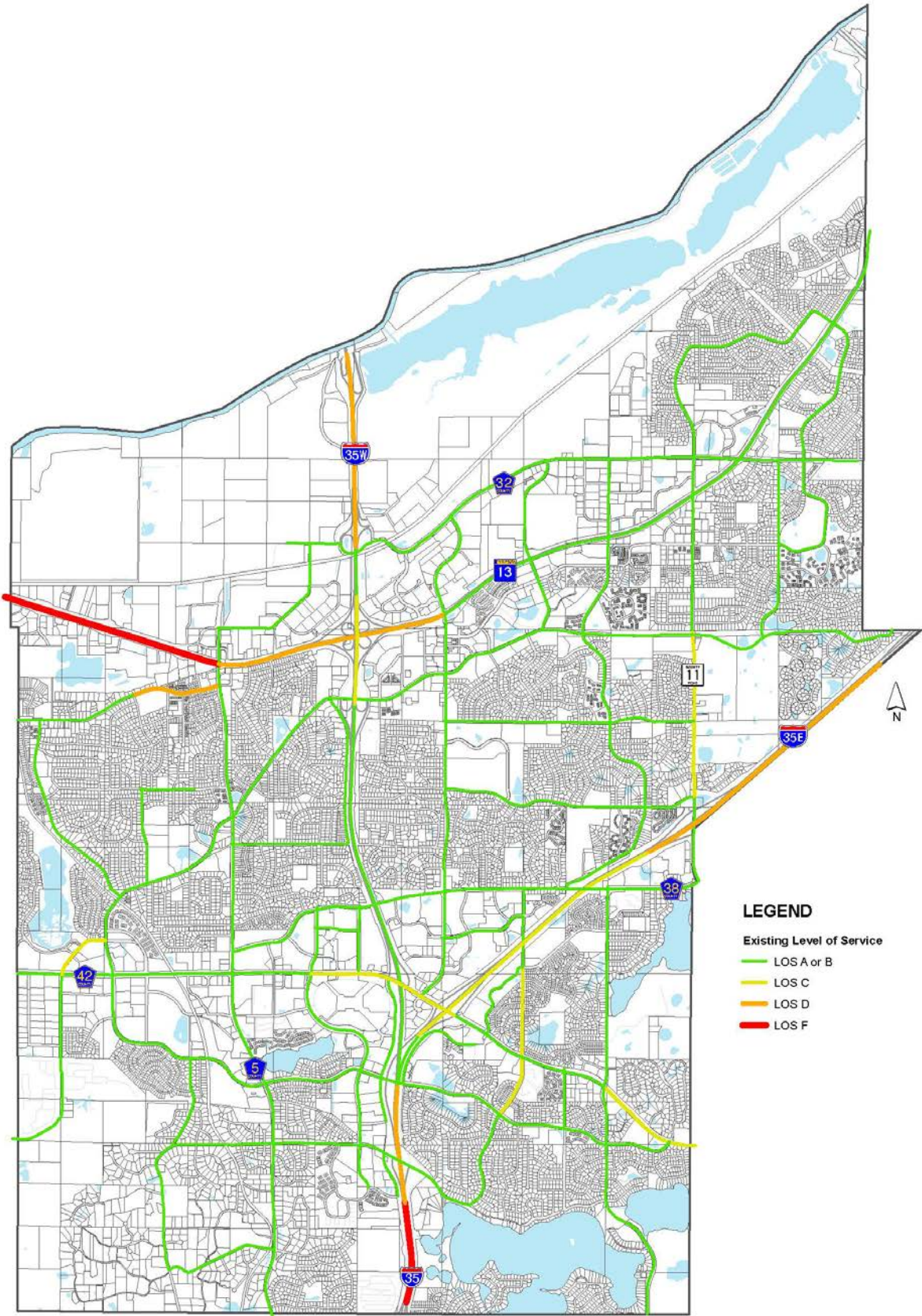


Table 7-10: Existing Congestion Levels (2016)

| Route and name             | Location                     | Length (Mile) | V/C Ratio | LOS |
|----------------------------|------------------------------|---------------|-----------|-----|
| <b>Principal Arterials</b> |                              |               |           |     |
| I-35                       | South of Crystal Lake Road W | 0.59          | 1.10      | F   |
| I-35                       | North of Crystal Lake Road   | 0.68          | 0.94      | D   |
| I-35E                      | Northeast of CSAH 42         | 1.75          | 0.75      | C   |
| I-35E                      | Northeast of CSAH 11         | 1.75          | 0.86      | D   |
| I-35W                      | South of TH 13               | 0.63          | 0.84      | C   |
| I-35W                      | South of Black Dog Road      | 1.13          | 0.88      | D   |
| CSAH 42                    | East of CSAH 11              | 0.66          | 0.76      | C   |
| CSAH 42                    | West of I-35E                | 0.44          | 0.77      | C   |
| CSAH 42                    | West of I-35W                | 0.46          | 0.80      | C   |
| TH 13                      | West of CSAH 5               | 1.32          | 1.21      | F   |
| TH 13                      | West of I-35W                | 0.57          | 0.90      | D   |
| TH 13                      | East of I-35W                | 0.80          | 0.87      | D   |
| <b>A-Minor Expander</b>    |                              |               |           |     |
| CSAH 11                    | South of Burnsville Parkway  | 0.83          | 0.84      | C   |
| CSAH 11                    | South of Burnsville Parkway  | 0.14          | 0.84      | C   |
| <b>Collector</b>           |                              |               |           |     |
| 150th Street               | South of CSAH 42             | 0.39          | 0.75      | C   |
| Portland Avenue            | North of CSAH 42             | 0.52          | 0.79      | C   |
| Burnsville Parkway         | North of CSAH 42             | 0.36          | 0.78      | C   |
| Williams Drive             | West of CSAH 5               | 0.51          | 0.92      | D   |
| <b>Total</b>               |                              | <b>13.51</b>  |           |     |

As shown in Figure 7-5 and Table 7-10, under existing conditions two segments of MnDOT roadways - I-35W and TH 13 - are operating over capacity (LOS "F"). Improvements to these areas can be gained through recommended intersection improvements on TH 13 and the extension of the MnPASS lane south on I-35W to Lakeville.

## Crash Information

Five-year MnDOT crash data for the period 2011-2015 was obtained in a Geographic Information System (GIS) format. The locations and frequencies of crashes during this timeframe for Burnsville are depicted on Figure 7-6. The following general observations can be made from this information:

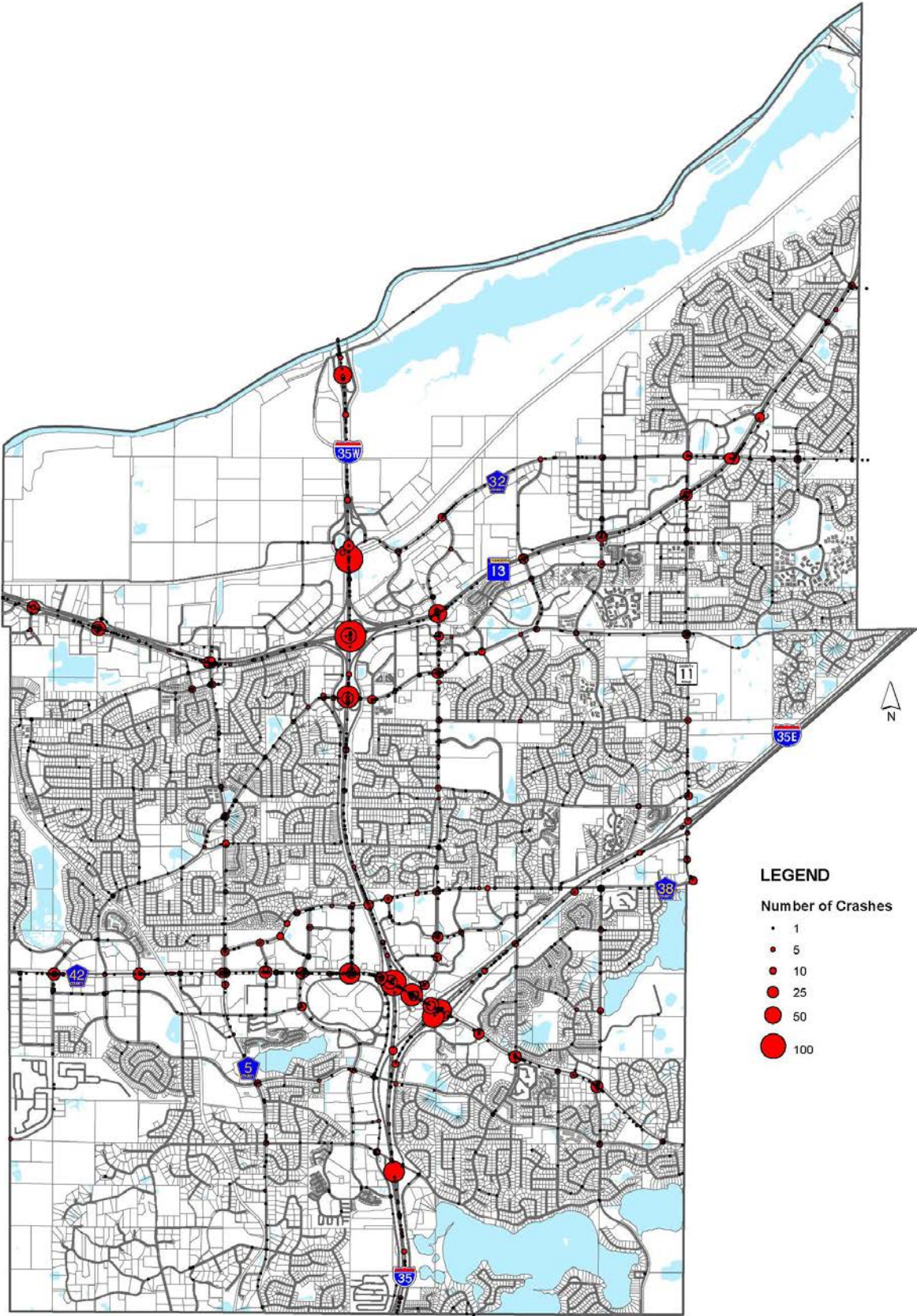
- » Freeway interchanges are high-crash locations. This outcome would be expected, given the volumes of traffic through these areas and the merge/weave maneuvers which are required.
- » Signalized intersections throughout the city are high-crash locations, in particular the CSAH 42 and TH 13 corridors.

- » The City of Burnsville has a Traffic Committee that evaluates crash data, amongst other traffic related items. The Committee works to develop projects on intersections that have higher crash rates than normal according to MnDOT standards.

These locations should be monitored and further evaluated as deemed appropriate by City staff.



Figure 7-6: Crashes 2011 – 2015

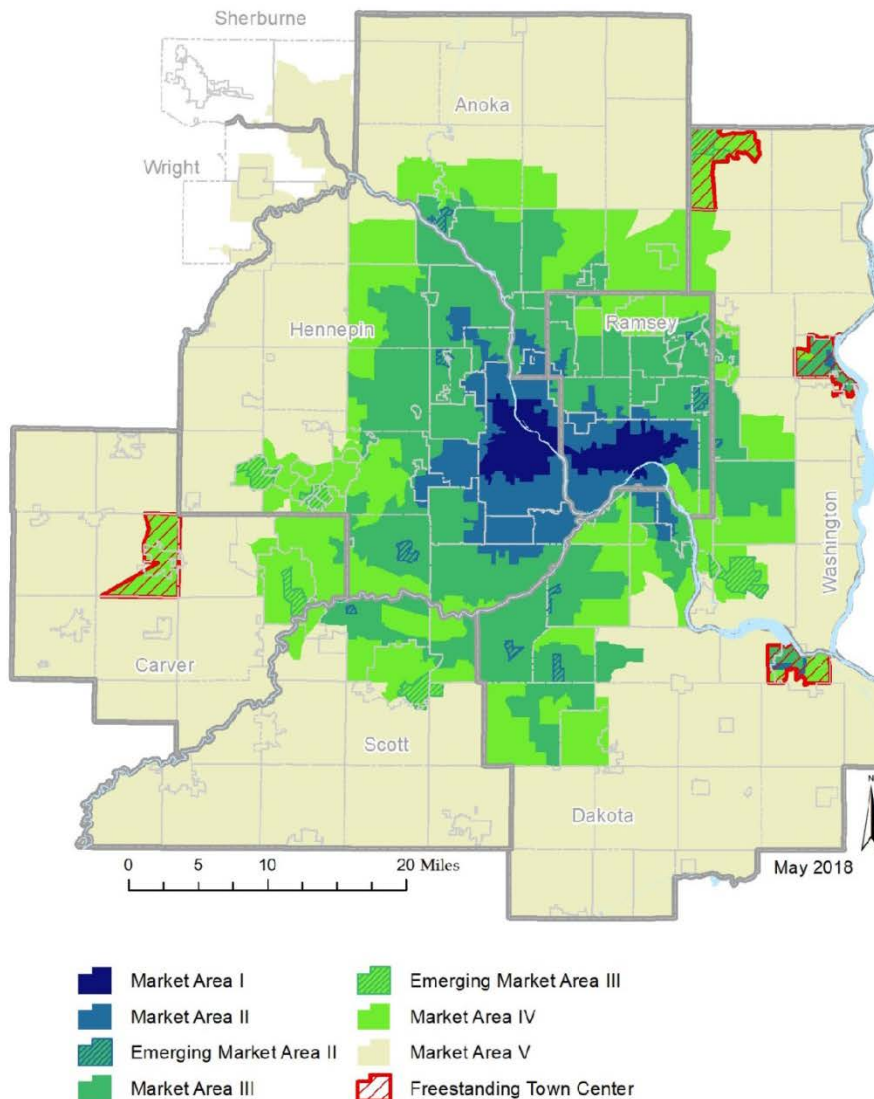


## Existing Transit Service

Transit is an important element of the transportation system within Burnsville. As the cost to operate a vehicle continues to increase, transit is becoming a more attractive alternative. In some cases, transit is the only means of transportation. Transit provides access to labor markets, economic centers, and places of employment thereby contributing to the economic stability or growth in the area. Transit can also help to reduce auto trips resulting in the conservation of energy, reduction in pollution, and increase in the people-carrying capacity of existing roadways.

The Metropolitan Council Transportation Policy Plan (TPP) identifies five distinct transit market areas, which are defined by population and employment density as well as the number of people who depend on transit. Figure 7-7 illustrates the location of the various transit market areas.

Figure 7-7: Metropolitan Council Transit Market Areas Map



The City of Burnsville is primarily located within Transit Market Area III which is defined as:

Urban along with portions of the Suburban, Suburban Edge, and Emerging Suburban Edge and is generally characterized by overall lower density and less transit-supportive urban form along with some pockets of denser development. The primary emphasis of transit service in this area is express and commuter service with some suburban local routes providing basic coverage.

Transit Market Area III has moderate density and can support a variety of transit services, but at lower intensity than Areas I and II. In some cases, general public dial-a-ride services may be appropriate in this market. The suggested service types for Market Area III include a mix of regular route and community circulator service complemented by dial-a-ride service in specific cases. Community circulators should tie into regular route regional service at a transfer point. The service types are general descriptions for each market area. Specific implementation of transit services will depend on available resources, specific analysis of transit demand, complementary and competing services, and other factors. Detailed analysis of specific communities may generate additional transit service delivery strategies.

A small portion of Burnsville is located within Emerging Market Area II. This area is located at the junction of I-35E and I-35W and the Burnsville Center.

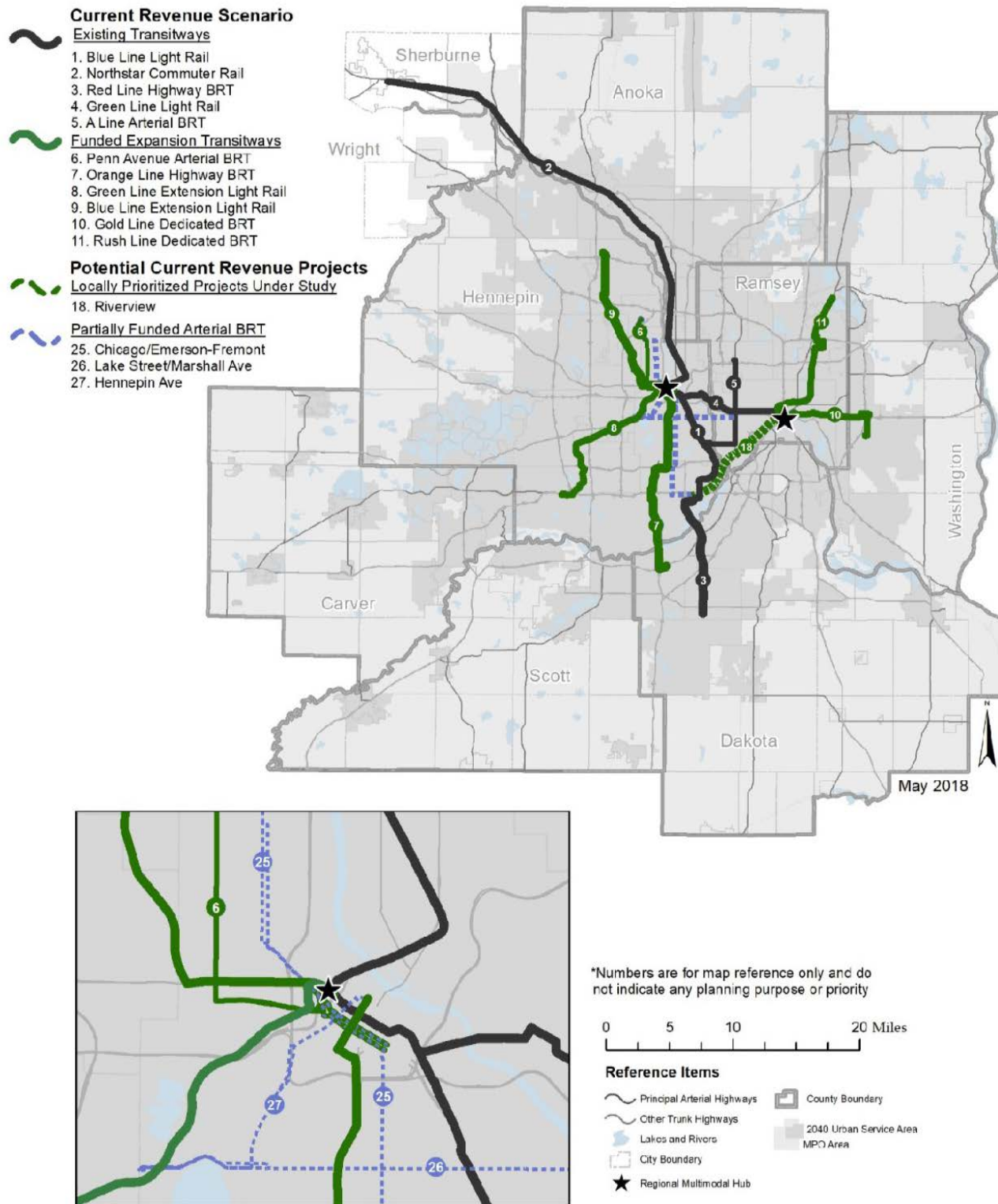
The Emerging Market Area II includes locations within Transit Market Areas III and IV that have a higher potential for transit usage than the rest of the market areas surrounding them. These areas are currently too small or non-contiguous to support a higher level of transit service. Focusing growth in and around these areas to connect to other areas of higher potential transit use will present good opportunities for future transit improvement. Figure 7-8 illustrates the 2040 Transitway System as developed by the Metropolitan Council.

The region made progress in developing transitways in the past several years. MVTA routes currently use/benefit from MnPASS lanes and bus-only shoulders. The I-35W MnPASS lanes on I-35W have been constructed which will facilitate Phase 1 of the METRO Orange BRT line which will begin operation in 2020. Phase 2 of the Orange Line is being studied for future construction. The Cedar BRT line, which serves and runs through the far northeast corner of Burnsville, has also been constructed and is currently operating with bus-only shoulder lanes.

The following sections describe the various components of transit service and facilities in Burnsville.



Figure 7-8: Metropolitan Council 2040 Transitway System Map



## Fixed Route Transit Service and Facilities

The City is one of seven cities (Apple Valley, Burnsville, Eagan, Prior Lake, Rosemount, Savage and Shakopee) and two counties (Dakota and Scott), that have followed the “Opt-Out” transit option. By opting out, these cities and counties are able to provide alternative transit services by utilizing funds that would have otherwise gone to the Metro Transit. All seven communities and the two counties entered into a Joint Powers Agreement to form the Minnesota Valley Transit Authority (MVTA) to provide transit services their communities. The MVTA Board is comprised of elected officials from each of the seven cities and two counties in the service area. City Resolution No. 08- 5634, identified MVTA as Burnsville’s primary transit provider. In 2010, Lakeville joined with the Metro Transit and a new park-and-ride facility was constructed along I-35W just south of Burnsville.

MVTA has proven successful based on ridership. The MVTA Board has also developed strategies and future plans for transit operations and expansions. MVTA has a number of regular transit routes and operates two park-and-ride facilities in Burnsville. A major transit hub and park-and-ride facility with 1,300 spaces is located at 100 Highway 13 East in Burnsville as well. This facility provides direct access to I-35W via an High Occupancy Vehicle (HOV) lane and also features many amenities including an indoor climate-controlled waiting area, restrooms, a ticket vending machine, transit information center, pay phones, drinking fountains, vending machines, an ATM, newspaper sales. This park-and-ride currently has a three-deck parking structure; the City has also approved the addition of a fourth deck which would accommodate an additional 300 - 400 vehicles. The other park-and-ride facility is located at the HOC and contains 350 spaces as well as an indoor climate-controlled waiting area.

The transit routes and park-and-ride facilities serving Burnsville are identified on Figure 7-9: Transit Service and Facilities.

## Non-Fixed Route Transit

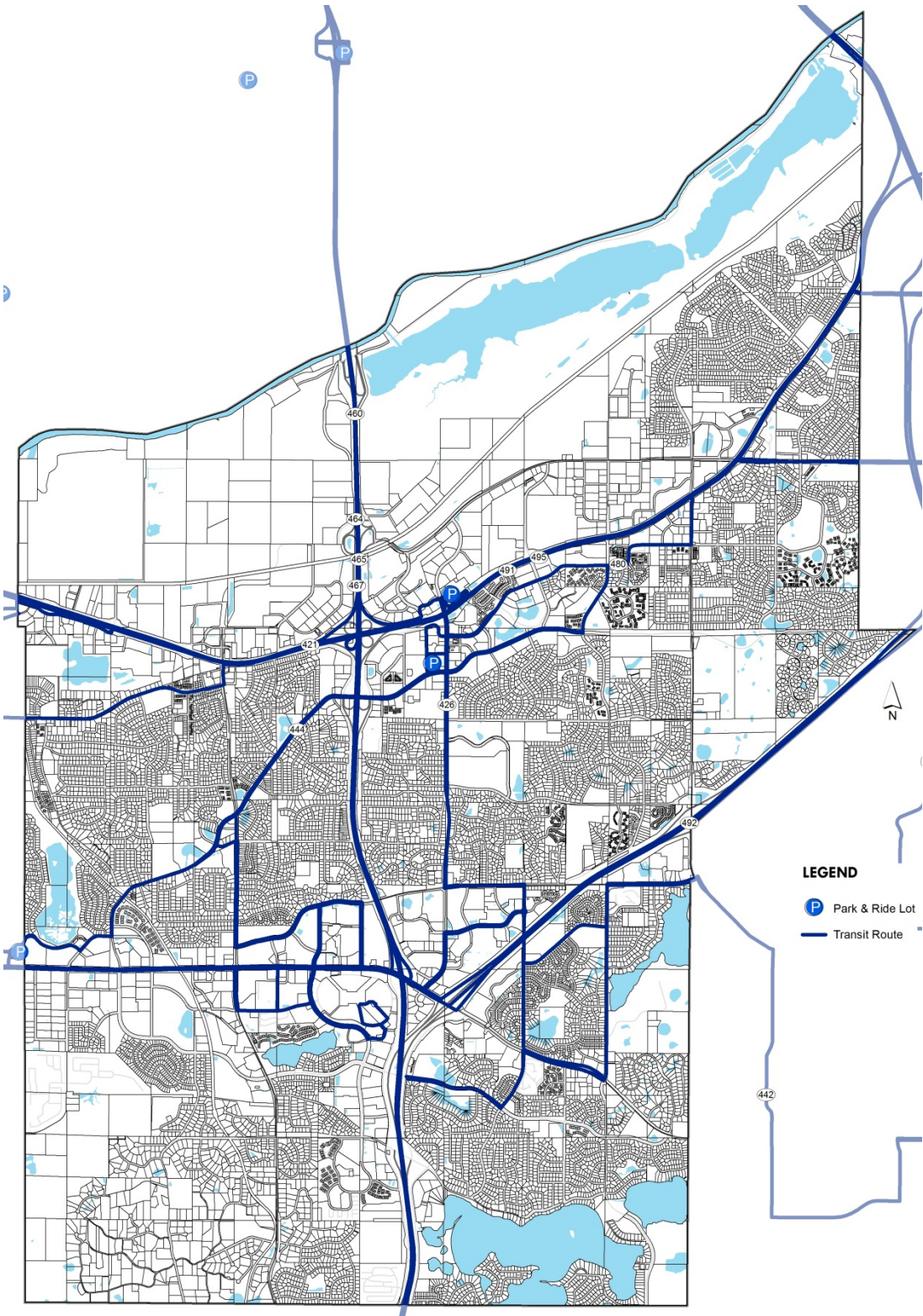
While the regular-route transit system is planned to meet the needs of the majority of transit users, some customers can be more effectively served through demand-responsive alternatives. The Americans with Disabilities Act (ADA) requires this service be provided and funded. Burnsville is served by Metro Mobility and Dakota County Transit Link Service.

Metro Mobility will meet the requirements of the ADA by providing transit service to people with disabilities certified as not able to use the regular-route transit system. Under the ADA, the metropolitan region is required to provide complementary paratransit service within 3/4 of a mile of all local regular-route transit service during the same times that the service operates. Minnesota state law also requires the service to be provided in areas beyond the requirements of the ADA.

Dakota County Transit Link Service provides service in areas where fixed route services are not available. It has an added benefit of connecting to

regular transit routes for those passengers that are so able. Transit hubs for this service are at the Burnsville Transit Station and the Burnsville Center.

Figure 7-9: Transit Service and Facilities





## Transit Facilities

Transit passenger facilities are essential to provide convenient and attractive transit service. They range from basic bus stop signs to large and complex multimodal transit centers and park-and-rides. There are a number of transit facilities that exist in Burnsville including the Heart of the City Park & Ride located at 12751 Pillsbury Avenue and the MVTA Burnsville Transit Station located at 100 Highway 13 East. MVTA coordinates with the City to establish bus stop locations. As the need arises, additional facilities will be provided to support the transit system.

## Transit Advantage

The recognized transit advantage of Bus Shoulders is planned for Burnsville on TH 13 from the west city limits to Nicollet Avenue.

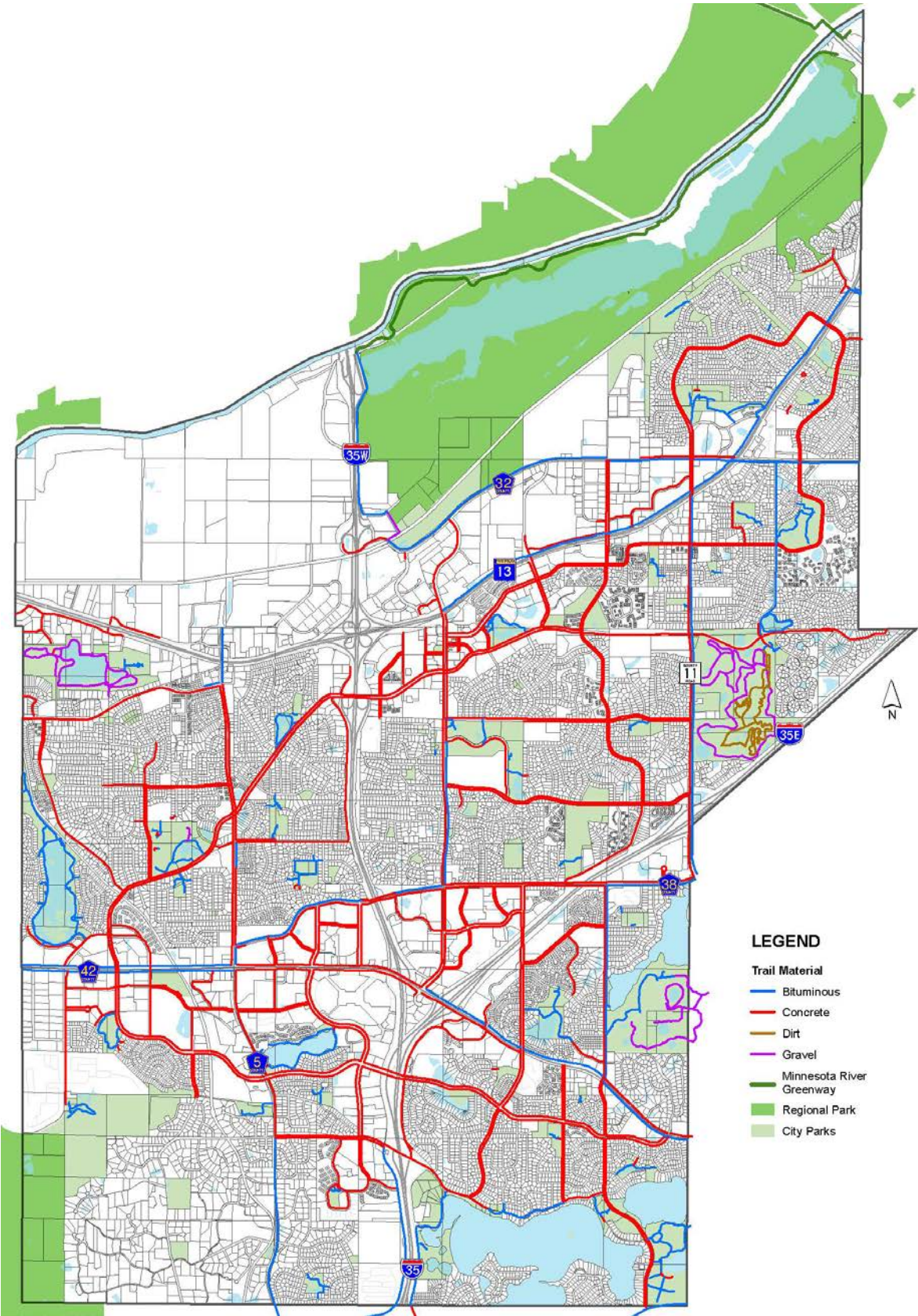
## Non-Motorized Transportation

Burnsville has approximately 150 miles of sidewalks and trails. These facilities are considered a vital part of the city's transportation system. Currently, trail construction generally occurs when the specific trail link is included as an individual project in the Capital Improvement Program. The Parks Capital Fund is the City source of funding for parks and trail funding, but the primary source for new trails has been federal or state grants and Dakota County cost sharing for the remaining portion after the grant funds are fully used. The City continues to coordinate with Dakota County and the Metropolitan Council on regional trail planning.

The City has conducted extensive trail planning efforts through both its street system and parks and recreation system. The existing sidewalk and trail facilities are depicted on Figure 7-10. Most arterial roadways have sidewalks or trails one or both sides and a number of collectors also provide sidewalks. Sidewalks are generally constructed out of concrete and are five feet wide and trails are eight or ten feet wide and are generally constructed with bituminous pavement. The trail system also includes those trails located within the City's parks, natural areas and two regional parks. In 2017, the Black Dog segment of the Minnesota River Greenway was opened within the Minnesota Valley National Wildlife Refuge in coordination with Dakota County. This will serve as an important regional trail for recreation an non-motorized transportation corridor connecting Scott County to St. Paul through the northern cities of Dakota County.



Figure 7-10: Existing Trails and Sidewalks



## Other Transportation Sectors

### Rail

Four Class I railroads and three regional or short-line railroads serve the region's freight rail customers. Class I railroads link the region with major national markets and short lines predominantly operate local service, generally within 100 miles of the region. The railroad industry has continuously grown since the 1980s and rail lines continue as an increasingly important component of the region's freight system.

There are two existing rail lines in the city. The Union Pacific (UP), has a track north of Highway 13 that parallels the Minnesota River and allows eastbound trains to travel to St. Paul and westbound trains to travel to Mankato. The Canadian Pacific (CP) has a track through Burnsville that connects from Lakeville to the south to Savage in the northwest. This rail line runs north and south through the west portion of Burnsville and is commonly referred to as the Dan Patch rail line. Minnesota's 2015 State Rail Plan included the Dan Patch rail line as a part of an intercity transit project between the Twin Cities and Albert Lea; planning for this project is expected within the next 20 years. Future considerations on transportation and land use should be fully vetted if this project proceeds. The railroad does not have any plans to abandon this line. If the corridor were to be abandoned at a future date, the City should work to retain the corridor for trail purposes.

The UP railroad is a Class I rail facility which travels through the industrial area and crosses under I-35W just south of the Cliff Road interchange. The UP carries between four and seven trains per day and has at-grade crossings at Washburn Avenue, DuPont Avenue, and Cliff Road (CH 32) as well as a private crossing for Xcel Energy at Black Dog Park.

The City, UP railroad, Xcel Energy and other agencies have worked with residents of the River Hills neighborhood for many years and have significantly reduced train whistle noise near the rail crossing adjacent to Black Dog Park. At a private crossing such as this, federal law does not require the use of a train whistle, although it may be used as a result of a separate agreement with the property owner.

### Freight

Within the City of Burnsville are significant nodes of industrial and commercial use which generate freight movement. These include: Industrial – west of CSAH 5 both north and south of CSAH 42, the northwest quadrant of TH 13 and I-35W, north and south of CSAH 32 from Portland Avenue to CSAH 11; Commercial – Heart of the City, Burnsville Center, north and south of CSAH 42 from CSAH 5 to I-35E.

The MRQ will have access from the south and west via the TH 13/County Road 5/Kenwood Trail interchange. The extension on Kenwood Trail will provide the needed access. To facilitate the construction of that extension,



the City has applied for funding through MnDOT's Freight Improvement Solicitation. If selected, this funding will be available for construction in State fiscal years 2019 – 2022.

The existing transportation system in Burnsville, accommodates the efficient movement of goods and does not present any limitations to that movement.

## Aviation

The average drive distance from the City of Burnsville to the Minneapolis/St. Paul (MSP) International Airport is about 13 miles; however, the northeast corner of the city is within about 2.5 miles from the southern boundary of MSP.

This area of the City is under the approach surface to Runway 35 which is protected per Federal Aviation Regulation Part 77, Objects Affecting Navigable Airspace. The airport elevation at MSP is approximately 850 feet Mean Sea Level (MSL). The northeast corner of the City of Burnsville has an elevation between 900 feet and 950 feet MSL.

Because the City of Burnsville is under the approach surface to Runway 35 and is at a higher elevation than MSP, the City should notify FAA of any structure to be constructed, which is proposed to be 150 feet or more above the ground. This notification can be accomplished online at [oeaaa.faa.gov](http://oeaaa.faa.gov) by completing a FAA 7460-1 "Notice of Proposed Construction or Alternation". By completing this form, the City is notifying the FAA of construction of a tall structure that could potentially impact the airspace and approach procedures at MSP. The FAA will review the information and inform the City if it is recommended the new structure be lit or if the new structure will have an impact on the surrounding airspace. The City already has a provision in the in Sec. 10-29-3: Height Restrictions of the zoning ordinance relating to tall structures in the MSP flight area.

Currently, no aviation support facilities exist in the City. There are no emergency use airports or heliports. There is only one helistop which is located at the Fairview Ridges Hospital.

## Plane Lakes

There are two seaplane lakes in Burnsville: Crystal and Alimagnet Lakes. Additionally, aircraft equipped with wheels or skis may operate on these lakes when frozen and if landing and take-off can be conducted in a safe and reasonable manner relative to lake and traffic use (Minn. Rules Section 8800.2800.6). In order to land a seaplane on either Crystal or Aligmagnet Lake, seaplanes must first obtain the permission of the landowner to use the landing area. In this case, the landowner is the City. Upon City approval, appropriate advanced measures will be made to ensure state regulations are met, and that adequate safety controls are in place for successful landing and takeoff. Seaplanes have used these lakes on occasion.

### Airport Noise

Prior to 2006, relatively little aircraft noise was reported in the city due to the orientation of runways. This changed in 2005 with the opening of new runway #17/35. The City worked with MAC and the FAA to mitigate the noise. As a result, flights are now utilizing the river valley and the noise situation has been resolved. This has been confirmed with the MSP 2016 Noise Contour Report, which shows Burnsville to be outside of the noise contour.

### Navigable Waters

The Minnesota River is a navigable waterway used by barges to carry bulk commodities to domestic and international markets. The U.S. Army Corps of Engineers maintains the barge channels and the dredge operations are managed by the Lower Minnesota River Watershed District Dredge Materials Plan for the Minnesota River.

Within Burnsville, Port Marilyn (former US Salt), receives barge deliveries of salt, light weight aggregate and cotton seed. The terminal is accessed by truck from I-35W via Black Dog Road and the site has a total storage capacity of 55,000 tons.

Port Bunge is located in the City of Savage and includes several large operators including Mosaic Crop Nutrition, CHS Inc., Superior Minerals Co., and River Land Ag. Corp., Port Cargill East and West. The commodities handled include grain, fertilizer and aggregate. Port Cargill East is located within the City of Savage but has a barge channel located in northwest Burnsville. In 2015, this port moved a total of 2,123,201 tons of material.

## Planning Context – Studies, Projects, Issues

### CSAH 42 Corridor

The CSAH 42 Corridor has been under study and construction since the late 1990s. Improvements have included: widening CSAH 42 from four to six lanes from CSAH 5 west to Savage, left turn lane extension for eastbound CSAH 42 at the I-35W interchange, and traffic signal retiming.

Also under consideration is a pedestrian crossing study at the Burnsville and Apple Valley border. While the final outcome has yet to be determined, improvements/crossing accommodations, could result in increased traffic volumes on Keller Lake Drive.

Widening of County Road 42 to six lanes from I-35E east to the City limits is under consideration by Dakota County specifically with funding from the ¼ cent sales tax for transportation. This section is shown as having a 6 lane need according to their Transportation Plan.

### Trunk Highway 13 (TH 13) Corridor Study

TH 13 is a major east-west route in northern Dakota and Scott Counties, connecting Cedar Avenue (TH 77), I-35W, and TH 169. TH 13 is a major

truck corridor serving the region including the Ports of Savage on the Minnesota River. The corridor study identified key transportation issues along the corridor and made recommendations for possible improvements. The study was a joint effort on behalf of MnDOT, Dakota and Scott Counties, the Cities of Burnsville and Savage, and the Metropolitan Council. Key study recommendations for the Burnsville portions of the project area that have been completed include:

- » Coordination and retiming of traffic signals on TH 13.
- » Partial construction of Kenwood Trail north of the intersection of CSAH 5 and TH 13.
- » Grade-separated TH 13/CSAH 5/Kenwood Trail interchange.

Study recommendations yet to be implemented include:

- » Completion of the Kenwood Trail extension.
- » Frontage road and trail connection between Lynn Avenue and Chowen Avenue on the north side of TH 13.
- » Consolidation of the Chowen/Washburn intersection and plan for an interchange.
- » Addition of a pedestrian bridge crossing TH 13 at Nicollet Avenue.
- » Modification of lane geometry and TH 13 and Nicollet Avenue to better meet traffic conditions and access to I-35W.

## **Trunk Highway 13 (TH 13) and Nicollet Avenue Multi-Use Pedestrian Bridge**

The City is nearing completion of a preliminary study for a multi-use pedestrian bridge across TH 13 near the Orange Line BRT station, the MVTA Burnsville Transit Station and the Heart of the City. The City has, and will continue to seek partnerships and funding to develop the TH 13 grade separation.

## **Minnesota River Quadrant (MRQ) Redevelopment**

Redevelopment of the Minnesota River Quadrant (MRQ) has been discussed previously in Chapter 2, Future Land Use Guide Plan. The redevelopment of the MRQ is dependent on the surrounding transportation system. In 2013, a new interchange was constructed at TH 13/CSAH 5/Kenwood Trail. Kenwood Trail is a local city street that will connect the MRQ to the interchange. Planning for that connection continues with regard to the number of traffic lanes required along with the need for a railroad overpass.

At the present time, two I-35W interchanges serve the MRQ (Black Dog Road and Cliff Road). Through traffic operational analysis, the City has determined the level of development that can occur in the MRQ, is the greatest with two interchanges. However, a major factor on development

of the MRQ is the Freeway Landfill Superfund Site. If future development occurs there with large numbers of new vehicle trips, then two interchanges are required. If the area is closed without an intense traffic use, it would likely be possible to serve the area with one interchange.

Figure 7-11: Land Use and Transportation Changes (Current Interchanges)



## Cliff Road West Relocation

The Cliff Road West Relocation project will link the future TH 13/CSAH 5/Kenwood Trail interchange with the I-35W/Cliff Road interchange on a new alignment. It is needed to relieve severe congestion on TH 13 west of I-35W and the I-35W/TH 13 interchange and to provide an improved truck/freight access in the MRQ to I-35W. It will improve the continuity and efficiency of the link between CSAH 5/Kenwood Trail and Cliff Road (CSAH 32). This extension will be the main access road from the south into and through the future MRQ redevelopment area. The existing connection is a two-lane road. This plan assumes five percent buildout of the MRQ for which this road will suffice. Further study will be needed beyond 2040 as the MRQ develops.

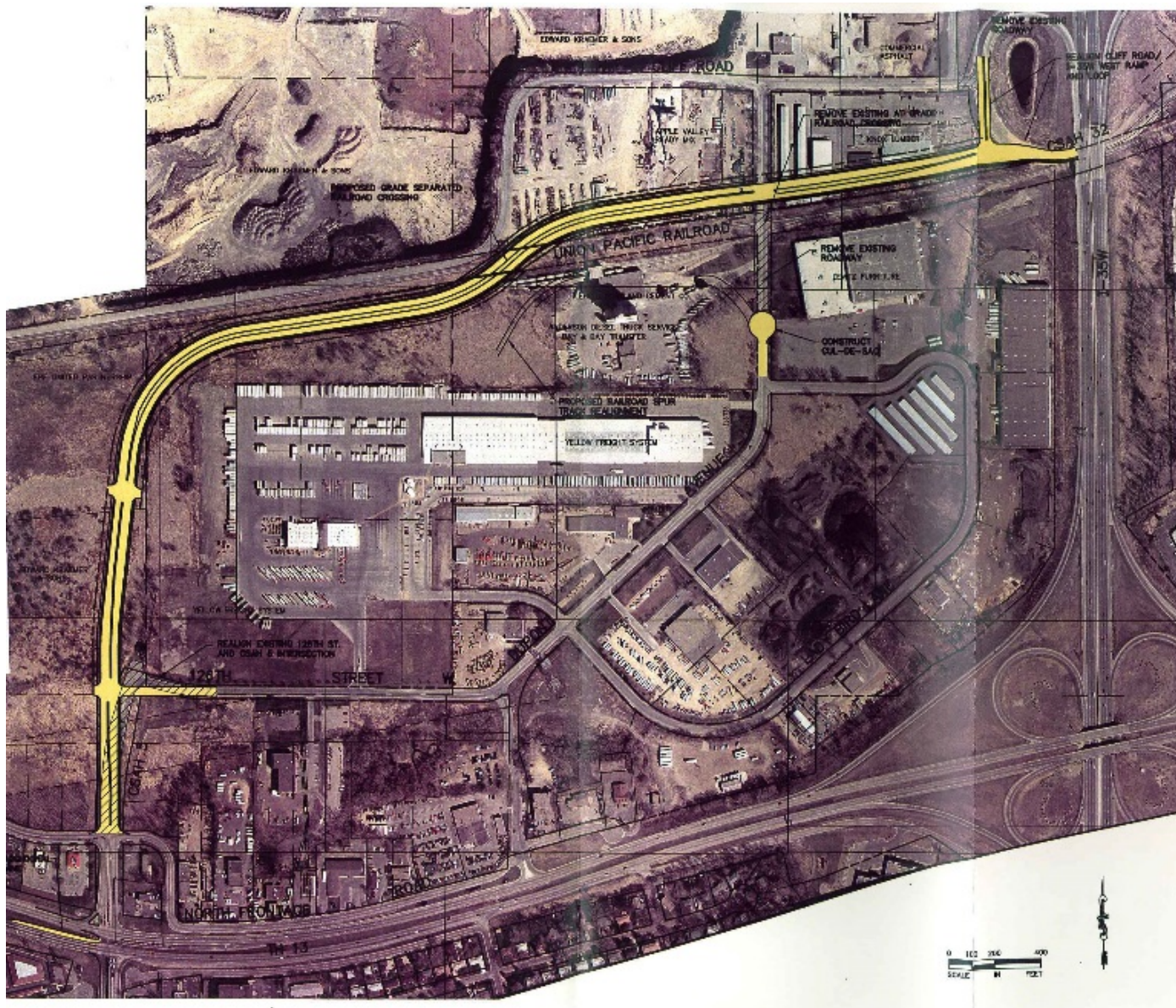
In spite of the City's work to advance this project, it has been unable to secure additional funds for construction at this time but will continue efforts to secure such funding. Recent efforts include the City's application for funding through MnDOT's Freight Improvement Solicitation. If selected, this funding will be available for construction in State fiscal years 2019 – 2022. Figure 7-12 and Figure 7-13 detail the latest preliminary design for this connection.

Figure 7-12: Cliff Road West Realignment





Figure 7-13: Cliff Road West Extension



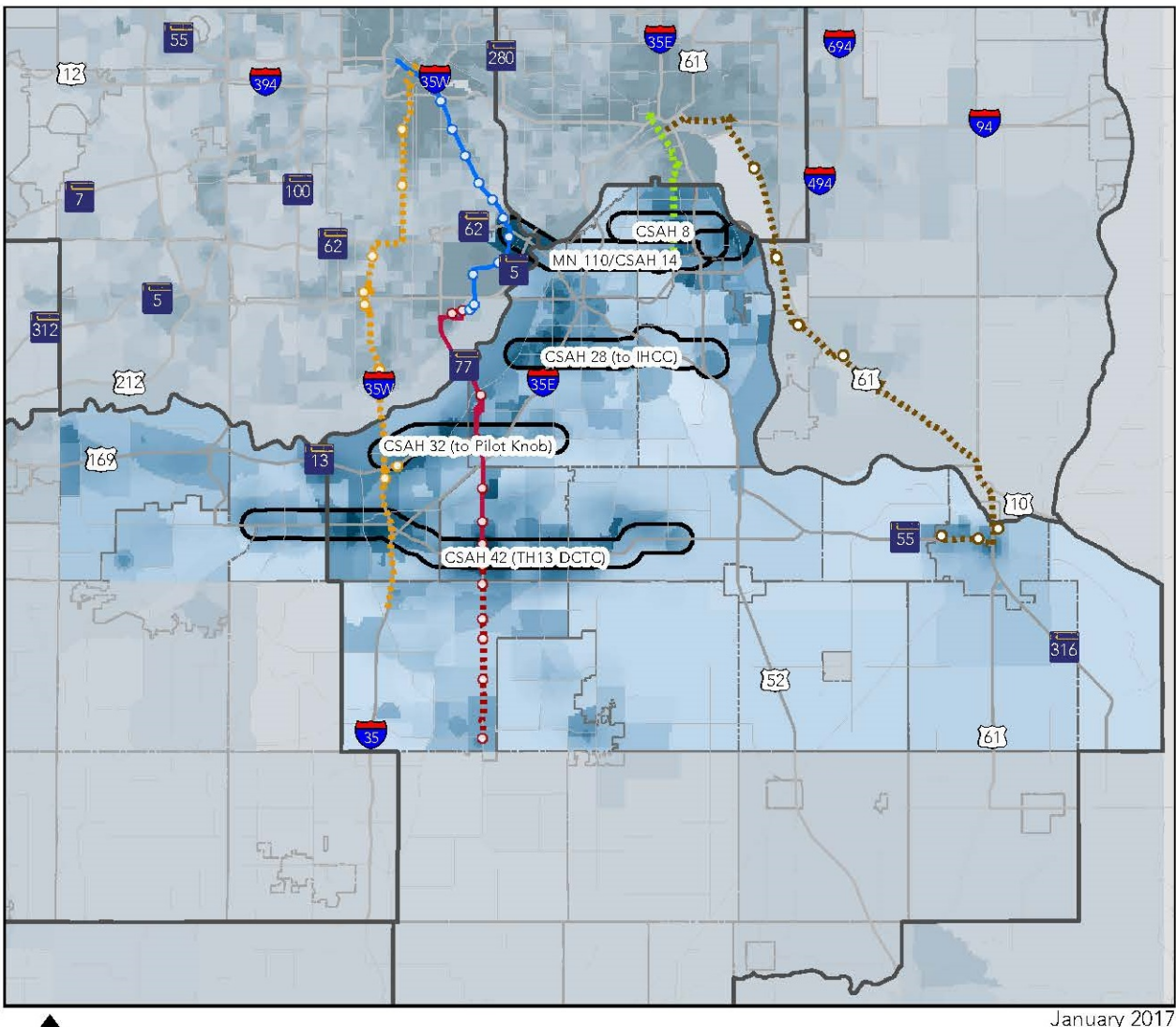


## Dakota County East-West Transit Study

Dakota County conducted this study to address existing and emerging needs for east-west oriented transit in the County. The study was completed in March 2017 and looked to improve the quality of fixed-route transit service in the county and their connections to the regional transit system. It also identified and evaluated potential transit corridors. Corridors within Burnsville that were evaluated included Cliff Road, McAndrews Road, County Road 42 and TH 13.

The study contains recommendations for potential transit improvements on two corridors in Burnsville. The Cliff Road corridor will be considered for a new transit connection between the future Orange Line and the Red Line stations and the County Road 42 corridor will be considered for increased transit services to support the concentration of destinations along this corridor.

Figure 7-14: Corridors Recommended for Further Consideration



## Dakota County 2030 Transit Plan

Dakota County's 2040 Transit Plan will be available in 2019. Included here is a relevant summary of the County's 2030 plan. The Transit Plan element of the Dakota County 2030 Comprehensive Plan does not identify specific planned improvements; however, the plan included the following key objectives:

1. Provide assistance to the Dakota County Regional Railroad Authority in transitway planning and development.
2. Support service providers in identifying transit needs and solutions of the transit-dependent population.
3. Work with local units of government to link transit service and land-use decisions.
4. Monitor and support use of technological advances and roadway design modifications to reduce travel demand and improve transit performance.
5. Secure dedicated regional, state and federal transit funding for capital investments that can improve the effectiveness of transit service.
6. Provide for specialized transit services for clients of Dakota County's Community Services Division.
7. Allocate Capital Improvement Plan funds dedicated for transit for infrastructure improvements that can increase the convenience or efficiency of transit service.

Dakota County's efforts toward these objectives are often undertaken on a regional level through cooperation with other bodies responsible for financing, developing, and operating transit service. Dakota County regularly engages with several regional agencies to develop transit policy, service and infrastructure.

## Dakota County 2030 Transportation Plan

Dakota County's 2040 Transportation Plan will also be available in 2019. Included here is a relevant summary of the County's 2030 plan. Like the County's Transit Plan, the Dakota County 2030 Transportation Plan is also a part of the County's Comprehensive Plan. It is used as a guide to maintain and improve the transportation system as it relates to with land use goals, objectives, and transportation policies.

The stated goals of the Dakota County 2030 Transportation Plan include the following:

- » Goal 1: Limited resources are directed to the highest priority needs of the transportation system
- » Goal 2: Transit and integration of transportation modes
- » Goal 3: Preservation of the existing system

- » Goal 4: Management to increase transportation system efficiency, improve safety and maximize existing highway capacity
- » Goal 5: Replace deficient elements of the system
- » Goal 6: Improvement and expansion of transportation corridors.

The following improvements in Burnsville are included in Dakota County's 2018 – 2022 Transportation Capital Improvements Program:

- » 2018 – Traffic signal replacement on CSAH 5 at Burnsville Parkway and 136th Street, and CSAH 42 and Southcross Drive.
- » 2019 – Cliff Road and I-35W west ramp realignment.
- » 2021 – Intersection Control Improvement at CSAH 11 and Burnsville Parkway.
- » 2022 – TH 13 and Nicollet Avenue pedestrian grade separation facility.

Not included at this time in the County's Transportation Capital Improvement Program, but identified for expansion in the ongoing work for the Dakota County Comprehensive Plan, are the following County roadways:

- » CSAH 32 from TH 13 to the east city limits, as a 6-lane need
- » CSAH 42 from the west city limits to 145th St E, as more than a 6-lane need
- » CSAH 42 from 145th St E to the east city limits, as a 6-lane need
- » CSAH 46, for all portions bordering Burnsville, as a 6-lane need

## Planned Improvement Summary

The planned improvements to principal arterials and new/improved interchanges to the principal arterial system are:

- » I-35W river crossing bridge widened from 7 to 8 lanes with a trail. 2018 - 2021.
- » Adding a bus only lane for the Orange Line on the northbound entrance ramp from Burnsville Parkway onto I-35W. 2018.

There are not any identified future right-of-way needs for proposed/planned principal and A-minor arterial expansions.

# Future Transportation System

## Future Roadway Needs

### Metro Council Activity-Based Travel Demand Modeling Process

Transportation decision makers often confront difficult questions about how local and regional transportation will perform in future years. Travel demand models are developed to support decision-making by providing information about the impacts of alternative transportation and land use

policies, as well as demographic and economic trends. Trip-based travel models, often referred to as four-step models, have been used for decades to support regional and sub-regional transportation analysis and decision-making. In recent years, more advanced activity-based models (ABMs) have been developed and implemented due to their significant enhancements to four-step trip-based models. These enhancements include the explicit representation of more realistic constraints of time and space, as well as the linkages among activities and travel both for an individual person and across multiple people in a household. ABMs more closely replicate actual traveler decisions than traditional four-step travel demand models and thus may provide better forecast of future travel patterns.

Metro Council upgraded its trip-based model to an ABM for its 2040 Transportation Policy Plan (Thrive MSP 2040) and released its latest version in July 2017. Local communities are required to conduct transportation plan updates using the latest ABM model.

In addition to data preparation and special generation aggregate models, there are four major categories of disaggregate models in the Metro Council's ABM: long-term models, daily activity patterns, tour level models and trip/stop level models. Figure 7-15 on the following page illustrates the model framework for these four major categories. (Source: *Metro Council Model Estimation and Validation Report, July 30, 2015*):

1. **Long-term Models:** The models in this category capture decisions with a longer time horizon including the location of one's regular workplace, or school location, vehicle availability, and transit and toll transponder pass ownership models. These decisions are modeled first since the outcome of these decisions influences other components of travel including mode choice and time availability for non-mandatory travel.
2. **Daily Activity Patterns:** The models in this category establish daily travel patterns at the individual level. Related to this concept is the understanding that each individual has a restricted amount of time per day that can be engaged in activities and associated travel. The daily activity patterns are simulated through a series of models including daily activity pattern, mandatory tour generation, school escorting, joint non-mandatory tour participation and individual non-mandatory tour generation models.
3. **Tour Level Models:** The models in this category incorporate interrelationship among trips that are components of a "tour" which typically departs from home, visits one or more activity locations, and then returns home.

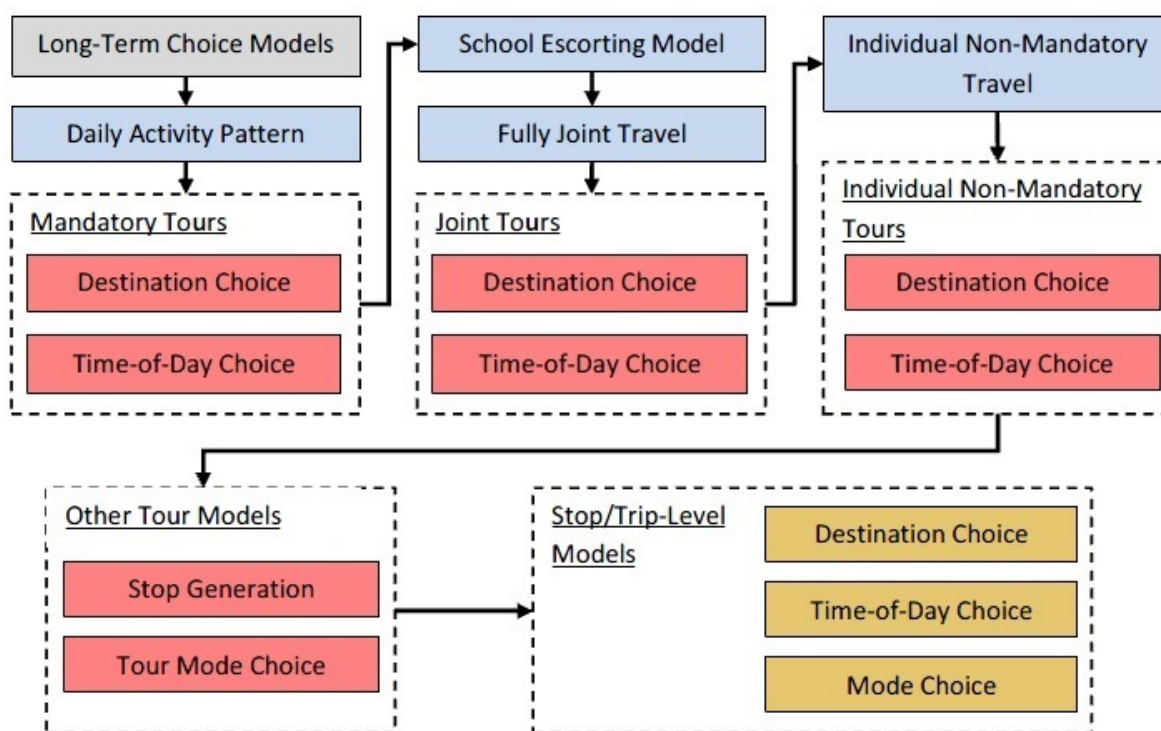
Hierarchical rules are established to identify the appropriate nature of the tour. For instance, tours that include a mandatory destination such as work or school are defined as a work-based tour irrespective of other destinations serviced as part of this tour. The tour-level models provide an improved framework over trip-based models to represent daily travel decisions since they account for previous and subsequent trips

within a tour. Overall, tour-based models account for information on modes, time-of-day, group travel, and other characteristics of travel that are clearly interrelated across trips within a tour.

4. **Trip/Stop Level Models:** Within each tour, non-primary stops are modeled as intermediate stops. For tours with intermediate stops, separate models that capture the destination of the stop, the mode of travel, and the time-of-day of travel are developed.

These models are constrained by the choices already made at the tour-level and therefore, allow for a more realistic decision-making process for every individual trip.

Figure 7-15: Metro Council Active-Based Model Structure



Source: Metro Council Model Estimation and Validation Report, July 30, 2015

## Land Use Assumptions

Future year land use requires the allocation of socioeconomic data (i.e., population, households and employment) to individual transportation analysis zones (TAZs). Discussions with the City regarding future land use plans and development proposals were used to assign future population and employment values to the 50 TAZs within Burnsville. It is noted that three of the TAZs are partially within the City of Burnsville.

Figure 7-16 on the following page displays the location of the various TAZs contained within Burnsville. Table 7-11 on page 7-363 lists actual data for 2015 and projected data for years 2020, 2030 and 2040.



2040 Comprehensive Plan  
Chapter 7 - Transportation Plan

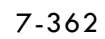


Table 7-11: City of Burnsville Socio-Economic Data Summary in the Regional Model

| TAZ   | 2015       |        |            | 2020       |        |            | 2030       |        |            | 2040       |        |            | Change (2015-2040) |       |            | Annual Change (%) |        |            |
|-------|------------|--------|------------|------------|--------|------------|------------|--------|------------|------------|--------|------------|--------------------|-------|------------|-------------------|--------|------------|
|       | Population | HH     | Employment | Population | HH     | Employment | Population | HH     | Employment | Population | HH     | Employment | Population         | HH    | Employment | Population        | HH     | Employment |
| 541   | 1,723      | 807    | 294        | 1,740      | 824    | 325        | 1,808      | 853    | 349        | 1,860      | 870    | 380        | 137                | 63    | 86         | 0.32%             | 0.31%  | 1.17%      |
| 542*  | 1,313      | 452    | 33         | 1,326      | 462    | 37         | 1,378      | 478    | 40         | 1,380      | 479    | 40         | 67                 | 27    | 7          | 0.20%             | 0.24%  | 0.85%      |
| 543   | 2,544      | 978    | 241        | 2,568      | 999    | 267        | 2,670      | 1,033  | 286        | 2,670      | 1,033  | 286        | 126                | 55    | 45         | 0.20%             | 0.22%  | 0.75%      |
| 544   | 675        | 227    | 1,819      | 681        | 232    | 2,015      | 708        | 240    | 2,163      | 708        | 240    | 2,163      | 33                 | 13    | 344        | 0.20%             | 0.23%  | 0.76%      |
| 545   | 0          | 0      | 173        | 0          | 0      | 192        | 0          | 0      | 206        | 0          | 0      | 217        | 0                  | 0     | 44         | 0.00%             | 0.00%  | 1.03%      |
| 546   | 0          | 0      | 1,473      | 0          | 0      | 1,632      | 0          | 0      | 1,752      | 0          | 0      | 1,805      | 0                  | 0     | 332        | 0.00%             | 0.00%  | 0.90%      |
| 547   | 352        | 226    | 989        | 357        | 227    | 1,092      | 368        | 240    | 1,176      | 1,038      | 454    | 1,269      | 686                | 228   | 280        | 7.79%             | 4.04%  | 1.13%      |
| 548   | 1,254      | 715    | 504        | 1,266      | 730    | 559        | 1,316      | 756    | 599        | 1,492      | 813    | 608        | 238                | 98    | 104        | 0.76%             | 0.55%  | 0.82%      |
| 549   | 408        | 146    | 1,215      | 412        | 149    | 1,346      | 428        | 154    | 1,445      | 428        | 154    | 1,469      | 20                 | 8     | 254        | 0.20%             | 0.22%  | 0.84%      |
| 550   | 667        | 371    | 1,943      | 673        | 379    | 2,153      | 700        | 392    | 2,310      | 700        | 392    | 2,361      | 33                 | 21    | 418        | 0.20%             | 0.23%  | 0.86%      |
| 551   | 1,353      | 592    | 111        | 1,366      | 605    | 123        | 1,420      | 626    | 132        | 1,420      | 626    | 132        | 67                 | 34    | 21         | 0.20%             | 0.23%  | 0.76%      |
| 552   | 1,351      | 594    | 339        | 1,364      | 607    | 376        | 1,418      | 628    | 403        | 1,434      | 633    | 417        | 83                 | 39    | 78         | 0.25%             | 0.26%  | 0.92%      |
| 553   | 2,064      | 816    | 134        | 2,084      | 833    | 149        | 2,166      | 862    | 159        | 2,170      | 863    | 178        | 106                | 47    | 44         | 0.21%             | 0.23%  | 1.33%      |
| 554   | 1,791      | 746    | 134        | 1,808      | 762    | 149        | 1,879      | 788    | 159        | 1,879      | 788    | 166        | 88                 | 42    | 32         | 0.20%             | 0.23%  | 0.97%      |
| 556   | 710        | 249    | 111        | 717        | 254    | 122        | 745        | 263    | 132        | 745        | 263    | 132        | 35                 | 14    | 21         | 0.20%             | 0.22%  | 0.76%      |
| 557   | 1,983      | 739    | 129        | 2,002      | 755    | 143        | 2,081      | 781    | 153        | 2,110      | 790    | 197        | 127                | 51    | 68         | 0.26%             | 0.28%  | 2.11%      |
| 558   | 2,182      | 1,013  | 17         | 2,203      | 1,035  | 19         | 2,290      | 1,070  | 20         | 2,290      | 1,070  | 20         | 108                | 57    | 3          | 0.20%             | 0.23%  | 0.71%      |
| 559   | 1,078      | 389    | 640        | 1,088      | 397    | 709        | 1,131      | 411    | 761        | 1,131      | 411    | 761        | 53                 | 22    | 121        | 0.20%             | 0.23%  | 0.76%      |
| 560   | 2,074      | 811    | 141        | 2,094      | 828    | 156        | 2,176      | 857    | 167        | 2,177      | 857    | 167        | 103                | 46    | 26         | 0.20%             | 0.23%  | 0.74%      |
| 561   | 575        | 360    | 3,316      | 581        | 368    | 3,672      | 603        | 380    | 3,943      | 748        | 426    | 4,031      | 173                | 66    | 715        | 1.20%             | 0.74%  | 0.86%      |
| 562   | 729        | 305    | 1,231      | 736        | 311    | 1,363      | 765        | 322    | 1,464      | 765        | 322    | 1,482      | 36                 | 17    | 251        | 0.20%             | 0.22%  | 0.82%      |
| 563   | 2,819      | 1,262  | 433        | 2,846      | 1,289  | 480        | 2,958      | 1,334  | 515        | 3,247      | 1,426  | 545        | 428                | 164   | 112        | 0.61%             | 0.52%  | 1.04%      |
| 564   | 4          | 1      | 2,037      | 4          | 1      | 2,256      | 4          | 1      | 2,422      | 82         | 26     | 2,689      | 78                 | 25    | 652        | 77.88%            | 99.90% | 1.28%      |
| 565   | 845        | 307    | 469        | 853        | 314    | 519        | 887        | 324    | 557        | 909        | 331    | 603        | 64                 | 24    | 134        | 0.30%             | 0.31%  | 1.15%      |
| 566   | 1,977      | 735    | 519        | 1,996      | 751    | 575        | 2,075      | 777    | 617        | 2,101      | 786    | 617        | 124                | 51    | 98         | 0.25%             | 0.27%  | 0.76%      |
| 567   | 1,591      | 570    | 82         | 1,606      | 582    | 91         | 1,670      | 602    | 98         | 1,910      | 679    | 109        | 319                | 109   | 27         | 0.80%             | 0.76%  | 1.34%      |
| 568   | 2,540      | 919    | 93         | 2,564      | 939    | 103        | 2,665      | 971    | 111        | 2,671      | 973    | 111        | 131                | 54    | 18         | 0.21%             | 0.23%  | 0.77%      |
| 569   | 1,776      | 620    | 16         | 1,793      | 633    | 18         | 1,864      | 655    | 19         | 1,865      | 655    | 19         | 89                 | 35    | 3          | 0.20%             | 0.23%  | 0.75%      |
| 570   | 1,310      | 438    | 740        | 1,323      | 447    | 819        | 1,375      | 463    | 880        | 1,384      | 466    | 880        | 74                 | 28    | 140        | 0.23%             | 0.26%  | 0.76%      |
| 571   | 1,521      | 557    | 806        | 1,536      | 569    | 893        | 1,596      | 589    | 959        | 1,663      | 610    | 1,066      | 142                | 53    | 260        | 0.37%             | 0.38%  | 1.29%      |
| 572   | 1,786      | 624    | 182        | 1,803      | 637    | 202        | 1,874      | 659    | 216        | 1,874      | 659    | 216        | 88                 | 35    | 34         | 0.20%             | 0.22%  | 0.75%      |
| 573   | 0          | 0      | 563        | 0          | 0      | 624        | 0          | 0      | 669        | 0          | 0      | 682        | 0                  | 0     | 119        | 0.00%             | 0.00%  | 0.85%      |
| 574   | 0          | 0      | 1,163      | 0          | 0      | 1,288      | 0          | 0      | 1,383      | 0          | 0      | 1,383      | 0                  | 0     | 220        | 0.00%             | 0.00%  | 0.76%      |
| 575   | 0          | 0      | 2,333      | 0          | 0      | 2,584      | 0          | 0      | 2,774      | 411        | 131    | 3,263      | 411                | 131   | 930        | 0.00%             | 0.00%  | 1.59%      |
| 576   | 2,078      | 1,060  | 940        | 1,998      | 1,033  | 1,042      | 2,081      | 1,070  | 1,118      | 2,261      | 1,128  | 1,576      | 183                | 68    | 636        | 0.35%             | 0.26%  | 2.71%      |
| 577   | 3          | 1      | 3,199      | 3          | 1      | 3,543      | 3          | 1      | 3,804      | 3          | 1      | 3,895      | 0                  | 0     | 696        | 0.00%             | 0.00%  | 0.87%      |
| 578   | 1,426      | 487    | 970        | 1,440      | 497    | 1,074      | 1,496      | 515    | 1,154      | 1,496      | 515    | 1,154      | 70                 | 28    | 184        | 0.20%             | 0.23%  | 0.76%      |
| 579   | 953        | 290    | 1,015      | 962        | 296    | 1,124      | 1,000      | 306    | 1,207      | 1,000      | 306    | 1,215      | 47                 | 16    | 200        | 0.20%             | 0.22%  | 0.79%      |
| 580   | 440        | 171    | 10         | 444        | 175    | 11         | 462        | 181    | 12         | 478        | 186    | 12         | 38                 | 15    | 2          | 0.35%             | 0.36%  | 0.80%      |
| 581   | 1,494      | 605    | 159        | 1,508      | 618    | 176        | 1,568      | 639    | 189        | 1,577      | 642    | 235        | 83                 | 37    | 76         | 0.22%             | 0.24%  | 1.92%      |
| 582   | 516        | 182    | 470        | 521        | 186    | 520        | 541        | 192    | 559        | 541        | 192    | 660        | 25                 | 10    | 190        | 0.19%             | 0.22%  | 1.62%      |
| 583*  | 3,455      | 1,495  | 184        | 3,488      | 1,527  | 204        | 3,626      | 1,580  | 219        | 3,665      | 1,592  | 232        | 210                | 97    | 48         | 0.24%             | 0.26%  | 1.05%      |
| 584   | 1,607      | 567    | 29         | 1,722      | 629    | 32         | 1,786      | 649    | 34         | 1,787      | 649    | 34         | 180                | 82    | 5          | 0.45%             | 0.58%  | 0.69%      |
| 585   | 917        | 327    | 14         | 926        | 334    | 16         | 962        | 346    | 17         | 963        | 346    | 17         | 46                 | 19    | 3          | 0.20%             | 0.24%  | 0.86%      |
| 586   | 341        | 142    | 108        | 344        | 145    | 120        | 358        | 150    | 129        | 359        | 150    | 427        | 18                 | 8     | 319        | 0.21%             | 0.23%  | 11.81%     |
| 587   | 2,890      | 1,251  | 660        | 2,918      | 1,278  | 731        | 3,033      | 1,322  | 785        | 3,033      | 1,322  | 785        | 143                | 71    | 125        | 0.20%             | 0.23%  | 0.76%      |
| 588   | 1,908      | 807    | 237        | 1,926      | 824    | 263        | 2,002      | 853    | 281        | 2,006      | 854    | 281        | 98                 | 47    | 44         | 0.21%             | 0.23%  | 0.74%      |
| 589   | 540        | 178    | 10         | 545        | 182    | 11         | 567        | 188    | 12         | 567        | 188    | 12         | 27                 | 10    | 2          | 0.20%             | 0.22%  | 0.80%      |
| 598   | 1,706      | 637    | 564        | 1,722      | 651    | 624        | 1,790      | 673    | 671        | 1,790      | 673    | 727        | 84                 | 36    | 163        | 0.20%             | 0.23%  | 1.15%      |
| 661*  | 1,627      | 592    | 143        | 1,643      | 605    | 158        | 1,707      | 626    | 170        | 1,710      | 627    | 170        | 83                 | 35    | 27         | 0.21%             | 0.24%  | 0.76%      |
| Total | 62,896     | 25,361 | 33,135     | 63,500     | 25,900 | 36,700     | 66,000     | 26,800 | 39,400     | 68,500     | 27,600 | 41,900     | 5,604              | 2,239 | 8,765      | 0.36%             | 0.35%  | 1.06%      |

\* TAZs partially within the City

## 2040 Conditions and Deficiencies

The analysis of 2040 traffic conditions assumed minimal transportation improvements to the roadway system. Improvements of significance that have been included are the planned improvements to eight lanes on the I-35W bridge. Of further note, traffic forecasts assume five percent buildout of the MRQ by 2040. Using the Metropolitan Council Travel Demand Model, forecasted 2040 traffic volumes were developed for the future roadway system as presented on Figure 7-17. The forecasted volumes were developed using the number of travel lanes shown in Figure 7-18. These forecasted volumes were then compared to the roadway capacity to determine the LOS. It is expected that in 2040 there will be an increase of 9.07 miles of roadways operating at LOS “D” or worse.

As seen with this analysis, additional expansion of lanes of existing Principle and A-Minor arterials may be required in the future, as well as some planned A-Minor arterials within the future MRQ area. The City will work closely with MnDOT, Dakota County, as well as property owners and other stakeholders to ensure that future right of way needed for these improvements will be preserved.



Figure 7-17: Projected 2040 Daily Traffic Volume

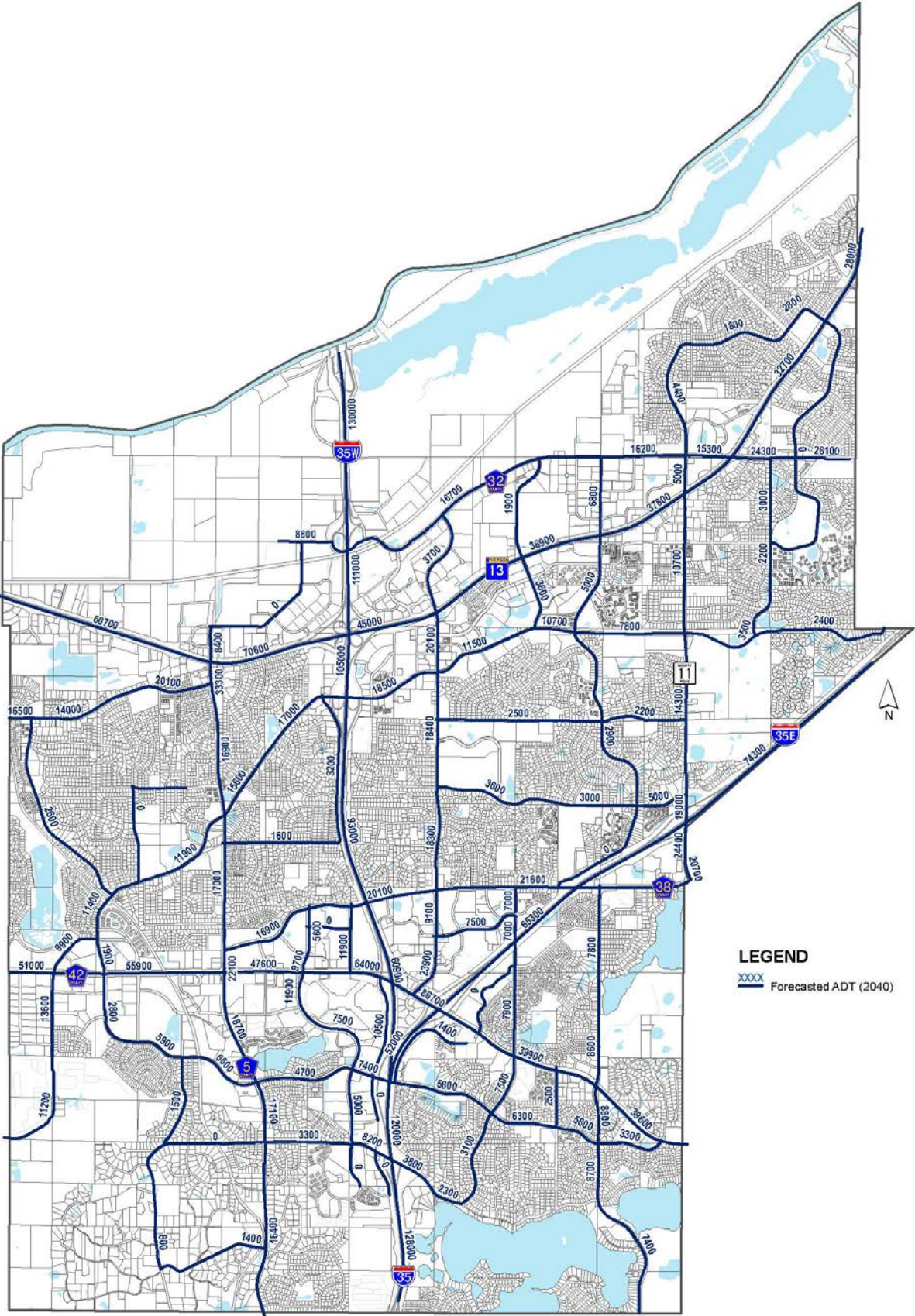




Figure 7-18: 2040 Number of Lanes

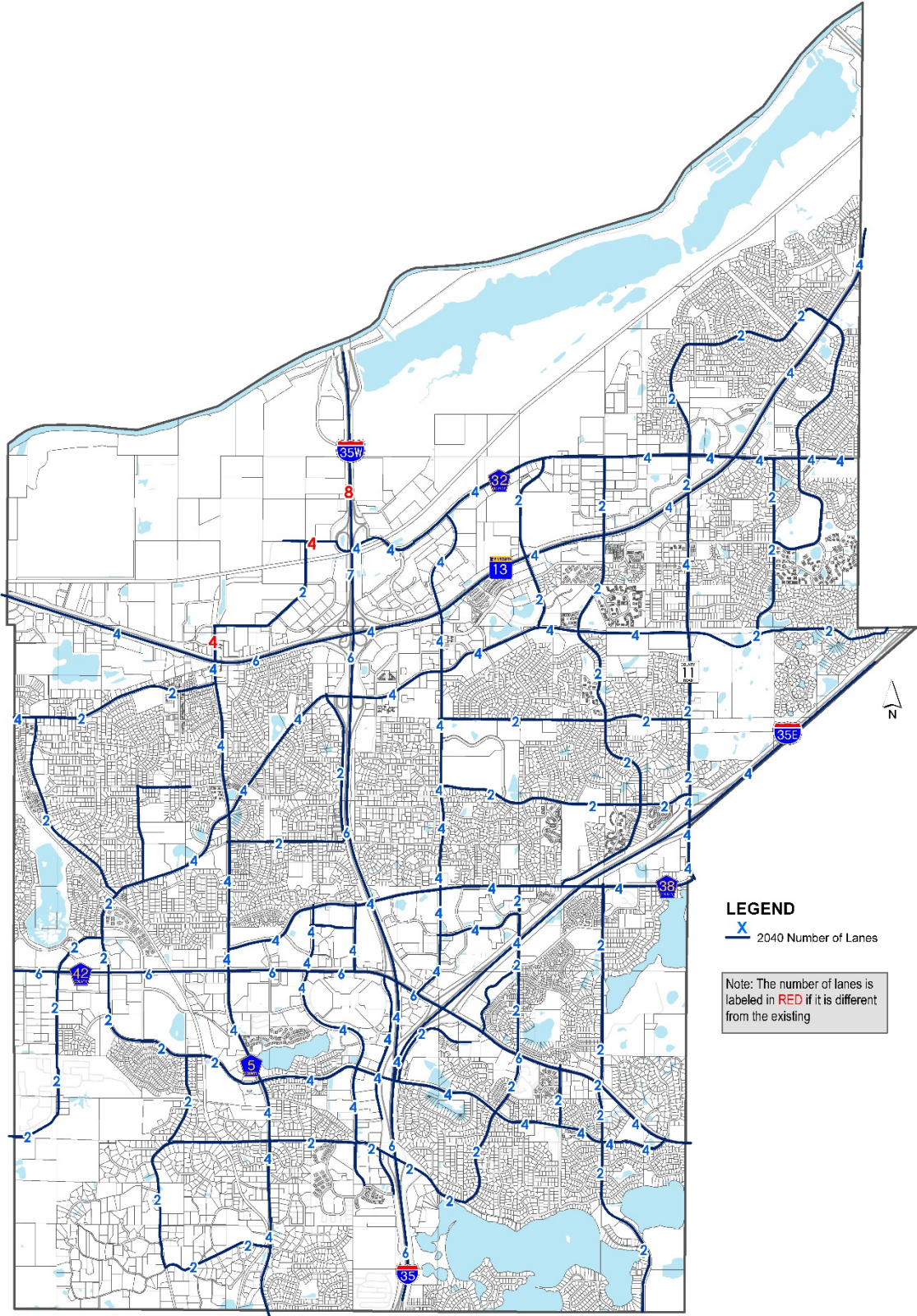




Table 7-12 displays a summary comparison of existing and 2040 congestion levels.

Table 7-12: Existing and 2040 Roadway Capacity Deficiencies Comparison

| Roadway Class  | LOS      | Length (Mile) |              |
|----------------|----------|---------------|--------------|
|                |          | Existing      | 2040         |
| Freeway        | D        | 3.56          | 3.51         |
|                | E        | 0.00          | 1.75         |
|                | F        | 0.59          | 1.27         |
|                | Subtotal | 4.15          | 6.53         |
| Expressway     | D        | 1.36          | 3.01         |
|                | E        | 0.00          | 1.12         |
|                | F        | 1.32          | 3.12         |
|                | Subtotal | 2.68          | 7.25         |
| Arterial       | D        | 0.51          | 2.11         |
|                | E        | 0.00          | 0.00         |
|                | F        | 0.00          | 0.51         |
|                | Subtotal | 0.51          | 2.62         |
| Collector Road | D        | 0.00          | 0.00         |
|                | E        | 0.00          | 0.36         |
|                | F        | 0.00          | 0.00         |
|                | Subtotal | 0.00          | 0.00         |
| <b>Total</b>   |          | <b>7.34</b>   | <b>16.41</b> |

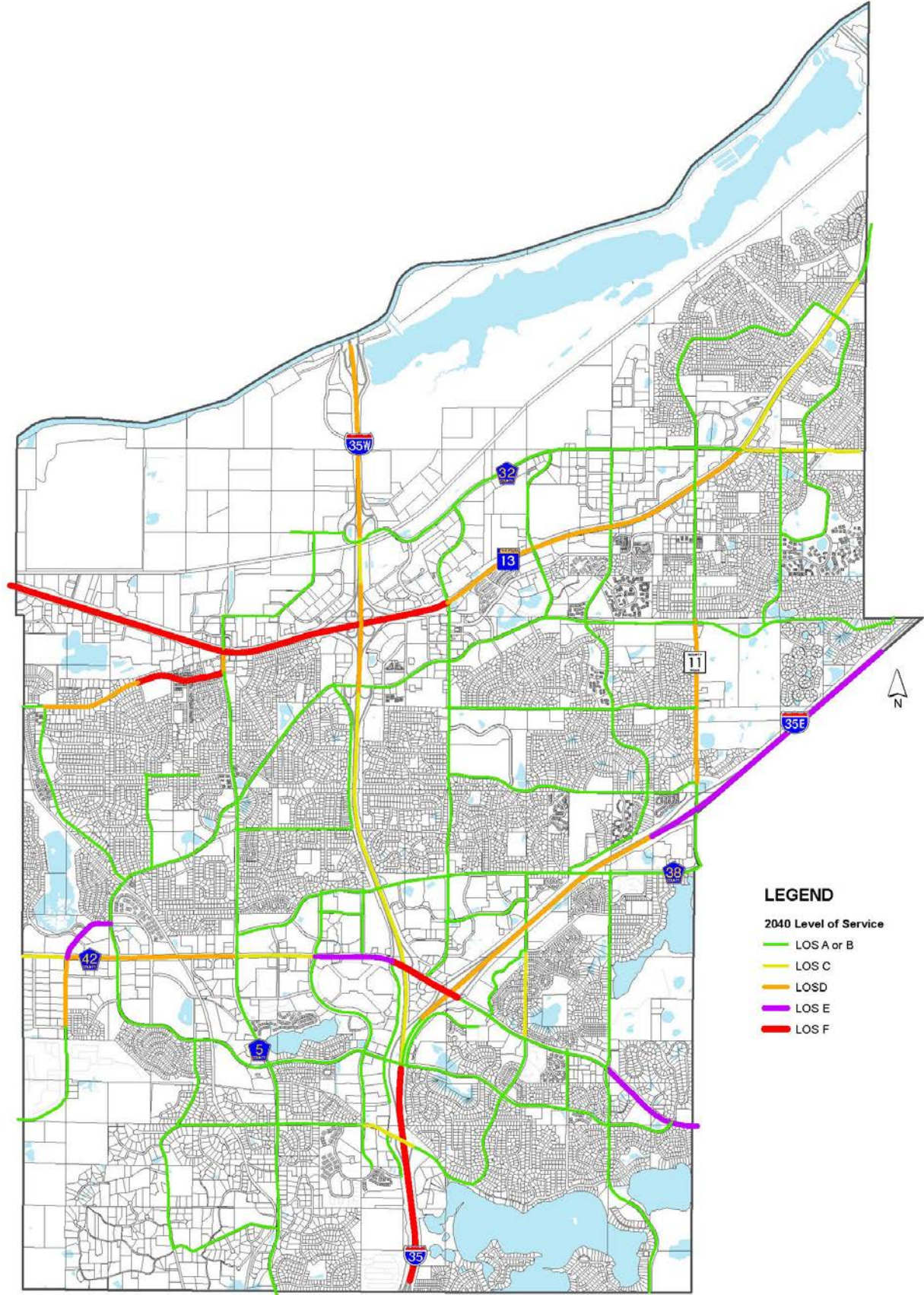
Provided in Table 7-13 and Figure 7-19, included on the following three pages, are projected 2040 congestion levels by roadway and classifications.

Table 7-13: Planning Level Capacity Analysis Summary for Segments with Poor LOS (2040)

| Route and name             | Location                             | Length (Mile) | V/C Ratio | LOS |
|----------------------------|--------------------------------------|---------------|-----------|-----|
| <b>Principal Arterials</b> |                                      |               |           |     |
| I-35                       | North of Crystal Lake Road           | 0.68          | 1.09      | F   |
| I-35                       | South of Crystal Lake Road           | 0.59          | 1.29      | F   |
| I-35E                      | Northeast of CSAH 42                 | 1.75          | 0.89      | D   |
| I-35E                      | Southwest of TH 77                   | 1.75          | 1.02      | E   |
| I-35W                      | North of TH 13                       | 0.30          | 0.85      | C   |
| I-35W                      | North of CSAH 42                     | 1.53          | 0.84      | C   |
| I-35W                      | North of I-35E                       | 0.78          | 0.83      | C   |
| I-35W                      | South of TH 13                       | 0.63          | 0.95      | D   |
| I-35W                      | South of Black Dog Road              | 1.13          | 0.89      | D   |
| CSAH 42                    | East of CSAH 11                      | 0.66          | 0.97      | E   |
| CSAH 42                    | West of CSAH 5                       | 1.00          | 0.90      | D   |
| CSAH 42                    | East of CSAH 5                       | 0.46          | 0.77      | C   |
| CSAH 42                    | West of I-35E                        | 0.44          | 1.40      | F   |
| CSAH 42                    | West of I-35W                        | 0.46          | 1.03      | E   |
| CSAH 42                    | West of Burnsville Parkway           | 0.26          | 0.82      | C   |
| TH 13                      | Southwest of CSAH 32 (Cliff Road)    | 0.93          | 0.91      | D   |
| TH 13                      | Northeast of CSAH 32 (Cliff Road)    | 1.21          | 0.79      | C   |
| TH 13                      | West of CSAH 5 (in Burnsville)       | 1.32          | 1.47      | F   |
| TH 13                      | West of I-35W                        | 0.57          | 1.09      | F   |
| TH 13                      | East of I-35W                        | 0.80          | 1.09      | F   |
| TH 13                      | West of 12th Avenue (Parkwood Drive) | 1.08          | 0.93      | D   |
| <b>A-Minor Expander</b>    |                                      |               |           |     |
| CSAH 5                     | South of TH 13                       | 0.14          | 0.93      | D   |
| CSAH 11                    | South of Burnsville Parkway          | 0.83          | 0.89      | D   |
| CSAH 11                    | South of Burnsville Parkway          | 0.14          | 0.89      | D   |

| Route and name          | Location                    | Length<br>(Mile) | V/C Ratio | LOS |
|-------------------------|-----------------------------|------------------|-----------|-----|
| <b>A-Minor Reliever</b> |                             |                  |           |     |
| CSAH 32                 | East of TH 13               | 0.38             | 0.77      | C   |
| CSAH 32                 | East of N River Hills Drive | 0.17             | 0.82      | C   |
| CSAH 32                 | East of N River Hills Drive | 0.15             | 0.82      | C   |
| <b>Collector</b>        |                             |                  |           |     |
| 150th Street            | West of Buck Hill Road      | 0.32             | 0.82      | C   |
| Portland Avenue         | North of CSAH 42            | 0.52             | 0.79      | C   |
| Burnsville Parkway      | South of CSAH 42            | 0.42             | 0.85      | D   |
| Burnsville Parkway      | North of CSAH 42            | 0.36             | 0.98      | E   |
| Williams Drive          | West of CSAH 5              | 0.51             | 1.30      | F   |
| Williams Drive          | East of Judicial Road       | 0.59             | 0.91      | D   |
|                         | <b>Total</b>                | <b>22.83</b>     |           |     |

Figure 7-19: 2040 Projected Roadway Congestion Levels



## Roadway Network Planning

Roadway network planning entails a description of roadway improvements, jurisdiction and functional classification changes and access management measures.

### Roadway Improvements

The planning level 2040 congestion analysis indicates that roadways under the City's jurisdiction will generally operate under capacity. In accordance with MnDOT guidelines, the LOS "D/E" boundary is used as the indicator of acceptable traffic operations and congestion. LOS "D," which is considered approaching capacity, is an acceptable operating condition during peak hours in urban areas such as the Twin Cities. The roadway segments operating at LOS "E" and "F" has increased from two to eleven with the 2040 traffic forecasts. These roadway segments are primarily MnDOT and County roads except for Burnsville Parkway and Williams Drive, which are city streets. As these city streets are evaluated and scheduled for improvements, consideration should be given to their traffic-carrying capacity.

### Jurisdictional Classification

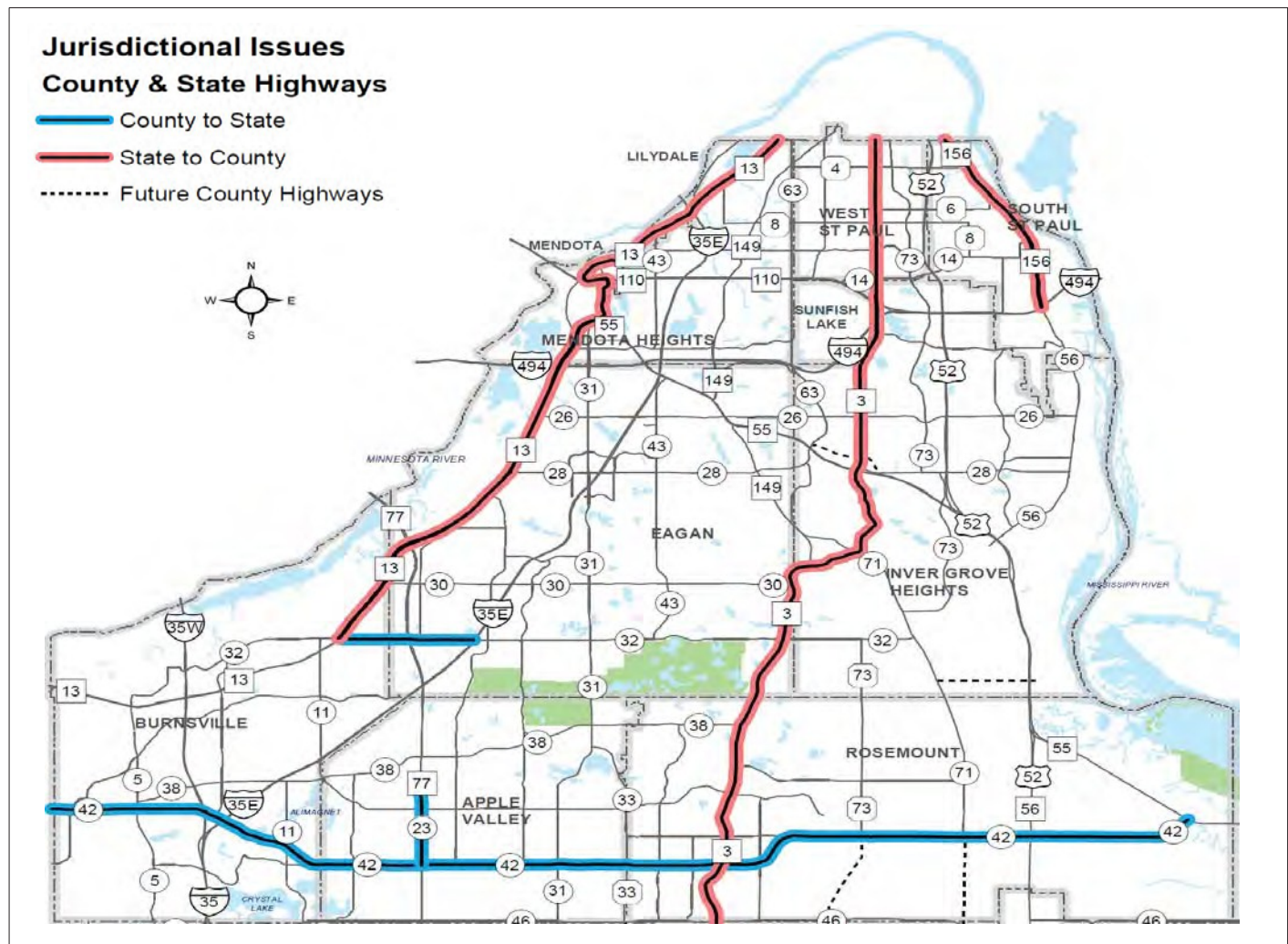
Based on the projected daily traffic volumes on existing city, county, and state roadways, there does not appear to be a need for jurisdictional transfers involving the City.

However, the Dakota County 2030 Transportation Plan identified the following roadway segments for potential jurisdiction transfers. These potential jurisdictional transfers are shown on Figure 7-20 and listed below with their approximate length:

- » CSAH 42 through Burnsville from the Dakota/Scott County-line to TH 55 in Rosemount. 17.4 total miles with 4.2 miles in Burnsville (jurisdictional transfer from Dakota County to MnDOT),
- » CSAH 32 from TH 13 to I-35E. 2.0 total miles with 0.7 miles in Burnsville (jurisdictional transfer from Dakota County to MnDOT)
- » TH 13 from CSAH 32 to the Dakota/Ramsey County-line. 12.2 total miles with 1.4 miles in Burnsville (jurisdictional transfer from MnDOT to Dakota County)



Figure 7-20: Roadways with Potential Jurisdictional Classification Transfers



Source: Dakota County 2030 Transportation Plan - Figure 37

These potential jurisdictional transfers would result in MnDOT gaining 3.5 miles from Dakota County. Table 7-14 shows the distribution of mileage by jurisdiction within Burnsville if these potential transfers were to be implemented.

Table 7-14: Miles of Roadway by Jurisdictional Classification with Potential Transfers

| Jurisdiction                           | Miles    |        |        |
|----------------------------------------|----------|--------|--------|
|                                        | Existing | Change | New    |
| Minnesota Department of Transportation | 15.34    | 3.5    | 18.84  |
| Dakota County                          | 17.89    | -3.5   | 14.39  |
| City of Burnsville                     | 224.55   | 0      | 224.55 |

SOURCE: Dakota County 2030 Transportation Plan and City of Burnsville

If a jurisdictional transfer were decided, several steps would need to occur, including coordination with local units of government (i.e., Burnsville) to complete jurisdictional transfers in accordance with Minnesota Statutes, Section 163.11.<sup>5</sup>

The City has several concerns with these potential jurisdiction changes. For Burnsville, CSAH 42 is a vital corridor. The area around Burnsville Center, is served by CSAH 42 and is the largest retail area south of the Minnesota River. As such, the maintenance of this corridor to ensure adequate access, safety and aesthetics are of great importance to Burnsville. Additionally, general concerns regarding any jurisdictional transfer include: right-of-way maintenance, access, transit and trail connectivity, and zoning impacts. The City seeks to be engaged on any jurisdictional transfers.

The Dakota County plan states that: "...jurisdictional transfer of state highways is expected to be extremely limited and likely not considered in the next 20 years."<sup>6</sup> The City understands this statement to indicate that this is generally not a high priority for Dakota County, which Burnsville supports. The City should monitor the County's development of their 2040 plan with regard to this issue.

### **Functional Classification**

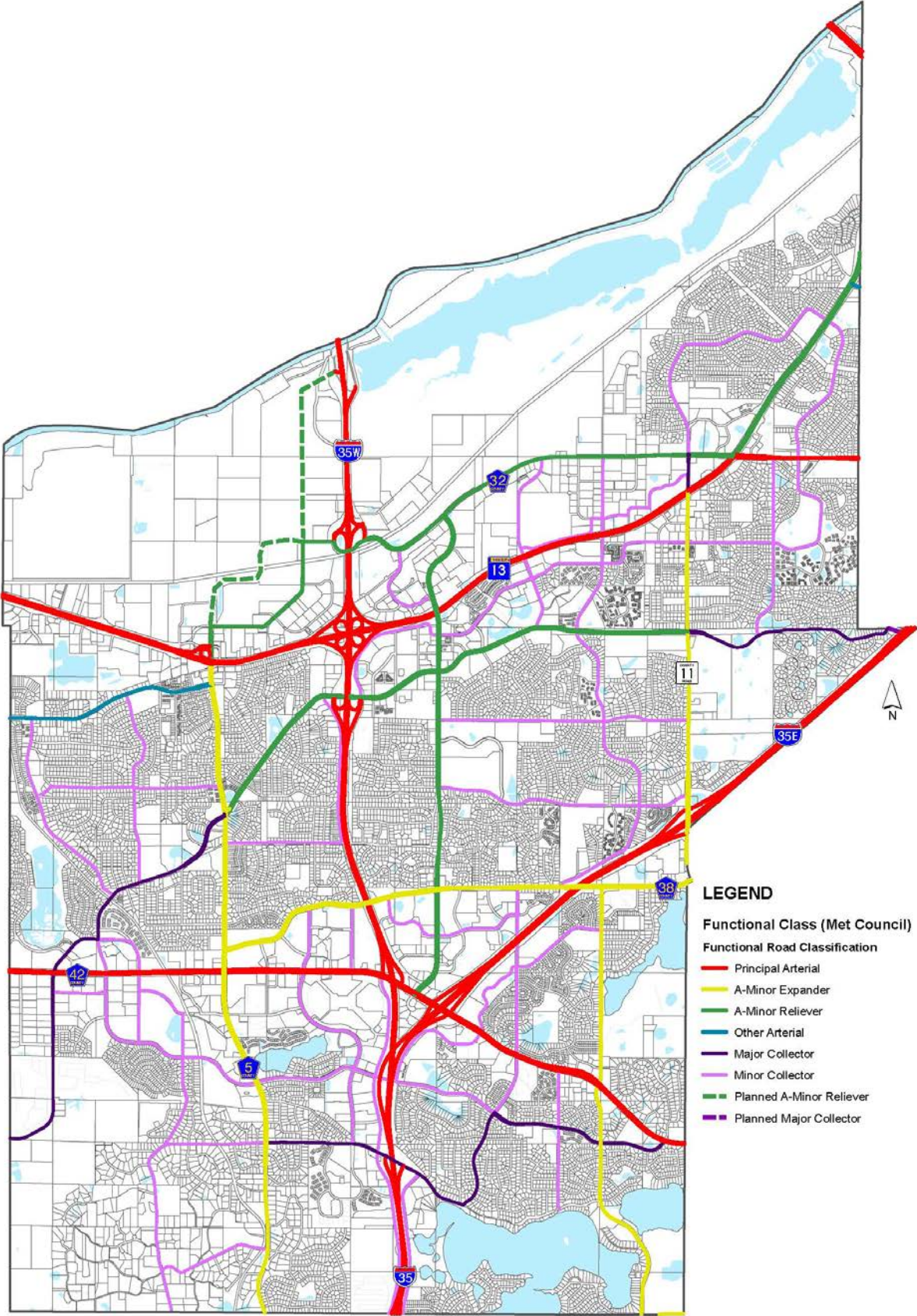
There are no planned changes to the City's functional classification system map. Figure 7-21 depicts the proposed functional classification of roadways serving the City of Burnsville.

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<sup>5</sup> Dakota County 2030 Transportation Plan, (Chapter 7, section M.5: Jurisdictional Classification – Potential Jurisdictional Transfers)

<sup>6</sup> Dakota County 2030 Transportation Plan, (Chapter 7, page 7-18)

Figure 7-21: Proposed Functional Classification Map





## Access Management

Proper access management is a key component of providing a roadway system that effectively balances mobility and access needs. The basis of access management has to do with the spacing of roadways and/or driveways that are allowed to directly access a given roadway. Arterial roadways, which primarily serve a mobility function, should only have limited access so as not to disrupt the flow of traffic and not create safety concerns. At the other end of the spectrum, the primary function of local streets is to provide access to local land uses, so there are fewer access restrictions on these roadways. However, there are important considerations regarding access control and design on local streets as well.

Numerous studies have demonstrated the safety and operational benefits of managing access in an appropriate manner. The government agency which has jurisdiction over a given roadway determines the applicable access management guidelines for that facility. Both MnDOT and Dakota County have access management guidelines (Appendix K) that apply to roadways under their jurisdictions and are used as the basis for the City's guidelines.

Access management is also important for roadways under Burnsville's jurisdiction. Most city roadways are collectors or local streets, but some are minor arterials. Recommended city access management guidelines are summarized in Table 7-15.

Table 7-15: Burnsville Access Management Guidelines

| Type Of Access                      | Minor Arterial                                                           | Collector                                                             | Local                                                                 |
|-------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
| Residential Driveways               | No Direct Access                                                         | No Direct Access                                                      | As Required                                                           |
| Commercial Driveways                | Based on: Speed, Traffic Volume, Sight Distances, etc. (1/8 to 1/4 mile) | Based on: Speed, traffic Volume, Sight Distances, etc. (min. 330 ft.) | Based on: Speed, Traffic Volume, Sight Distances, etc. (min. 100 ft.) |
| Low Volume Streets                  | Full Access – 1/8 mile                                                   | Full Access – 1/8 mile                                                | Full Access – 330 ft.                                                 |
|                                     | Partial Access – 330 ft.                                                 | Partial Access – 330 ft.                                              | Partial Access – 330 ft.                                              |
| High Volume Streets<br>< 10,000 ADT | Full Access – 1/4 mile                                                   | Full Access – 1/8 mile                                                | Full Access – 330 ft.                                                 |
|                                     | Partial Access – 1/8 mile                                                | Partial Access – 330 ft.                                              | Partial Access – 330 ft.                                              |
| Collector Streets                   | Full Access – 1/2 mile                                                   | Full access – 1/4 mile                                                | Full Access – 1/8 mile                                                |
|                                     | Partial Access – 1/4 mile                                                | Partial Access – 1/8 mile                                             | Partial Access – 330 ft.                                              |

PLEASE NOTE: The spacing guidelines identified in this table may be adjusted on a case-specific basis pending detailed traffic engineering analysis and review by the City Engineer.

In addition, the following policy guidelines apply for access design:

- » A corner lot in R-1, One-Family Residential District and R1-A, One Family Rural Residential District shall not have more than three driveway openings and an interior lot shall not have more than two driveway openings. City Code 10-12-1(E)
- » No access drive to any lot shall be located within twenty feet of any two intersecting street right-of-way lines. City Code 10-7-24(C)
- » The location of any driveway or access should be consistent with sight distance along the roadway. Where sight distance is not adequate, an alternate access location needs to be evaluated. City Code 10-7-6
- » Development of service roads or common driveways should be used wherever possible, especially in commercial areas.
- » The use of medians should be considered to control multiple access locations and provide left turn lanes for heavier movements to private driveways or public streets.
- » Access to any location where there is a designated left turn lane past the driveway should be restricted to right-in/right-out.

### **Bridge Structures**

MnDOT has partnered with Dakota and Hennepin Counties, and the Cities Bloomington and Burnsville to develop a project to replace the bridge and pavement on I-35W between Cliff Road in Burnsville and 106th Street in Bloomington, raise I-35W out of the floodplain and improve pedestrian access across the Minnesota River. This work will add a northbound lane across the Minnesota River to increase safety and ease northbound traffic flow. It also includes construction of a trail to provide trail connectivity to both north and south of the Minnesota River. The existing MnPASS lanes will be maintained. Work is scheduled to begin in 2018.

The City currently owns one bridge at the Birnamwood Golf Course and assists with maintenance of two bridges on Black Dog Road, which are owned by Xcel Energy.

### **Managed Lanes**

MnDOT has adopted the MnPASS system for managing HOV lanes (see Figure 7-22 on the following page). In Burnsville, MnPASS managed lanes currently exist on I-35W southbound from the northern border to Burnsville Parkway and northbound from the I-35E/I-35W junction extending across the Minnesota River into Bloomington. Burnsville supports MnDOT plans to extend the HOV lanes into Lakeville. This will benefit the planned Orange Line Phase 2 extension.

### **Special Issues – Noise Barriers**

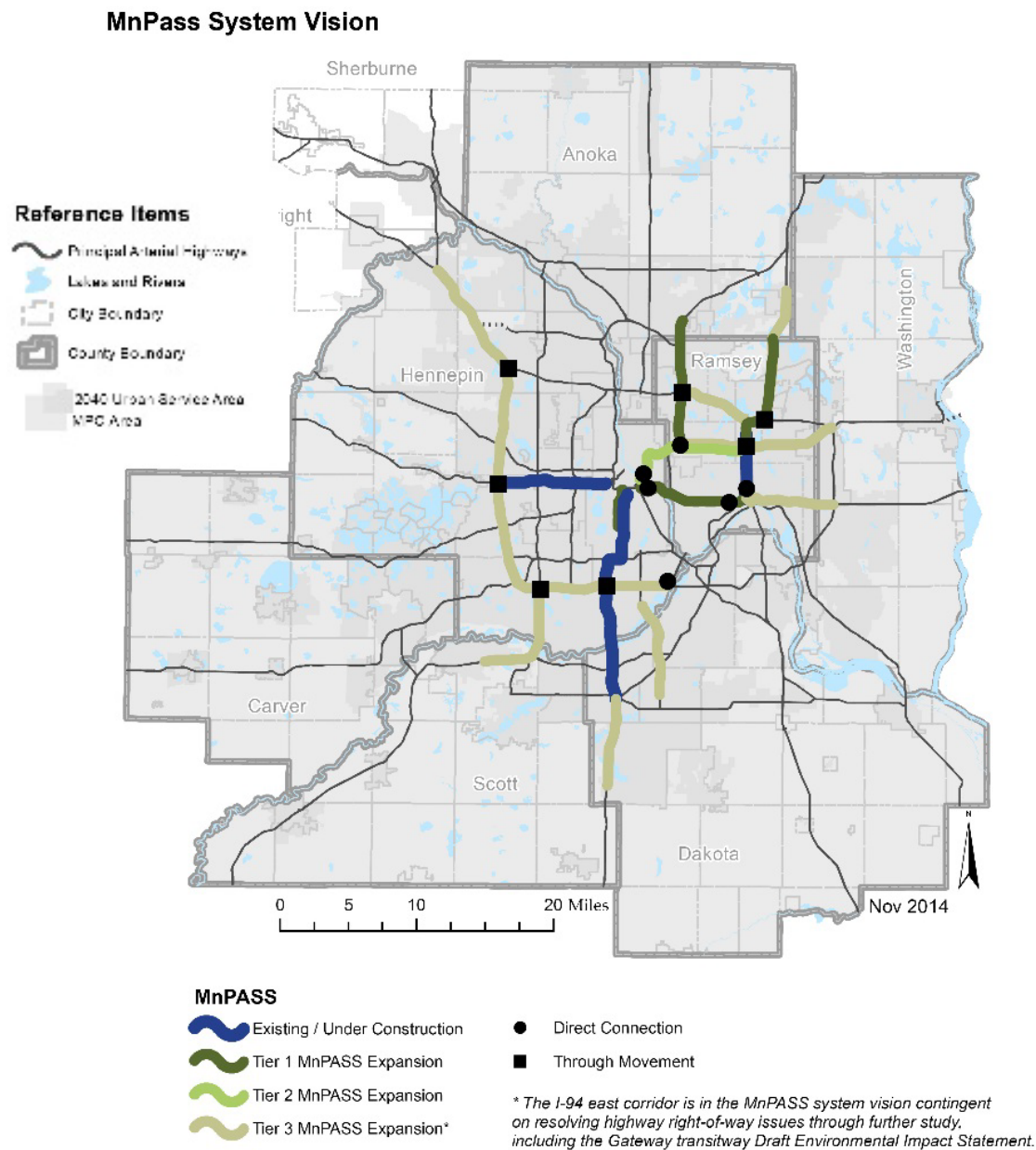
The City has great access to I-35W and I-35E, and principal arterials TH 13 and CSAH 42. Access to these roads also brings unwanted road noise. Most of these roadways were constructed prior to the enactment of more



stringent noise rules which require the construction of noise walls simultaneously with the major highways adjacent to residential land use. County highways, along with city streets were excluded from the noise rules when they were enacted in the 1990s.

MnDOT, in cooperation with the Minnesota Pollution Control Agency (MPCA), has performed noise testing along the freeway system that does not include noise walls. From this testing a list was compiled prioritizing the locations along the freeway system that should receive noise walls. However, the funding for this program only accomplishes the construction of a few miles of noise walls each year.

Figure 7-22: MnPass System Vision



## 2040 Transit Plan

### Service and Facilities

As identified in the Existing Transit Service section on page 7-343, MVTA is responsible for providing transit service in Burnsville, under the broader transit policies identified by the Metropolitan Council. In addition, Dakota County is taking on an increased role in planning and facilitating enhanced transit facilities and services. In general, transit and transit planning are subject to the constraints of existing funding levels and the uncertainties associated with future funding.

Of significance to Burnsville is Metro Transit's design and implementation of the METRO Orange Line which is scheduled to begin operation in 2020 (Figure 7-23 on the following page). The METRO Orange Line is a 17-mile planned highway BRT line that will connect Minneapolis, Richfield, Bloomington, and Burnsville along I-35W. BRT provides high-quality, reliable service like light rail transit, but is less expensive to build as it utilizes already in place roadway corridors and allows for a more flexible route. The Orange Line will provide frequent, all-day service in both directions, seven days a week.

This route will upgrade and replace the existing local Route 535 with enhanced service and amenities, and new stations with new features will benefit other transit riders along the I-35W corridor. No changes to existing express bus routes are planned. Orange Line service will have competitive running times for station-to-station trips and offer a new option for reverse-commuters (riders traveling from urban areas to suburban destinations).

Two stations are planned in Burnsville. The Burnsville Heart of the City Station will be located on the southwest corner of Nicollet Avenue and Highway 13 in Burnsville's Heart of the City district. This station will serve as the last southbound station and layover for the Orange Line. Public parking is available at two existing municipal ramps in this area, and new sidewalks will connect the station to Nicollet Avenue and Travelers Trail. The City is investigating construction of a pedestrian/bicycle grade separated crossing of TH 13 at Nicollet Avenue to make connection between the MVTA Burnsville Transit Station and the Orange Line Station more accessible and safe.

Figure 7-23: METRO Orange Line



The I-35W Burnsville Parkway Station will be a northbound-only platform located at the intersection of Travelers Trail and Burnsville Parkway on undeveloped land near I-35W. New sidewalks will connect the station to Burnsville Parkway and neighboring businesses.

The 2020 implementation of the METRO Orange Line is Phase 1 of two phases. Phase 2 is intended to extend this line south to Lakeville and provide access to Burnsville Center/County Road 42 corridor area.

The Orange Line Phase 1 is funded and in the 2040 Transportation Policy Plan's (TPP) "Current Revenue Scenario". Phase 2 is unfunded and can be found in the "Increased Revenue Scenario".

The City of Burnsville has been a supporter of the Orange Line since its inception. This is evident by the transit friendly zoning in the Heart of City, being partner to planning of the two stations in Burnsville and the current construction of parking at the Heart of the City Station.

The City of Burnsville will continue to work with the Metropolitan Council, MVTA, MnDOT and Dakota County, to relieve roadway congestion, support transit, and provide transportation options to those who cannot or choose not to drive.

### **Transit Oriented Development**

Transit Oriented Development (TOD) is a concept to concentrate a mix of land uses and activities in close proximity to transit service such that the transit ridership and the TOD-based activity will support each other. Planning for TOD means emphasizing the fundamentals of density and walkability. Moderate- to high-density uses can locate potential riders near transit systems and services. An effective transit system also depends on passengers reaching transit on foot or by bike. This requires walking and bicycling routes that are direct, safe, and pleasant to use.

The Heart of the City (HOC) redevelopment area is an excellent example of TOD. It is a 54-acre mixed-use, pedestrian friendly-area with its own park-and-ride facility. It is also in relatively close proximity to the larger Burnsville Transit Station. TOD will be further enhanced with the introduction of BRT into the area. Phase 2 will see an entirely different type of TOD area as it's located within what is now a strong commercial corridor with no residential. There will also be further opportunities for Orange Line TOD as the MRQ is redeveloped.

To further accommodate TOD, Burnsville will need to retrofit its suburban pattern for urban level densities and traffic. To a limited extent, the City can research, develop and implement TOD guidelines and design criteria for local projects. However, because so many of the transportation corridors are under the control of other agencies and jurisdictions, Burnsville will need to advocate for improvements by other agencies as well.

## Autonomous Vehicles

The future of the transportation system is expected to include autonomous vehicles. The need for this change is evidenced below. As such, the City must account and plan for the assimilation of autonomous vehicles into the transportation system.

Autonomous cars, busses, motorcycles and trucks will provide for enhanced future mobility. Autonomous vehicles will also address issues with the current vehicle system such as: inefficient use of resources, storage space, congestion, transportation-related crashes, and movement of people who currently cannot or choose not to drive.

There are many considerations that will have to be made as autonomous vehicles are introduced in the Twin Cities metropolitan region. The City intends to actively participate in future planning and discussion as the technology progresses. Some challenges under the current vehicle system autonomous vehicles would help address follow:

- Today, over 80 percent of car crashes in the United States (US) are caused by driver error. Additionally, road crashes cost the US \$236.6 billion per year or an average of \$820 per person. However, with fully autonomous vehicles, driving behaviors and actions of impaired or “bad” drivers would be less impactful on the roadways. By eliminating impaired or “bad” drivers from making driving-related decisions through use of autonomous vehicles, communities would benefit from safer roads and individuals would benefit from reduced insurance premiums.
- Technology would allow an autonomous vehicle to perceive the environment better than human senses. Fully autonomous vehicles are being designed to see further ahead and better in poor visibility. They are also being designed to detect smaller and more subtle obstacles. These enhancements would reduce crashes.
- Under the current vehicle system, the National Safety Council reported 38,300 roadway fatalities in 2015, while the Minnesota Department of Public Safety reported 411 fatalities for the same year. Road crashes are also the leading cause of death for 15 – 29 year olds. With autonomous vehicles, traffic would be coordinated more efficiently in urban areas to help prevent congestion during busy times such as rush hour. For example, autonomous vehicles would be able to safely operate with reduced space between vehicles, thereby increasing roadway capacities. This would be especially noticeable during peak traffic flow times.
- With autonomous vehicles, parking and difficult maneuvering would be less stressful and would not require any special skills. The car could even just drop you off and then go and park itself, in a more remote location, which would require less on site parking. After



passengers are dropped, these vehicles will be able to park closer together, thereby requiring less space.

- People who historically have had difficulties with driving - the disabled, the elderly, or inexperienced drivers - would be able to experience the freedom of car travel through autonomous vehicles.
- Under the current vehicle system, storage space is needed for millions of vehicles that are used for only nine percent of the year. Additionally, under the current vehicle system there is an inefficient use of resources since the average car is parked over 22 hours per day. With the likelihood of more ride-share use versus ownership with autonomous vehicles, less parking would be needed.
- Autonomous vehicles would be designed to map out and travel the most efficient route to the destination. Efficient travel would result in fuel savings which has environmental and economic benefits as well.

While autonomous vehicles would help address many challenges related to the current vehicle system, communities will face new challenges with their implementation:

1. With the likelihood of these vehicles being electric, the replacement of the gas tax as a major source of road funding would need to be considered.
2. Time required to convert an existing stock of traditional vehicles to autonomous vehicles will require maintaining the roadway infrastructure for both vehicle types.
3. Establishment of government regulations, design standards, liability, licensing of vehicles and potentially occupants and system hacking protection.
4. Loss of driving related jobs will result in the need to focus on job-retraining efforts.
5. Vehicle designs will need to overcome navigation related to weather challenges of heavy snow and rain, and snow covered roads.
6. Current road infrastructure may change with autonomous vehicles. Vehicle to vehicle communications may eliminate the need for controls, such as traffic signals. The infrastructure may need to support data processing and data security needs.
7. Redesigned urban streets could emphasize pedestrians, bikes and aesthetics.
8. Investment would be needed to repurpose publicly owned excess right-of-way and parking areas due to the operating characteristics of autonomous vehicles allowing the use of narrower traffic lanes and the use of shared-use, remote parking and the ability to park closer together which would require less parking area.
9. Repurposing of many gas station properties as autonomous vehicles will not run on gasoline. Some gas station properties could transition to

charging stations; however, they would not require being located in premium locations.

## Transportation Demand Management

The primary emphasis of Transportation Demand Management (TDM) is to reduce the number of motor vehicular trips on roadways during peak travel times. Since a large portion of these trips are commuter (work) trips, TDM strategies typically involve the workplace context and associated travel behavior. The primary methods or strategies are identified below:

- » Transit incentives
- » Car/van-pooling
- » Telecommuting
- » Flex-time
- » Non-motorized commuting (biking/walking)
- » Secure bicycle storage
- » Shower facilities

In general, the policies or incentives to promote TDM activities are provided through employers. For example, employers can provide monthly discounts or passes to employees to use transit. They may provide coordination services to match individuals for car/van pooling activities. They may allow or promote telecommuting, particularly in various industries for which face-to-face contact is not important for task performance. Similarly, employers can allow or promote flex time, which enables employees to travel to/from work at non-peak travel times. Regarding non-motorized commuting, the provision of secure bicycle storage, shower and changing facilities are often helpful to promote bicycle commuting.

There are a number of reasons for employers to promote TDM activities such as reduce parking demand and congestion. In places where vehicle parking is limited, any alternatives employers can offer to reduce parking requirements would be beneficial. Also, by promoting alternative work schedules, offering employer incentives for biking or transit, or allowing telecommuting to reduce traffic during traditional rush hours trips, the transportation system benefits. However, these businesses also benefit as they become more attractive places to work.

Cities can increase TDM activities through promotional activities and by coordinating with key employers to identify and implement TDM plans. Cities may even require TDM plans for new developments if they are large enough to have significant traffic impacts. This may be something the City may want to consider for the redevelopment of the MRQ area.

## 2040 Non-Motorized Transportation Plan

### 2040 Regional Bicycle Transportation Network (RBTN)

The Metropolitan Council Transportation Policy Plan, Thrive MSP, includes the Bicycle and Pedestrian Investment direction for 2040. A primary item

included in the plan is the Regional Bicycle Transportation Network (RBTN) which identifies critical bicycle transportation links and priority corridors for bicycle transportation. Per the Plan, “the goal of the Regional Bicycle Transportation Network is to establish an integrated seamless network of on-street bikeways and off-road trails to most effectively improve conditions for bicycle transportation at the regional level and to encourage planning and implementation of future bikeways by cities, counties, parks agencies, and the state, in support of the network vision.”

The RBTN is subdivided into two tiers for regional planning and investment prioritization. Tier 1 alignments are the highest priority, located near existing and planned activity centers with high rates of bicycle demand where the most riders can be attracted and impact mode choice. Tier 2 alignments are the second priority for planning and investment. The plan also designates Burnsville as a Suburban community which typically have automobile-oriented development patterns at significantly lower densities but are also expected to target opportunities for more intensive development near regional transit investments which indicates need for convenient and safe non-motorized connections between development, transit lines and stations such as the Orange Line BRT, the MVTA Transit Hub and the Heart of the City. Planning for the Orange Line BRT station should include non-motorized amenities as well as trail and/or sidewalk connections and safe crossings which connect to the existing network, MVTA Transit Hub and the Heart of the City.

The RBTN alignments in Burnsville are listed in Table 7-16 and also illustrated on Figures 7-24 – 7-26.

Table 7-16: Regional Bicycle Transportation Network in Burnsville

| Tier | Type and Location                                                                                                                                                                                                                   | Trail Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | <u>RBTN Corridor</u> <ul style="list-style-type: none"> <li>- North-south</li> <li>- North city limits to I-35W/I-35E Interchange</li> <li>- Follows I-35W to TH-13</li> <li>- Follows Nicollet Avenue to County Road 42</li> </ul> | <u>Existing Trail/Sidewalk</u> <ul style="list-style-type: none"> <li>- Black Dog Segment, Minnesota River Greenway Trail (Bituminous)</li> <li>- Cliff Road (Bituminous/Concrete)</li> <li>- Nicollet Avenue, Cliff Road to Civic Center Parkway (Concrete)</li> <li>- Nicollet Avenue, Civic Center Parkway to McAndrews Road/138<sup>th</sup> Street (Bituminous)</li> <li>- Nicollet Avenue, McAndrews Road/138<sup>th</sup> Street to County Road 42 (Concrete)</li> </ul> <u>Grade Separation</u> <ul style="list-style-type: none"> <li>- Nicollet Avenue at TH 13, multi-use trail bridge currently under study</li> </ul> |
| 2    | <u>RBTN Corridor</u> <ul style="list-style-type: none"> <li>- East-west</li> <li>- East to west city limits</li> <li>- Follows Southcross Drive /County Road 42</li> </ul>                                                          | <u>Existing Trail/Sidewalk</u> <ul style="list-style-type: none"> <li>- County Road 42, east city limits to Nicollet Avenue (Bituminous)</li> <li>- County Road 42, Nicollet Avenue to County Road 5 (Concrete)</li> <li>- County Road 42, County Road 5 to west city limits (Bituminous)</li> <li>- Southcross Drive, County Road 42 to County Road 42 (Concrete)</li> </ul>                                                                                                                                                                                                                                                      |
| 2    | <u>RBTN Alignment</u> <ul style="list-style-type: none"> <li>- East-west</li> <li>- McAndrews Road, Nicollet Avenue to Portland Avenue</li> </ul>                                                                                   | <u>Regional Trail Search Corridor</u><br><u>Existing Trail/Sidewalk</u> <ul style="list-style-type: none"> <li>- McAndrews Road, Nicollet Avenue to Portland Avenue south leg (Concrete)</li> <li>- McAndrews Road, County Road 11 south leg to east city limits (Bituminous)</li> </ul>                                                                                                                                                                                                                                                                                                                                           |

Figure 7- 24: Metropolitan Council Regional Bicycle Transportation Network

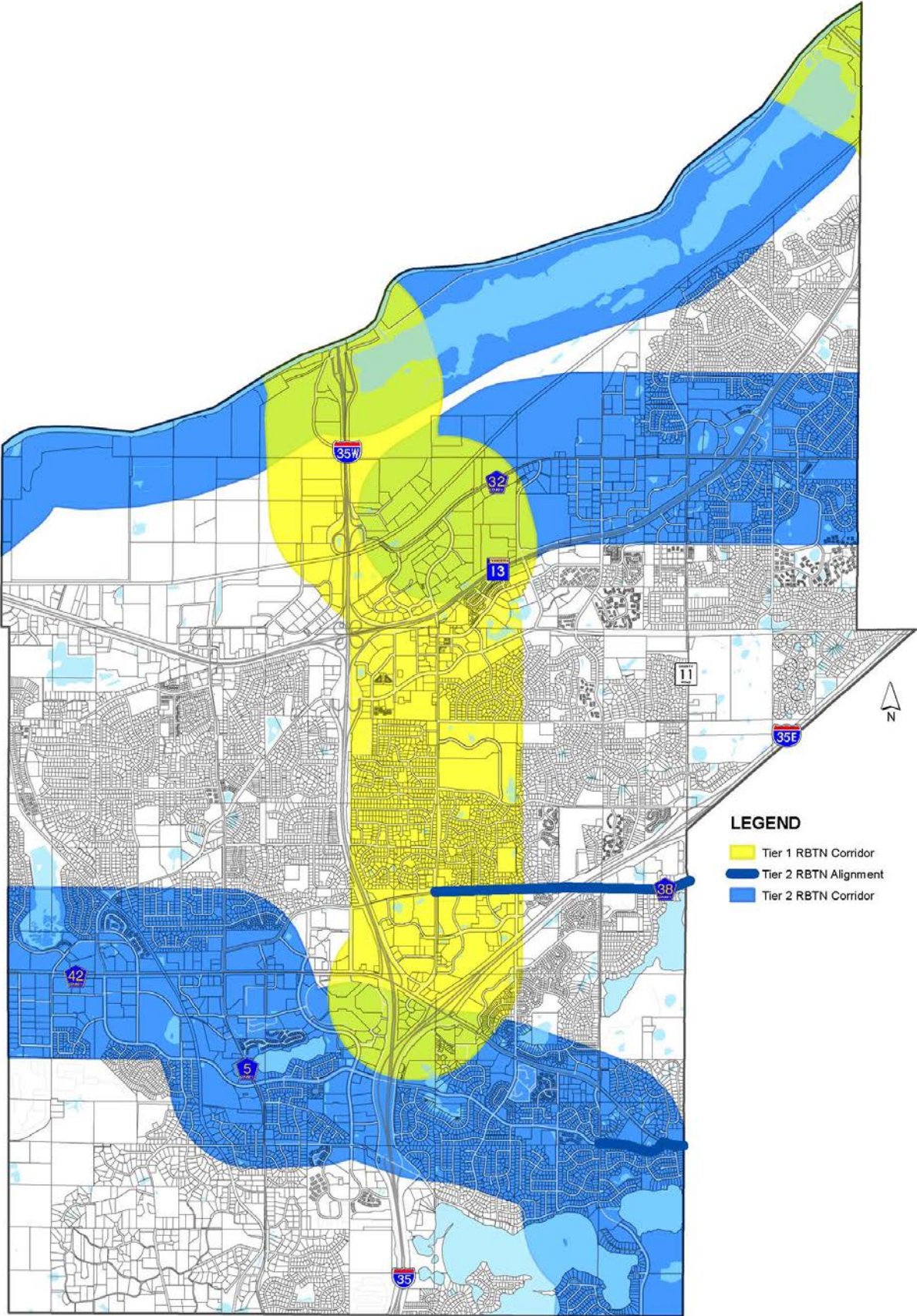




Figure 7-25: Met Council Regional Bicycle Transportation Network with Burnsville Existing and Planned Trail Network

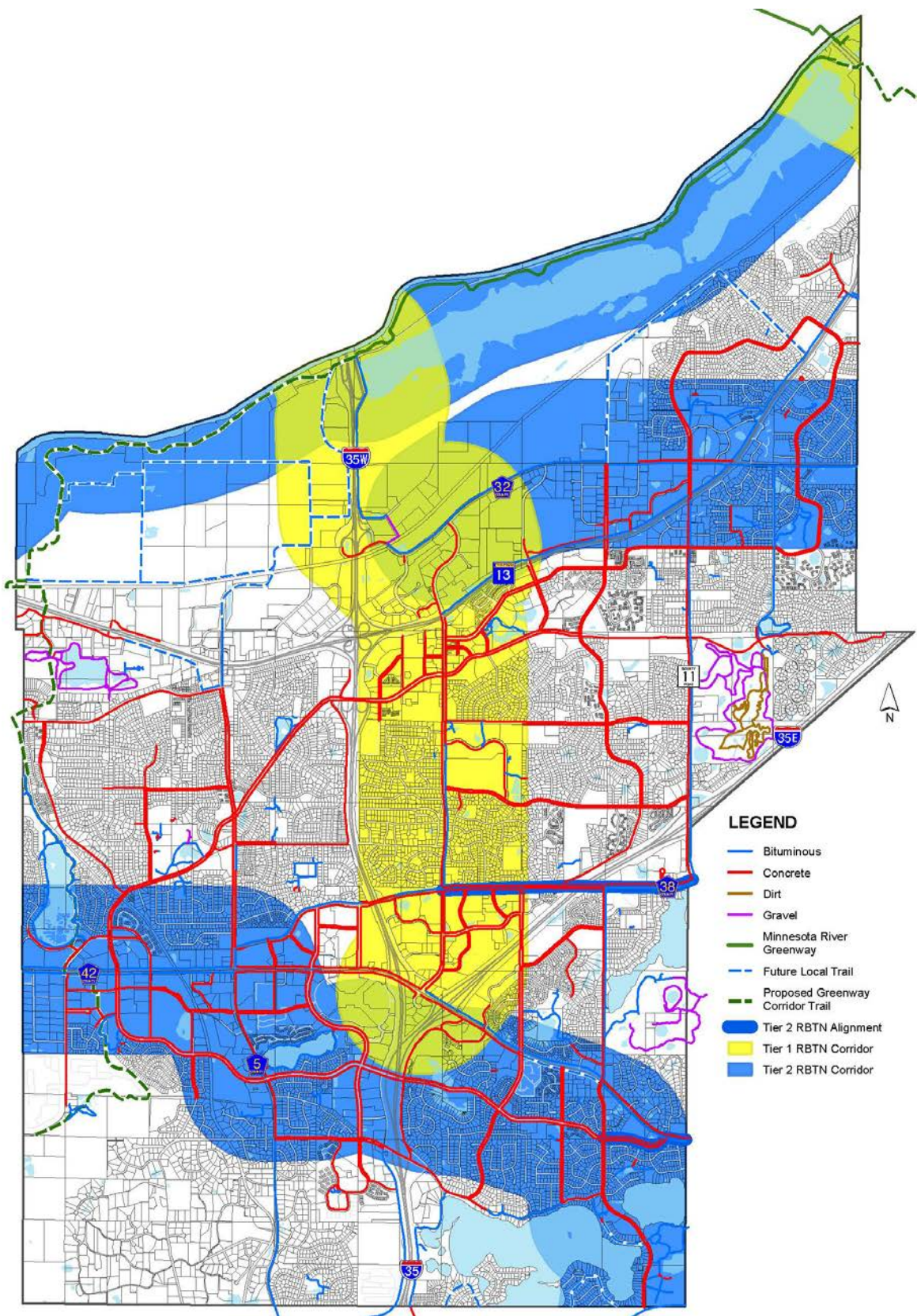
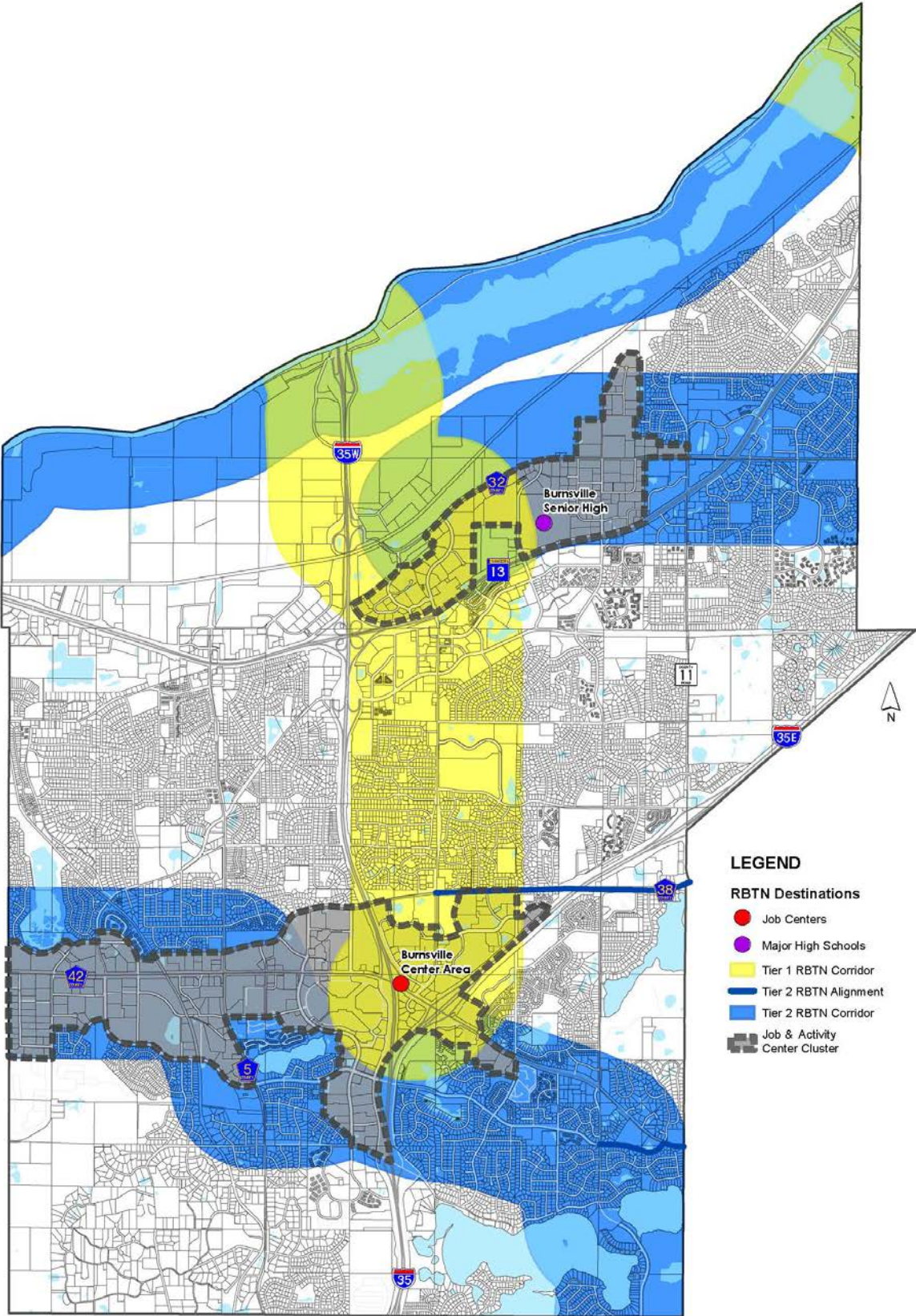




Figure 7-26: Met Council Regional Bicycle Transportation Network with Regional Employment Clusters and Activity Center Nodes



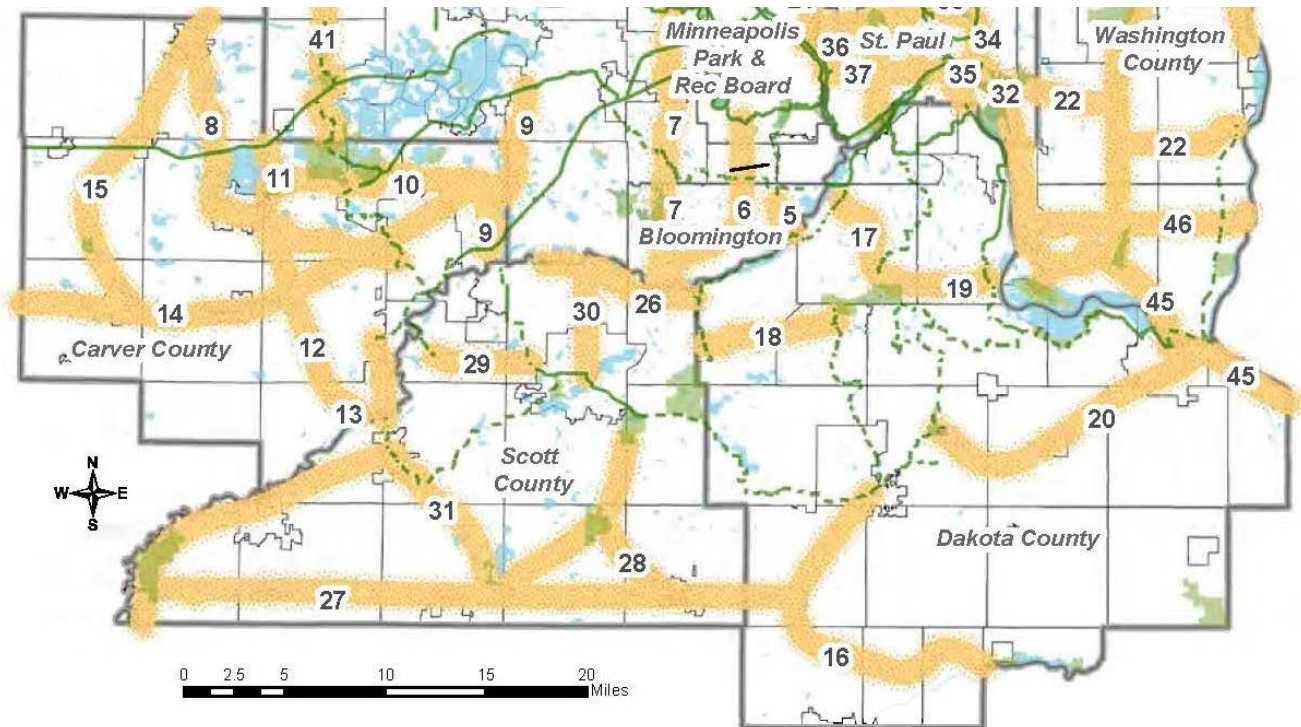


## 2040 Regional Parks Policy Plan

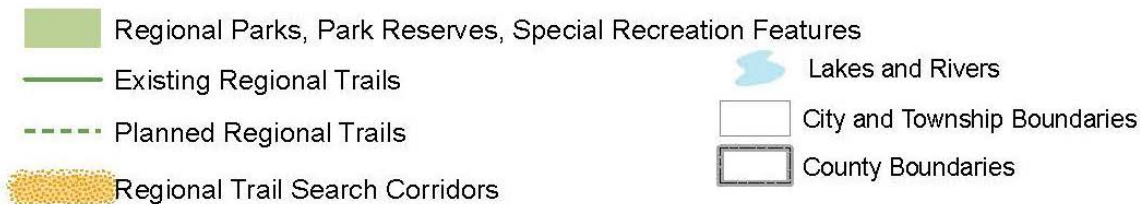
Since the 2030 Comprehensive Plan the Black Dog extension of the Big Rivers Regional Trail (Minnesota River Greenway Corridor) has been completed. The trail is located along Black Dog Road, adjacent to the south side of the Minnesota River. The remaining search corridor in Burnsville includes the first segment of the Lake Marion Greenway (Dakota County) as shown in Figure 7-27 on the following page (Corridor 18). This corridor has also been identified as the Dakota East-West Regional Trail Search Corridor – a regional trail connecting Murphy-Hanrehan Park Reserve, Whitetail Woods Regional Park and the Mississippi River Regional Trail. In Dakota County's Park System Plan, the "Lake Marion Greenway Regional Trail" is identified as a first level priority (out of three levels) within the county system. The northern terminus of the Lake Marion Greenway is the Minnesota River, where the Lake Marion Greenway will connect to the Minnesota River Greenway. From the river, the greenway winds through residential neighborhoods, parks and commercial development before arriving at Murphy-Hanrehan Park Reserve.



Figure 7-27: 2040 Metropolitan Regional Trail Search Corridors (South Metro)



Numbers correspond to the regional trail search corridors listed in Table 3-9



## Parks and Recreation System Master Plan

The updated Parks and Recreation System Master Plan (2017) is the result of dedicated and ongoing collaboration among residents and stakeholders and builds upon the Parks Master Plan completed in 2000. The document identified three recommendations:

1. Provide connections to existing and proposed trails
2. Foster growing mountain bicycle ridership
3. Encourage new and infrequent users

While new trail alignments and proposed trails are not identified in the plan, it does call for strategies to support each of the recommendations. Specific strategies related to transportation for Recommendation 3 include development of a signage and wayfinding plan to provide improved navigation to trails, parks and city landmarks in English and possibly Spanish and Somali. Another strategy listed is to provide more bicycle racks and bicycle-fix-it stations at key locations.



City of Burnsville  
PARK & RECREATION SYSTEM



The plan also includes LOS metrics for the City to achieve related to paved and unpaved trails. The national best practice for trail mile to resident ratio is 0.5 trail miles for 1,000 residents. Burnsville currently has a total of 56.8 trail miles with 0.93 trail miles per 1,000 residents for Burnsville. Compared to some neighboring cities, however, Burnsville's trail to resident ratio is lower; four nearby communities range between 1.56 to 2.44 trail miles per 1,000 residents.

### Trail Master Plan

A Trail Master Plan was prepared for the City in 2000. It established the concept for a base trail system, established general design standards, and provided a general construction cost estimate to build the base trail system. This Plan did not define priorities for implementation. Figure 7-28 overlays the existing trail network, as discussed in the Non-Motorized Transportation section on page 7-348, with the proposed future trails. Also included on Figure 7-28 are regional trails being planned by other agencies including the planned trails from Dakota County and the Metropolitan Council.

In 2001, a Trail Plan Implementation Task Force was established to make recommendations on priorities, standards for development, maintenance and signage, and determine detailed costs. The Task Force's report was submitted to the City Council in 2002, and included the following recommendations:

1. Establish four trail construction priorities. (Of the recommendations, the City has completed three of the four trail constructions identified as priorities for the community. The remaining priority is the Burnsville Loop. The Burnsville Loop is a ten-foot wide trail loop within the city that runs along Burnsville Parkway, Southcross Drive, and CSAH 11.)
2. Construct hard surface trails to be ten-feet wide whenever possible and include flared pedestrian ramps that meet ADA standards.
3. Establish a trail marking/signing policy to publicize trails that create "sense of place" and attract people to use the trail system.
4. Establish trail maintenance standards.

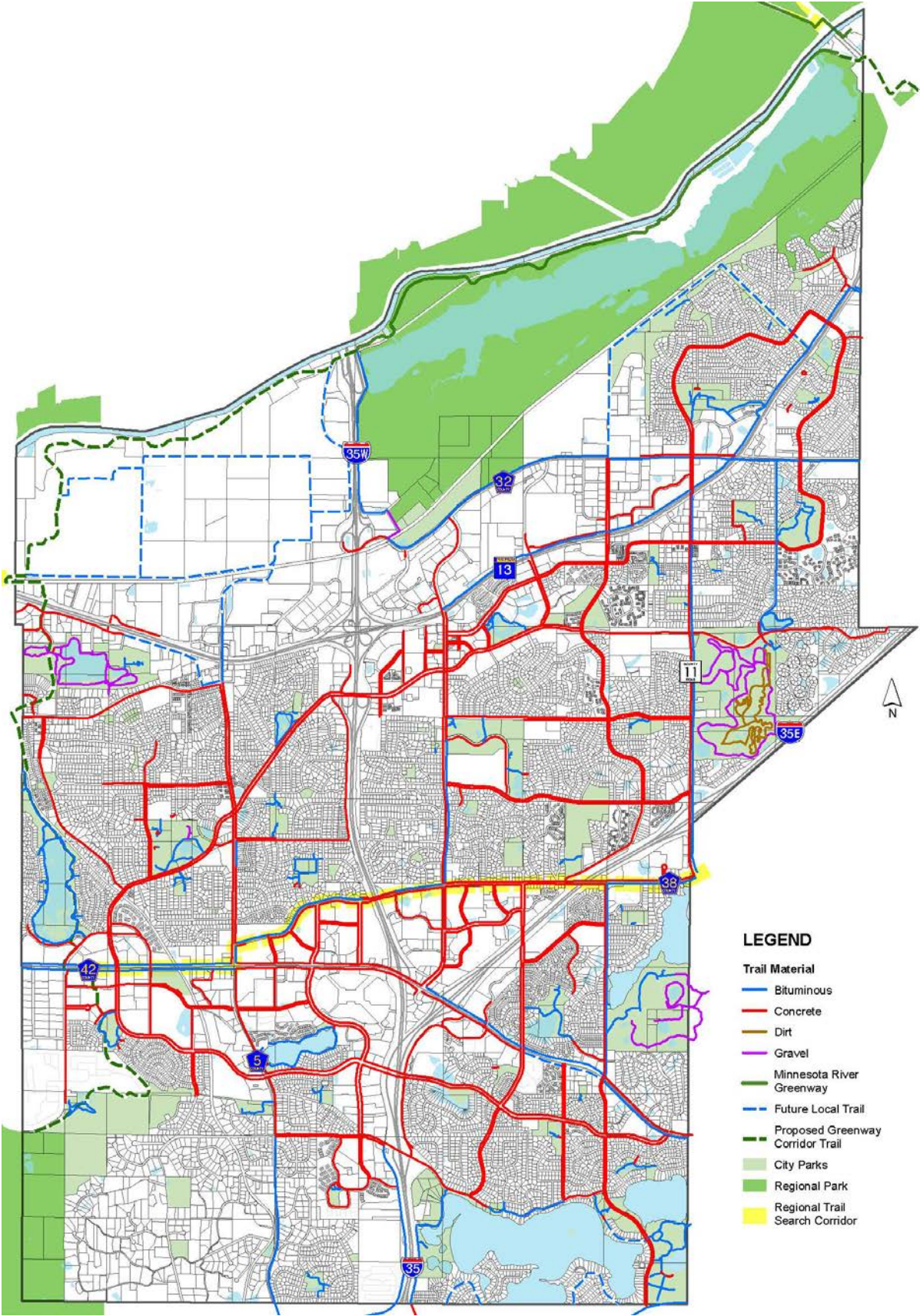
As it relates to the construction of trails, the City Council directed staff to investigate whether it would make sense to construct sidewalks in conjunction with all street reconstruction projects. Due to the significant additional costs, few new sidewalks have been added. A number of sidewalks, however, have been identified for conversion to trails as funding becomes available. The priority is to construct missing links in the trail/sidewalk system prior to replacing sidewalks with trails. As the Trail Plan is updated it will also be important to consider not only the recreational function, but the transportation function of the trail and sidewalk network such that the missing links or gaps are addressed and new linkages are identified to provide enhanced mobility across the community.





The city will continue to work with other agencies including Dakota County, the MnDNR and adjacent communities to coordinate local and regional trail projects and to apply for federal grants which is the current best way to obtain funding for these improvements.

Figure 7-28: Future Sidewalk and Trail Network



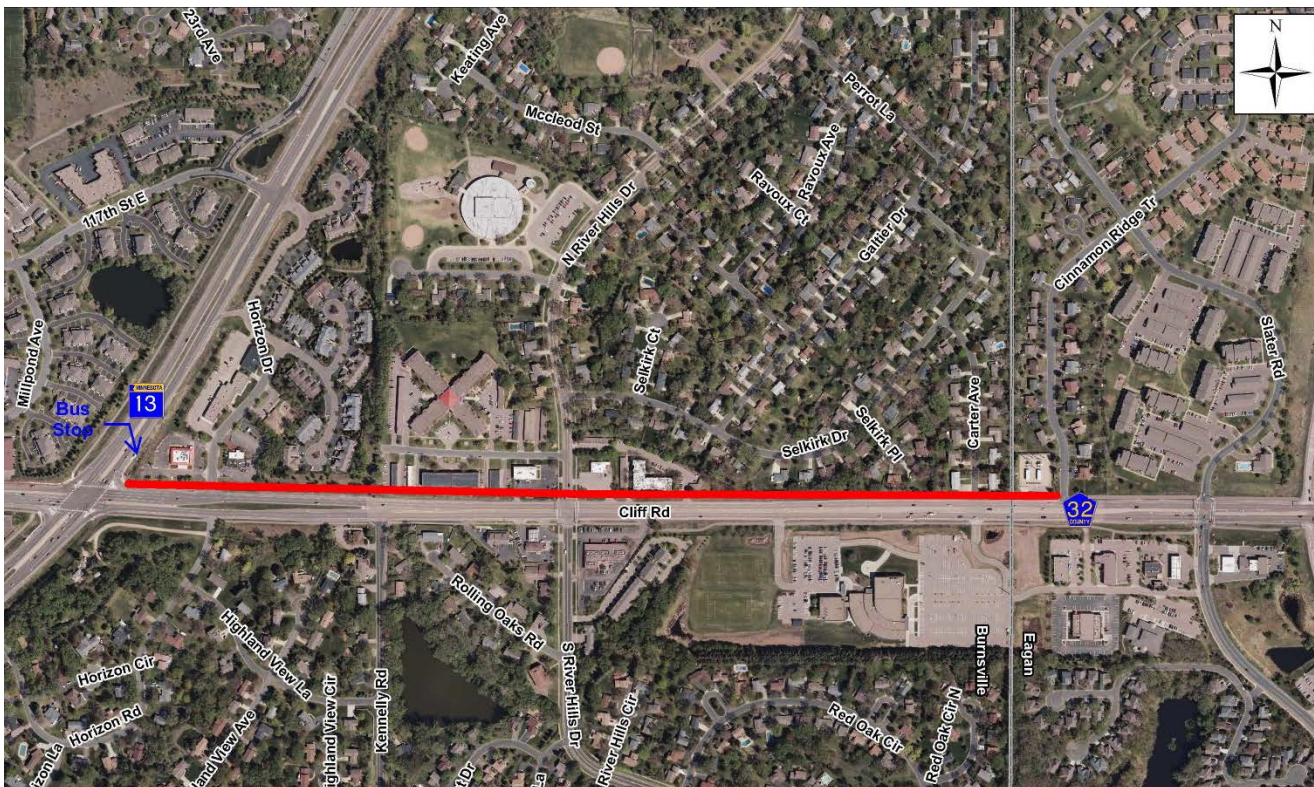


## Cliff Road Improvement Trail Project

In 2016, the City obtained federal funding for the completion of an existing trail gap along the north side of Cliff Road. The Cliff Road Trail Improvement Project with planned completion by 2020, consists of constructing a 0.75-mile-long multi-use paved trail along the north side of Cliff Road (County Road 32) between TH 13 in the City of Burnsville and Cinnamon Ridge Trail in the City of Eagan. The project also includes crossing and ADA improvements.

This gap project was identified in the Dakota County Transportation Plan as having a "high pedestrian demand" due to population and employment density, presence of poverty and transit, and the number of travel lanes. The completed project will allow inter-city access to the trail networks in both Burnsville and Eagan, and provide connections to regional trail facilities.

Figure 7-29: Cliff Road Improvement Trail Project Alignment



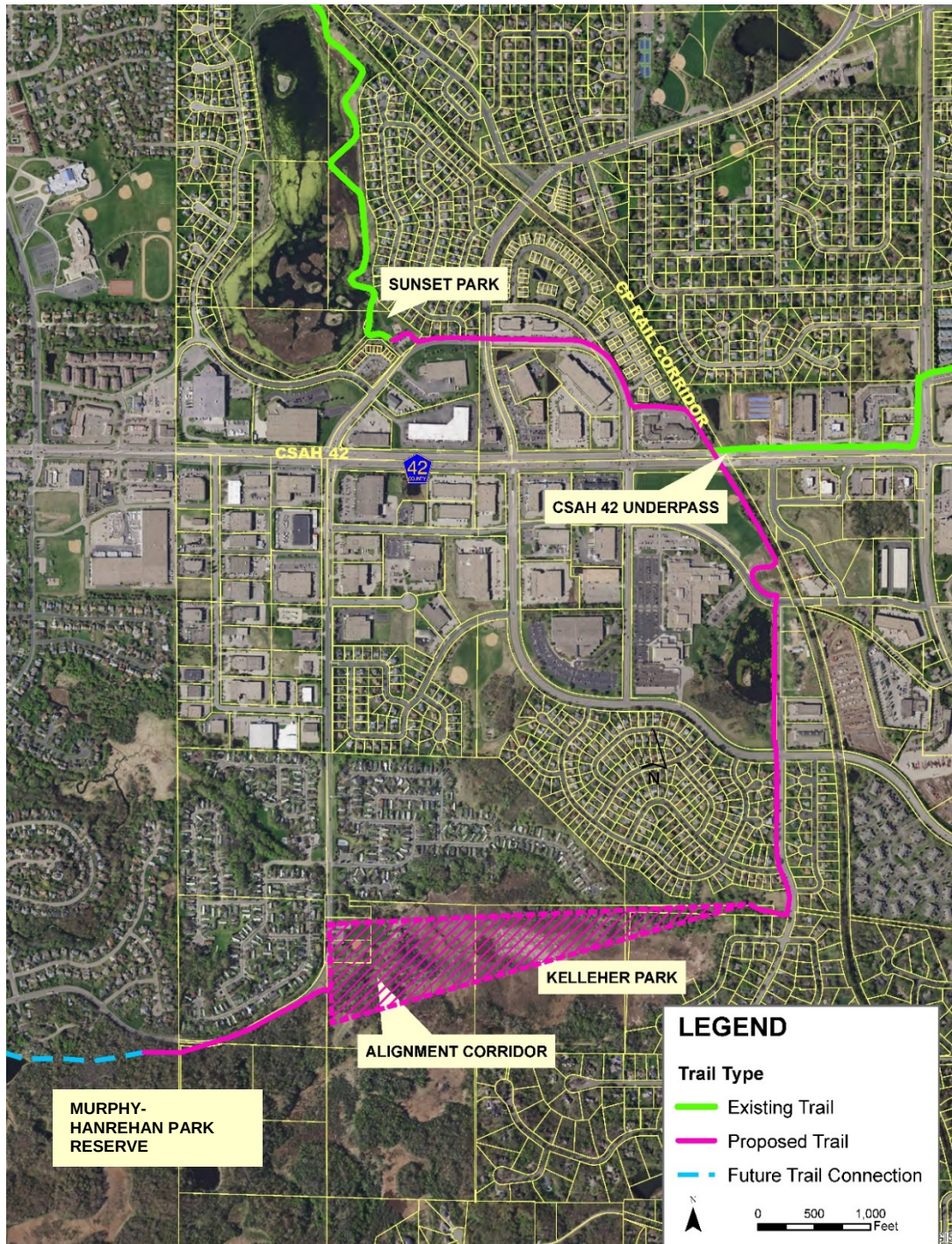
## Lake Marion Regional Trail Segments

The City and local area partners began conducting a preliminary design study in 2017 for a proposed new segment of the Lake Marion Greenway Regional Trail. Potential construction is targeting 2019. The proposed 1.8-mile trail segment would extend from West Burnsville Parkway, through Kelleher Park, and then follow Judicial Road north through Sunset Pond Park where it would connect to an existing trail. Figure 7-30 on the next page shows the potential alignment of the trail.



In 2016, the City partnered with Dakota County to complete a feasibility study for a segment of the Lake Marion Regional Greenway – Rose Bluff Segment. The trail plan travels from Williams Drive at Judicial Road north to the parking lot of the Rudy Kramer Nature Preserve. The construction project’s targeted completion date is June 30, 2019. This segment is shown in Figure 7-31 along with the northern portion of the segment described in Figure 7-30.

Figure 7-30: Lake Marion Regional Trail – Kelleher Park Trail-Proposed Alignment (2017)





**PROJECT SITE LEVEL MAP**

**Legend**

- Rose Bluff Trail Connection
- Existing Trails
- Planned Trails
- Existing Sidewalks
- Lake Marion Greenway
- Municipal boundaries
- Park

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



### **Interstate 35W (I-35W) Bridge Trail Connection**

MnDOT in partnership with Dakota and Hennepin Counties and the Cities of Bloomington and Burnsville are developing a project to replace the bridge and pavement on I-35W between Cliff Road and 106th Street. This project will raise I-35W out of the floodplain and improve pedestrian access across the river with the addition of a trail between Cliff Road and 106th Street. The planned start of construction for this project is 2018.

### **Pedestrian and Bicycle Crossings at Grade**

Key to a thriving network for pedestrians and bicyclists is safe, convenient crossings of motor vehicle traffic. There is a large and evolving toolbox from which engineers may select appropriate crossing treatments for crossings depending upon several factors. The treatments include a wide variety of:

- » Signing types and strategies
- » Pavement marking messages and materials
- » Types of devices
- » Geometric modifications

The City has updated its Pedestrian Crossing Policy to establish a standard of care at designated crossing locations. The update included a city-wide inventory for the purpose of programming improvements to meet the standard of care, and standards for what type of improvements, signage and striping should be placed with different criteria. The City plans on working toward meeting these standards at currently marked crosswalks and any new crosswalks as roads are reconstructed and new crosswalks are added.



### Crossings at Major Barriers – Overpasses and Underpasses

As part of the trail system and overall transportation network, how people walk and ride bicycles across the many high-traffic volume corridors is a concern. While the City has many high-capacity thoroughfares that provide access and crossing opportunities, the number, location and design of these systems form barriers. To a large extent, Burnsville cannot easily change the location of state and county roadways. The City can, however, influence land use and design improvements to provide improved connections between the areas of the city that are currently separated from each other by high-capacity roadways and railroad corridors. The City places an emphasis on improving neighborhoods, business development and accessibility for residents to parks, recreation, schools, entertainment, shopping, employment, civic areas and cultural amenities.

Goals and policies are set forth herein to increase transit. The City will also continue to focus efforts on improvement to the RBTN, local non-motorized

connections and crossings and “Safe Routes to School” planning and implementation projects. Each of these provide opportunities for safe, convenient, and comfortable connections across roadway and railway barriers when walking and riding bicycles.

The Lake Marion Greenway Master Plan recommended a new underpass at TH 13 and Chown Avenue as well as an improvement to the existing underpass at County Road 42 using the existing MN&S Railway underpass on the west side of the bridge piers. As one of the few grade-separated crossings along County Road 42, it is an important opportunity for completing the trail alignment.



Another area where a grade-separated crossing is desired is across TH 13 near the Orange Line BRT station, the MVTA station and the Heart of the City. The City has, and will continue to seek partnerships and funding to develop the TH 13 grade separation.



### Additional Bicycle Facilities

The City has not had community desire to implement or study additional types of bicycle infrastructure such as protected bicycle lanes, buffered bicycle lanes, bicycle boulevards and related treatments. While these types of bicycle facilities are being implemented elsewhere in the Twin

Cities metropolitan region, the City has focused primarily on implementation of trails and safe trail crossings for local and regional bicycle travel in Burnsville. The City could investigate the application of such bicycle facilities if the community expressed strong interest.

## Sustainability

At the most basic level, a sustainable transportation system is one that meets the transportation needs of the present without compromising the ability of future generations to meet their needs. A sustainable transportation system addresses economic, environmental, and social aspects of transportation. In economic terms, it would be energy efficient, offer diverse options, provide both mobility and connectivity, promote local economic development, and be operationally efficient. An environmentally sensitive transportation system would be resilient; conserve natural resources and open space; protect wildlife and biodiversity, and emit fewer air, water, and land pollutants. A socially sustainable transportation systems would also afford equitable access to all residents; ensure human safety; provide affordable services; strengthen community connections; and preserve and enhance local cultures.

Burnsville can take numerous actions to incrementally improve the sustainability of local and regional transportation systems. Some of these actions will require action by the public sector, as well as private organizations and individuals. Given the complexity of both sustainability and transportation planning and the range of stakeholders, a sustainable transportation system will require significant behavioral and attitudinal changes by both public and private actors. Although personal vehicles can be part of a sustainable transportation system, there is an increased emphasis on public, non-motorized, and multi-modal transportation options.

One of the most important aspects of sustainable transportation is the link between transportation planning and land use. Many aspects of urban travel demand (e.g. origin and destination locations, trip lengths, modal choice) are shaped by land use patterns. The location and form of development are principal determinants of the potential for urban transportation systems to be sustainable. Yet it is equally true that transportation systems influence the form and nature of development, and for this reason land use and transportation are viewed as interdependent.



| Sustainability Area                                                                                                                 | Transportation Plan Sustainability Approaches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Energy Reduction</p>                           | <ul style="list-style-type: none"> <li>» Integrate land use planning and transportation planning.</li> <li>» Support car and bike sharing networks.</li> <li>» Incorporate electric charging infrastructure.</li> <li>» Prepare for autonomous vehicles.</li> <li>» Create Greenway linkages.</li> <li>» Consider eliminating parking minimums (replace with maximum standards).</li> <li>» Continue to install or retrofit existing systems with LED lighting. Consider options for providing dimmable system controls to reduce lighting during low traffic hours.</li> <li>» Encourage MnDOT and Dakota County to incorporate sustainable practices and improvements with their transportation systems.</li> </ul>                                                                                                     |
|  <p>Sustainable Water Supply</p>                   | <ul style="list-style-type: none"> <li>» Allow for reduced street widths and parking standards to decrease impervious surfaces where appropriate. Consider ordinances to allow pervious surfaces for seasonal parking facilities.</li> <li>» Incorporate LED/green Infrastructure on streets.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|  <p>Waste Reduction</p>                            | <ul style="list-style-type: none"> <li>» Continue to implement recycled content road reconstruction standards.</li> <li>» Allow for reduced street lane widths to promote walkability and bike friendliness on street where appropriate.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|  <p>Sustainable Food System Opportunities</p>    | <ul style="list-style-type: none"> <li>» Transportation planning should complement land use planning to increase access to food systems.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|  <p>Efficient Use of Infrastructure and Land</p> | <ul style="list-style-type: none"> <li>» Increase connectivity, both within and between modes (i.e. transit connects to transit; and transit connects to other modes).</li> <li>» Consider sidewalks or trails on both sides of the street where appropriate.</li> <li>» Grant density bonuses in transit or mixed-use districts.</li> <li>» Encourage public transit use by integrating multi-modal use and connectivity (park-and-ride lots, transit centers, etc).</li> <li>» Incorporate traffic calming practices to protect pedestrians/bikes.</li> <li>» Create places that maximize the use of existing infrastructure through infill, redevelopment, and increased density.</li> <li>» Plan and permit road networks of neighborhood scaled streets with high levels of connectivity and short blocks</li> </ul> |
|  <p>Natural Resource Conservation</p>            | <ul style="list-style-type: none"> <li>» Incorporate natural resources conservation into transportation plans to meet environmental requirements.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



| Sustainability Area                                                                                         | Transportation Plan Sustainability Approaches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Climate Resiliency</p> | <ul style="list-style-type: none"> <li>» Promote green infrastructure.</li> <li>» Ensure drainage systems can handle large rainfall events.</li> <li>» Construct roadways resistant to erosion.</li> <li>» Ensure roadway and utility systems work to protect each other.</li> <li>» Complete resiliency studies to determine which sections of the City's transportation infrastructure have the highest risk of failure due to climate change or other scenarios. Identify, fund and make improvements to address concerns.</li> <li>» Complete resiliency studies to determine consequence levels if certain sections of the City's transportation infrastructure fail. Identify, fund and make improvements to address concerns.</li> </ul> |

## Sustainability Measures of Success

The following measures of success can be used to assess progress on sustainability initiatives.

1. Miles of City street improved using sustainable practices such as aggregate recycling, utilizing existing curb and gutter or transforming to complete or green streets.
2. Number of developments approved with transit or multi-modal positive aspects to them.
3. Number of miles of trails, sidewalks or on-street bike lanes constructed/marked.
4. Number of intersection or crossing improvements meant to increase traffic and safety improvements.
5. Number of LED streetlights added or retrofitted.
6. Number of catch basins added, number of feet storm sewer pipe extended/expanded, and number of high-risk roadway drainage areas improved.

# Implementation Plan

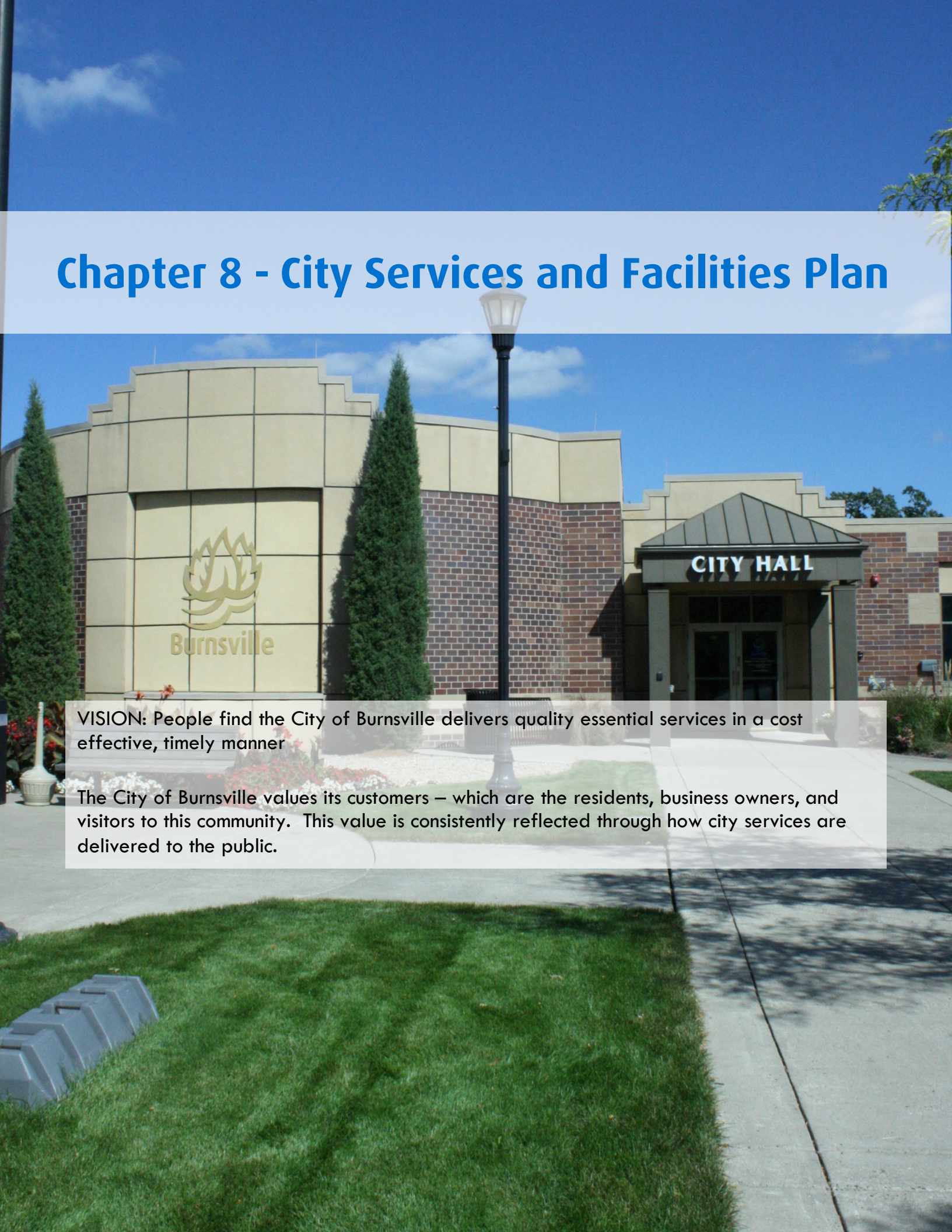
Summarized from this Transportation Plan are the following strategies and actions to guide Burnsville in its efforts to reduce roadway congestion, enhance development, expand transit and non-motorized use.

| Transportation Need      | Strategies / Actions                                                                                                                                                                                                                                                                                                         |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reduce Congestion        | » Coordinate with neighboring cities and counties, the Metropolitan Council, MnDOT and MVTA                                                                                                                                                                                                                                  |
|                          | » Support the I-35W bridge replacement for added capacity                                                                                                                                                                                                                                                                    |
|                          | » Work with employers to develop TDM plans                                                                                                                                                                                                                                                                                   |
|                          | » Review and implement recommendations from the TH 13 Corridor Study                                                                                                                                                                                                                                                         |
|                          | » Support improvements for the CSAH 42 corridor                                                                                                                                                                                                                                                                              |
|                          | » Support the expansion of MnPASS lanes                                                                                                                                                                                                                                                                                      |
|                          | » Increase the number and variety of communication platforms regarding alternative methods of transportation and metro commuter services in and around Burnsville (e.g. MVTA, Metro Transit, Metro Mobility, weblinks to Cyclopath and other bicycling resources, Segway, scooter, telecommuting, flex route schedule, etc.) |
| Development              | » Continue planning for the MRQ transportation needs                                                                                                                                                                                                                                                                         |
|                          | » Continue planning for the Cliff Road West relocation                                                                                                                                                                                                                                                                       |
|                          | » Require TDM plans for new developments                                                                                                                                                                                                                                                                                     |
|                          | » Address the planning and design needs for autonomous vehicles                                                                                                                                                                                                                                                              |
| Expand Transit Use       | » Support the development of the Orange Line BRT                                                                                                                                                                                                                                                                             |
|                          | » Implement TOD planning in transit and high density areas                                                                                                                                                                                                                                                                   |
|                          | » Support continued study identified in the Dakota County East-West Transit Study                                                                                                                                                                                                                                            |
|                          | » Include non-motorized connections and facilities in the planning of transit facilities                                                                                                                                                                                                                                     |
| Expand Non-Motorized Use | » Complete trail connections on Cliff Road, the Lake Marion Regional Trail and along the Minnesota River                                                                                                                                                                                                                     |
|                          | » Apply wayfinding, design and marketing strategies to increase utilization of the non-motorized transportation system                                                                                                                                                                                                       |
|                          | » Continue to work with adjacent counties and cities and the State of Minnesota to create bicycle and pedestrian connections to existing and planned facilities including the RBTN                                                                                                                                           |
|                          | » Support the construction and maintenance of walkways and bikeways adjacent to major transportation routes throughout the city                                                                                                                                                                                              |
|                          | » Improve pedestrian and bicycle crossings of the street network following guidance in the Pedestrian Crossing Policy                                                                                                                                                                                                        |
|                          | » Distribute bicycle educational materials, such bicycle trail maps and rules of the road, through local bicycle shops, on distribution racks, at special events, in schools, social media, city and other websites                                                                                                          |
|                          | » Partner with Dakota County to add bike rental facilities to the Regional Trail Trailhead locations as feasible                                                                                                                                                                                                             |
|                          | » Work toward funding and approvals for a TH 13 pedestrian overpass at Nicollet Avenue connecting the MVTA Hub with Heart of the City and the future Orange Line Station                                                                                                                                                     |

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## Chapter 8 - City Services and Facilities Plan

A photograph of the Burnsville City Hall building. The building features a large, stylized gold logo of a lotus flower on a light-colored stone wall, with the word "Burnsville" below it. To the right, a brick section of the building has a small entrance with a dark roof and the words "CITY HALL" above the doors. A black lamppost stands in the foreground. The sky is blue with some clouds.

**VISION:** People find the City of Burnsville delivers quality essential services in a cost effective, timely manner

The City of Burnsville values its customers – which are the residents, business owners, and visitors to this community. This value is consistently reflected through how city services are delivered to the public.



## Table of Contents – Chapter 8

|                                                                |     |
|----------------------------------------------------------------|-----|
| Introduction.....                                              | 409 |
| Goals & Policies.....                                          | 409 |
| Burnsville City Organizational Model .....                     | 413 |
| Statutory City.....                                            | 413 |
| Mayor and City Council.....                                    | 414 |
| Governance Model.....                                          | 414 |
| Advisory Boards & Commissions .....                            | 414 |
| Economic Development Commission.....                           | 415 |
| Parks & Natural Resources Commission.....                      | 415 |
| Ames Center Advisory Commission .....                          | 415 |
| Planning Commission.....                                       | 415 |
| Black Dog Watershed Management Organization .....              | 415 |
| Burnsville City Services .....                                 | 416 |
| City Manager and the City's Organizational Configuration ..... | 416 |
| Management Team, Coordinators and Supervisors .....            | 417 |
| City Departments & Services.....                               | 417 |
| Leadership & Leadership Development.....                       | 417 |
| Administrative Services .....                                  | 418 |
| Community Development Department .....                         | 420 |
| Parks, Recreation and Facilities Department .....              | 422 |
| Public Works Department .....                                  | 423 |
| Public Safety: Police and Fire Departments.....                | 425 |
| Burnsville City Facilities.....                                | 428 |
| Civic Center Park .....                                        | 428 |
| City Hall/Police Station .....                                 | 428 |
| Ice Center .....                                               | 428 |
| Skate Park.....                                                | 429 |
| Bi-centennial Garden .....                                     | 429 |
| Old Maintenance Facility (THE GARAGE) .....                    | 430 |
| Heart of the City (HOC).....                                   | 430 |
| Parks .....                                                    | 432 |
| Trail System.....                                              | 438 |
| Public Safety Facilities.....                                  | 438 |
| City Maintenance Facilities .....                              | 439 |
| Telecommunications Plan.....                                   | 440 |
| Sanitary Sewer Plan .....                                      | 443 |
| Introduction.....                                              | 443 |
| Existing Sanitary Sewer System.....                            | 443 |
| Gravity System .....                                           | 445 |
| Sanitary Lift Stations .....                                   | 446 |
| Subsurface Sewage Treatment Systems.....                       | 447 |
| Service Connections .....                                      | 447 |



|                                             |     |
|---------------------------------------------|-----|
| Inflow and Infiltration .....               | 448 |
| Service Area Update .....                   | 451 |
| Water Plan .....                            | 457 |
| Introduction .....                          | 457 |
| Existing Facilities .....                   | 458 |
| Demand Distribution .....                   | 466 |
| Facility Improvement Recommendations.....   | 468 |
| Supply and Treatment Improvements.....      | 469 |
| Distribution System Improvements.....       | 469 |
| Storage Improvements .....                  | 470 |
| Future Water Issues Facing Burnsville ..... | 471 |
| Regional Groundwater Sustainability .....   | 474 |
| Sustainability .....                        | 476 |
| Measures of Success .....                   | 478 |
| Implementation .....                        | 479 |

## Table of Figures – Chapter 8

|                                                                                                                              |     |
|------------------------------------------------------------------------------------------------------------------------------|-----|
| Figure 8-1: City of Burnsville Organizational Configuration.....                                                             | 416 |
| Figure 8-2: Ames Center .....                                                                                                | 431 |
| Figure 8-3: Parks System Master Plan.....                                                                                    | 437 |
| Figure 8-4: Existing Sanitary Sewer Trunk System Map.....                                                                    | 444 |
| Figure 8-7: Year Built of Housing Stock, 2017 .....                                                                          | 449 |
| Figure 8-8: Sanitary Sewer System Map.....                                                                                   | 456 |
| Figure 8-9: Existing Distribution System Map .....                                                                           | 463 |
| Figure 8-10: Typical Residential 24-Hour Diurnal Demand Distribution Curve as Applied<br>to the Burnsville Water System..... | 467 |
| Figure 8-11: Historical and Projected Maximum Day Demands .....                                                              | 469 |
| Figure 8-12 - Kraemer Quarry and Freeway Landfill.....                                                                       | 473 |
| Figure 8-13 – Burnsville DWSMA Vulnerability .....                                                                           | 476 |

## Table of Tables – Chapter 8

|                                                                                   |     |
|-----------------------------------------------------------------------------------|-----|
| Table 8-1: Existing Sanitary Sewer - Miles .....                                  | 445 |
| Table 8-2: Sanitary Lift Stations .....                                           | 446 |
| Table 8-3: System Flows and Estimated I/I.....                                    | 448 |
| Table 8-4: Summary of Water Usage .....                                           | 451 |
| Table 8-5: Sewered Population Projections .....                                   | 451 |
| Table 8-6: Estimated Water Demands.....                                           | 452 |
| Table 8-7: Future Sanitary Sewer Estimated Daily Average Flows (Sewered).....     | 452 |
| Table 8-8: Sanitary Flow to Water Demand Ratios.....                              | 452 |
| Table 8-9: MCES Wastewater Flow Projections.....                                  | 453 |
| Table 8-10: Burnsville Sewered Flows - Planned Contributions from Sewershed ..... | 453 |

Table 8-11: 2040 Forecasts by MCES Interceptor ..... 454

Table 8-12: Contributing (Sewered) Community Flows ..... 454

Table 8-13: Contributing Community Flow Projections by Interceptor ..... 455

Table 8-14 - Water Supply ..... 459

Table 8-15 – Water Storage ..... 460

Table 8-16 - Water Pressure Zones ..... 462

Table 8-17 - Recent Water Demands, Per Capita Demands and Maximum Day Peaking  
Factors ..... 465

Table 8-18 - Future Estimated Water Demands ..... 468

Table 8-19- Storage Facility Needs Through 2040 ..... 471

# City Services and Facilities

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## Introduction

City facilities and services are key ingredients in the overall identity of a community. The City conducts regular surveys of its residents and businesses who have indicated they hold a high regard for services and facilities provided to them by the City. Excellent public service, parks, infrastructure and amenities influence people to live and work in Burnsville. As the community continues to evolve, it is important not only to preserve but also enhance infrastructure investments and services. Opportunities to be forward-thinking and to adapt to different service delivery models are also encouraged.

City facilities and services protect public health, safety, and welfare and improve quality of life for its residents. These facilities are an integral part of the City's land use pattern. The City's Services and Facilities Plan describes the public safety and other services provided by the City as it relates to organizational structure, public buildings and facilities. The Plan also includes telecommunications information, as well as the Parks and Recreation Plan, Sanitary Sewer Plan, and Comprehensive Water Plan. This chapter identifies areas where new services will be needed to accommodate future growth expected over the next two decades.

## Goals & Policies

The 2040 Comprehensive Plan establishes the following City services and facilities (CSF) goals and policies to guide future city services and facilities efforts in the community. These goals are high level yet targeted statements of how the community intends to achieve the vision of the City Services & Facilities Plan:

***People find the City of Burnsville delivers quality essential services in a cost effective, timely manner.***

The goals encompass the community's desire for:

- » Maintaining and updating its sanitary sewer and water supply systems
- » Converting overhead to underground utilities
- » Expanding the City's communications infrastructure
- » Applying facilities standards equitably throughout the city including City-owned facilities
- » Continuing to deliver a high level of service for code enforcement
- » Improving public safety

- » Maintaining or expanding parks and open space
- » Ensuring availability of recreational facilities and diversity of programs spanning all ages and appealing to wide variety of interests and skills
- » Maximizing joint ventures facilities
- » Continuing to deliver essential services as cost-effectively as possible

Each city services and facilities goal is supported by a set of policies that define the City's preferred directions or methods of action to guide and determine city services and facilities decisions.

**CSF Goal 1.** Continue to review and update, as needed, the sanitary sewer and water supply system plans.

CSF Policy 1.1. Maintain critical raw water sources and infrastructure necessary for the delivery of safe drinking water.\*<sup>1</sup>

**CSF Goal 2.** Encourage existing above ground utilities to be converted to underground utility systems or to be screened if the utilities must be located above ground.

**CSF Goal 3.** Consider installing “shadow” conduit or “empty” conduit for possible communications infrastructure in areas where reconstruction or new construction takes place within the public right-of-way and public property.

**CSF Goal 4.** Maintain the municipal antenna sites for the community's telecommunications needs, and maintain adequate zoning regulations for antenna towers, consistent with federal law.

**CSF Goal 5.** Develop community facilities to the same aesthetic, environmental and development standards required for private property.

**CSF Goal 6.** Increase volunteerism and civic opportunities such as volunteering to be on a city committee or commission in Burnsville.

CSF Policy 6.1. Seek assistance from local school districts, seniors, special needs individuals, and other public/private and non-profits to provide additional volunteers for City projects.

CSF Policy 6.2. Research and develop ways to open communications with people and business owners from diverse cultural backgrounds to educate them on volunteer and civic opportunities available in Burnsville.

---

<sup>1</sup> \* Indicates a Goal of Policy that refers to the Council's adopted Ends and Outcomes

**CSF Goal 7.** Increase and maintain a high level of code enforcement throughout the city to promote the upkeep of properties and improve overall city appearance.

CSF Policy 7.1. Allocate the resources necessary to maintain code enforcement and obtain compliance.

CSF Policy 7.2. Increase the number of volunteers to assist the City in code enforcement efforts.

**CSF Goal 8.** Organize and coordinate efforts to create a plan to welcome new residents and businesses to Burnsville.

CSF Policy 8.1. Research and develop mechanisms to address diversity challenges and successful ways to communicate programs, services, opportunities and community code standards to new residents of different cultures.

CSF Policy 8.2. Create a welcome packet and coordinate efforts with organizations such as “Welcome Wagon” and collaborating with schools and community organizations to provide and distribute information to all new residents and target efforts to residents with culturally diverse backgrounds to open communications with the City.

**CSF Goal 9.** Partner with all of the school districts, community organizations, business leaders, neighborhood block captains, residential homeowner associations and rental property owners to maximize joint ventures for facilities and operations use (e.g. snow plow efforts, joint parking arrangements, communication efforts/ brochures, shared broadband, pedestrian improvements etc.)

**CSF Goal 10.** Continue to improve Burnsville as a safe community with a consistently high level of public safety.\*<sup>2</sup>

CSF Policy 10.1. Develop community fire, drug and crime prevention programs and inspections to address emerging issues.

CSF Policy 10.2. Support community-wide safety education programs (such as the “Blue in the School Program”) targeted at youth and high-risk populations.

CSF Policy 10.3. Re-examine the use or overuse of emergency weather warning systems.

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<sup>2</sup> \* Indicates a Goal of Policy that refers to the Council’s adopted Ends and Outcomes



CSF Policy 10.4. Promote safety and maintenance of transportation infrastructure by increasing enforcement of commercial vehicle weight limits and load coverage.

CSF Policy 10.5. Design development to accommodate efficient public safety response (e.g. adequate access for emergency vehicles, crime prevention through environmental design, technology etc.).

CSF Policy 10.6. Enhance local and regional partnerships to improve and consolidate records, share specialized equipment and personnel for homeland security, terrorism, bioterrorism/pandemics and other mutual initiatives.

**CSF Goal 11. People find the City of Burnsville delivers quality essential services in a cost effective, timely manner.**

CSF Policy 11.1. Fund public safety initiatives to maintain and improve the current high level of service.

CSF Policy 11.2. Pursue grant funding and other options to obtain outside sources of funding to support public safety programs and practices.

**CSF Goal 12. Residents, including youth, are active participants in community safety.\*<sup>3</sup>**

CSF Policy 12.1. Expand neighborhood, multi-family and business watch programs to improve the safety and security of Burnsville residents and visitors.

CSF Policy 12.2. Increase the number of volunteer opportunities and actively recruit membership for organizations such as: Community Emergency Response Team (CERT), Neighborhood Watch, Block Captains.

CSF Policy 12.3. Engage all multi-family unit managers and owners, including resident owners, in crime reduction programs, and commit resources to reducing crime in multi-family properties (e.g. increase enforcement of rental housing licensing).

**CSF Goal 13. Recreational programs and facilities offer a variety of events and activities for people of all ages and cultures**

CSF Policy 13.1. Promote partnerships among the City and civic and neighborhood groups, school districts, churches, and other public, private and non-profit agencies to avoid the duplication of facilities and programs, and to more

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<sup>3</sup> \* Indicates a Goal of Policy that refers to the Council's adopted Ends and Outcomes

efficiently meet the need for a variety of recreational experiences that are enjoyable, educational, safe, attractive, affordable and accessible.

**CSF Goal 14.** Develop and maintain neighborhood recreational facilities that are consistent with changing community and neighborhood needs; promote and support the incorporation of cultural elements within the recreation programs; and monitor the changing needs of the City's growing senior and ethnically diverse population.

**CSF Goal 15.** Maintain adequate passive and active open space for the enjoyment of Burnsville residents, based on the general standard of a minimum of 20 acres of public open space for every 1,000 persons.

**CSF Goal 16.** Ensure that development and redevelopment provides for adequate parks and open space.

CSF Policy 16.1. Continue to require the dedication of park land, or payment of cash in lieu of land, for all commercial, industrial, and residential development, in accordance with the park dedication policy, Subdivision Ordinance and state law.

CSF Policy 16.2. Support the development and operation of a private golf course and clubhouse (open to the public), on the Burnsville Sanitary Landfill site following closure of the landfill (upon review and evaluation of a need for golf course facilities at that time).

CSF Policy 16.3. Support development of the Minnesota Riverfront area of the MRQ for public park and recreation facilities and natural open space.

**CSF Goal 17.** Continue to review and update the 2017 Parks and Recreation System Master Plan to respond to the community's need for recreation and parks facilities.

## Burnsville City Organizational Model

### Statutory City

Minnesota has two basic types of cities: statutory cities that operate under the statutory city code; and home rule charter cities that operate under a local charter. The majority of cities in Minnesota, including Burnsville, are statutory cities and operate under Minnesota State Statutes Chapter 412. Although all statutory cities have the same basic powers, city code allows each municipality to select one of three forms of organization: Standard Plan, Optional Plan A, and Optional Plan B. Burnsville is a statutory Plan B city.

## Mayor and City Council

Plan B is also known as the council-city manager plan. Under Plan B, the elected City Council consists of a mayor and four council members. The mayor presides over City Council meetings, executes official documents, performs ceremonial duties, declares local emergencies and speaks on behalf of the City Council only when a decision by the whole has been made. Council members are non-partisan and are elected to serve the community “at large.” Council members also serve as the Economic Development Authority (EDA). For additional information about the EDA see Chapter 3 – Economic Development Redevelopment Plan, page 3-135.

Under Plan B, all policy and legislative decisions are the responsibility of the City Council and administrative duties are delegated to the City Manager. The City Manager is appointed by, and reports to, the council. The City Manager is responsible for effective administration of City business in accordance with council decisions and management of City staff. Figure 2 - City of Burnsville Organizational Model, illustrates the organizational model for the City of Burnsville.

## Governance Model

The City Council follows a governance plan that is a modified version of The Policy Governance® Model (informally known as the Carver Model). The Carver Model is an integrated board leadership paradigm created by Dr. John Carver. The governance process is designed to empower the City Council to fulfill its obligation of accountability for the City by enabling the Council to focus on larger issues, delegate with clarity, direct management without dwelling on details, rigorously evaluate the accomplishment of the city organization and truly lead the city. The Carver Model has been the Council's adopted Governance Policy since 1996.

As part of the Carver Model, the City Council also adopted a shared values statement (the values relevant to the 2040 Comprehensive Plan Update are provided in Chapter 1- Community Overview). The Council's adopted Ends and Outcomes are currently organized into eight broad areas: Safety, Community Enrichment, Neighborhoods, Development/ Redevelopment, Environment, Transportation, City Services and Financial Management. A Monitoring Report is published annually in which staff report on the status of or progress toward each desired Outcome. The specific Ends Statements are identified in each chapter as applicable.

## Advisory Boards & Commissions

The City Council relies on volunteers to serve on citizen advisory boards and ad-hoc committees to research review and make recommendations on specific issues impacting the City and to assist in strategic planning for the betterment of the community. Through Council policy, parameters are set for the creation, dissolution and member appointment process for advisory

boards and ad-hoc committees. Council's policy outlines the selection process for all Council-appointed boards and committees and sets forth the formal recruitment and selection process. The policy further establishes an orientation process and the recognition of all volunteers who serve on these boards and committees.

There are currently five citizen advisory commissions and committees with members appointed by the City Council. Council members serve as liaisons to the following:

## **Economic Development Commission**

The mission and purpose of the Economic Development Commission (EDC) is to provide economic development related research recommendations and to provide public input related to economic policies, procedures and programs to the City Council and EDA.

## **Parks & Natural Resources Commission**

The Parks & Natural Resources Commission (PNRC) is charged with making recommendations on issues related to park, recreation and open space needs of the community and the protection of Burnsville's natural resources. Typical issues include park development, priority setting for capital improvements and park use policies.

## **Ames Center Advisory Commission**

The Ames Center Advisory Commission is responsible for researching, reviewing and making recommendations on issues related to the operation of the City's performing arts center, the Ames Center.

## **Planning Commission**

The City's Planning Commission is responsible for researching, reviewing and making recommendations on issues related to land use and development in the city and development of the City's Comprehensive Plan.

## **Black Dog Watershed Management Organization**

The Black Dog Watershed Management Organization (BDWMO) was founded in 1985 as the result of a Joint Powers Agreement between the Cities of Apple Valley, Burnsville, Eagan, Lakeville and Savage and in response to the requirements of the Metropolitan Surface Water Management Act. The Act required, among other things, the preparation of watershed management plans in the Twin Cities metropolitan region. Today, the BDWMO also includes the Dakota County portion of the Credit River Water Management Organization. The mission of BDWMO is to *"[provide] leadership in the management & stewardship of the water resources in northwestern Dakota County through the cooperation of five cities and the involvement of local stakeholders."*

# Burnsville City Services

## City Manager and the City's Organizational Configuration

The City is organized at the direction of the City Manager. Serving as Chief Executive Officer, the City Manager is the sole employee of the City Council. The current organizational configuration is non-traditional and has been described as a “molecular model” which seeks to emphasize the relationship of work groups while de-emphasizing hierarchy. The City’s organizational structure is fluid and can change at the discretion of the City Manager. This current structure is the result of a gradual evolution over the life of the City and will continue to evolve as the needs of the community change.

The City strives to recognize the potential for leadership at all levels in the organization. However, the demands and complexity of local government services require that lines of accountability exist for organizational performance, as delegated by the City Manager. The City strives to reduce the layers of reporting (“flattening the organization”) with two layers only between the front-line service-providers and the Management Team: coordinators and supervisors.

Figure 8-1: City of Burnsville Organizational Configuration





## Management Team, Coordinators and Supervisors

The first level of responsibility lies with the City's management team. These employees directly assist the City Manager with overall guidance of the organization.

The next level of responsibility lies with the primary managers of the following areas: city clerk, communications, community development, natural resources, parks, engineering and public works, recreation and facilities, financial accounting and operations, fire, information technology, and police.

The level of responsibility that follows is then with the direct supervisors of front-line employees and service-providers throughout the organization.

## City Departments & Services

In 2017, the total number of full-time City employees was 278. The following End statement outlines Council's vision for City services followed by a summary of the City departments and the services provided to the public:

### City Services "End" Statement

"People find the City of Burnsville delivers quality essential services in a cost effective, timely manner."

## Leadership & Leadership Development

The City Council and the City Manager are part of this City department. They are supported by the following areas:

### Human Resources

This division includes Human Resources, Organizational Development and Support Services. The Division provides Human Resource service to the employees of the entire organization, striving to assist with expanding productivity within confined resources and increasing demand for services. The primary purpose of the division is to: Provide information, support and consultation to our internal customers to assist them in delivering quality, cost effective city services to the public and accomplishing the ends and outcomes identified by the City Council. The services provided include: recruitment, compensation and benefit administration, training, policy development and labor relations. Organizational Development assists employees in managing and adapting to change, measuring performance and meeting customer expectations. Support Services includes direct customer service by support personnel throughout the organization.

### Legal Services

The City Attorney is a contracted position who is selected through a Request for Proposals (RFP) process every five years. The City Attorney works directly with the City Manager & City departments; however, the

City Attorney also has a direct communication relationship with City Council. The primary role of the City Attorney is to support the work of City in each of the eight Ends adopted by Council by ensuring procedures are in place to maintain compliance with all legal requirements. The primary services provided by the City Attorney include: criminal prosecution of crimes enforced by the Burnsville Police Department, civil prosecution of violations of City ordinances, counsel on land use, and defense of the City when litigation occurs as a result of actions by City officials. The City does not have a full-time office of City Attorney. The City Attorney has office hours at city hall.

## Administrative Services

The primary purpose of the Administration department is to provide overall guidance, motivation and direction to carry out the policy expectations of the City Council. General indicators of activity and effectiveness include high approval ratings of city government and staff as exhibited in the past three residential surveys (2008, 2012, and 2016). Under the direction of the City Manager, Administration's primary services follow:

1. Support, enhancement, compliance and implementation of City Council policies
2. Public relations and communications
3. Overall financial management stability
4. Ensure compliance with all legal requirements
5. Serve as "ombudsman" to help address constituent complaints & problems
6. Setting the overall *tone*, attitude, vision and strategic direction for the organization

## Office of the City Clerk

The Office of the City Clerk supports the administrative functions of the City Council, serves as the official record-keeper for the City and administers all local, State and federal elections.

The Clerk's responsibilities related to supporting City Council include:

- » Preparation of agenda packets
- » Notification of regular and special meetings and official notices as required
- » Documentation and preservation of Council agendas and minutes, City ordinances and resolutions, and other City Council action.
- » Publication of City ordinances and codification of City Code
- » Coordination of Council communications and correspondence

- » Coordination of recruitment and appointment of citizen advisory boards and ad-hoc committees
- » Administration and filing of official records and documents
- » Maintenance of the City policies and procedures
- » Maintenance of a Records Management Program for all public records and timely response to inquiries from public officials, City staff, and the public

Primary responsibilities for administration of local, State and federal elections include:

- » Management of voter registration and absentee voting
- » Preparation of election notices and materials
- » Recruitment and training of all election judges
- » Securing and noticing polling precincts
- » Testing and preparing voting equipment
- » Supervising the tabulation and delivery of election results

## Communications Department

The primary purpose of the Communications Department is to help make city government more accessible, keep the public informed about civic opportunities and City services, help communicate the City Council's values and priorities to the community, assist in fostering a greater sense of community, ensure positive media relations, and oversee the community's local access television - BCTV. The primary services include:

- » Coordination and production of the City's quarterly newsletter, the Burnsville Bulletin, recreation brochures, other print communications
- » Management of City social media accounts such as Facebook, Twitter, and YouTube
- » Production of local access cable television programming
- » Oversight of the City's website
- » Facilitation of internal communication with employees

## Finance Department

The Finance Department provides financial support services to the entire organization, including:

- |                       |                                  |                                 |
|-----------------------|----------------------------------|---------------------------------|
| » Accounts payable    | » Grant administration           | » Utility billing               |
| » Accounts receivable | » Risk management                | » Utility rate analysis         |
| » Payroll             | » Banking relations              | » Financial reporting           |
| » Project accounting  | » Cash and investment management | » Long-range financial planning |

- » Implementation of financial controls
- » Debt service analysis and bond payments
- » Capital Improvement Plan
- » Budget preparation
- » Tax levy administration

An annual Financial Management Plan is included in each annual budget document. The Financial Management Plan provides guidance for the Finance staff in the financial management and financial planning for the City. It also guides staff in establishing the policies and procedures for the daily accounting activities to ensure the safeguarding of the City's assets. The multi-year finance plans aid in projecting future needs and evaluating the effects of today's decisions on future years. The City has held the highest bond rating of AAA (S&P) or Aaa (Moody's) since 2010.

### Information Technology (IT) Department

The primary role of the IT Department is to support the effective and efficient delivery of all city services and keeping informed of changes in technology likely to affect the City. The IT Department aims to align technology with the business processes within the City by researching, evaluating, planning and implementing information technology services within the City. Further, the department is responsible for activities such as: providing day-to-day technical support for City staff and City enterprise systems, assisting departments in leveraging technology to enhance employee productivity and streamline and/or improve business processes, and maintaining secure, stable and responsive network infrastructure.

Primary responsibilities include:

- » Desktops/laptops/smart device technical support
- » Phone and voicemail system maintenance
- » Internet and wireless services management and administration
- » Electronic document management system support
- » GIS strategic plan implementation
- » Department-specific system application support and technical liaison services
- » Resource planning of the City's enterprise systems
- » Email system maintenance and administration
- » Security camera and access control systems maintenance and management
- » Telecommunications towers and asset inventory management
- » E-government initiatives and services
- » 24x7 support for critical systems and Help Desk support for City staff

### Community Development Department

The Community Development department includes several divisions: economic development, planning, building inspections, and licensing and code enforcement. The Department focuses on strategic development and planning within the city by providing support services that guide, facilitate, and regulate development and redevelopment within the city.

### Economic Development

The Economic Development division of the Department focuses on fostering new growth through economic development. Economic development efforts in Burnsville seeks to balance enhancing the quality of development desired by the community and promoting an expanding tax base through “development friendly” policies. The Division also supports the City’s Economic Development Authority (EDA) and the Economic Development Commission (EDC).

Examples of other services provided by the Economic Development Division include:

- » Advocating for business within bounds of City Council Policy.
- » Administering the City’s Tax Increment Financing Districts and well as tax abatement and project areas.
- » Administering financial incentives to encourage business development.
- » Coordinating city land acquisitions or disposal.
- » Promoting balanced development and job creation.

### Planning Division

The Planning Division guides the development review process ensuring consistency with Council’s adopted Ends & Outcomes, particularly in the areas of Development/Redevelopment, Neighborhoods, Transportation and Environment. As such, the Division monitors the quality of all development, promotes balanced growth and redevelopment, ensures viability of housing and commercial/industrial property within the city and participates in redevelopment initiatives. The Division also provides staff support for the City’s Planning Commission.

Examples of services provided by the Planning Division include:

- » Development review
- » Long-range planning
- » Mapping
- » Administration of the City’s zoning and amendments to the Ordinance
- » Establishment and monitoring of special overlay districts
- » Documentation of land use regulations and development decisions
- » Grant application preparation and monitoring for redevelopment/improvement grants
- » Maintenance or enhancement of the City's aesthetics standards
- » Research, conducting special studies and making recommendations for policy improvements



## **Building Inspections**

The primary purpose of the Building Inspections Division is to safeguard life, health, property, and public welfare through a common sense approach to code enforcement. This approach is based on a tradition of strong customer service approach. The success of proper inspections during the building and construction period is particularly critical in our community

Examples of services provided by Building Inspections include:

- » Plan review
- » Field inspections
- » Issuance of building permits

## **Licensing & Code Enforcement**

The Licensing & Code Enforcement division work primarily with residents to help ensure clean, safe, and healthy neighborhoods in Burnsville. By working with residents to remedy things that have the potential to be unsafe, unsanitary or infringe on the rights of others, the City hopes to maintain property values and preserve or even enhance the existing housing supply.

Services provided by Licensing & Code Enforcement include:

- » Administration of the City's rental licensing program
- » Administration of the City's Property Maintenance Code (proactive and complaint based)
- » Coordination of general City Code enforcement by working with other City departments
- » Administration and enforcement of business licensing in the city such as liquor, tobacco, gambling, and massage.

## **Parks, Recreation and Facilities Department**

The Parks, Recreation and Facilities Department is comprised of five divisions: Facilities, Recreation, Community Services, the Ice Center, and Birnamwood Golf Course.

### **Facilities Division**

The Facilities Division plans, coordinates, and supervises maintenance, mechanical and custodial services for the City's major public buildings including:

- » City Hall
- » Parks and Public Works Maintenance Center
- » THE GARAGE/Civic Center Maintenance Facility
- » Fire Stations No. 1 and No. 2

- » Water Treatment Plant
- » HOC Parking Ramp and Deck
- » Antenna site buildings
- » Ames Center

### **Recreation Division**

The City's Recreation Division promotes the use of recreation facilities and coordinates programming for youth, family and adults that provide a wide range of leisure time activities for the community.

### **Community Services Division**

The Community Services Division recruits and supervises all of the City's volunteer programs. Additionally the Division supports many of the neighborhood programs in the community, coordinates the Burnsville Youth Collaborative (a partnership with ISD 191, City of Burnsville, The Garage, YMCA, Youthprise, Otto Bremer Foundation, Community Development Block Grant program) and administers the City's grant process. The Division also serves as a City liaison for the Ames Center and provides staff support for the Ames Center Commission.

### **The Ice Center**

The City also owns and operates an ice center for the community. The Ice Center Division promotes, schedules and maintains the indoor ice facility for hockey, figure and pleasure skating for youth, families and adults.

### **Birnamwood Golf Course**

The City has a par-3, nine-hole golf course, Birnamwood. The Golf Course Division promotes, schedules and maintains the course, and oversees all golf operations including coordinating and marketing for leagues, tournaments and open golf for youth, families and adults.

## **Public Works Department**

The Public Works Department is comprised of four divisions: Engineering, Parks and Public Works Maintenance, Natural Resources, and Fleet.

### **Engineering Division**

The Engineering Division guides the design, management, construction and reconstruction of the City's infrastructure. The Division strives for a balance between many competing interests. Operating as a business enterprise, the Division also strives to maintain independence from direct tax levy support by tracking all staff hours devoted to specific capital projects. This is the same approach used by private consulting firms charging "billable" hours to a client.

There are six broad responsibilities in Engineering:

- » Technical administration

- » Development review
- » Design, construction, administration, and information management
- » General administration of traffic flow and right-of-way

### **Parks and Public Works Maintenance Division**

The Public Works Maintenance Division manages, operates and maintains the City's extensive infrastructure of roads, storm sewers, sanitary sewers, water production and distribution facilities, and parks and recreation system.

The Division also provides the following basic city services:

- » Snowplowing and street sweeping
- » Repair and maintenance of the City's street and storm water system, including city street signage
- » Repair, maintenance and operation of the City's potable water and sanitary sewer systems
- » Maintenance of the City's park infrastructure and park system including: mowing, landscaping, trimming of boulevards, and parks lands
- » Maintenance of the City's athletic fields, skating rinks and other active use facilities
- » Maintenance of the streetscapes and Heart of the City (HOC) improvements including Nicollet Commons Park and the HOC Parking Ramp and Deck

### **Natural Resources Division**

The Natural Resources Division protects, preserves, manages and improves the community's natural resources. Accordingly, the Division is an integral part of achieving the City's Environmental End statement and related outcomes. The Division also provides staff support for the City's Parks & Natural Resources Commission and the Black Dog Watershed Management Organization (BDWMO).

Examples of services provided by the Nature Resources Division include:

- » Commercial and residential recycling programs
- » Licensing of solid waste haulers
- » Neighborhood Block Rate Program
- » Community waste collection events
- » Development plan review for environmental impacts
- » Wildlife management programs
- » Natural resource public education programs

- » Surface water management and monitoring programs
- » Prairie management and monitoring programs
- » Wetlands management and administration of Wetlands Conservation Act
- » Management of city's forests including pruning, planting, disease control, and tree removal
- » Management of community landscaping such as that in Heart of the City.

### **Fleet Division**

The Fleet Division acquires, maintains and replaces City vehicles and equipment in the most cost-effective manner possible. As such, the Division provides the following basic city services:

- » Repair and maintenance of the City's vehicle fleet and wide variety of equipment
- » Planning for and coordinating the vehicle and equipment replacement schedule

## **Public Safety: Police and Fire Departments**

One of the primary concerns of the City of Burnsville is the safety of its residents, businesses and visitors. The threat of crime or fire, as well as disasters, requires a concerted effort to provide the highest quality of public safety services for the protection of the public.

### **Police Department**

The Police Department provides public safety services utilizing a community-oriented policing philosophy to achieve their mission—"Working together to make a difference through excellence in policing." Burnsville police officers are responsible for the delivery of a full range of police services to ensure the protection of lives and property in the community. The Department is heavily involved with community interaction and education activities, which are discussed further in Chapter 6, Community Enrichment of this 2040 Comprehensive Plan.

The Police Department include seven divisions:

- » Police Administration
- » Patrol
- » Community Resources
- » School Resources
- » Investigations
- » Emergency Preparedness
- » K-9



Examples of services provided by the Department include:

- » Crime prevention
- » Criminal apprehension
- » Animal control
- » Crime analysis and mapping
- » Enforcement of laws and ordinances
- » Provision of emergency life-saving response
- » Proactive engagement in the community and community relationship building relations

In addition to these services, the Police Department also participates in the following to ensure efficient and cost-effective delivery of public safety services:

#### **Dakota County Drug Task Force (DCDTF)**

The Dakota County Drug Task Force (DCDTF) is a successful multi-agency effort between law enforcement agencies in Dakota County and western Scott County to reduce the unlawful manufacture, distribution, possession and use of drugs.

#### **Dakota Communications Center (DCC)**

The DCC is a centralized joint dispatch center providing state-of-the art 911 and emergency services (police, Sheriff, fire, emergency medical) to all Dakota County citizens. In 2004 the High Performance Partnerships (HiPP) project, conducted by the Dakota County cities and county, identified the need for the development of a centralized public safety answering point (PSAP) and dispatch center. A combination of factors – attention to homeland security, upgrades in technology, the readiness of various governmental units to act, the availability of grant money, and the financial benefits to participating governments served to bring the idea to reality. Burnsville along with 11 other cities in Dakota County in partnership with the county comprise the members of the DCC. Dakota County constructed an \$11 million 800 MHz subsystem with 9 radio sites located throughout the County. This system will allow all emergency responders to talk to each other during an emergency on one radio network. The public safety agencies, administrators and elected officials of the cities within Dakota County also contributed much time and effort to make this partnership in improving public safety possible. The partnership began in late 2005 and the \$7.35 million dollar DCC facility, located in Empire Township, opened in 2007.

#### **Dakota County Electronic Crimes Unit Task Force**

Dakota County Electronic Crimes Unit (DCECU) Task Force was formed in 2015 as a response to the increasing number of electronic devices, smart phones, computers, and the Internet being used by criminals to steal



information, commit fraud, and stalk victims. Partners in DCECU include the Dakota County Sheriff's Office, along with cities of Apple Valley, Burnsville, Farmington, Hastings, Inver Grove Heights, Lakeville, Mendota Heights, Rosemount, South Saint Paul, West St. Paul, and the Dakota County Drug Task Force. The DCECU Task Force Board members are law enforcement representatives from each agency committed to providing a platform for forensic investigators to investigate illegal activities related to the use of electronic devices, the Internet, and materials transmitted or used in electronic form and the prosecution of those conducting such illegal activities. Goals of DCECU include proactive and reactive investigations, forensic examinations, and criminal prosecutions to combat technology that facilitates crimes against people throughout Dakota County.

## Fire Department

The City's Fire Department provides fire and emergency medical services (EMS) in the city and surrounding communities as needed through mutual aid. The Department provides effective fire and life support response within department service areas; provide community youth with fire education, demonstrations and mentoring activities that will help citizens live safer lives; provide prevention and training services to residents and businesses; and provide community-wide disaster prevention and planning service. Under the leadership of the Fire Chief, the Fire Department provides the following safety services: fire suppression, paramedic ambulance service, rescue, fire prevention, code enforcement, fire investigation, and public education.

The City of Burnsville has a full-time Fire and Rescue Department that provides the following safety services: fire suppression, paramedic ambulance service, rescue, fire prevention, code enforcement, fire investigation, and public education. The Fire Department provides fire and rescue service to the entire City of Burnsville and responds to neighboring cities when requested under a mutual aid agreement.

The Fire Department is certified at a 4 rating by the Insurance Service Office as of 2008. ISO collects information on municipal fire-protection efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data using its Fire Suppression Rating Schedule (FSRS). They then assign a Public Protection Classification from 1 to 10. Class 1 represents exemplary public protection, and Class 10 indicates that the community's fire-suppression program doesn't meet ISO's minimum criteria. The program provides an objective, countrywide standard that helps fire departments in planning and budgeting for facilities, equipment, and training. And by securing lower fire insurance premiums for communities with better public protection, the PPC program provides incentives and rewards for communities that choose to improve their firefighting services.



The primary purpose of the department is to provide effective fire and life support response within department service areas; provide community youth with fire education, demonstrations and mentoring activities that will help citizens live safer lives; provide prevention and training services to residents and businesses; and provide community-wide disaster prevention and planning service. See Chapter 6 for further reference to programs and services provided by the Fire Department.

## Burnsville City Facilities

### Civic Center Park

Civic Center Park is home to the City Hall/Police Station, Burnsville Ice Arena, Skate Park, Bicentennial Garden, old maintenance center - THE GARAGE, and an outdoor hockey rink, all of which are linked by public sidewalks and trails. In 2015 the City completed a City Hall, Police & Fire Facility Space Needs Assessment. This study analyzed the existing City Hall, Police, Fire Stations and Old Maintenance Facility buildings and identified inefficiencies in space usage, which then identified the long term maintenance needs of each facility. The study identified a three phase approach of Short term, Midterm, Long term improvements to each facility.



### City Hall/Police Station

The City Hall complex was originally constructed in 1989 and is located at 100 Civic Center Parkway. City Hall houses the city's administrative offices, Police Department, Fire Department, city council chambers, and space for various community service groups. City Hall is currently undergoing the first phase as identified in the 2015 City Hall, Police & Fire Facility Space Needs Assessment and includes an expansion of the Police Station and partial renovation of City Hall, which will be completed in 2018.



### Ice Center

The Burnsville Ice Center is a 65,754 square foot two sheet indoor ice rink. Rink 1 was built in 1972 and features seating for 1,350 – 2,000 people. Rink 2 was built in 1985 and accommodates seating for 500. Both rinks have additional room for “standing room only.” In 2010 The City completed a \$5 million dollar geothermal upgrade to the arena. The renovation to of the Ice Center included replacing the ice system, dasher boards, control systems and a large part of the HVAC system. The building is planned to be re-roofed and accessibility upgrades are planned for 2017 and 2018.



The Burnsville Ice Center has ten (10) team rooms serving changing needs for players and coaches. Rink 1 is served by 6 team rooms with showers and Rink 2 is served by 4 team rooms. Changing rooms 9 & 10 were built

in 1999 with assistance from ISD 191. In 2017 the arena upgraded its sound system to improve sound quality in both rinks.

The Burnsville Ice Center is open year round and annually reserves over 5,800 hours of ice and accommodates over 340,000 annual visitors. The Burnsville High School Boys and Girls Varsity and Junior Varsity Hockey Programs practice and play games at the Burnsville Ice Center. The Burnsville Hockey Club (Youth Hockey) also calls the Ice Center “home” and has over 400 members. The Burnsville Hockey Club offers competitive and recreational hockey opportunities to boys and girls in the community.

The Burnsville Ice Center has a progressive Learn to Skate (LTS) Program combining USFSA and ISI requirements to provide an outstanding program for figure skaters, hockey skaters, and recreational skaters. Over 500 participants register annually for LTS classes. The Burnsville Minnesota Valley Figure Skating Club calls the Burnsville Ice Center “home” and has over 100 participants.

## Skate Park

In 1995, a group of students asked the City Council to discuss the feasibility of developing a skateboarding and in-line skating facility. The City agreed to lease a portion of Civic Center Park land to a nonprofit group, Skate Park, Inc., which built a 10,000 square foot Tier II skate park in the summer of 1998. The facility was operated by the City for Skate Park, Inc. from 1998 through 2002. In 2003 Skate Park Inc., turned over the ownership of the skate park to the city which operated the skate park for 1 year as a tier II park and in 2004 lowered ramps and eliminated staff making it a tier I skate park. In 2012 the City completed phase I of the skate park renovation project. The work included a 6500 sq foot concrete surface. Phase II of the renovation was completed in 2016. Renovations included the first free in-ground skating bowl in Minnesota, as well as additional ramps, ledges, grind rails and two stair sets. The Lions Club has contributed \$95,000 for phase 1 and 2 renovations.

Further improvements that are being considered include adding a covered shelter, water fountain, and seating into the hillside.

## Bi-centennial Garden

Bi-centennial Garden is a community garden located in the northwest corner of Civic Center Park near the intersection of Nicollet Avenue and 130<sup>th</sup> Street East. The garden was established as part of the 1976 bi-centennial celebration and recognition. The entrance path, fountain and inner ring of landscaping was replaced in 2015-2016. Additional landscape and path replacement is planned for in 2018.

The garden contains a sculpture, fountain, walkways and seating areas. The garden is maintained by the Sweet Sioux Garden Club and is a beautiful area to enjoy memorial trees, and public art.



## Old Maintenance Facility (THE GARAGE)

Constructed in 1969 with additions in 1975 and 1982, the 41,520 square foot round building currently serves as valuable programming and storage space for a number of the City departments and for several Burnsville non-profit groups.

THE GARAGE is currently home to the, Twin Cities Catalyst Music, (TCCM) a 501c3 nonprofit organization leases and operates the all-ages, alcohol-free music venue. THE GARAGE is a place where young people can perform, see and open for touring artists, train in event production, record, and practice arts journalism. It's a place for young people to develop knowledge and skills from artists and industry professionals. It's a place for music to happen.

Other tenants at the Old Maintenance facility include: the Burnsville Hockey Club which leases 10,000 square feet for a youth training facility, the Burnsville Athletic Club (BAC) in-house baseball program leases 1,365 square feet for storage and office space, and the community theater leases 700 square feet for storage. This facility is also used for operations and storage by several City Departments and BCTV.

The 2015 City Hall, Police & Fire Facility Space Needs Assessment identified \$1.2 Million worth of improvements have been identified including a new roof, however, improvements are not currently planned for the next several years.

## Heart of the City (HOC)

### Ames Center

The building design is versatile to accommodate a wide variety of events and features a 1,000 seat main theatre, a smaller 150 seat theatre, gallery space, scene shop, rehearsal space and community gathering space. It hosts a wide variety of national touring and local concerts, touring and local theatre performances, dance recitals, comedy shows and more. The center serves as home for local performing arts groups and provides exposition space for local artists. It also contains multiple meeting rooms which are available for business conferences, receptions, community events, and private rentals. The city contracts with a national management firm to operate the Ames Center, manage and promote events, coordinate productions and book attractions. The Ames Center is viewed not only as a cultural venue but also as an economic development tool to keep the HOC vibrant for many years. There are no plans for additional investments beyond regular maintenance items. The following Figure 8-2, illustrates the Ames Center site plan.

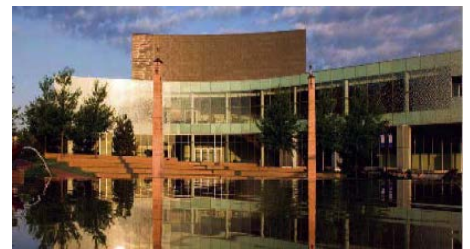




Figure 8-2: Ames Center



### Nicollet Commons Park

Nicollet Commons Park, an award winning “town square” style park serves as the focal point in the HOC. The 1.2 acre park features fountains, a man-made creek, and splash pad, sculpture, spaces for patrons to sit and read a book or have lunch along with an open green area and 250 seat performance amphitheater for concerts and events. The park was dedicated on June 2, 2004.

Many community civic events are held at Nicollet Commons Park including the I Love Burnsville 5K, the annual Winter Lighting Ceremony, International Festival and recreational activities, including “Rockin’ Lunch Hour Concerts” held Thursdays at Noon, Friday Night Movies, and Sunday Night Entertainment in the Park.



### HOC Public Parking

The HOC parking ramp has three levels with 350 parking spaces and an indoor climate-controlled waiting area. The city received federal grant funds to assist with the construction of the three-level structure, which was built in 2003. The HOC Parking Ramp is located west of Grand Market Place and serves as a public parking ramp and also a Minnesota Valley Transit Authority (MVTA) park-n-ride facility. MVTA park-n-ride patrons use a portion of the ramp Monday-Friday, during work hours. Other users





are nearby residents, employees and visitors to the HOC that patronize local businesses and attend public events.

The city built a second parking structure for the HOC located directly north of the Performing Arts Center. The facility accommodates 238 parking spaces. These parking facilities meets the current needs of the area. In 2014 the City did an expansion adding an additional 40 parking stalls to this facility.

### Surface Lot

In 2008, the city installed a temporary surface parking lot with 27 stalls on property owned by the Dakota County Community Development Agency, which is located northeast of the intersection of Nicollet Avenue and 125<sup>th</sup> Street. The CDA will continue to own the property and therefore the parking lot is temporary and the City has an easement agreement allowing for public access and parking to the site for a minimum of five years and the possibility to continue the use further. The parking lot provides additional parking for the residents and businesses on the east side of Nicollet Avenue.

### Centennial Time Capsule

In 2002 the Centennial Time Capsule was placed at the base of the bronze sculpture located at Burnsville parkway and Pleasant Avenue. A committee of community volunteers identified and prepared materials for the time capsule representing a cross-section of Burnsville's past and present. The capsule will be opened at Burnsville's centennial in 2064. Burnsville was incorporated as a village in 1964.



## Parks

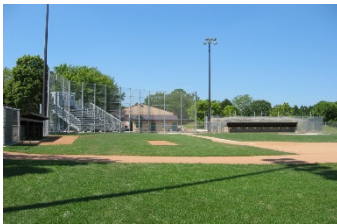
Parks are an integral part of Burnsville's civic infrastructure and the city has an extensive park system which has been planned and built in conjunction with the growth of its residential neighborhoods and commercial and employment centers since its incorporation in 1964.

The current park system contains 76 parks (including 99 athletic fields) with over 2,947 acres of total park land (including conservancy, public open space and Murphy-Hanrehan Park Reserve) or approximately 46 acres of parkland per 1,000 residents (well in excess of the city's goal to provide a minimum of 20 acres per 1,000 population). Twenty of the parks are community parks which include facilities and natural features which serve the whole community. They range in size and amenities from the largest park of 230 acres of woods with hiking and ski trails to several parks with athletic complexes to one of the smallest city parks, a tiny island in the middle of Crystal Lake.

Twenty-eight of the parks are neighborhood parks, which serve general neighborhood park needs as well as providing facilities for youth sports programs. Nineteen of the parks are mini parks, which are small in size

and contain only limited amenities such as play equipment. Nine of the parks are preservation areas not currently intended for any type of development or active use.

Parks exist within walking or biking distance of most households within the city. Additional parks are anticipated as the North Gateway and MRQ are redeveloped. With these anticipated additions, the park system is essentially complete. The City is over 98% developed, and the park system plans have shifted from development to issues of maintenance, renovation and enhancement. In the future, the quality of the park system will be the focus as facilities age or become obsolete. The park system will also need to change to address demographic and lifestyle changes in the city's population and determine how the parks system can best respond to these changes to serve the future population.



## 2017 Parks and Recreation System Master Plan

The city's current Park & Recreation System Master Plan Update was approved by the City Council in October of 2017 and can be found on the [city's website](#). The original Parks Master Plan in 1985 established a vision for the park system, the second plan in 2000 had a primary focus on maintenance and enhancements to the system. The 2017 update includes recommendations for development and redevelopment of existing parks, trails, and recreational opportunities. The purpose of the 2017 update was "to help prioritize programs and projects which will guide each park system's future development and redevelopment efforts" and "to identify gaps in service related to parks and recreation, including new and emerging trends, that respond to the changing demographics and community needs".

The city maintains and annually updates a parks capital projects list, which is derived from a combination of the projects listed in the System Master Plan Update and a current assessment of the park system's most critical needs. The next five years of this capital projects list is included in the city's annual Park Capital Improvements Program.

## Federal and State Parks

There are two park areas within Burnsville that are under jurisdiction of the federal government or the State of Minnesota: a corner of the Fort Snelling State Park and approximately 1,300 acres of the Minnesota Valley



Wildlife Refuge. The Minnesota Valley Wildlife Refuge is federal land under the jurisdiction of the US Fish and Wildlife Service, Department of the Interior.

### **Regional Parks**

Several regional parks lie partially within the city including 160 acres of the Murphy-Hanrehan Park Reserve. Murphy-Hanrehan Park Reserve's implementing agency is the Three Rivers Park District through a joint powers agreement with Scott County. All land adjacent to Murphy-Hanrehan Park Reserve is zoned and guided for residential and conservancy uses. The Conservancy District is intended to protect the park and minimize conflicts between existing and proposed programs.

### **Buck Hill Ski Area**

Buck Hill Ski Area is a private regional recreation facility that is located in the southern part of Burnsville on the west side of I-35W. Buck Hill offers year round downhill skiing, snowboarding and tubing and is a regional attraction situated on over 55 acres of land. The Buck Hill ski area is an important amenity to Burnsville and has been in existence for many years. The facility offers lessons, racing and year round banquet facilities with catering. The city approved a PUD for Buck Hill in 2005 to ensure that the recreational use of the land remains indefinitely.

### **Future City Parks**

There are two new parks planned for development in the MRQ: a large park along the Minnesota River and a smaller park to be located on shore of the Kraemer quarry lake. The Minnesota River park will include land from the Burnsville Sanitary Landfill development which has already been determined and land from the McGowan landfill site, (previously determined in the amphitheater PUD), which have been planned for park development and land or trail access across land associated with the Kraemer quarry. This land / trail access is anticipated to be obtained prior to or at the same time as the final platting and redevelopment of the Kraemer quarry. The intent of these two parks is intertwined in one of the goals for the MRQ - trail access along the Minnesota River as well as around the Kraemer Quarry future lake and around the future golf course. The trail segment through the MRQ is a key link in a regional trail along the south side of the Minnesota River running all the way through Burnsville, connecting through Eagan and Savage on either end. The trail is intended to be hard surfaced with the exception of a loop through the wetlands along the river, in which case an alternate and appropriate surface will need to be installed, potentially a boardwalk for portions of the trail.

The other purpose of the Kraemer quarry park are to provide beach frontage and lake access. The Kraemer quarry lake, when it is allowed to fill, will be the largest and cleanest lake in Burnsville and so beach frontage, lake access and a trail adjacent to and circumnavigating the lake are critical.

In the 2000 Comprehensive Plan update, two park needs were identified which have been addressed in subsequent years. First was the development of a youth ball field complex. This need was met through the acquisition and development of Sue Fischer Memorial Park. The second was the preservation of Orchard Gardens Golf Course. This site has developed into a single family residential development. The City had attempted to purchase the land, but in the end, it was sold for development. In 2006, the City of Burnsville secured the option of a future 18-hole championship golf course that will be built on top of the Burnsville Sanitary Landfill site once it is closed depending on the needs of the community.

### **Birnamwood Golf Course**

Birnamwood Golf Course a nine-hole, par 3 golf course, was built in 1968 and was acquired by the City of Burnsville in the fall of 1988. It is located near the intersection of Burnsville Parkway and Parkwood Drive. The course is 1,258 yards long and water comes into play on three holes. In 2016 the golf course logged 20,445 rounds of golf and 4,785 league rounds that included 2,880 adult rounds, 1,509 junior rounds, and 396 outside league rounds.

Birnamwood has been a member of Audubon International since 1999 and became certified as an Audubon Cooperative Sanctuary in 2002. In 2015, Birnamwood became recertified as an Audubon Cooperative Sanctuary. This involved hosting an outside organization to tour and evaluate Birnamwood's environmental work. Birnamwood's environmental responsibilities include monitoring water quality, conserving wildlife and their habitats and using appropriate cultural and integrated pest management methods to manage turf areas. Birnamwood is the only nine-hole course in the State of Minnesota to receive this designation. The Audubon Cooperative Sanctuary Program helps golf courses enhance wildlife habitat and protect natural resources for the benefit of people, wildlife, and the game of golf. Birnamwood's environmental responsibilities include monitoring water quality, conserving wildlife and their habitats, and using appropriate cultural and integrated pest management methods to manage turf areas.

### **Alimagnet Dog Park**

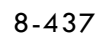
The Alimagnet Dog Park is an enclosed, seven acre, off-leash canine exercise area located at 1200 Alimagnet Parkway. The park was developed in 2001 with the assistance of residents, is owned and operated by the City of Burnsville and supported by members of PACK (People of Alimagnet Caring for K9s). In 2005, Alimagnet Dog Park was voted the 3<sup>rd</sup> Best Dog Park in the nation by "Dog Fancy" magazine.

The park is completely enclosed by fence, provides a seasonal dog washing station, has a natural surface walking path, grassy play area, drinking water, swimming pond and a special needs dog run (for small,

timid, fragile, and elderly dogs). In 2006 night lights, heat for the shelter and heated water bowls for winter park visitors were added. “The Scoop” newsletter provides updates on park news. Alimagnet Dog Park annually hosts the “Dog Days of Summer,” a free fun-filled family event for members and friends of the park. Proceeds from the event support park improvements. After the membership system was established, the park basically paid for itself and is not a financial strain on the City of Burnsville. Alimagnet Dog Park remains one of the more popular park amenities in the park system.



2040 Comprehensive Plan  
Chapter 8 - City Services and Facilities Plan



## Trail System

The updated [2017 Parks and Recreation System Master Plan](#) builds upon the Parks Master Plan adopted in 2000. More detailed information and a map showing existing and future trails is provided as part of Chapter 7 - Transportation Plan of this 2040 Comprehensive Plan Update.

Dakota County, in cooperation with the cities in the County as well as other regional agencies, coordinates the development of the regional trail system. The regional trail system utilizes city trail links as critical elements. In 2017, the Black Dog trail segment of The Minnesota River Greenway was added between I-35W and Cedar Avenue, overlooking the Minnesota Valley National Wildlife Refuge. The segment is part of a 17-mile, east-west trail corridor following the south side of the Minnesota River and traveling through several south metro suburbs to St. Paul's Lilydale Regional Park.

The Metropolitan Council Transportation Policy Plan, *Thrive MSP*, includes the Regional Bicycle Transportation Network (RBTN) which identifies critical bicycle transportation links and priority corridors for bicycle transportation. The City of Burnsville includes two RBTN corridors and two RBTN alignments which support an integrated seamless network for bicycle transportation for the region. The RBTN corridors are generally a north-south route in the vicinity of Nicollet Avenue and an east-west route following Southcross Drive and County Road 42.

## Public Safety Facilities

### Fire Department

The City of Burnsville has two fire stations and a cooperative fire training facility that it shares with the cities of Apple Valley, Eagan, Lakeville, and Mankato.

#### Fire Station I

Fire Station I is located at 911 W. 140th Street, south of McAndrews Road. Fire Station I was remodeled in the early 1990's to better utilize the space as a fire and rescue station. Access to Station I has improved with a new road and signal system. In 2011, Fire Station #1 was expanded to add another bay to the north side of the building. The 2015 City Hall, Police & Fire Facility Space Needs Assessment identified Fire Station 1 to be replaced due to the facility being at the end of its' useful life. This replacement is part of a Mid Term (5-10 years) phase.

#### Fire Station II

Fire Station II, located at 12155 Parkwood Drive, opened in March of 1989. This large, modern fire station currently has the following features:

- » Central location, enabling faster response and support of Station I personnel;



- » Paging system that activates lights and speakers, and disables the stove when a medical or fire call is received;
- » Six bedrooms and three baths;
- » Large general office with two computers for use in pre-fire plans and hazardous material information;
- » Training room;
- » Six large bays for fire apparatus and equipment; and
- » Room for expansion.

Phase 2 of the City Hall, Police & Fire Facility Space Needs Assessment includes the expansion of Fire Station No. 2.

#### A.B.L.E. Fire Training Facility

The fire training facility is located east of River Ridge Boulevard and south of Cliff Road. This facility provides fire fighting and rescue simulations for training purposes. The cities of Apple Valley, Burnsville, Lakeville and Eagan would like to expand the types of simulation units within the facility and will do so in the future as funds become available.

## City Maintenance Facilities

Constructed in 1994, the city's maintenance center, located at 13713 Frontier Court is approximately 60,000 square feet in size. It includes all of the administrative offices, fleet maintenance, repair shops, heated storage, approximately 50 percent of the vehicle storage, and outside storage of aggregate materials. In addition, the city has a 10,000 square foot sand and salt storage building. In 2008, a 33,152 square foot addition to the north side of the building providing needed interior vehicle and equipment storage.



## Telecommunications Plan

Burnsville has been proactive in the provision of adequate space for telecommunications equipment. Beginning in the early 1980's, the city developed antenna sites on its municipal water towers and assisted in the development of additional capacity at the Buck Hill Ski Area. When the telecommunications industry was greatly expanded by the Federal Telecommunications Act of 1996, the city was well-positioned to accept additional antennas. In 1997, the city amended its Zoning Ordinance to allow for additional towers on private property with adequate protection of adjacent uses, consistent with the Act. Also in 1997, the city adopted an ordinance to facilitate the development of fiber optics technology within the city's rights-of-way, while maintaining the integrity of existing utilities.

Until 2008, Burnsville participated with the neighboring City of Eagan in a joint cable and telecommunications commission to provide community television services. Since that split, each city has entered in their own cable franchise agreements and each city provides community television services independently. However, both cities have continued to partner to share in the costs and use of a mobile production truck for community television services. Since 2008, the City has also maintained its partnership with Independent School District 191 to locate its community television studio within the Burnsville High School. In 2016, the City signed a second cable franchise agreement resulting in competition for video services for the first time in the community.

### Broadband Services

In 2006, the City Council reviewed the topic of the future of information infrastructure for the city as part of the Governance process. The Council heard from incumbent service providers about the status of current broadband infrastructure in Burnsville and plans for future investment in the community. Testimonials were also provided from professionals involved in the telecommunications/broadband business, and public comments. The City Council wanted to learn more about broadband offerings in the community in order to assess whether the city should or could be doing more to ensure residents and businesses have access to reliable, high quality, and affordable broadband services. The outcome of the Governance process was direction to City staff to work with incumbent and potentially new service providers on offering improved (better quality and pricing) high speed broadband services to the community.

The City has been involved in several broadband service initiatives dating back to 1995, but since 2006, several initiatives supporting City Council direction have moved forward. These include:

- » In 2006, the City entered into a multi-year agreement with Frontier Communication for community WiFi in areas of Burnsville

- » In 2007 City Council authorizes a 429 public project process to consider a Fiber To The Premise (FTTP) project in Larc Industrial area.
- » In 2008, City Council authorizes a City Fiber Optic Network buildout for water utility and other facilities
- » In 2011, the City enters into a multi-year Fiber Infrastructure Management Agreement with Frontier Communications to expand and market broadband infrastructure and use
- » In 2011, the City partners with 11 cities and Dakota County to create a dark fiber committee to coordinate, cooperate and plan efforts around broadband infrastructure uses and expansion
- » In 2014, the City partners with 11 cities, Dakota County and the Community Development Authority to develop a Broadband Study
- » Between 2009 and 2017, the City has entered into several dark fiber lease agreements with private and public entities to extend or enhance broadband services throughout Burnsville

The City continues to participate in ongoing efforts to improve, enhance and facilitate broadband services. Additionally, the city has leveraged the fiber optic infrastructure to satisfy several operational needs, including our SCADA system and others identified below:

### **Supervisory Control and Data Acquisition (SCADA) System**

The SCADA system is utilized to monitor or to control transport processes, in the municipal water supply system by connecting the wells, water reservoirs, and water treatment plant through fiber optic and wireless computer network infrastructure. When water usage occurs, the water level in the reservoirs lowers, the treatment plant is “instructed” to pump more water into the system, which, in turn, instructs the wells to pump more water into the treatment plant. Additionally, system water pressure is constantly monitored and alarms are “triggered” by configured thresholds that may be exceeded. The SCADA system also includes the sanitary sewer and storm water lift stations by alerting staff to pumping problems or power failures. The SCADA system was initially installed in the mid-1980’s and required updating to modern equipment in 2008. To replace the aged system, the City implemented SCADA and Fiber Infrastructure Deployment Projects. The first phase was to replace and upgrade the City’s existing hardware at the multiple infrastructure sites (i.e., lift stations, water wells, etc.) across the city. The second phase was to construct a fiber loop to connect the multiple infrastructure SCADA sites.

The fiber loop built to connect the SCADA sites presented a unique opportunity for the city to partner with the private sector to enhance broadband service delivery in Burnsville. While first and foremost the fiber loop was built to meet municipal operation requirements it could be made available to private companies that are interested and willing to



partner with the city. Such partnerships have occurred and several agreements are in place whereby private and public entities can utilize the extra capacity of dark fiber. As a result the city did enter into an agreement with Frontier Communications to manage and market the fiber loop for the city in exchange for having access to the municipal fiber for private broadband service delivery. The fiber loop may present an opportunity for broadband service providers to improve service levels offered to customers in Burnsville. This partnership is consistent with the Council's direction from the Governance Process on "Broadband". Some additional benefits of the fiber option loop include:

- » The ability to connect all city facilities with fiber (broadband) for current and future uses of SCADA and multiple other non-SCADA systems that can leverage the use of fiber optics.
- » The fiber backbone will be designed to provide redundant, reliable and resilient connectivity to locations to provide high availability of services and security.
- » Expansion of security monitoring and surveillance systems for SCADA resources and other city facilities via network security cameras, proximity card access systems and other security devices
- » Very fast transmission of larger amounts of data in two way communications from any node location on the fiber network.
- » Interconnection of Water Tower infrastructure, providing other means of communications backup for 800 MHz radio system and other communications needs for public safety and general city operations.
- » Expansion of high speed network access locations for mobile city staff: police, fire, water, inspections, engineering, parks, and forestry staff, etc.
- » Expansion of additional network services to city facilities for enterprise systems like phone, voicemail, WiFi, collaboration tools and video production services and remote monitoring of systems from any location in the network
- » Expansion of SmartCity initiatives like: interconnections of City, County and State Traffic management systems, centralized irrigation management at multiple city facilities, Advanced Meter Reading Infrastructure deployment and others

Additionally, as a result of the fiber infrastructure buildout, interconnection points exist between Scott County's Fiber backbone, Dakota County's, School Districts 191, 194, 196 and State of MN for current and future uses and partnerships.

# Sanitary Sewer Plan

## Introduction

The purpose of the chapter is to examine the City's sanitary collection system to assess the capability of the system to provide reliable service and to meet existing and future demands. By analyzing the capacity, age and material properties of collection pipes, and sanitary lift station components of the Burnsville sanitary collection system, this chapter makes capital improvement recommendations to meet the existing and future needs of the City of Burnsville.

Future capital improvement planning in this report forecasts sanitary collection system needs through 2040. Population projections for Burnsville through 2040 indicate some expected growth over the planning period.

The expected collection system improvements resulting from this growth have been considered in this analysis, along with the existing condition of collection system and lift station facilities. These factors were the basis for recommended capital improvements.

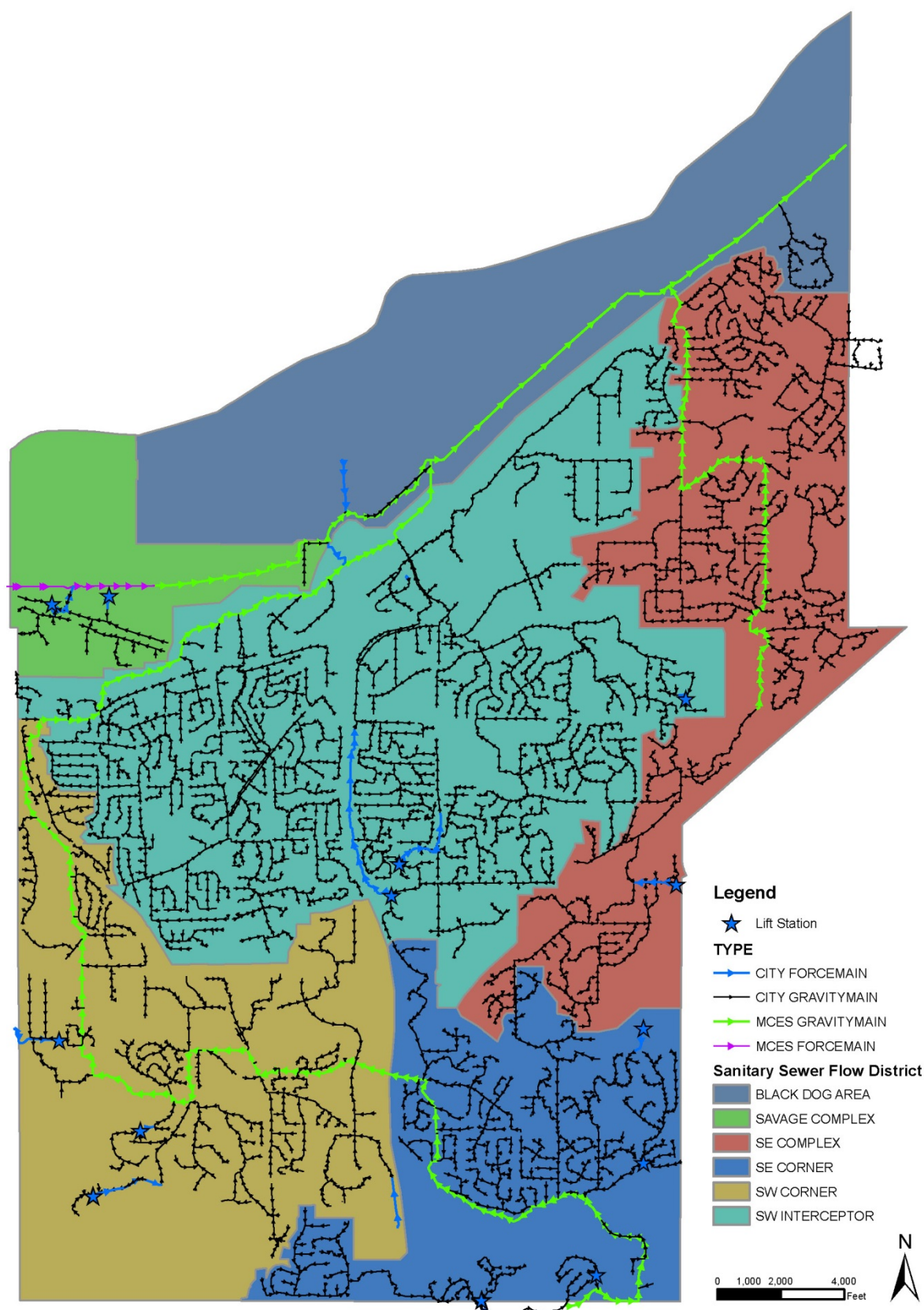
## Existing Sanitary Sewer System

The Burnsville sanitary sewer system has developed under the City's Comprehensive Sewer Plan. Most of the system is now in place. Presently, the City has approximately 210 miles of sanitary sewer lines excluding private, abandoned and Metropolitan Council sewers. Trunk sewers and 14 City owned lift stations collect the wastewater and deliver it to the Metropolitan Council Environmental Services (MCES) interceptor sewers. The MCES interceptor sewers located within the City of Burnsville include the Southwest Interceptor, the Southeast Interceptor, the Savage Interceptor, and the MSB 7030 Interceptor. See Figure 8-4 for an overall sanitary sewer trunk system map.

In addition to supplying sanitary sewer to Burnsville residents and businesses, the City has also entered into Joint Powers Agreements (JPA) with a number of surrounding cities to provide specific parcels city services, including sanitary sewer. Burnsville has JPAs with the following regarding sanitary sewer:

- » City of Apple Valley
- » City of Eagan
- » City of Savage
- » City of Lakeville

Figure 8-4: Existing Sanitary Sewer Trunk System Map



## Gravity System

The existing sanitary collection system is a well maintained system that is an upper middle-aged system. The system age and material is shown in the following Table 8-1.

Table 8-1: Existing Sanitary Sewer - Miles

| MATERIAL          | 1960-1964 | 1965-1970 | 1971-1975 | 1976-1980 | 1981-1985 | 1986-1990 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2010 | After 2010 | Unknown | Grand Total |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|---------|-------------|
| Unknown           | --        | 0.13      | 1.12      | 2.85      | 1.00      | 0.94      | --        | --        | --        | --        | --         | --      | 6.05        |
| CIP               | 0.67      | 1.53      | 0.04      | 0.12      | --        | --        | 0.26      | --        | --        | --        | --         | --      | 2.62        |
| DIP               | 0.08      | 0.12      | 1.01      | 0.07      | 1.07      | 1.34      | 0.93      | --        | 0.01      | 0.01      | 0.21       | --      | 4.86        |
| HDPE              | --        | --        | --        | --        | --        | --        | --        | --        | --        | 0.67      | 0.25       | --      | 0.91        |
| PEP               | --        | --        | --        | --        | --        | --        | --        | 0.06      | --        | --        | --         | --      | 0.06        |
| PVC               | 0.98      | 3.98      | 2.09      | 16.36     | 18.30     | 25.45     | 6.78      | 1.98      | 1.79      | 0.69      | 0.82       | 0.03    | 79.25       |
| RCP               | 3.57      | 0.91      | 3.62      | 4.12      | 1.79      | 1.37      | 0.16      | 0.33      | 0.03      | 0.01      | --         | --      | 15.90       |
| RMP               | --        | 0.43      | --        | --        | --        | --        | --        | --        | --        | --        | --         | --      | 0.43        |
| SF                | 0.94      | 0.19      | 0.17      | --        | --        | --        | --        | --        | --        | --        | --         | --      | 1.30        |
| VCP               | 33.80     | 30.54     | 23.76     | 7.72      | 0.06      | 0.06      | 0.28      | --        | --        | --        | 0.08       | --      | 96.31       |
| Grand Total       | 40.03     | 37.85     | 31.82     | 31.24     | 22.22     | 29.17     | 8.40      | 2.37      | 1.84      | 1.37      | 1.35       | 0.03    | 207.69      |
| % of System Total | 19.3      | 18.2      | 15.3      | 15.0      | 10.7      | 14.0      | 4.0       | 1.1       | 0.9       | 0.7       | 0.7        | 0.0     | 100.0       |

### Notes:

1. Materials listed above: CIP - Cast Iron Pipe, DIP - Ductile Iron Pipe, HDPE - High Density Polyethylene, PEP - Polyethylene pipe, PVC - Poly Vinyl Chloride, RCP - Reinforced Concrete Pipe, RMP - Rigid Metal Pipe, SF - Sand Formed Cast Iron, VCP - Vitrified Clay Pipe
2. This table does not include abandoned pipe footages.
3. This table does not include MCES sanitary pipe footages.

With the majority of the system greater than thirty years old, the City will need to increase the systematic inspection and maintenance on the older portions of the system. Forty-six percent of the system is vitrified clay pipe and this piping system is problematic from the point of root intrusion and

infiltration as a result of the more frequent pipe joints. The associated maintenance requirements for collection pipe of this type and age begin to escalate after fifty years of service. Recent advancements in sewer lining systems offer affordable solutions to the problems as they develop. Annually in conjunction with street improvement projects the City completes sanitary sewer lining improvements.

Burnsville actively participates in the ongoing capacity planning work of the MCES. Because the City is located within the Metropolitan Urban Service Area (MUSA), the MCES provides treatment plant and interceptor service for all future development in the city.

The current sewer routine maintenance and inspection policy is to clean every City sanitary sewer main twelve inches and under every three years for clay pipe and every five years for concrete and PVC pipe depending upon the history of the pipe. Mains larger than twelve inches are visually inspected. Maintenance and inspection should continue at a rate consistent with the schedule, and if prioritization is made to push maintenance and inspection activities, more pipe can be inspected per year. In addition to dedicated sewer inspection, all sewer mains in areas slated for reconstruction are inspected by television camera prior to the project, equating to an extra three miles of inspection sewer main per year.

## Sanitary Lift Stations

Table 8-2 lists the sanitary lift stations and their ownership within the City of Burnsville. In 2013 the City completed a Sanitary Sewer Lift Station Condition Assessment, see Appendix M. The City programs their annual capital improvements based on that plan.

Table 8-2: Sanitary Lift Stations

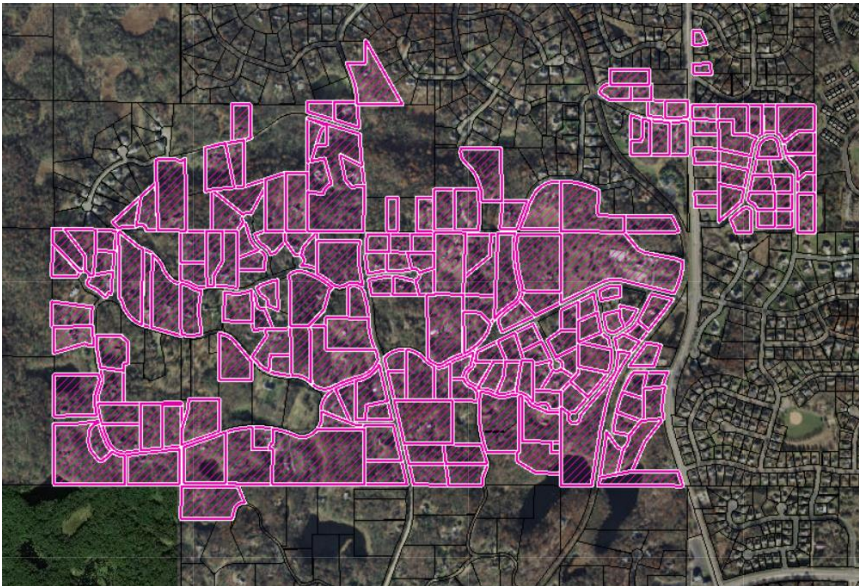
| Owner | Lift Station | Owner | Lift Station       |
|-------|--------------|-------|--------------------|
| City  | Keller Lake  | City  | Washburn           |
| City  | Echo Valley  | City  | Maple Island A & B |
| City  | Bluebill Bay | City  | Valley View        |
| City  | Savage       | City  | Woods Trail        |
| City  | McAndrews    | City  | Buck Hill          |
| City  | Sodomka      | City  | Crystal Lake       |
| City  | Meadow Acres |       |                    |



## Subsurface Sewage Treatment Systems

The southwest portion of the City is the only area using subsurface sewage treatment systems (SSTS commonly known as septic systems). Developers are responsible for extending sewer service to undeveloped areas.

Figure 8-5: Existing SSTS Locations



The City of Burnsville entered into a Joint Powers Agreement with Dakota County for administrative services related to municipal SSTS pump maintenance programs. Additionally, SSTS are regulated by City Code Sections 7-11-1 through 7-11-17. SSTS must regularly be inspected for leakages. The method for leakage detection is outlined in the City Code. Passing leakage reports are valid for three years unless there is reason to complete a new inspection.

Property owners of SSTS must obtain a Certificate of Compliance from the City of its agent certified to perform these inspections. Certificates are valid for three years, unless the City finds evidence of threat to public safety requiring removal or abatement of the system.

## Service Connections

City ordinance requires that owners of every building with sewage waste that drains to the City's sanitary system must connect to the City's sanitary sewer system within twelve (12) months from when a connection becomes available. After connection, all other sewage holding methods must be cleaned and filled per the plumbing inspector.

In the event of a blockage in a private sewer connection, property owners are responsible for cleaning and maintaining the service connection to the main, including the connection to the main, per the City's Sanitary Sewer Maintenance Policy.

## Inflow and Infiltration

The City of Burnsville's goal is to reduce I/I whenever feasible to reduce cost for maintenance and operation (O&M) of their sanitary sewer collection system and overall MCES wastewater treatment costs to the City. The strategy is to maintain an efficient and effective collection system through regular maintenance of the system including scheduled inspection, repair and replacement as needed accomplish this goal. The City of Burnsville performs routine collection system inspection, sewer manhole and pipe testing and rehabilitation each year focused on O&M and I/I issues.

Sources of I/I in the sanitary sewer system include cracks and openings in sewer mains, service laterals, joints, and deteriorated manholes and sewer clean outs, as well as possible sump pump foundation drain or rain leader connections. The EPA guide for estimating infiltration and inflow compares average dry weather (winter) flows to annual average and peak month flows to determine the average amount of I/I entering the system. Figure 8-6 summarizes average annual, average dry weather and peak month flows since 2015.

Figure 8-6: Burnsville Monthly Flow Comparison

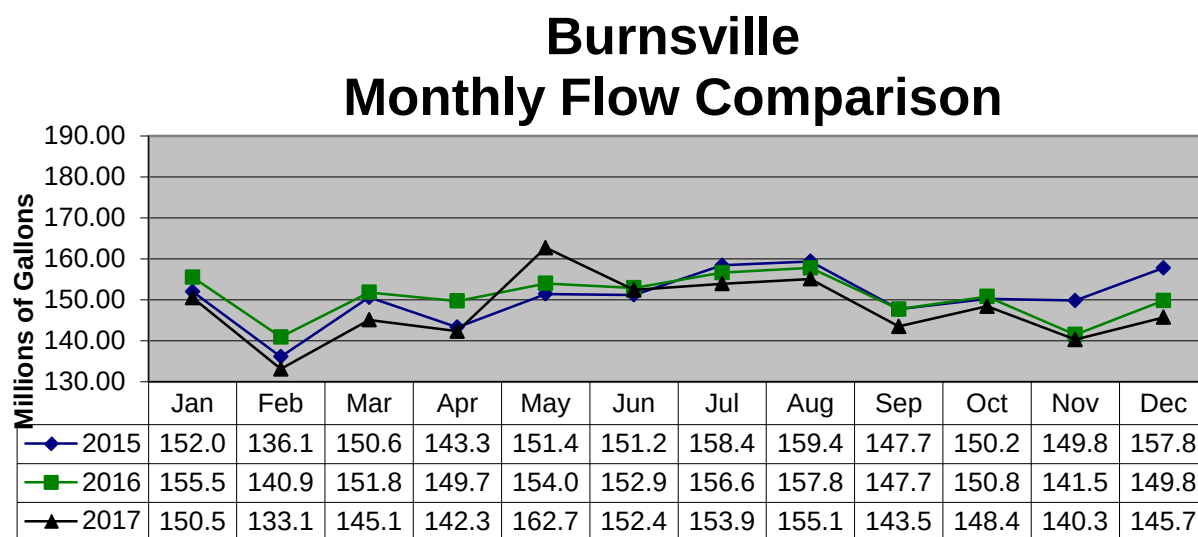


Table 8-3: System Flows and Estimated I/I

| 2015-17 Data                         |  | MGD   |
|--------------------------------------|--|-------|
| Average Flow (MGD)                   |  | 4.922 |
| Peak Month Flow (MGD)                |  | 5.160 |
| Base Flow (MGD) (Winter Water Usage) |  | 4.773 |
| Average Annual I/I (MGD)             |  | 0.149 |
| Peak Month I/I (MGD)                 |  | 0.387 |

Through an assessment of 2015 to 2017 sewer flows (Table 8-3), public works staff estimated I/I to be approximately 3% of total sewer flows. At this point, the city does not know the exact sources of the I/I but assumes it is from traditional inflow sources (sewer cleanouts, sump pumps, gutters, building foundation drains, and broken maintenance hole covers) and infiltration sources (such as cracks and openings in sewer service lines and joints, and public sewer mains, deteriorated maintenance holes, and private sewer service laterals).

The City's program includes annual schedule cleaning and televising of the sanitary sewer collection system. In addition, the City's inspection program is active in monitoring any clear water discharges from sump pump connections to the system. The City has been aggressive at maintaining its sanitary collection system and has not exceeded the peak hour allowable discharges established under the MCES I/I program.

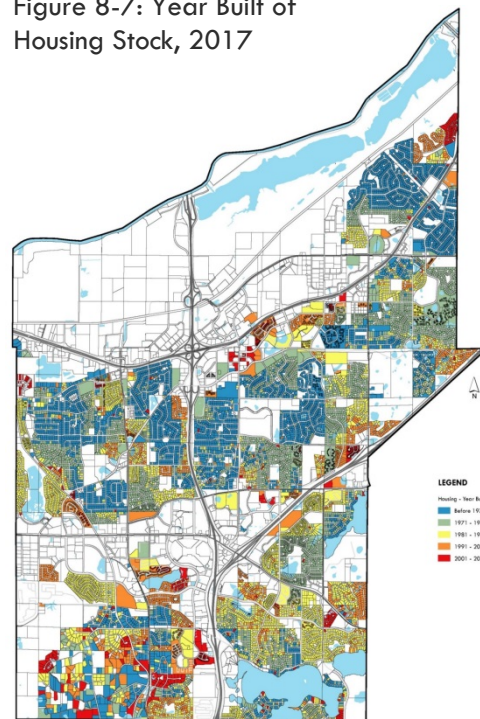
The City's goal is to continue to maintain their sanitary sewer collection system in a manner which is efficient and conveys wastewater to MCES treatment facilities while minimizing clear water or I/I. To that end, the standard will be to continue monitoring I/I to reduce and maintain peak rates below acceptable MCES criteria (established peak hour rates established for Burnsville).

City Ordinances address issues related to Inflow and Infiltration within Title 7 Health and Safety, Chapter 2 Water and Sewer. Section 7-2-15 Prohibits the discharge of stormwater or surfacewater (from sump pumps, foundation drains, and/or rain leaders) into the sanitary sewer system. The City does not have ordinance language or a resolution requiring the disconnection of such facilities, however, the City's website has an active informational program with resources for property owners, prompting them to disconnect the illegal connections (<https://www.burnsville.org/faq.aspx?TID=24>).

I/I can never be removed completely and although Burnsville has been diligent in locating many I/I sources some existing sources still have not been located and removed. The City continues to perform inspection of their collection system to maintain I/I amounts within acceptable standards and believe the majority of their I/I issues are through small defects throughout the system which are difficult to remove effectively and efficiently. As seen within Chapter 4 Neighborhoods and Housing, an estimated 19.4% of housing units were built before 1970. While the City has not systematically evaluated these pre-1970 era homes for I/I susceptibility, the City offers online resources for properties looking to remove any remaining private systems adding to I/I. The City does not see private property I/I as being a significant I/I issue.

The City has not engaged in an active I/I analysis because they have consistently managed their I/I rates and volumes below MCES and Ten States Standards for allowable I/I entering their sanitary sewer collection

Figure 8-7: Year Built of Housing Stock, 2017



system. The City has not been above the MCES I/I program guidance criteria and has stayed below the peak hour allowable discharge criteria. Typical measured I/I during wet weather periods is below the 3.0 peak hour to average flow rate (P/A) criteria.

The cost of mitigating I/I is included in the allocation of their annual O&M budget. The City has not included any additional costs set aside for I/I because the existing efforts are meeting standards acceptable to MCES I/I program goals as well as acceptable Ten State Standards for allowable I/I amounts (P/A Wastewater Flow Rate criteria) in the Burnsville sanitary sewer collection system.

The City has allocated funds in the future as part of their CIP to address long term maintenance of their sanitary sewer system. Continued inspection, evaluation, and sewer rehabilitation is part of the program and strategy to address continued maintenance and I/I reduction.

The strategy will continue as planned with routine scheduled cleaning, CCTV, pipe condition assessments to determine any future sewer rehabilitation. Overall, the City does not have any excessive I/I in the system but will continue to schedule planned collection system O&M to evaluate the sanitary sewer using the monitoring and investigative tools listed above.

# Service Area Update

## Existing Water Demands

The Burnsville water utility records for water use (in gpd) over the past 5 years are summarized in Table 8-4, below.

Table 8-4: Summary of Water Usage

| Year | Average Daily Water Use (gpd) | Maximum Day Volume (gpd) | Maximum Day Peaking Factor |
|------|-------------------------------|--------------------------|----------------------------|
| 2016 | 6,560,333                     | 12,937,216               | 2.0                        |
| 2015 | 6,568,333                     | 16,265,216               | 2.5                        |
| 2014 | 7,116,333                     | 14,053,000               | 2.0                        |
| 2013 | 6,893,667                     | 19,602,500               | 2.8                        |
| 2012 | 6,778,333                     | 21,500,000               | 3.2                        |

The Maximum Day Peaking Factor is the ratio of the maximum day demand rate to the average daily demand rate. Seasonal water usage during the winter months of January through March are indicative of the average daily sewer flow versus average demand flow for the water system.

## Population Trends

Population projections through 2040 are shown in Table 8-5 below. These population projections are taken from the Metropolitan Council. Note that the projected populations are those of the projected sewered areas.

Table 8-5: Sewered Population Projections

|            | 2020         |           |        | 2030         |           |        | 2040         |           |        |
|------------|--------------|-----------|--------|--------------|-----------|--------|--------------|-----------|--------|
|            | MCES Sewered | Unsewered | Total  | MCES Sewered | Unsewered | Total  | MCES Sewered | Unsewered | Total  |
| Population | 62,000       | 1,500     | 63,500 | 64,500       | 1,500     | 66,000 | 67,000       | 1,500     | 68,500 |
| Households | 25,360       | 540       | 25,900 | 26,260       | 540       | 26,800 | 27,060       | 540       | 27,600 |
| Employment | 36,340       | 360       | 36,700 | 39,030       | 370       | 39,400 | 41,540       | 360       | 41,900 |

## Projected Water Demands

Information for this section came from the City's Draft Water Supply Plan completed in October 2017. The water demand projections used in this study are based on population served projections, and are also presented in Table 8-6 on the next page.

Future projected populations were multiplied by per capita demands to estimate future average day water use. The average per capita demand from 2013 to 2016 was 126 gallons per day (gpd). The highest of the previous five years was 135 gpcd, experienced in 2015.



The projected maximum day water demands were determined by multiplying the Projected Average Day Demand by 2.2 (the highest peaking factor experiences in the last 7 years). This projection then represents the maximum daily demand expected during this planning period.

Table 8-6 shows a projected average day demand of 9.92 MGD for 2040. This represents only a slight increase over recent average day demands.

Table 8-6: Estimated Water Demands

| Year | Projected Population | Projected Average Day Demand (MGD) | Projected Maximum Day Demand (MGD) |
|------|----------------------|------------------------------------|------------------------------------|
| 2020 | 63,200               | 9.36                               | 20.6                               |
| 2030 | 66,000               | 9.64                               | 21.2                               |
| 2040 | 68,500               | 9.92                               | 21.8                               |

This water demand can be utilized to develop sanitary sewer flow comparisons for future system planning, using City Projected Population. For planning purposes population based wastewater flow can be projected utilizing 70 gallons per day (gpd) per person and 25 gallons per day (gpd) per employee. This will result in projected flow values as shown in Table 8-7:

Table 8-7: Future Sanitary Sewer Estimated Daily Average Flows (Sewered)

| Year | Projected Population | Projected Average Daily Flow (MGD) per capita @70 gpd | Projected Average Daily Flow (MGD) per Employee @25 gpd | Projected Average Daily Flow (MGD) Total |
|------|----------------------|-------------------------------------------------------|---------------------------------------------------------|------------------------------------------|
| 2020 | 63,200               | 4.42                                                  | 0.92                                                    | 5.34                                     |
| 2030 | 66,000               | 4.60                                                  | 0.99                                                    | 5.58                                     |
| 2040 | 68,500               | 4.77                                                  | 1.05                                                    | 5.82                                     |

Based on a comparison of Table 8-7 to Table 8-6: Estimated Water Demands, the following sanitary flow to water demand ratios are anticipated.

Table 8-8: Sanitary Flow to Water Demand Ratios

| Year | Projected Average Daily Flow (MGD) Total | Projected Average Day Demand (MGD) | Percentage AVG. Daily Flow/ Average Day Demand |
|------|------------------------------------------|------------------------------------|------------------------------------------------|
| 2020 | 5.34                                     | 9.36                               | 57.1%                                          |
| 2030 | 5.58                                     | 9.64                               | 57.9%                                          |
| 2040 | 5.82                                     | 9.92                               | 58.7%                                          |

Table 8-8 indicates that the percentage of projected average sewer flow will gradually increase as percentage of the future water demand based on population and employee projections within the City increases. The current MCES Wastewater Flow Projections found in the MCES Water Resources Management Policy Plan, Table A-4, are indicated in Table 8-9, below.

Table 8-9: MCES Wastewater Flow Projections

|            | 2020 (MGD) | 2030 (MGD) | 2040 (MGD) |
|------------|------------|------------|------------|
| Burnsville | 5.38       | 5.41       | 5.44       |

The calculated projected average daily sanitary sewer flows based on population and employees within the City of Burnsville for planning milestone years 2020 and 2030 are within 5% of the MCES published flow projections. The 2040 planning milestone year calculated average daily sanitary sewer flow of 5.82 MGD is above the MCES published flow projection by approximately 7% of the MCES published flow projection of 5.44 MGD. This projected variance will have a slight impact on the planning years from 2030 to 2040 as future development becomes more certain. Discussions between the City of Burnsville and Metropolitan Council will be necessary to develop a consensus on the 2040 future daily flow projections.

### Contributing Flow Areas

The Burnsville flows have been divided into segments tributary to portions of the MCES Interceptor system per Table 8-10, below:

Table 8-10: Burnsville Sewered Flows - Planned Contributions from Sewershed

| Point Flow Location | 2010            | 2020            | 2030            | 2040            |
|---------------------|-----------------|-----------------|-----------------|-----------------|
| BLACK DOG AREA      | 0.25 MGD        | 0.21 MGD        | 0.17 MGD        | 0.13 MGD        |
| SAVAGE COMPLEX      | 0.61 MGD        | 0.45 MGD        | 0.30 MGD        | 0.14 MGD        |
| SE COMPLEX          | 0.68 MGD        | 0.79 MGD        | 0.90 MGD        | 1.00 MGD        |
| SE CORNER           | 0.37 MGD        | 0.41 MGD        | 0.45 MGD        | 0.48 MGD        |
| SW CORNER           | 1.48 MGD        | 1.48 MGD        | 1.48 MGD        | 1.48 MGD        |
| SW INTERCEPTOR      | 2.48 MGD        | 2.50 MGD        | 2.53 MGD        | 2.56 MGD        |
| <b>Grand Total</b>  | <b>5.87 MGD</b> | <b>5.85 MGD</b> | <b>5.83 MGD</b> | <b>5.80 MGD</b> |

At projected 2040 year flow, the adjoining communities that are tributary to the systems within Burnsville are estimated to contribute an additional 3.83 MGD (to the Seneca WWTP) as shown in Table 8-12 on the following page.

Table 8-11: 2040 Forecasts by MCES Interceptor

| Interceptor  | Population    | Households    | Employment    |
|--------------|---------------|---------------|---------------|
| 7030         | 565           | 194           | 1,223         |
| 8560         | 636           | 232           | 1,463         |
| 3-BV-35      | 15,283        | 6,339         | 3,477         |
| 3-BV-39      | 50,516        | 20,296        | 35,378        |
| Unsewered    | 1,500         | 540           | 360           |
| <b>Total</b> | <b>68,500</b> | <b>27,600</b> | <b>41,900</b> |

Source: City of Burnsville & HKGi

Table 8-12: Contributing (Sewered) Community Flows

| Location      | Population     | Employment    | Projected Population AD flow (MGD) per capita @ 70 gpd | Projected Employment AD flow (MGD) per Employee @ 25 gpd | Projected 2040 Avg. Daily flow (MGD) Total |
|---------------|----------------|---------------|--------------------------------------------------------|----------------------------------------------------------|--------------------------------------------|
|               | <b>2040</b>    | <b>2040</b>   | <b>2040</b>                                            | <b>2040</b>                                              | <b>2040</b>                                |
| Burnsville    | 68,500         | 41,900        | 4.69                                                   | 1.04                                                     | 5.73                                       |
| Lakeville     | 6,700          | 1,500         | 0.47                                                   | 0.04                                                     | 0.51                                       |
| Savage        | 38,800         | 8,800         | 2.72                                                   | 0.22                                                     | 2.94                                       |
| Apple Valley  | 4,900          | 1,700         | 0.34                                                   | 0.04                                                     | 0.39                                       |
| <b>Totals</b> | <b>117,400</b> | <b>53,500</b> | <b>8.22</b>                                            | <b>1.34</b>                                              | <b>9.56</b>                                |

Source: Population and Employment forecasts provided by MCES

The Burnsville sewer flow projections for the six sub-districts identified in Table 8-10 when combined with the contributing community 2040 flow projections identified in Table 8-12 are indicated in the following Table 8-13. The City does not currently have the total capacity of its trunk sewer system calculated, however, City Public Works is currently working on a model for trunk sewers and lift stations and will provide the “2040 Design Flow and the Ultimate Pipe Capacity” for the local sanitary sewer lines 12” and larger that connect to a Metropolitan Council Interceptor, with anticipated completion in 2019. Once complete, the information will be sent to the Metropolitan Council as part of this Comprehensive Plan.

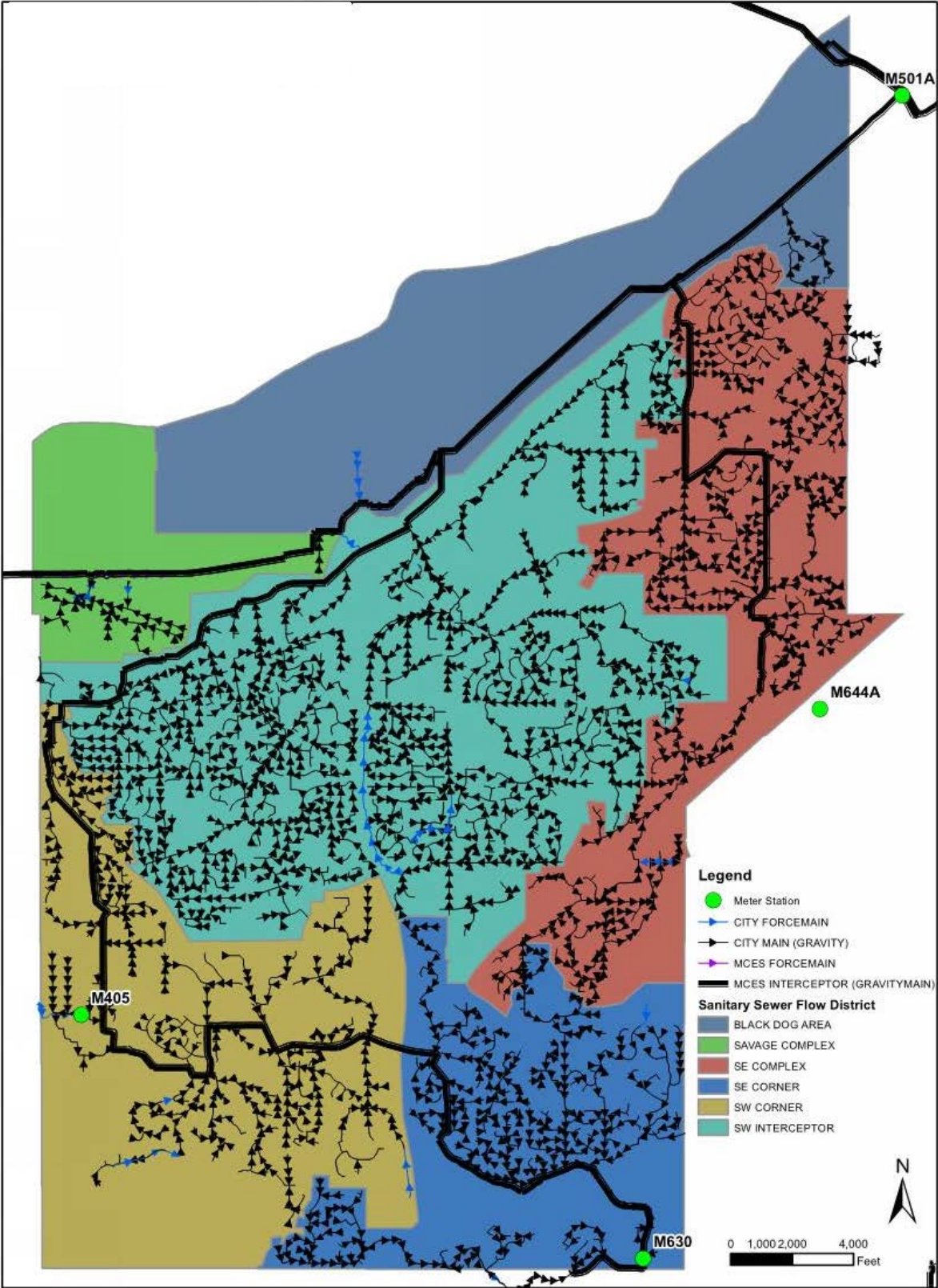
Mapping of the Burnsville sub-district sewersheds are shown in Figure 8-8. Flow values for contributing communities for future years were obtained from MCES.

Table 8-13: Contributing Community Flow Projections by Interceptor

| Interceptor    | Sewershed                 | 2020            | 2030            | 2040            |
|----------------|---------------------------|-----------------|-----------------|-----------------|
| 3-BV-39        | City of Lakeville         | 0.45 MGD        | 0.48 MGD        | 0.48 MGD        |
|                | Burnsville SE Corner      | 0.41 MGD        | 0.45 MGD        | 0.48 MGD        |
|                | Burnsville SW Corner      | 1.48 MGD        | 1.48 MGD        | 1.48 MGD        |
|                | City of Savage *          | 2.04 MGD        | 2.21 MGD        | 2.36 MGD        |
|                | Burnsville Central        | 2.50 MGD        | 2.53 MGD        | 2.56 MGD        |
|                | <b>Interceptor Total</b>  | <b>6.89 MGD</b> | <b>7.15 MGD</b> | <b>7.36 MGD</b> |
| 8560           | City of Savage *          | 0.31 MGD        | 0.33 MGD        | 0.35 MGD        |
|                | Burnsville NW Corner      | 0.45 MGD        | 0.30 MGD        | 0.14 MGD        |
|                | <b>Interceptor Total</b>  | <b>0.76 MGD</b> | <b>0.63 MGD</b> | <b>0.50 MGD</b> |
| 3-BV-35        | City of Apple Valley      | 0.19 MGD        | 0.20 MGD        | 0.22 MGD        |
|                | Burnsville Northeast      | 0.79 MGD        | 0.90 MGD        | 1.00 MGD        |
|                | <b>Interceptor Total</b>  | <b>0.98 MGD</b> | <b>1.10 MGD</b> | <b>1.22 MGD</b> |
| 7030           | Burnsville Black Dog Area | 0.21 MGD        | 0.17 MGD        | 0.13 MGD        |
|                | <b>Interceptor Total</b>  | <b>8.84 MGD</b> | <b>9.05 MGD</b> | <b>9.21 MGD</b> |
| <b>Summary</b> |                           |                 |                 |                 |
|                | 3-BV-39                   | 6.89 MGD        | 7.15 MGD        | 7.36 MGD        |
|                | 8560                      | 0.76 MGD        | 0.63 MGD        | 0.50 MGD        |
|                | 3-BV-35                   | 0.98 MGD        | 1.10 MGD        | 1.22 MGD        |
|                | 7030                      | 8.84 MGD        | 9.05 MGD        | 9.21 MGD        |

\* City of Savage Flow projections estimated

Figure 8-8: Sanitary Sewer System Map





## Future Development

The Minnesota River Quadrant (MRQ) planned development is outlined in the Land Development section of this comprehensive plan. The area is not anticipated to have a large impact on the average daily flows that have been calculated for that area. All future design for the MRQ development area will adhere to City standards and ordinances.

MRQ flows will be split between the Savage Complex, SW Interceptor and Black Dog Area sewer districts. As seen in Figure 8-8, no new trunk sewers are proposed between now and 2040.

## Sewer Rehabilitation Costs

Providing a good rehabilitation schedule is dependent on a City's Capital Improvement Plan (CIP); see Appendix N for the most current 2018-2022 CIP.

# Water Plan

## Introduction

The purpose of the Comprehensive Water Plan is to provide an overview of the city's water system to assess the capability of the system to provide reliable and safe drinking water to meet existing and future demands. By analyzing the capacity and hydraulic properties of supply, treatment, distribution, and storage components of the Burnsville water system, the existing and future water needs of the City of Burnsville can be preserved. Several recent water related reports were reviewed for the preparation of this chapter, including:

- » 2017 Draft City of Burnsville Local Water Supply Plan (see Appendix L)
- » Part 1 Wellhead Protection Plan Amendment, Wellhead Protection Area and Drinking Water Supply Management Area Delineations and Vulnerability Assessment, Black & Veatch, December 2012.
- » Burnsville-Savage Area Water Study, Task A-Assessment of Near-term Alternatives for Increasing Finished Water Flow from Burnsville to Savage, Black & Veatch, Barr Engineering Co., October 2016.
- » Regional Drinking Water Supply, Groundwater Recharge and Stormwater Capture and Reuse Study, Southwest Metro Study Area, Metropolitan Council, HDR Engineering Inc., 2016.
- » Technical Memorandum - Simulations of Future Kraemer Quarry Pit-Lake Stage and Rise of the Water Table at the Freeway Landfill, Barr Engineering Co., May 2015.
- » Technical Memorandum – Addendum to “Results of Groundwater Modeling Evaluation of Burnsville Quarry” Technical Memorandum, Barr Engineering Co., December 2014.

The Water Supply Plan forecasts water system needs and capital improvement planning through 2040. Population predictions for Burnsville through 2040 indicate moderate expected growth over the planning period. From 2016 to 2040, the city is projected to gain 6,753 persons, representing a 10.9 percent increase over the 2016 population of 61,747.

Expected growth-based water demands have been considered in this analysis, along with the existing condition of the water supply, treatment, distribution, and storage facilities. These were the factors on which capital improvement recommendations were based.

Burnsville maintains a computer hydraulic model of their distribution system. The model includes current and projected future water demands. The resultant product is a tool that can be used for hydraulic analysis of the water system and scenario planning. Some of the potential uses of this analysis include the following:

- » Provide a long range plan for water system upgrades/expansion so that proposed construction projects include properly sized water mains to allow for future development needs.
- » Identify deficiencies in the water system and corresponding improvements to reduce or eliminate these deficiencies.

## Existing Facilities

The Burnsville water system is composed of supply, treatment, storage, and distribution components as described in the following sections.

### Supply and Treatment

Raw water pumped from seventeen groundwater wells and two surface water wells currently supplies the Burnsville water system. The groundwater wells draw water from the Jordan and Mount Simon-Hinckley aquifers as indicated in Table 8-14 on the following page. The capacity of the groundwater wells varies from 800 to 1,500 gallons per minute (gpm). In addition, two raw water wells pump surface water from the Kraemer Quarry to a surface water treatment plant adjacent to the existing ground water treatment plant. The Kraemer Quarry pumps are designed to pump an average flow rate of 2,800 gpm or 4 million gallons per day (MGD). However, Kraemer Quarry is only able to provide a sustainable supply of 2,200 gpm (3.2 MGD).

This results in a total supply capacity of approximately 22,200 gpm or 32.0 MGD. The firm capacity is 19,200 gpm (27.6 MGD). Firm capacity is that which can be supplied reliably, even during maintenance activities or an emergency situation. At times, two wells or intake pumps may be out of service simultaneously on the Burnsville water system. Therefore, the firm capacity of the system used for this report is that which can be sustained when the largest two pumps are out of service.

Table 8-14 - Water Supply

| Well No.                | Location                 | Capacity (gpm) <sup>1</sup> | Capacity (MGD) <sup>2</sup> | Geologic Unit           |
|-------------------------|--------------------------|-----------------------------|-----------------------------|-------------------------|
| 1                       | 201 Cliff Road W.        | 800                         | 1.15                        | Jordan                  |
| 2                       | 101 Cliff Road W.        | 1200                        | 1.73                        | Jordan                  |
| 3                       | 800 Cliff Road E.        | 1200                        | 1.73                        | Jordan                  |
| 4                       | 12320 River Ridge Blvd.  | 1200                        | 1.73                        | Jordan                  |
| 5                       | 12330 River Ridge Blvd.  | 1200                        | 1.73                        | Jordan                  |
| 6                       | 150 Cliff Road E.        | 1200                        | 1.73                        | Jordan                  |
| 7                       | 101 River Ridge Ct.      | 1200                        | 1.73                        | Jordan                  |
| 8                       | 51 River Ridge Ct.       | 1200                        | 1.73                        | Prairie Du Chien-Jordan |
| 9                       | 600 Cliff Road E.        | 1500                        | 2.16                        | Tunnel City-Wonewoc     |
| 10                      | 600 Cliff Road E.        | 1200                        | 1.73                        | Jordan                  |
| 11                      | 12295 Nicollet Ave.      | 1500                        | 2.16                        | Mount Simon-Hinckley    |
| 12                      | 990 Burnsville Pkwy. E.  | 1000                        | 1.44                        | Jordan                  |
| 13                      | 590 Burnsville Pkwy. E.  | 1200                        | 1.73                        | Jordan                  |
| 14                      | 1200 Burnsville Pkwy. E. | 900                         | 1.30                        | Mount Simon-Hinckley    |
| 15                      | 1200 Burnsville Pkwy. E. | 1200                        | 1.73                        | Jordan                  |
| 16                      | 2100 Burnsville Pkwy E.  | 1200                        | 1.73                        | Jordan                  |
| 17                      | 2349 Burnsville Pkwy E.  | 1100                        | 1.73                        | Jordan                  |
| Kraemer Quarry Intake 1 | Kraemer Quarry           | 1100 <sup>3</sup>           | 1.6                         | Surface Water           |
| Kraemer Quarry Intake 2 | Kraemer Quarry           | 1100 <sup>3</sup>           | 1.6                         | Surface Water           |

|                                  |        |      |
|----------------------------------|--------|------|
| <b>Total Capacity</b>            | 22,200 | 32.0 |
| <b>Firm Capacity<sup>4</sup></b> | 19,200 | 27.6 |

<sup>1</sup>gpm – gallons per minute

<sup>2</sup>MGD – million gallons per day

<sup>3</sup>The Kraemer Quarry pumps are capable of pumping 1,400 gpm each; however, Kraemer Quarry is only currently capable of providing a total of 2,200 gpm.

<sup>4</sup> Firm capacity is defined as the pumping capacity that can be provided with the largest two supply pumps out of service.

Raw water pumped by these wells is pumped to the existing water treatment facilities on River Ridge Court near Cliff Road. The existing groundwater treatment plant removes iron minerals from the raw water, disinfects the water, and adds fluoride to the water for dental health. The following processes are utilized at the groundwater treatment plant:

- » Aeration and chlorination for oxidation of minerals
- » Detention basin provides contact time for the oxidation process
- » Gravity filtration through dual-media rapid sand filters
- » Post-chlorine feed for disinfection prior to clear well storage

The existing surface water treatment plant removes suspended solids (color), taste and odor compounds, and iron and manganese minerals from the raw water, disinfects the water, and adds fluoride to the water for dental health. The following processes are utilized at the surface water treatment plant:

- » Powdered activated carbon (PAC) addition for taste and odor constituent removal
- » Rapid mix and coagulation basins for color/suspended solids removal
- » Chemical addition for oxidation of iron and manganese
- » Gravity filtration through dual-media rapid sand filters
- » Chlorine contact for pathogen inactivation and disinfection

## Storage

Storage facilities on a water system allow a more constant supply during variable demand conditions. During high demands, when water customers are using a greater volume of water, part of that demand can be met by storage reserves in addition to direct pumping from wells. During low demand conditions, the well pumps can continue to operate, with excess supply going to fill storage for later withdrawal. In addition to this operational function, storage tanks can serve as an emergency water source in the case of a supply failure (i.e. power outage, well maintenance, etc.). They also increase the amount of water available during a fire. Burnsville currently has five storage tanks, including below-ground reservoirs and above-ground standpipes. Water is pumped from the below-ground reservoirs into the distribution system. The standpipe facilities are operated on gravity, with overflow levels set in order to generate the desired pressure in the system. The levels of these tanks control the hydraulic grade line (pressures) of the system.

Table 8-15 – Water Storage

| Facility Name         | Location                           | Type of Structure      | Overflow Elevation (ft) | Storage Capacity (MG) | Usable Storage (MG) |
|-----------------------|------------------------------------|------------------------|-------------------------|-----------------------|---------------------|
| Water Treatment Plant | Water Treatment Plant              | Clear well             |                         | 7.0                   | 7.0                 |
| Nicollet Reservoir    | Nicollet Ave. & Civic Center Pkwy. | Below Ground Reservoir |                         | 1.8                   | 1.8                 |
| Buck Hill             | Buck Hill Rd.                      | Standpipe              | 1218                    | 1.7                   | 1.0                 |
| Colonial Hills        | 35W & 136 <sup>th</sup> St. W.     | Standpipe              | 1150                    | 1.1                   | 0.5                 |
| Heather Hills         | Heather Hills Dr.                  | Standpipe              | 1150                    | 7.0                   | 2.9                 |
| <b>Total</b>          |                                    |                        |                         | <b>18.6</b>           | <b>13.2</b>         |

The effective treatment capacity of the water treatment plants is 24 MGD. The groundwater and surface water treatment plants both discharge to the same storage tank (referred to as a clearwell). High service pumps deliver water from the below-ground clearwell at the water treatment plant to the water distribution system. The pumping station consists of six high service pumps, two with a capacity of 6,300 gpm, one with a capacity of 5,500 gpm, and three with a capacity of 3,500 gpm when all pumps operate together in parallel. The total capacity of the high service pumping station is therefore 28,600 gpm (41 MGD). The firm capacity of the high service pumping station is 22,300 gpm (32 MGD). The pumping station has room for expansion with one additional pump in the future as needed. The pumps are controlled automatically based on water levels in the Colonial Hills Standpipe and the Nicollet Reservoir.

### **Distribution System**

The Burnsville water system is comprised of water mains ranging in size from 6 inches to 36 inches in diameter as shown in Figure 8-9 on page 8-457. The system serves an elevation range of approximately 709 feet to 1112 feet.

### **Pressure Zones**

The Burnsville system is divided into fourteen pressure zones. This allows the city to optimize water pressures over changing elevations and topography. These pressure zones are listed in Table 8-16 with their design hydraulic grade.

The Central Area Pressure Zone is served by the Colonial Hills Standpipe. The Central Area Pressure Zone, which receives water from the water treatment plant, supplies water to the Savage, Brookview, River Hills, Cedar Bridge, Valley View, Rambush, and the West Preserve Areas through pressure reducing valves (PRVs). PRVs are valves that reduce pressure to a pre-determined level on the downstream side.

The Central Area Pressure Zone also supplies water to the South Central Area via the Nicollet Reservoir and Booster Station. The Heather Hills and Buck Hill Standpipes provide elevated storage for the South Central Area. The South Central Area provides water for the Carriage Hills, Yellowstone, Keller Lake, Maple Island and Northview Areas through PRVs.



Table 8-16 - Water Pressure Zones

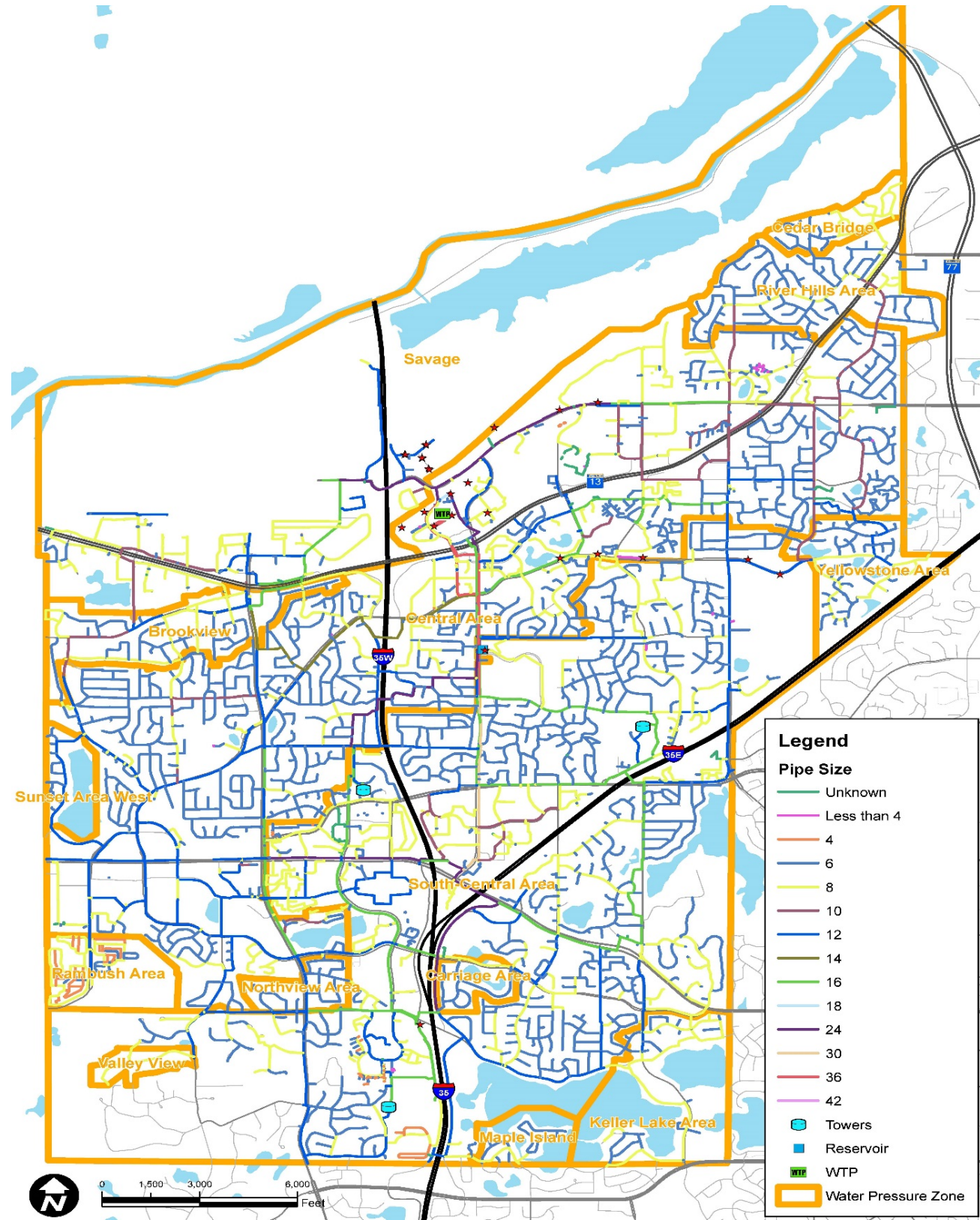
| Pressure Zone Name  | Hydraulic Grade (ft) |
|---------------------|----------------------|
| Central Area        | 1,150                |
| South Central Area  | 1,218                |
| Keller Lake Area    | 1,091                |
| Maple Island Area   | 1,105                |
| Carriage Hills Area | 1,086                |
| River Hills Area    | 1,039                |
| Rambush Area        | 1,015                |
| Cedar Bridge Area   | 952                  |
| Savage Area         | 980                  |
| West Preserve Area  | 918                  |
| Yellowstone Area    | 918                  |
| Northview Area      | 1,112                |
| Brookview Area      | 980                  |
| Valley View Area    | 1,085                |

#### Nicollet Reservoir Pump Station

This Nicollet Reservoir Pump Station pumps water from the Central Area Pressure Zone to the South Central Zone and to all of the pressure zones served from the South Central Zone through pressure reducing valve stations. The total demand of these zones is estimated to be 47 percent of the total system demand. As the sole source of supply for all of these water system users, the Nicollet Pump Station has sufficient pumping capacity to meet these demands.

The Nicollet Pump Station consists of four high service pumps drawing from the Nicollet Reservoir. Two of these pumps have a capacity of 6,300 gpm, one has a capacity of 4,000 gpm, and one has a capacity of 3,800 gpm. The total pumping capacity is 20,400 gpm (29 MGD). The pumps are automatically controlled based on the water level of the Heather Hills Standpipe.

Figure 8-9: Existing Distribution System Map



## Existing Water Demands

The Burnsville water utility records indicate that in 2016, the average daily (AD) water demand for Burnsville was 8,683,000 gallons (6,030 gpm). The maximum day (MD) demand for 2016 was 12,940,000 gallons (8,986 gpm).

In addition to meeting its own water demands, the City of Burnsville also provides approximately 2 MGD of water to the City of Savage as discussed below. The AD and MD listed above include water provided to Savage. Small amounts of water are also provided to Eagan and Lakeville via JPA agreements.

## Providing Water to Savage

The Cities of Savage and Burnsville formed an agreement in 2007 to take advantage of an opportunity to develop a new source of drinking water for both communities. The Kraemer Quarry located on the north side of Burnsville conducts dewatering operations where it pumps approximately 10 MGD of water into the Minnesota River to keep its quarry operations dry. The Cities and Kraemer Quarry designed a system to pump a portion of the dewatering water to a surface water treatment plant in Burnsville. At that point Burnsville was able to produce more treated water than the community needed. Savage agreed to purchase some of the treated water from Burnsville and receive it through an existing distribution system interconnect. The agreement was renewed in 2014 and the cities plan to continue it indefinitely.

## Peaking Demand Factors

Peaking factors are ratios to the average day (AD) demand rate which are used in analysis of water systems. They are representative of temporal variation in water demands. A maximum day (MD) peaking factor for a water system is the ratio of the MD demand rate to the AD demand rate. It normally indicates the magnitude of seasonal differences in water demands. For example, if demands on a system increase substantially during the summer due to lawn irrigation, the peaking factors will also be large. Typical MD peaking factors range from 2.0 to 3.0. Larger systems generally have lower maximum day peaking factors. However, predominantly residential municipalities, especially in metropolitan areas, generally have a higher peaking factor due to sprinkling demands.

Recent MD peaking factors for Burnsville are shown in Table 8-17 on the next page. For future demand projections, a MD peaking factor of 2.2 was used, based on historical data. The historical maximum day peaking factors in Burnsville have been below or at the bottom the typical range listed in the preceding paragraph. The maximum day demands in Burnsville over the previous five years have occurred in either July or August, as is anticipated due to outdoor water use.

The peak hour (PH) demand rate is also commonly used in water system analysis. PH demands occur during the hour of a given year in which the

highest demand rates are experienced on the system. Typical PH peaking factors (the ratio of PH water demands to AD water demands) range from 3.2 to 5.0. The PH peaking factor for Burnsville was estimated to be 60 percent greater than the MD peaking factor. This is a typical estimate in accordance with the American Water Works Association (AWWA) recommendations and resulted in a PH peaking factor of 3.5 ( $2.2 \times 1.6 = 3.5$ ).

Table 8-17 also shows per capita water demands for 2010-2016. The City has water conservation ordinances in effect to reduce water demands. The restrictions include an odd/even watering schedule and prohibit irrigation from 11:00 a.m. to 4:00 p.m. from April 1 to September 30 each year.

Table 8-17 - Recent Water Demands, Per Capita Demands and Maximum Day Peaking Factors

| Year | Pop. Served(1) | Residential Water Delivered (MG) | C/I/I Water Delivered (MG) | Wholesale Deliveries (MG)(2) | Total Water Delivered (MG) | Total Water Pumped (MG) | Water Supplier Services (MG) | Percent Unmetered/Unaccounted (3) | Average Daily Demand (MGD) | Max. Daily Demand (MGD) | Max Day Peaking Factor | Residential Per Capita Demand (GPCD)(4) | Total per capita Demand (GPCD)(4) |
|------|----------------|----------------------------------|----------------------------|------------------------------|----------------------------|-------------------------|------------------------------|-----------------------------------|----------------------------|-------------------------|------------------------|-----------------------------------------|-----------------------------------|
| 2010 | 60,006         | 1,445.20                         | 512.89                     | 412.74                       | 2,536.58                   | 3,074.25                | 165.75                       | 17.5%                             | 8.42                       | 12.71                   | 1.5                    | 65.98                                   | 121.52                            |
| 2011 | 60,326         | 1,551.33                         | 479.87                     | 583.99                       | 2,894.42                   | 3,263.22                | 279.23                       | 11.3%                             | 8.94                       | 11.93                   | 1.3                    | 70.45                                   | 121.68                            |
| 2012 | 60,646         | 1,665.36                         | 561.99                     | 635.18                       | 3,070.66                   | 3,588.00                | 208.13                       | 14.4%                             | 9.83                       | 21.50                   | 2.2                    | 75.23                                   | 133.40                            |
| 2013 | 60,966         | 1,496.25                         | 538.08                     | 663.00                       | 2,829.56                   | 3,363.52                | 132.23                       | 15.9%                             | 9.22                       | 19.60                   | 2.1                    | 67.24                                   | 121.36                            |
| 2014 | 61,447         | 1,419.12                         | 494.44                     | 647.71                       | 2,772.22                   | 3,287.83                | 210.95                       | 15.7%                             | 9.01                       | 14.05                   | 1.5                    | 63.27                                   | 117.71                            |
| 2015 | 61,608         | 1,347.45                         | 455.00                     | 632.58                       | 2,805.46                   | 3,675.44                | 370.43                       | 23.7%(5)                          | 10.07                      | 16.26                   | 1.6                    | 59.92                                   | 135.32                            |
| 2016 | 60,833         | 1,377.76                         | 413.93                     | 772.02                       | 2,692.77                   | 3,169.36                | 129.06                       | 15.0%                             | 8.68                       | 12.94                   | 1.5                    | 60.88                                   | 105.94                            |

MG – Million Gallons MGD – Million Gallons per Day GPCD – Gallons per Capita per Day

- (1) Excludes residents of other cities served by wholesale deliveries from Burnsville.
- (2) Wholesale Deliveries is water provided to Lakeville, Eagan and Savage via JPA agreements. It also includes water provided to Savage as part of the joint Water Use Agreement.
- (3) City unmetered water analysis estimates that up to 8% may be attributed to the age of the metering system. In 2016 the City initiated a full meter replacement program that will include installation of Advanced Metering Infrastructure system that will provide full two-way real time water use data. This \$8M project is expected to be completed by the end of 2018.
- (4) For purposes of calculating Burnsville's Residential per Capita and Total per Capita Demand Wholesale deliveries to the Cities of Savage, Lakeville and Apply Valley have been excluded. Their inclusion misrepresents the per capita demand since their populations are not included in the population served.
- (5) Includes significant extended water system leak event in remote area of 100psi + high pressure zone that went undetected as pressures did not drop below 80 psi during leak.
- (6) Source 2017 City of Burnsville Water Supply Plan

## Unaccounted Water

Unaccounted water is the difference between the volume of water pumped from the wells and the water that is sold (metered) and estimated for other purposes including hydrant flushing, ice rinks, etc. The Minnesota DNR has an unaccounted water goal of less than 10% for Public Water Supplies.

Burnsville has had significant unaccounted water over the past 5 years ranging from 10% to 20%. Based on a pilot study the primary source of the unaccounted water is believed to be the meter system. Burnsville also has areas in its distribution system with very high water pressures, which can contribute to higher leak rates.

To help identify the source of unaccounted water, Burnsville is in the process of replacing all of its residential and commercial water meters with Advanced Metering Infrastructure (AMI) meters. AMI allows utilities to track water usage on a near real-time basis, which allows for better leak

detection, demand-response management, and billing accuracy. This project is expected to be completed in 2018.

## Demand Distribution

Water demands are variable throughout the day and the year. On an annual basis, the heaviest demand conditions (maximum day demands) typically occur during the summer when residential irrigation increases.

Water demands also vary over the course of a given day. Table 8-17 represents a typical demand distribution graph for residential water use. Commercial and industrial water uses are typically more constrained and predictable.

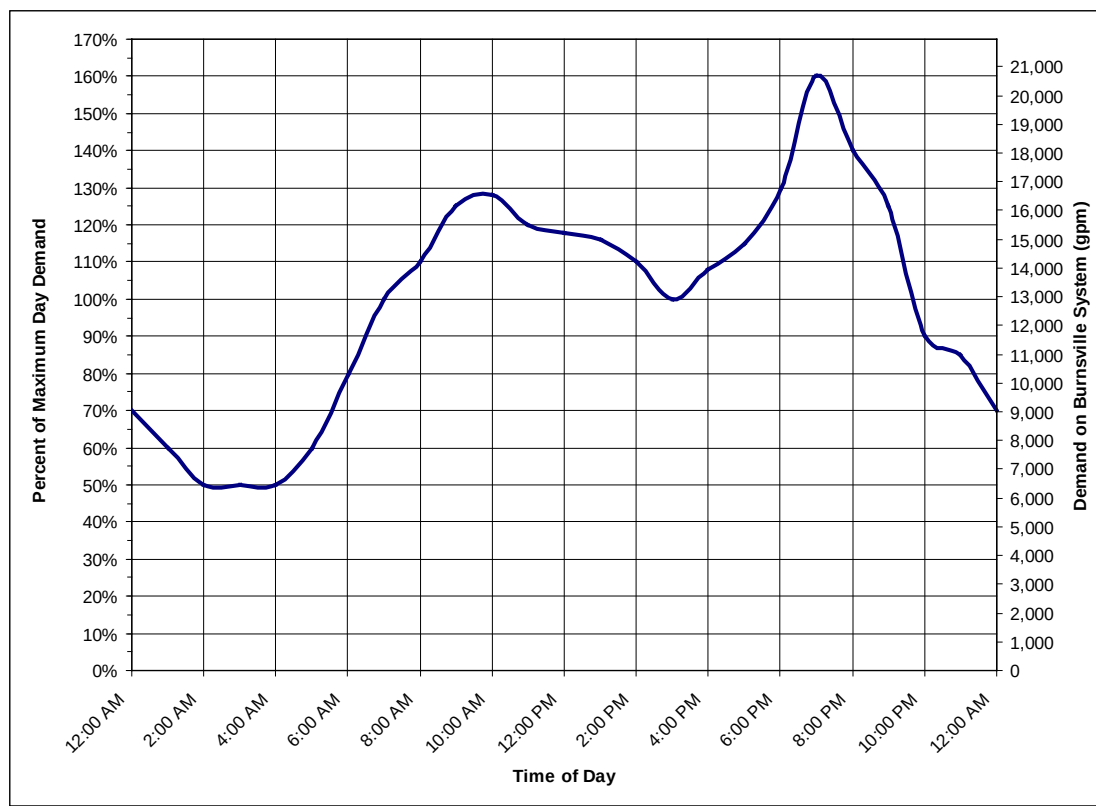
The residential demand graph depicts low water demand during the early morning periods. It shows increasing demand during the day with a slight decrease in the late morning periods. By late afternoon, when lawns are being sprinkled the demand peaks at what is considered the peak hour (PH) demand rate. The demand lessens considerably into the late evening hours.

The firm supply capacity of a system should be at least equal to the maximum day demand. This is the recommendation of the Great Lakes - Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers in their "Recommended Standards for Water Works" (commonly referred to as the "Ten States Standards"). As previously mentioned, storage reservoirs are used to supplement the supply of treated water during the peak usage hours within each day. During the early morning periods when demand is low, the system is able to produce water in excess of the demand. This excess is used to fill the storage reservoirs.

When the demand rate exceeds the production rate, stored water in the reservoirs is used to make up for the deficit. The storage reservoirs will start to fill when the demand decreases below the total supply capacity.



Figure 8-10: Typical Residential 24-Hour Diurnal Demand Distribution Curve as Applied to the Burnsville Water System



## Water Demand Projections

### Population Trends

Population projections through 2040 are shown in Table 8-18. These population projections are taken from the Metropolitan Council, and have been derived using a basic cohort-component model.

### Projected Water Demands

The water demand projections used in this study are based on population projections. Table 8-18 presents the projected city population, average day demand, and maximum day demand through 2040. The projected water demands also include providing water to Savage.

Future projected populations were multiplied by per capita demands to estimate future average day water use. The average per capita demand from 2013 to 2016 was 126 gallons per day (gpd).

In order to project maximum day demands, the future average day demands were multiplied by a maximum day peaking factor of 2.2 which is the highest peaking factor experienced in the last 7 years. This projection then represents the maximum daily demand expected during this planning period. Table 8-18 shows a projected average day demand of 9.92 MGD for 2040. This represents only a slight increase over recent average day demands.

Table 8-18 - Future Estimated Water Demands

| Year | Projected Population Served(1) | Projected Total Per Capita Water Demand (GPCD)(1) | Projected Average Daily Demand (MGD)(2) | Maximum Day Peaking Factor | Projected Maximum Daily Demand (MGD)(2) |
|------|--------------------------------|---------------------------------------------------|-----------------------------------------|----------------------------|-----------------------------------------|
| 2017 | 62,323                         | 113.19                                            | 9.00                                    | 2.2                        | 19.8                                    |
| 2018 | 62,615                         | 115.89                                            | 9.20                                    | 2.2                        | 20.2                                    |
| 2019 | 62,907                         | 117.50                                            | 9.33                                    | 2.2                        | 20.5                                    |
| 2020 | 63,200                         | 117.32                                            | 9.36                                    | 2.2                        | 20.6                                    |
| 2021 | 63,450                         | 117.16                                            | 9.38                                    | 2.2                        | 20.6                                    |
| 2022 | 63,700                         | 117.00                                            | 9.40                                    | 2.2                        | 20.6                                    |
| 2023 | 63,950                         | 116.84                                            | 9.41                                    | 2.2                        | 20.7                                    |
| 2024 | 64,100                         | 116.75                                            | 9.43                                    | 2.2                        | 20.7                                    |
| 2025 | 64,450                         | 116.53                                            | 9.45                                    | 2.2                        | 20.8                                    |
| 2030 | 65,700                         | 117.16                                            | 9.64                                    | 2.2                        | 21.2                                    |
| 2040 | 68,200                         | 117.01                                            | 9.92                                    | 2.2                        | 21.8                                    |

(1) From Draft Water Supply Plan. Excludes populations served in Lakeville, Eagan and Savage via wholesale water provided by Burnsville and approximately 150 properties in SW Burnsville served by private wells.

(2) From Draft Water Supply Plan. Includes wholesale water provided to Lakeville, Eagan and Savage.

## Facility Improvement Recommendations

The existing water system was analyzed for supply, treatment, storage, and distribution capacity to determine if additional water system capital improvements are necessary in order to continue to provide a safe and reliable water supply through 2040. It was determined that additional capacity for supply, treatment, and storage on the distribution system is not necessary to meet projected water demands through 2040. However, it should be noted that around the year 2040, decisions will need to be made on the future of the Kraemer Quarry wells and the surface water treatment plant. This is discussed in further detail later in this section.

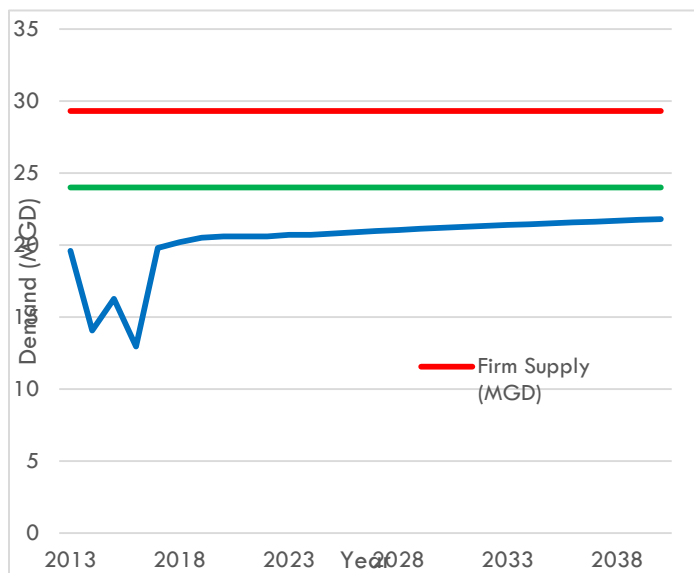
The rationale for this conclusion that no new supply, treatment, or storage facilities through 2040 is presented in the following sections. The improvements recommended in this report are related to infrastructure maintenance. Additional improvements are planned through the city's existing Capital Improvement Plan (CIP). Short term water system improvements include rehabilitation of the existing groundwater treatment plant, water meter replacement, well rehabilitations, and water storage tank maintenance.

## Supply and Treatment Improvements

The city population served and water demand projections through 2040 are shown on Table 8-18. Maximum day demand projections are also shown graphically in Figure 8-11, along with the maximum day demands from the previous four years for comparison.

It can be seen that both firm supply capacity and water treatment plant capacity are sufficient to meet the projected demands through 2040. The projected demands take into account providing 2.8 MGD of water service to the City of Savage on a maximum day.

Figure 8-11: Historical and Projected Maximum Day Demands



## Distribution System Improvements

The water distribution system in Burnsville has been extended to serve the majority of the areas within the city limits. Two areas remain where utilities may be extended within the city during the life of this plan. These include the Minnesota River Quadrant (MRQ) area north of Cliff Road and west of I-35W, and the southwestern corner of the city.

### MRQ

The MRQ is an area of Burnsville consisting of approximately 825 acres situated in the northwest corner of the City. The area is bounded on the south by TH 13, on the east by I-35W, on the north by the Minnesota River. The MRQ has planned commercial and industrial development; therefore, the city's water service must be capable of providing the fire protection needs in addition to the maximum day demands for these properties. For commercial and industrial buildings, the required fire flow rate varies considerably and is based on several characteristics of individual buildings such as:

- » Type of construction
- » Type of business or occupancy
- » Proximity and characteristics of nearby properties
- » Presence or absence of a fire sprinkling system

While the fire flow requirements of commercial and industrial properties should be evaluated on a case-by-case basis, a general rule of thumb is that a municipal water system should aim to provide 3,500 gpm to commercial and industrial land use. The Insurance Services Office (ISO), in determining a community's fire insurance classification, only considers flow rates up to 3,500 gpm.

Additional 12-inch trunk watermain is recommended along the south side of the proposed MRQ development (potentially along West 122<sup>nd</sup> Street) to provide adequate supply and looping in this area. Development and redevelopment of this area is highly dependent on closure of the Kraemer Quarry, Freeway Landfill and Freeway Dump. Actual development areas will depend on final design of the landfill and dump closures.

### **Southwest Burnsville - Rural Residential Development**

The southwestern residential development includes an area roughly bordered by Woods Trail on the north, County Road 5 on the east, and the Burnsville municipal boundary on the south and west. Extending water service around the Woods Trail area was examined in a 2005 report. In that report, it was recommended that a looped water main connection be provided to the area to improve available fire flow rates.

Further expansion of this area to the south of Valley View Drive will require higher hydraulic grade to serve higher elevations. At this time the City does not have any plans to extend municipal water any further. This area is proposed to be served by private wells indefinitely.

## **Storage Improvements**

In order to determine the water storage needs of a community, average daily demands, peak demands, and emergency needs must be considered. For many communities, fire protection needs tend to be the controlling factor when calculating needed storage volume. Table 8-19 shows the calculations used to determine future water storage volume requirements for Burnsville based on fire flow.

Water storage facilities should be capable of supplying the desired rate of fire flow for the required length of time during peak demands when the water system is already impacted by other uses and with the largest pump(s) out of service. The calculations in Table 8-19, assume that 75 percent of the storage volume is available for firefighting, maximum day demands are occurring on the system, and the two largest supply pumps are out of service.

Table 8-19 indicates that existing storage capacity on the Burnsville water system is able to meet projected demands through 2040. In addition to capacity considerations, the city must also plan for maintenance costs for water storage facilities. Steel water storage tanks require periodic cleaning and repainting.

Table 8-19- Storage Facility Needs Through 2040

|   |                                                                | 2016       | 2040       |
|---|----------------------------------------------------------------|------------|------------|
| A | Average Daily Water Use in gpd (included 2 MGD to Savage)      | 8,680,000  | 9,920,000  |
| B | Average Daily Water Use in gpm                                 | 6,030      | 6,890      |
|   |                                                                |            |            |
| C | Maximum / Average Day Ratio                                    | 1.5        | 2.2        |
| D | Maximum Day Water Use in gpd                                   | 12,940,000 | 21,800,000 |
| E | Maximum Day Water Use in gpm                                   | 8,990      | 15,140     |
|   |                                                                |            |            |
| F | Firm Pumping Supply Capacity in gpm                            | 19,200     | 19,200     |
|   |                                                                |            |            |
| G | ISO Design Fire Fighting Rate in gpm                           | 3,500      | 3,500      |
| H | Fire Fighting Duration in Hours                                | 3          | 3          |
| I | Design Fire Fighting Volume in Gallons (G x H x 60min/hour)    | 630,000    | 630,000    |
|   |                                                                |            |            |
| J | Total Coincident Demand in gpm (E + G)                         | 12,490     | 18,640     |
| K | Required Draft from Storage in gpm (J – F)                     | -6,710     | -560       |
|   |                                                                |            |            |
| L | Adjusted Fire Fighting Storage in Gallons ( H x 60 min/hr x K) | -1,207,800 | -100,800   |
| M | Equalization Storage in gpd (D x 25%)                          | 3,235,000  | 5,450,000  |
| N | Total Storage Need in Gallons ( L + M)                         | 2,027,200  | 5,349,200  |
|   |                                                                |            |            |
| O | Existing Useable Elevated Storage in Gallons                   | 13,200,000 | 13,200,000 |

Ten States Standards also recommends that a municipality have at least its average day demand in storage. Burnsville meets this requirement both currently and also for the 2040 projected average day demands.

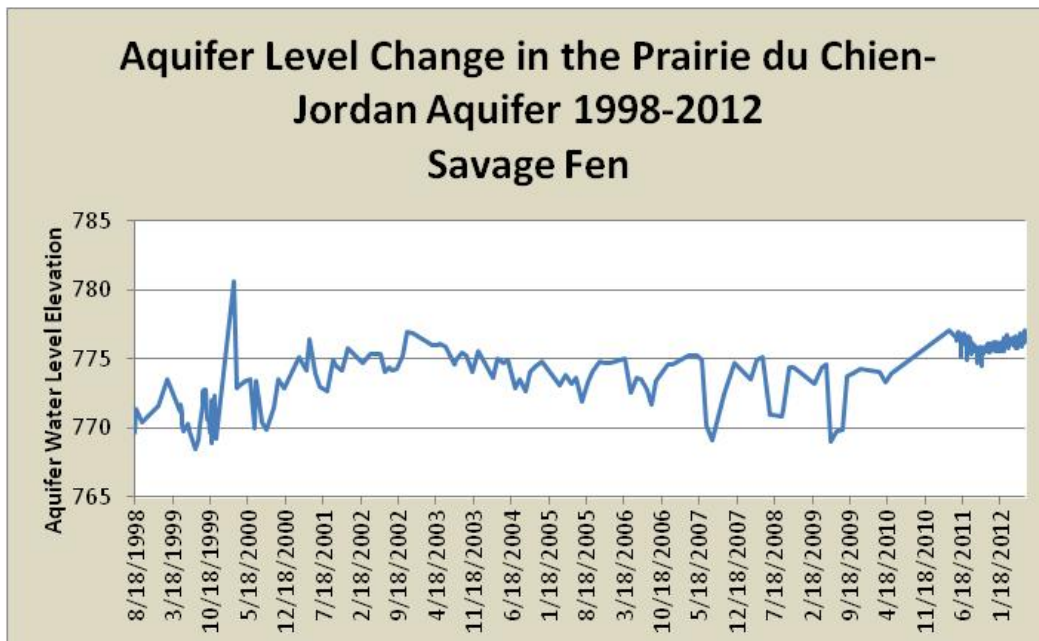
## Future Water Issues Facing Burnsville

In the short term and through approximately 2040, the City of Burnsville has adequate water supply, treatment, and storage facilities. However, several water related decisions and issues will need to be addressed by 2040 including the future of the Kraemer Quarry surface water intakes, the surface water treatment plant, providing water to Savage, and the sustainability of groundwater in the region. These topics are discussed in the following sections.



### Future of Kraemer Quarry and Freeway Landfill

To keep the Kraemer Quarry dry and allow mining operations, it is required that approximately 10 MGD of water be pumped continuously for dewatering. Approximately 7-8 MGD is pumped continuously into the Minnesota River. The other 2-3 MGD is pumped from the intake wells to the Burnsville surface water treatment plant. The continuous dewatering pumping draws down the regional water table in the Jordan aquifer significantly. However, Met Council and DNR studies show that the use of this 2-3 MGD by the cities of Savage and Burnsville has resulted in recovery to the Jordan Aquifer in this area since the partnership began in 2009.



In approximately 20 years, the Kraemer Quarry is expected to cease operations. At that point, the quarry will fill with water. This will affect both the quarry raw water intake wells and the Freeway Landfill.

The Freeway Landfill is located adjacent to the Kraemer Quarry to the north as shown on Figure 8-12. As it exists today, the landfill is not properly lined. If the waste in the landfill isn't excavated and placed in a properly lined landfill, when the dewatering operations are discontinued, some of the waste will be submerged below the water table. This has the potential to contaminate the future quarry lake and Minnesota River. The Freeway Landfill has a high priority ranking in the Minnesota Pollution Control Agency's (MPCAs) Closed Landfill Program (CLP) which increases the likelihood of corrective action being performed. Likewise the Freeway Dump, which is located in the City's Wellhead Protection Area will have portions of waste submerged when quarry dewatering ceases if it is not closed properly. This could contaminate the City's wells.

Figure 8-12 - Kraemer Quarry and Freeway Landfill



In addition to potential concerns with the Freeway Landfill, when the Kraemer Quarry discontinues dewatering operations, it will change the nature of the water in the raw water intake wells.

A *quarry intake study* is currently being conducted to provide a recommendation for the future of the raw water intake wells.

### **Future of Surface Water Treatment Plant**

By the year 2040, Burnsville's surface water treatment will be over 30 years old and in need of rehabilitation. Because the treatment of surface water is more rigorous and requires additional chemicals, it is significantly more expensive to treat than groundwater. When the rehabilitation of the surface water treatment plant is required, a decision on the future of treating surface water will need to be made. This could coincide with the Kraemer Quarry ceasing operations.

If the raw water intake wells were taken out of service, Burnsville's firm supply capacity would be reduced from 20,300 gpm to 18,100 gpm. This capacity would still be sufficient to meet Burnsville's 2040 demands and supply at least 2.8 MGD of water to Savage on a maximum day.

Burnsville's surface water treatment plant could be converted to treat groundwater with relatively minor changes and expense.

### **Providing Water to Savage**

Since 2008, Burnsville has provided approximately 2 MGD of water to Savage. A study (*Burnsville-Savage Area Water Study, Black & Veatch, Barr, 2016*) was recently conducted to identify possibilities for increasing the quantity of water Burnsville provides to Savage. The existing interconnect can provide approximately 2.8 MGD of water from Burnsville to Savage. It is estimated that by the year 2030, Savage will require an additional source of water to meet demands.

The City of Savage has a calcareous fen, one of the rarest types of wetland plant communities in the U.S. These fens are given special protection under the Minnesota Wetlands Conservation Act. Groundwater pumping near calcareous fens causes the fen to dry up as they are fed by groundwater seeping through layers of peat.

The Savage fens make it difficult for Savage to get appropriation for new groundwater wells. In addition, Burnsville Wells 3, 6, and 10 also impact the fens and withdrawal from those wells is limited.

The 2016 study indicated that Burnsville could provide up to 3.5 MGD of water to Savage at least until the year 2035. Increasing the supply from 2.8 MGD to 3.5 MGD would require modifying the existing interconnect or constructing a new interconnect. The future of the Kraemer Quarry raw water intake wells will also effect Burnsville's ability to provide water to Savage.

## **Regional Groundwater Sustainability**

With the exception of Burnsville's Kraemer Quarry raw water intake wells, all of the municipalities in northern portion of Dakota County utilize groundwater as their source of drinking water, primarily from the Jordan aquifer. Groundwater modeling performed by Metropolitan Council Environmental Services (MCES) in a 2016 report (*Regional Drinking Water Supply, Groundwater Recharge and Stormwater Capture and Reuse Study, Southeast Metro Study Area, MCES/HDR, 2016*). The study determined that if groundwater sources are continued to be developed to meet future demands, additional aquifer drawdown would be observed in the Southeast Metro Study Area, with the exception of Burnsville. Significant aquifer level recovery is predicted in Burnsville due to Kraemer Quarry ceasing operations. This predicted aquifer recovery could allow Burnsville to explore the option of drilling additional groundwater wells when the Kraemer Quarry ceases operations.

### **Wellhead Protection**

The City of Burnsville utilizes groundwater wells as its primary drinking water source. Because wells are used, a Wellhead Protection Plan (WHPP)

is required by the Minnesota Department of Health. The WHPP delineates a Wellhead Protection Area (WPA) and Drinking Water Supply Management Area (DWSMA). According to the WHPP, a total of 13 of Burnsville's 17 wells are classified as vulnerable. The wells are considered vulnerable due to a combination of its sensitivity rating, well construction, and pumping rate. Wells 1, 2, 4, and 6 are classified as having a high or very high vulnerability. Figure 8-13 (from *Part 1 Wellhead Protection Plan Amendment, Black and Veatch, 2012*) show the DWSMA boundary and the well vulnerability areas.

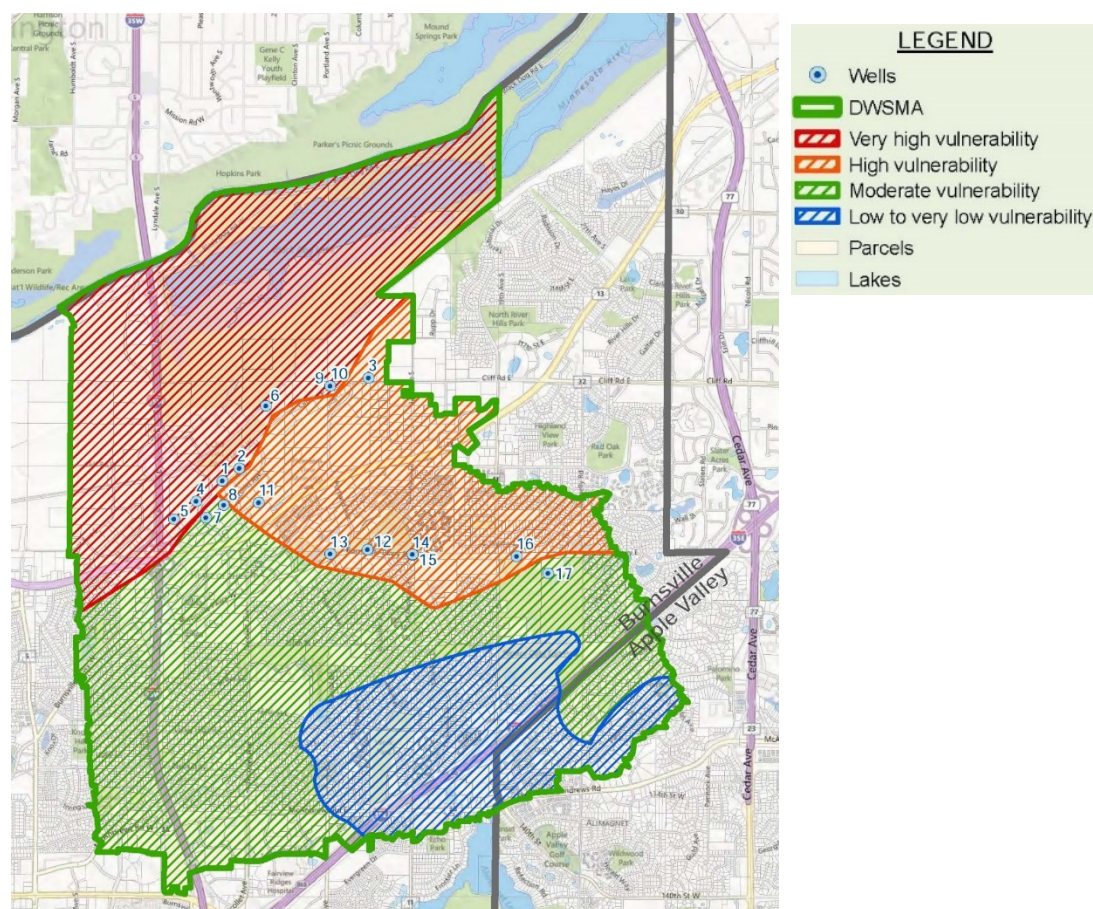
The Part II WHPP identifies potential sources of drinking water contamination within the DWSMA, reviews the City's wellhead protection goals, and updates the management plan of action for potential contaminant sources. The City identified the followings goals for implementing its wellhead protection plan (*Wellhead and Source Water Protection, Part II Wellhead Protection Plan Amendment, Black and Veatch, 2013*):

- » The City will continue to meet or exceed all State and Federal water quality standards.
- » The City will promote protection of the vulnerable source water aquifer through management of high risk potential contaminant sources within the DWSMA and raising public awareness of source water protection issues;
- » The City will keep up-to-date records of potential contaminant sources through administration of GIS databases and asset management systems in order to adjust their management activities to meet the community's needs in the years between WHPP development.

One of the objectives in the WHPP was to "Develop a Wellhead Protection Overlay Zoning District" to prevent certain types of land uses within the WHPA, including new landfills. In July of 2015, the City adopted the Drinking Water Protection Overlay District Ordinance and has been implementing it fully since 2016.



Figure 8-13 – Burnsville DWSMA Vulnerability



## Sustainability

The main premise of sustainable city services and facilities is that it balances social, economic and environmental factors in municipal decision-making and management processes. This approach is not new to the City; sustainable operations have been a goal for years. However, each year the city strengthens its strategic approach to sustainability by reassessing what is sustainable and what can be improved.

The City's routine operations & maintenance (O&M) practices and city owned buildings and facilities are perfect for implementing sustainability for three reasons. First, adopting sustainable methods minimizes building and fleet maintenance needs, reduces resource consumption (water, energy, materials, etc.), reduces city spending, and provides a healthy, safe, and more enjoyable environment for city staff. Second, the City can "lead by example" in integrating innovative, sustainable practices throughout its operations and facilities. Third, sustainable municipal operations and facilities can provide a framework for the city to pursue external funding and to leverage existing municipal programs to more effectively integrate sustainability throughout its operations and facilities.



| Sustainability Area                                                                                                                 | City Service and Facility Plan Approaches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Energy Reduction</p>                           | <ul style="list-style-type: none"> <li>» Continue to promote responsible procurement criteria</li> <li>» Integrate the principles of a <u>circular economy</u> into the City's business practices.</li> <li>» Evaluate potential for alternative energy generation</li> <li>» Continue to participate with community solar gardens</li> <li>» Utilize fleet maintenance system to right-size fleet and reduce vehicle idle time</li> <li>» Consider utilization of energy efficient materials when making upgrades to City facilities.</li> </ul>                                                                                                                                                                                                                                                                                                                                               |
|  <p>Sustainable Water Supply</p>                   | <ul style="list-style-type: none"> <li>» When replacing toilets in municipal buildings, consider installing high efficiency models and/or waterless urinals.</li> <li>» Develop a rebate program for retrofitting of irrigation and homes to conserve water.</li> <li>» Leverage Advanced Metering Infrastructure (AMI) system to encourage water conservation. Maintain residential per capita water use below 75gpcd.</li> <li>» Utilize AMI system to keep unaccounted water use below 10%.</li> <li>» Develop post-quarry water supply plan</li> <li>» Utilize smart irrigation at city facilities</li> <li>» Continue to implement current City landscaping practices to reduce the need for excessive irrigation, pesticides and/or gas-powered maintenance equipment.</li> <li>» Explore offering rebates for retrofitting sinks/showers for using grey water for irrigation.</li> </ul> |
|  <p>Waste Reduction</p>                          | <ul style="list-style-type: none"> <li>» Continue to implement municipal purchasing policies of cleaning products to identify areas where green products can be used.</li> <li>» Promote the City's recycling &amp; waste reduction programs, using progress to encourage continuing programs and to set more aggressive targets.</li> <li>» Implement organic recycling at city facilities</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|  <p>Efficient Use of Infrastructure and Land</p> | <ul style="list-style-type: none"> <li>» Continue to dedicate staff and funds to sustainability projects, programs and issues.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|  <p>Natural Resource Conservation</p>            | <ul style="list-style-type: none"> <li>» Continue to implement best practices for winter maintenance</li> <li>» Continue inflow and infiltration reduction measures for city infrastructure</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



## Climate Resiliency

- » Develop and adopt an extreme weather operations plan
- » Complete resiliency studies to determine which sections of the City's Services and Facilities have the highest risk of failure due to Climate Change or other scenarios. Identify, fund and make improvements to address concerns.
- » Complete resiliency studies to determine consequence levels if certain sections of the City's Services or Facilities fail. Identify, fund and make improvements to address concerns.

## Measures of Success

The following measures of success can be used to assess progress on sustainability initiatives:

- » Establish a plan to fund the sustainable operations strategies including grant opportunities.
- » Conduct energy and greenhouse gas emissions audits to set a baseline.
- » Review MN GreenStep Cities progress. Select and initiate new efforts to achieve more GreenStep "actions."
- » Achieve at least 80% of all office and custodial supplies annually are categorized as "green" by 2020.
- » Reduce overall municipal water use by (especially drinking water) 10%.
- » At least 75% of waste from municipal operations is recycled annually.
- » Prevent all non-storm water discharges from municipal facilities (including landscape over-irrigation) to storm drains.
- » Comply with storm water "Best Management Practices" (BMPs) requirements on all municipal facilities and pass annual inspections with a minimum score of 80%.
- » Organics recycling implemented at all City facilities.
- » Maintained residential per capita water use below 75gpcd.

# Implementation

Summarized from this Chapter – City Services and Facilities, are the following strategies and actions to guide Burnsville to deliver quality essential services in a cost effective and timely manner.

| City Services | Strategies/Actions                                                                                               |
|---------------|------------------------------------------------------------------------------------------------------------------|
|               | » Review organizational structure periodically to ensure the objectives of the organization can be met           |
|               | » Monitor Ends and Outcomes to meet the direction of the City Council                                            |
|               | » Continue to evaluate operations for efficiencies and opportunities to continue to prove high level of service. |

| Facilities | Strategies/Actions                                                                                                                                |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
|            | » Continue improvements identified in the 2015 City Hall, Police & Fire Facility Space Needs Assessment                                           |
|            | » Perform a Facility Space Needs Assessment for the City Maintenance Facility                                                                     |
|            | » Continue to analyze City facilities to ensure that we are providing the most efficient use of space for our employees, residents, and visitors. |

| Sanitary Sewer | Strategies/Actions                                                                                                                                                                              |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | » Continue VCP lining. Maintain the current rate of rehabilitation and push for more funding sources to increase rehabilitation rate. Ideally create a dedicated lining program.                |
|                | » Provide public education on ways to remove inflow and infiltration from the sanitary system. Develop a manhole inspection program to identify manholes with the greatest contribution to I/I. |
|                | » Develop a regular inspection program to investigate and repair illegal connections to the sanitary sewer (typically through sump pumps and foundation drains).                                |

| Water System | Strategies/Actions                                                                                                                                                                                                                                                                                                |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | » Continue to monitor unaccounted for water and excessive water use                                                                                                                                                                                                                                               |
|              | » Continue to encourage residential water efficiency practices including installation of smart irrigation controllers and identify opportunities for water reuse including rainwater catchments and gray water reuse. Work towards overall water use reduction of 10% water use and unmetered use maximum of 10%. |
|              | » Continue to utilize non-invasive testing on metallic watermain and utilize innovative means, such as structural lining, to upgrade the metallic watermain.                                                                                                                                                      |
|              | » Encourage industrial/commercial water efficiency opportunities with Minnesota Technical Assistance Program (MnTAP).                                                                                                                                                                                             |
|              | » Plan for assessment and replacement of remaining concrete watermain.                                                                                                                                                                                                                                            |
|              | » Plan for post quarry dewatering water supply                                                                                                                                                                                                                                                                    |
|              | » Review and implement recommendations from the 2017 Water Supply plan.                                                                                                                                                                                                                                           |

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