Framing Fridley

2040 Comprehensive Plan

City of Fridley

Dec. 17, 2018 Draft

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Available for download on the city of Fridley website. Visit FridleyMN.gov/2040Plan.

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Introduction

Purpose

Minnesota law requires cities to develop long-range Comprehensive Plans every 10 years, which serve as a guideline for future planning. The Metropolitan Council guides this planning process in the Twin Cities region and reviews municipal plans. The City is required to include nine components. In addition, the City is required to weave components of resiliency into each chapter. Due to the construction of a new Civic Campus, Fridley has decided to continue our tradition of including a Public Facilities section in the Plan as well.

1. Land Use

2. Housing

3. Transportation

4. Parks and Trails

5. Water Supply

6. Local Water

7. Wastewater

8. Economic Competitiveness

9. Critical Area

10. Public Facilities

How the Plan will be used

This Plan will be used to guide policy decisions, budgets, and to provide public information about the City's long-range plans.

Fridley Welcome Sign

Process

It was decided during the 2015 budgeting process that City staff would create the 2040 Comprehensive Plan internally and would not hire a consultant. The City had prepared the 2030 Comprehensive Plan internally and preferred this process as the same people responsible for implementing the Plan would be the ones to facilitate implementation. To begin the process, in 2016, City staff committees for each chapter topic were established with a team lead designated for each committee. City staff began preparing data for the compilation of this Plan in 2016.

In 2017, staff began gathering input from the public on various topics and policies to help guide future action steps for the 2040 Plan. Instead of holding a public meeting, City staff took a new approach to community engagement. It was decided to survey people's opinions at places where they were already gathering. One of these exercises occurred at the Home and Garden Show on Feb 4, 2017, where a board was set up that asked people: *What does Fridley have?* and *What does Fridley need?* This exercise helped guide topics and questions for future public engagement efforts.

Framing Fridley Visioning Board

In an effort to communicate various updates to the public, City staff held a town hall meeting at City Hall on Saturday, May 20, 2017. While the main focus of the meeting was to update the public on plans for a new civic campus, part of the meeting time was used to obtain public input on three separate topics:

1. Transportation Safety Concerns
2. Priority Redevelopment Areas
3. Access to Parkland on the Mississippi River


Fridley Town Hall Meeting

There were nearly 100 people at the town hall meeting, so it provided staff a strong basis for formulating survey questions to be hosted on the City's website, and easily accessed from a smart phone. The staff committees helped develop survey questions, which were broken into three general topics:

1. General
2. Parks
3. Streets

A small business card was distributed to residents providing the web address to the survey. On June 16, 2017, City staff were able to test the developed survey with attendees at a Safe Routes to Schools public engagement event on proposed changes to 7th Street. Participants were given the card and asked to complete the online survey. The following morning, nearly 100 cards were handed out to people waiting at the curb for the annual 49ers Day Parade to start. It was a great opportunity to request their participation and to personally ask people for their involvement in long-range planning for the City.

During one rush hour morning on a Thursday in August 2017, two staff members handed out cards to commuters using the three most heavily used bus stops on University Avenue. Community Development staff

also handed out cards at block parties on Night to Unite on August 1, 2017. About 900 cards were given to block captains in their packet of information to give to party goers. Staff made an effort to encourage people to use the web address and complete the survey later, at their leisure. The Communications Coordinator also sent out an email burst with the web address to subscribers, and responses poured in. These efforts resulted in 97 responses. While the online survey was not a scientific survey, it provided valuable insight into people's views as there were many open-ended questions answered from the privacy of their own home. Participants could choose to answer questions from all of the topics or just one or two of the topics. Questions could also be skipped. The results of the survey, which ended August 31, 2017, are in Appendix 1.

Main Street Pedestrian Bridge

Goals

In the summer of 2013, the Fridley City Council initiated a strategic planning process to set a vision statement to address the long term needs of the City. The Council and the department managers participated in a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis to set goals and develop the following vision statement:

We believe Fridley will be a safe, vibrant, friendly and stable home for families and businesses.

Adopted January 27, 2014

This vision statement now serves as the basis for the goals in Fridley's 2040 Comprehensive Plan. Each subsequent chapter of this Plan addresses how these goals and objectives can be met through policies and action steps.

Goal #1: Provide a *Safe* environment for residents and businesses

Objectives

- Provide for public safety through education and enforcement of City Code and State law
- Maintain a public safety force to respond to the needs of the community
- Plan for safe transportation routes for all modes of transportation
- Prepare for disaster response through emergency planning

Goal #2: Maintain Fridley as a *Vibrant* community in the Twin Cities

Objectives

- Ensure that City Code regulates adjacent uses to provide for compatible growth without being overly restrictive
- Encourage redevelopment and reuse of underutilized property
- Study what is working well in other Metro Area communities and copy their successful measures
- Pursue partnerships with other units of government and sources of funding that can finance needed improvements in the City
- Continue to be a leader in City services that balance the demands of the public and City finances
- Establish policies that support Fridley's commitment to the environmental health of our community and the region as a whole

Goal #3: Continue to be known as *Friendly* Fridley in the Twin Cities

Objectives

- Maintain equitable City services in a friendly, driven, responsive manner
- Continue to establish public/private/non-profit partnerships and events that bring diverse groups together
- Celebrate the positive aspects of the City of Fridley

Goal #4: Provide a *Stable* environment in which families and businesses can thrive

Objectives

- Maintain sustainable policies and appropriate code restrictions that position Fridley in the competitive service industry
- Address diverse housing and business needs that support neighborhood stability
- Protect Fridley's natural resources that are key to making Fridley a desirable place to live and work

Acknowledgements

Mayor

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City Council

Robert Barnette

Ann Bolkcom

Jim Saefke

Delores Varichak

Planning Commission

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Leroy Oquist, Vice Chair

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Photography, Editing, and Graphic Design
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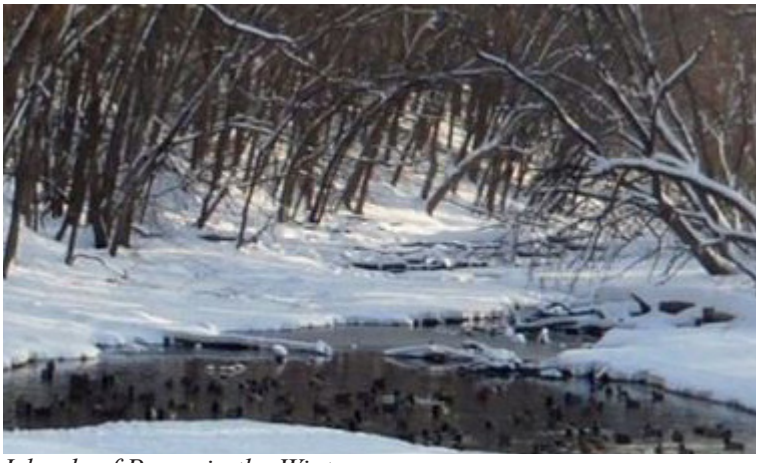
Doug Katzung, Public Service Worker - Parks
Amy Kempf, Neighborhood Preservation Specialist
Annie Leibel, HRA Intern

Demographics

History

As with most urban areas, Fridley's history ties back to access to water, which is evident in the community's original name, Manomin, which means *Wild River*. In Fridley, those key water features are the Mississippi River and Rice Creek. The Mississippi River was used for logging and fur trading. The fur trading route along the River became known as the Red River Ox Cart Trail, which later became a military road between Point Douglas in St. Paul and Fort Ripley. Then, Fridley became a key way to cross the Mississippi, establishing a ferry crossing in 1854. In 1879, the township was named *Fridley* after one of its early settlers, Abram Fridley. The military road became what is now East River Road, and commerce developed along this route, particularly at the confluence of Rice Creek into the Mississippi River, because these waterways were a power source.



Islands of Peace in the Winter

Fridley Township was incorporated as a village in 1949. This is where the annual summer celebration name "*49ers Days"* comes from. The Village of Fridley became a home rule charter city in 1957. In 1965, Fridley was ranked as the 14th largest community in Minnesota, due to rapid post-war construction. Despite an April 1965 flood of the Mississippi River banks, which flooded out many homes, and a series of tornadoes destroying 1 out of 4 homes in Fridley on May 6, 1965, the City continued to grow with a strong commercial/industrial base.

BNSF Freight Train

Besides water, the other key factor in Fridley's physical development has always been access to transportation. The building of the St. Paul and Pacific Railroad (now BNSF) provides freight transportation. Two street car lines allowed people to conveniently work in Minneapolis and live in Fridley, where there was less noise and air pollution. Development of the Country's interstate system resulted in Highway 100 becoming Interstate 694. Highway 65 was eventually built through the middle of Moore Lake, creating an East and West Moore Lake. The new highway became a faster route for weekend cabin seekers than Central Avenue had previously served. Also constructed, was University Avenue, which is Highway 47. Between East River Road, University Avenue, and Highway 65, the City was now dissected by three major north/south roadways and dissected east/west by Interstate 694. These roadways, combined with a major rail line and many public transportation options, make Fridley a transportation powerhouse, but the physical divisions created by these features create many neighborhood planning challenges.

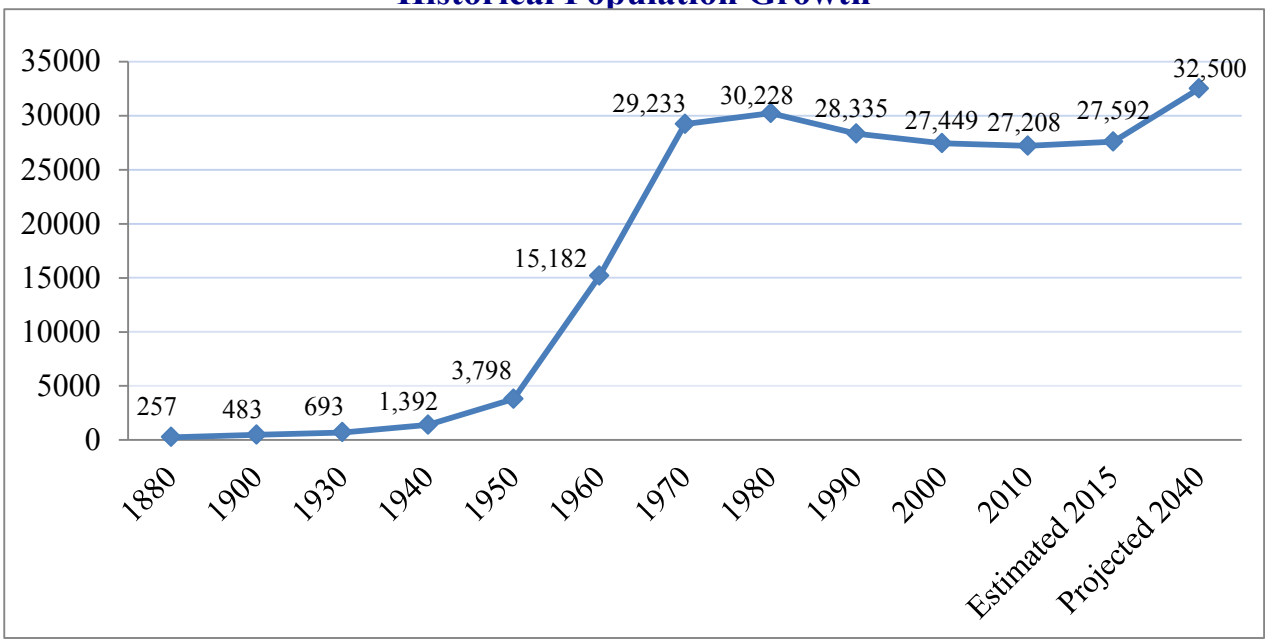
Current Demographics: Historical Population Growth

Fridley was starting to grow in the 1940's, but the start of World War II slowed that growth, with Fridley remaining primarily agricultural use. The war brought the expansion of a major business in the southern part of Fridley, the creation of weapons, which became a top employer in the City, creating thousands of jobs and spurring new growth. Rail service and the network of highways resulted in Fridley's conversion from agricultural to industrial uses. Before the highway system was developed, various mass transportation options made Fridley a convenient place for Minneapolis workers to live.

Northstar Commuter Rail

Transportation options are once again resulting in population growth in Fridley. In 2009, passenger rail service began on the Northstar Commuter Rail Line, which runs on BNSF tracks and has a stop in Fridley. Existence of this new commuting option has resulted in establishment of the Northstar Transit Oriented Development Overlay Zoning District, which requires greater site densities. A master plan has been developed for the Northstar TOD area, which is predicted to bring over 1,000 new housing units to the City. Therefore, Fridley's growth projections show the City surpassing population totals of the 1980's by 2040.

Historical Population Growth



Source: Information for historical population growth was extracted from an article titled "Fridley from the Beginning" printed in a 1974 Fridley Silver Anniversary newspaper; author unknown. Data for recent years obtained from www.census.gov and the 2011-2015 American Community Survey data and the Metropolitan Council.

Age of Population

There are noticeable increases in the number of children under age 5 and young adults (age 25-34) from 2000 to 2014. While it is a small percentage of the overall population of the City, the number of people age 85 and over doubled in the past 15 years. It is interesting to note that the median age in Fridley has decreased by nearly two years in just the past five years of data.

Age Trends

Age	2000		2010		2015 estimate	
	Number	% of Total	Number	% of Total	Number	% of Total
Under 5 yrs	1,828	6.7%	1,951	7.2%	2,230	8.1%
5-9 yrs	1,754	6.4%	1,757	6.5%	1,748	6.3%
10-14 yrs	1,625	5.9%	1,645	6.0%	1,454	5.3%
15-24 yrs	3,770	13.7%	3,414	12.5%	3,508	12.7%
25-34 yrs	4,217	15.4%	4,106	15.1%	4,698	17.0%
35-44 yrs	4,289	15.6%	3,485	12.8%	3,205	11.6%
45-54 yrs	3,674	13.4%	3,882	14.3%	3,728	13.5%
55-64 yrs	3,011	11.0%	3,098	11.4%	3,193	11.6%
65-74 yrs	2,127	7.7%	2,144	7.9%	2,230	8.1%
75-84 yrs	910	3.3%	1,400	5.1%	1,119	4.1%
85 & over	244	0.9%	326	1.2%	479	1.7%
Total Pop	**27,449**	**100%**	**27,208**	**100%**	**27,592**	**100%**
Median Age	36.3		37.1		35.4	
Persons/HH	2.40		2.44			

Ethnic Diversity and Race

The racial diversity of Fridley has continued to increase over the past decade. Fridley was 96% white in 1990. The most current data indicates that Fridley's population is 67% white. The ethnic groups that have increased most are African American, Asian, and Hispanic, with the most significant increase in the African American community. Fridley has also experienced a diversity of faiths in the past ten years, with the completion of three Islamic Centers in the community. A Hispanic church was started, but has since moved. Many other church groups have been meeting in rented school or commercial space throughout the City.

Diversity Trends

Race	2000 Percent	2010 Percent	2015 ACS Data
White	88.7	72.2	67.2
Black or African American	3.4	11.1	14.0
American Indian/Alaska Native	0.8	1.2	1.1
Asian	3.0	4.9	7.1
Some other race	1.2	0.3	0.0
Two or more races	2.9	3.6	3.4
Hispanic or Latino	2.6	7.3	7.2

Source: Census.gov and 2011-2015 American Community Survey

Household Type

Over the past decade, the most notable household changes in Fridley are there are less married couple households and more female head of household families. Also, a majority of female households had children under the age of 18. As expected with the aging of the community, there was an increase in the percentage of single person households since the last census.

Household Trends

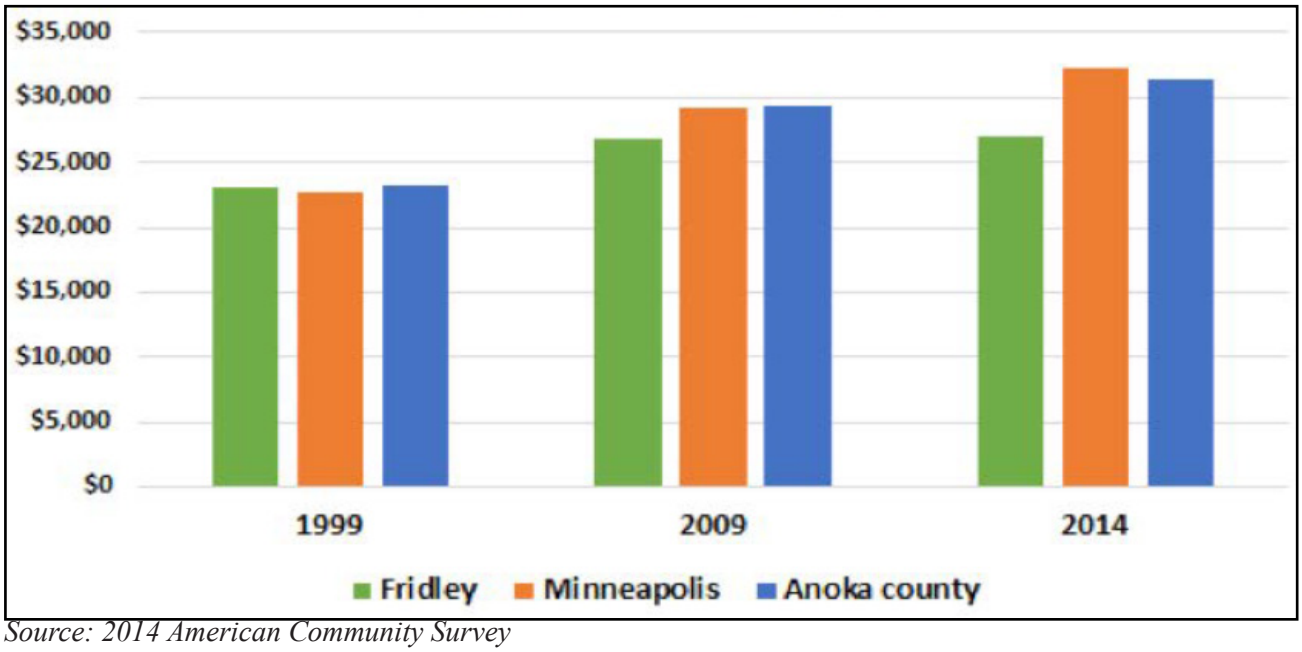
Household by Type	2000 Census	2010 Census
Family Households (families)	64.6%	63.5%
Married Couple Family	48.6%	43.4%
Female Householder	11.6%	14.1%
Non-family Households	35.4%	36.5%
Householders Living Alone	26.8%	28.8%
Total Households	**11,759**	**11,110**

Source: www.census.gov

Household Income

The 2000 Census data revealed a per Capita income in Fridley of $23,022. Current projections (2015 ACS data) show that Fridley's per capita income has increased to $27,376, but continues to be less than Anoka County and Minneapolis averages. The poverty data in 2015 also shows a 7.7% rate of poverty in Fridley, which is about the same as it was in 1999.

Per Capita Income

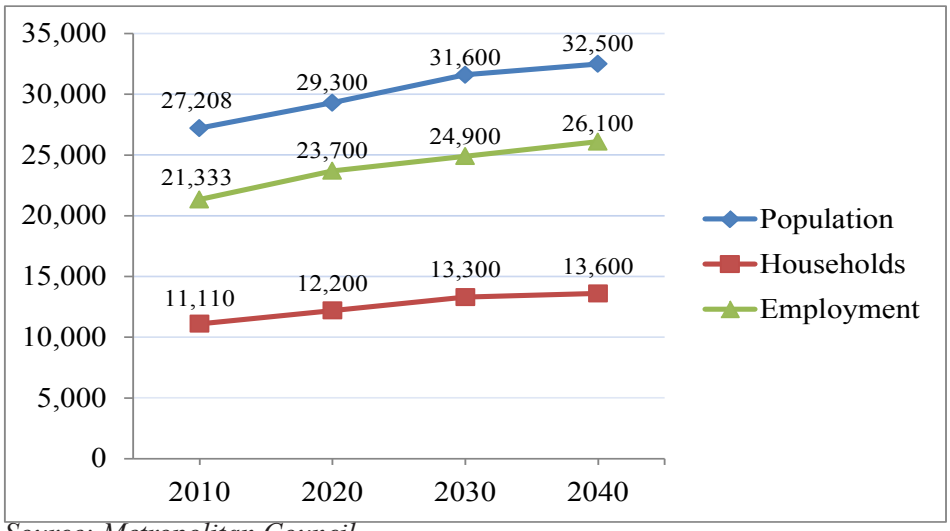


Source: 2014 American Community Survey

Projections

Due to already permitted and approved redevelopment master plans for large quantities of housing, the Metropolitan Council increased their initial forecasts for population and households. The Metropolitan Council also decreased forecasts for employment, despite increasing employment numbers. This change is likely due to the significant job loss that occurred throughout the region following the approval of the 2030 Comprehensive Plan.

30 Year Forecasts



Source: Metropolitan Council

Summary

There are three main projections that are the basis for this plan:

1. Fridley's population is expected to grow significantly in the next 30 years, surpassing the level it was at in the 1980's.
2. The number of jobs is expected to increase significantly in the next 30 years, offering Fridley residents even more opportunity to live and work in the same community.
3. Fridley's population is expected to become more diverse. The availability of affordable housing options, an abundance of employment opportunities, and access to mass transit from about any neighborhood in Fridley makes the City an attractive community for immigrants to settle in.

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Land Use


FRIDLEY POLICE DEPARTMENT
FRIDLEY CITY HALL
FRIDLEY LIQUOR
ORIGINAL MATTRESS FACTORY
MetroTransit
502
550 Osborne Road
MERCY HOSPITAL

Land Use

1.0 Urban Designation

Fridley is designated by the Metropolitan Council as an Urban community. Many Urban communities developed during the economic prosperity between the end of World War II and the economic recession of 1973-1975. This description fits Fridley which, like many urban communities, experienced rapid development to house the growing families of the Baby Boom era. Urban communities also experienced considerable growth and development along highways with development dominated by the influence of the automobile.

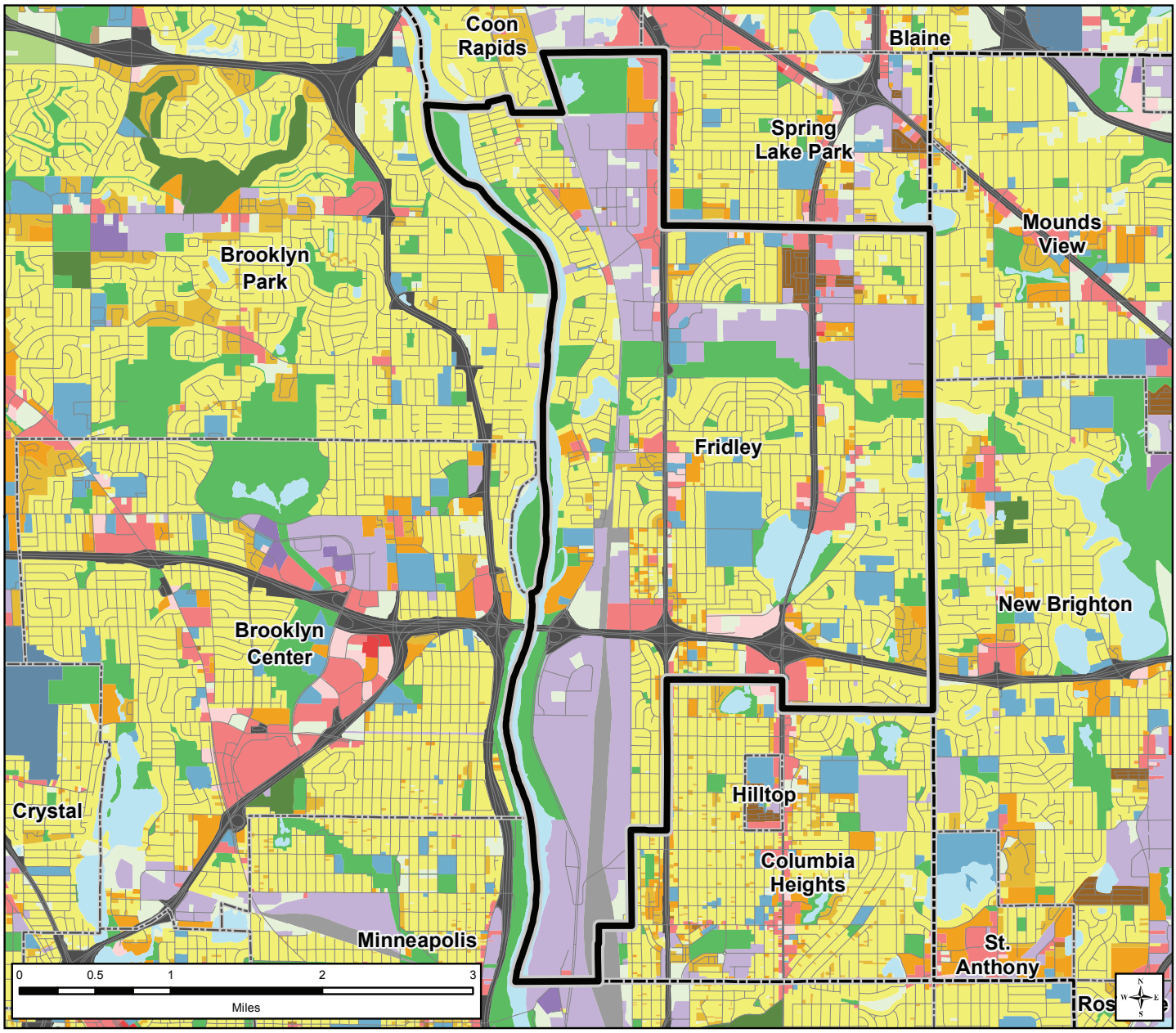
The Metropolitan Council's role in planning for orderly and efficient land use in Urban communities is to:

- Maintain and improve regional infrastructure to support adaptive reuse, infill development, and redevelopment.
- Support local planning and implementation efforts to target growth in and around regional transit, as articulated in the *2040 Transportation Policy Plan.*
- Coordinate regional infrastructure and program funding with other efforts designed to mitigate Areas of Concentrated Poverty and Racially Concentrated Areas of Poverty, and better connect the residents of these areas with opportunity. Provide technical assistance to communities undertaking planning efforts around regional transit stations and other regional investments.
- Partner with local communities to improve land use patterns to reduce the generation of carbon emissions.

The City's role in planning for orderly and efficient land use in our Urban community is to:

- Plan for forecasted population and household growth at average densities of at least 10 units per acre for new development and redevelopment. 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 transit and are in proximity of 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, including those needed for future growth and to implement the City's Comprehensive Plan.
- Recognize opportunities for urban agriculture and small-scale food production.

Figure 1.1 Generalized Land Use Map



2010 Generalized Land Use

- Farmstead
- Seasonal/Vacation
- Single Family Detached
- Manufactured Housing Park
- Single Family Attached
- Multifamily
- Retail and Other Commercial
- Office
- Mixed Use Residential
- Mixed Use Industrial
- Mixed Use Commercial and Other
- Industrial and Utility
- Extractive
- Institutional
- Park, Recreational or Preserve
- Golf Course
- Major Highway
- Railway
- Airport
- Agricultural
- Undeveloped
- Water
- County Boundaries
- City and Township Boundaries
- NCompass Street Centerlines

Source: Metropolitan Council

1.1 Existing Land Use

The Generalized Land Use map shows that Fridley's industrial areas developed along the two railroad lines that are still operating in the City. Commercial development occurred along Highways 47 and 65, with a small amount of commercial development along East River Road and Central Avenue.

Figure 1.2 Generalized Land Use

Land Use	Acres	Percentage
Single Family Detached	2,467	36%
Industrial and Utility	1,403	20%
Park, Recreational, or Preserve	694	10%
Open Water	454	7%
Institutional	345	5%
Major Highway	329	5%
Retail and Other Commercial	317	5%
Multifamily	223	3%
Railway	201	3%
Undeveloped Land	199	3%
Single Family Attached	165	2%
Manufactured Housing Park	75	1%
Office	46	1%
Mixed Use Residential	2	0%
Mixed Use Commercial and Other	1	0%
Total	**6,921**	**100%***

Source: Metropolitan Council

**Due to rounding the percentages may not equal 100%*

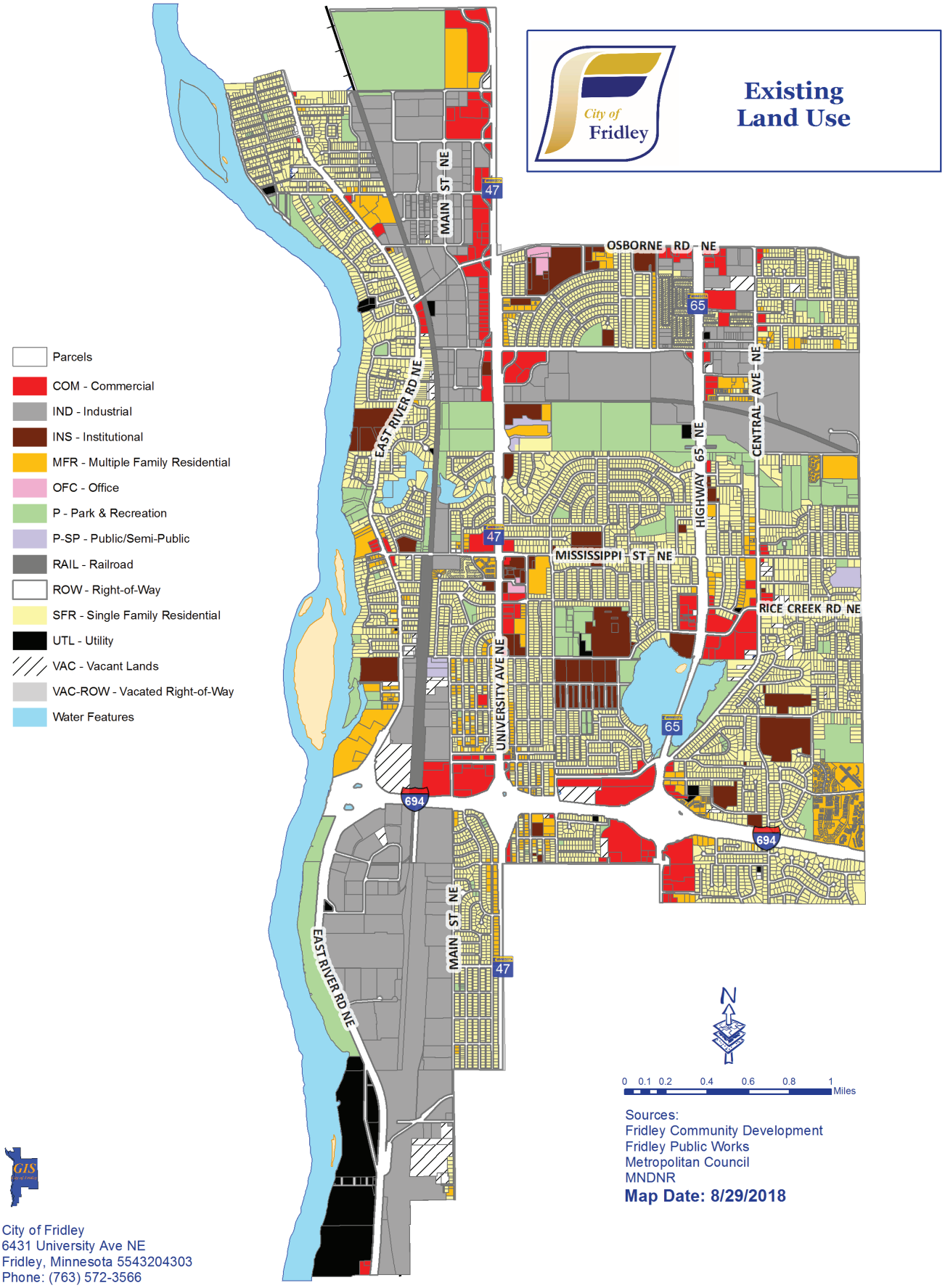
The existing land use categories have been updated to separate *public*, *institutional*, and *utility* uses, which were all previously classified as *public* on the City's Existing Land Use map.

Figure 1.3 Existing Land Use

Existing Land Use	Acres	Percentage
Single Family Residential	1981.9	29.9%
Right of Way	1292.7	19.6%
Industrial	1256.0	19.0%
Parks	602.3	9.1%
Commercial	357.2	5.4%
Multi-family Residential	333.7	5.0%
Institutional	258.2	3.9%
Water Features	159.9	2.4%
Utilities	149.1	2.3%
Vacant Land	108.6	1.6%
Railroad	92.8	1.4%
Public/Semi-public	15.0	0.2%
Office	9.7	0.1%
Vacated Right of Way	1.6	0.0%
Total	**6620.7**	**100.0%**

Source: City of Fridley

Figure 1.4


City of Fridley
Existing Land Use
Parcels
COM - Commercial
IND - Industrial
INS - Institutional
MFR - Multiple Family Residential
OFC - Office
P - Park & Recreation
P-SP - Public/Semi-Public
RAIL - Railroad
ROW - Right-of-Way
SFR - Single Family Residential
UTL - Utility
VAC - Vacant Lands
VAC-ROW - Vacated Right-of-Way
Water Features
MAIN ST NE
OSBORNE RD NE
EAST RIVER RD NE
CENTRAL AVE NE
HIGHWAY 65 NE
MISSISSIPPI ST NE
RICE CREEK RD NE
UNIVERSITY AVE NE
47
65
694
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Community Development
Fridley Public Works
Metropolitan Council
MNDNR
Map Date: 8/29/2018
GIS
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

1.2 Future Land Use

The intent of the future land use map is to help guide future growth in a way that best achieves the community's collective vision.

Figure 1.5 Future Land Use Definitions

Designation	Definition
Single Family Residential	Lots or parcels containing single family detached housing, including manufactured homes, up to 4 units/acre.
Multi-Family Residential	Lots or parcels containing multiple dwelling units, such as duplexes, twin homes, townhomes, quad homes, and apartment complexes, from 9-40.5 units/acre.
Mixed Residential	An area or neighborhood with two or more housing types, from 24-35 units/acre.
Office	Professional offices, including administrative and medical clinics.
Commercial	Lots or parcels containing retail sales, services, offices, restaurants, and uses that are generally privately owned and operated for profit.
Industrial	Lots or parcels that contain manufacturing or processing of products, warehousing or storage of material and equipment.
Mixed Use (Commercial/Industrial)	An area or neighborhood with a combination of commercial and industrial type uses.
Mixed Use	An area or parcel of land where there is integration of a variety of uses, including residential, office, commercial, institutional.
Institutional	Lots or parcels for primarily public uses such as religious, government and healthcare facilities and schools with associated playfields and playgrounds.
Public/Semi-Public	Lots owned by a government entity for a public purpose.
Park and Recreation	Land that is primarily for public active or passive recreation
Railway	Land uses for public or private freight or passenger rail activities.
Right-of-Way	Public or private vehicular or transit right-of-ways.
Utility	Public or private land used for public or private utilities
Open Water	Any public waters of the State as defined by State Statute, including lakes, rivers, or other public waters.

Source: City of Fridley

Figure 1.6 Future Land Use

Future Land Use	Acres	Percentage
Single Family Residential	1952.2	29.5%
Industrial	1311.7	19.8%
Right of Way	1300.2	19.6%
Park and Recreation	583.9	8.8%
Multi-Family Residential	374.3	5.7%
Commercial	340.0	5.1%
Institutional	238.1	3.6%
Open Water	168.5	2.5%
Utility	155.5	2.3%
Railway	87.2	1.3%
Mixed Residential	47.1	0.7%
Mixed Use	21.6	0.3%
Mixed Use (Commercial/Industrial)	17.2	0.3%
Public/Semi-Public	13.0	0.2%
Office	10.1	0.2%
Total	**6620.6**	**100.0%**

Source: City of Fridley

Figure 1.7

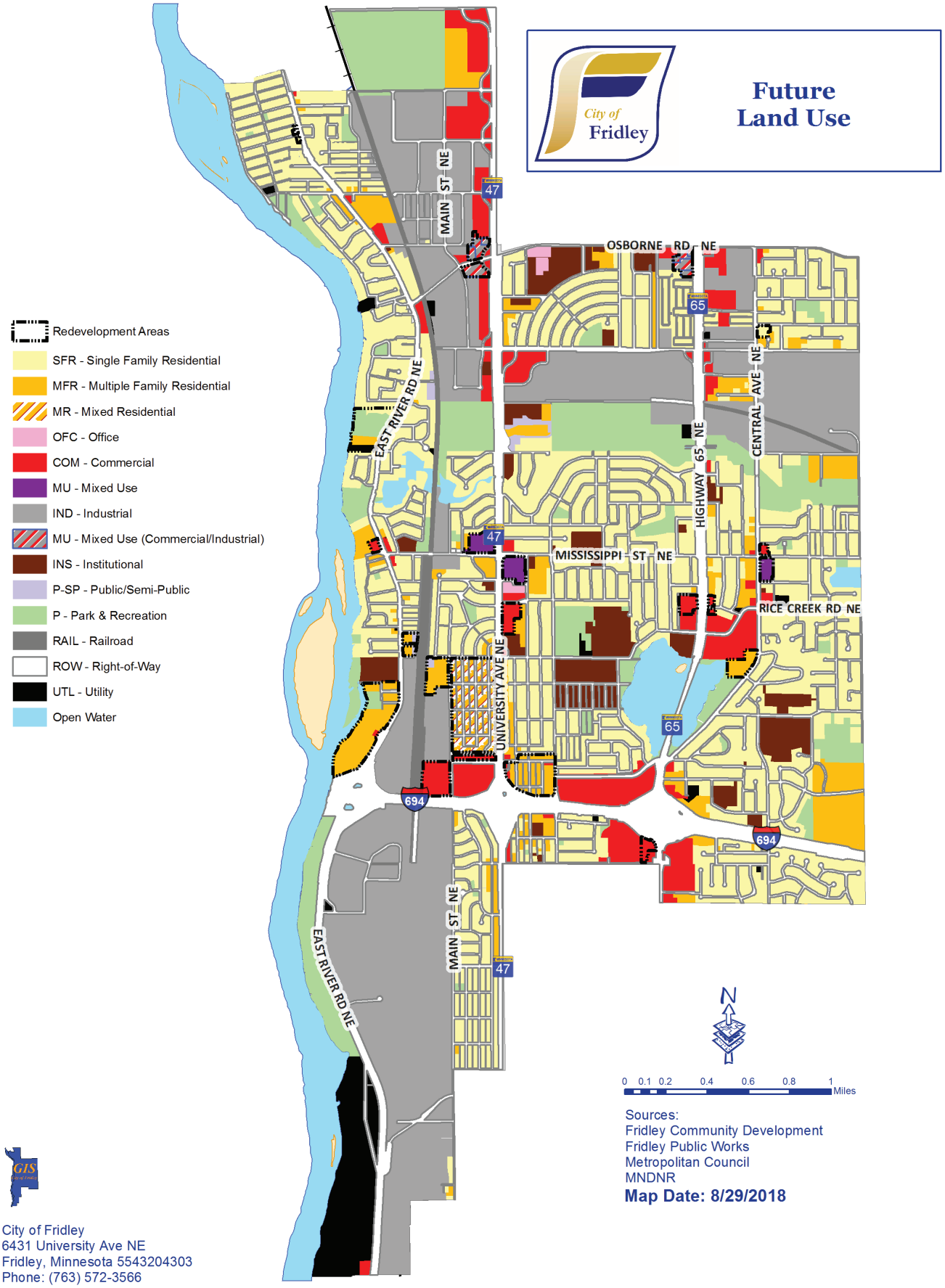
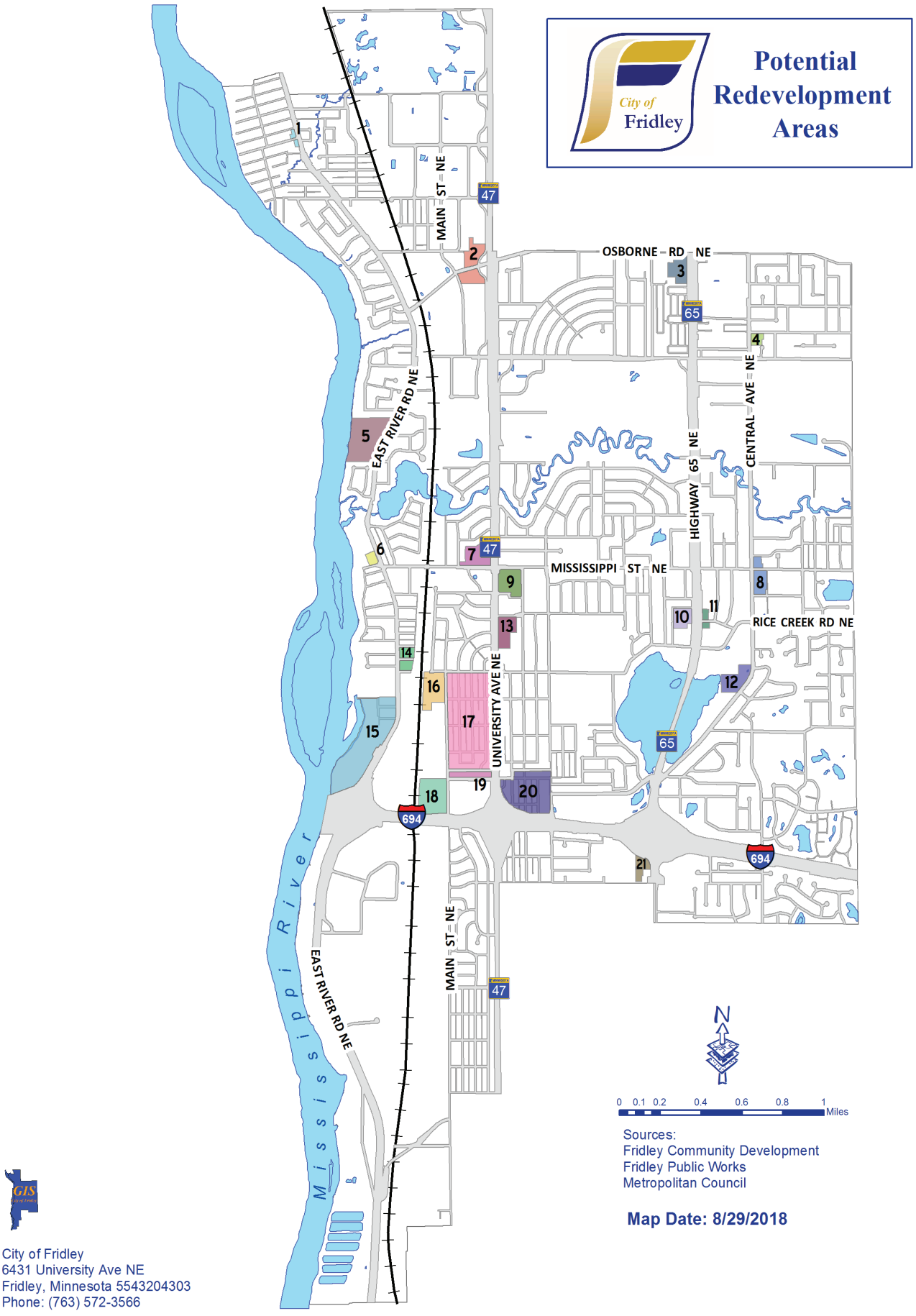

City of Fridley
Future Land Use
Redevelopment Areas
SFR - Single Family Residential
MFR - Multiple Family Residential
MR - Mixed Residential
OFC - Office
COM - Commercial
MU - Mixed Use
IND - Industrial
MU - Mixed Use (Commercial/Industrial)
INS - Institutional
P-SP - Public/Semi-Public
P - Park & Recreation
RAIL - Railroad
ROW - Right-of-Way
UTL - Utility
Open Water
MAIN ST NE
OSBORNE RD NE
EAST RIVER RD NE
CENTRAL AVE NE
HIGHWAY 65 NE
MISSISSIPPI ST NE
RICE CREEK RD NE
UNIVERSITY AVE NE
47
65
694
N
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Community Development
Fridley Public Works
Metropolitan Council
MNDNR
Map Date: 8/29/2018
GIS
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

Figure 1.8



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Phone: (763) 572-3566

1.3 Potential Redevelopment Areas

Redevelopment is a form of community revitalization that transforms undesirable elements of a site into desirable elements that reflect the community's vision. Taking into consideration the redevelopment that has occurred since the 2030 Comprehensive Plan, existing land use patterns, feedback received through a community survey, and staff recommendations; staff identified 22 potential redevelopment areas within Fridley. The description of each potential redevelopment area is listed below and enumerated to match the numbers on the map shown as Figure 1.8.

1. West Intersection of East River Road and Fairmont Street

This location is comprised of three small commercial lots north of Fairmont Street, and a vacant commercially zoned lot, south of Fairmont Street. In 2012, Fridley, Coon Rapids and Anoka County completed a study of East River Road to identify concepts for improving safety and mobility. This study also considered improvements to enhance the corridors appearance and economic vitality. East River Road has many access points throughout the corridor and the study evaluated each street that could end in a cul-de-sac to reduce access points to East River Road. This study identified that the south end of Fairmont Circle and Fairmont Street are too closely spaced, resulting in multiple entry points in a short distance. This poses potential conflicts and safety concerns. One solution is to realign Fairmont Street to the south to align with the south end of Fairmont Circle in order to create a four-way intersection. This street realignment would require approximately 9,000-12,000 sq. ft., which would leave a piece of land south of Fairmont, that could be redeveloped with a single family home, while the northern lots could continue to be used for local commercial uses. While the commercial space left in this area is small for C-1 zoning, this neighborhood is in need of access to food, so staff found it important to preserve commercial zoning on this corner to allow for potential future redevelopment.

2. Osborne Road and University Avenue Intersection

This intersection was identified as a potential redevelopment area in the 2030 Comprehensive Plan. It has been selected by the City's Police Department as one of the most accident prone intersections in Fridley. It is located in the midst of a busy retail area and the Service Road access is too close to the Highway 47 intersection. In addition to the traffic safety issues, some of the structures in this 11 acre site need to be redeveloped. These buildings include the old Kennedy Transmission building at 7700 University Avenue, the former Lyndale Garden Center site at 7616 Osborne Road, which is now part of Bob's Produce, and the Mike's Discount Food/Tried and True Tool building at 7550 University Avenue. These buildings look outdated, have too much parking and are inadequately landscaped. There are many industrial uses west and south of 7550 University Avenue, so staff envision this area being a mix of both industrial and commercial users.

3. Southwest Intersection of Osborne Road and Hwy 65

This potential redevelopment area is a simplified version of what was in the 2030 Comprehensive Plan. Many of the properties that were in the redevelopment area last time have since redeveloped or have become thriving businesses that no longer need to be considered for redevelopment. The properties that remain in the potential redevelopment area are in the southwest intersection of Osborne Road and Highway 65, which is the entrance into Fridley from the north. The buildings included in this area are the VFW at 1040 Osborne Road, the Fridley Minnoco Service Station at 7680 Hwy 65, the property owned by BDA Associates at 7600 Highway 65, which when built was a Lambert Lumber Yard, and Sam's Auto World at 7570 Hwy 65. Considering this location is the gateway to Fridley from the north, a more modern mix of commercial and industrial buildings and uses could bring life back to the existing buildings and properties. Building conditions and overall site conditions are a problem in this area Lack of stormwater management, landscaping, curb appeal, and difficult access could all be addressed with redevelopment of these properties.

4. 7345 and 7365 Central Avenue and 1360 Onondaga Street

This potential redevelopment area consists of three lots with a mixed zoning of C-1, Local Business and C-2, General Business. It is approximately two acres and is currently being used for the American Legion, and a single family home. The 7345 Central property is an underutilized, large, old farmstead lot. Both lots could be subdivided into additional single family homes. This would blend with surrounding duplexes and single family homes.

5. Girl Scout Camp on East River Road

The property at 6900 East River Road has been owned and operated by the Girl Scouts Council of Minneapolis since the 1960s. In April of 2016, they sold the 22 acre property to the Metropolitan Council for access to a recently reconstructed sewer line on the southern border of the site and possible future construction of service buildings. It is unknown at this time how much of the property the Metropolitan Council wants to retain for their utility service access needs. The north part of the site provides an opportunity for development. However, according to the 2013 National Wetland Inventory approximately half of the northern two-thirds of the site is wetland.

The Future Land Use map guides the rest of the land area as mixed use residential. The vision is for the construction of new single family homes along the north side of the wetland, to blend with the single family homes that already exist to the north and a multi-family development on the south end of the wetland. Incorporating a public walkway around the wetland with a boardwalk and other trail features would provide a nice amenity to this development. Providing this would likely involve obtaining easements from the neighborhoods to the north and south to connect

the trails. Staff would recommend enlisting the Twin Cities LISC's Corridor Development Initiative (CDI) to facilitate a series of community workshops to identify development guidelines for this property, as the City has done with other large redevelopment projects within the City. (Ex. Cielo Apartments and Columbia Arena)

6. West Corner of Mississippi Way and East River Road

This potential redevelopment area includes three small commercial lots currently occupied by Perfect 10 Carwash, a 2-3 tenant strip mall, and a small mini-golf area that has been abandoned. It is 1.75 acres and is currently zoned C-1, Local Business. The existing zoning is aligned with a potential new user. The best re-use of these parcels would be to take these underutilized parcels and combine them for a single user that could provide a convenience and possibly a fresh food opportunity considering the largely populated residential area surrounding these parcels.

7. Holly Center and (2) Properties to the West

Holly Center, located at 6530 University Avenue, was originally constructed in 1957 and has approximately 9 acres of land. This property was also included as a potential redevelopment area in the last Comprehensive Plan update. Staff continue to hear from Fridley Citizens that something needs to be done with this property. Updates are needed to the structure and façade. There is also an overabundance of parking, which is now informally being used as a park and ride site. Two additional parcels addressed as 201 and 203 Mississippi Street have been added to the redevelopment area because they are small commercial buildings located on parcels zoned R-3, Multi-Family. Both lots are non-conforming to lot size, so in the event that redevelopment of the Holly Center occurs, these two lots should also be considered. In 2016, University of Minnesota students completed a Transportation Study for the City and identified this area as having a high potential for redevelopment into a mixed-use development with upper level housing and first floor retail.

8. East Intersection of Mississippi Street and Central Avenue

The Future Land Use map continues to guide the northern portion of this intersection for commercial type uses. Focus should be given to similar type uses, like gas, convenience, barber, and dog groomer, but other convenience uses could be added to provide fresh food, a coffee shop, or fast food. The southern portion of the intersection is zoned S-2, Redevelopment District and has received approval to have a mixed use building constructed on it with small elements of commercial on the ground floor and residential above. That concept would align with the vision in the Future Land Use map.

9. Existing City Hall Campus Area

With the construction of the new Civic Campus on what was the Columbia Arena property, the current City Hall campus will be available for redevelopment. This area is approximately 9 acres and is zoned S-2, Redevelopment District. The Future Land Use of this area remains largely commercial/medical use, with the potential of housing, senior, or assisted living options. Of those 9 acres, it is anticipated that no more than 3 acres would be used for any type of housing.

10. Banquets of Minnesota, Vacant Lot (Sinclair) and Daycare

This area is approximately 5.3 acres and includes the Banquets of Minnesota building (originally a bowling alley), a building that is currently a daycare, and two vacant lots, one of which had a Sinclair Service station on it years ago. The Future Land Use map continues to designate this area as commercial. Banquets of Minnesota did a major exterior and interior remodel of the building when they purchased the property, which has improved the image of this property. However, the overall area could use some new landscaping and stormwater treatment amenities. There are also improvements that could be made to the daycare building, and construction of a new commercial building could also improve this area.

11. City Liquor Store and (3) Commercial Properties to the North

This redevelopment area is occupied by a City Liquor Store and three other underutilized commercial businesses to the north. This Liquor Store location hasn't been as profitable for the City, so the City is exploring obtaining another location to operate a City Liquor Store. It is anticipated that the Liquor Store parcel should be guided commercial; however, the lots to the north may function better as either a mixed use or as multi-family housing.

12. Residential Lots East of Moore Lake along Central

There are six large single family lots along the northeast edge of Moore Lake. The City owns three of the lots and the other three are privately owned. The total lot area is approximately 7.5 acres. Considering the City owns a portion of this land, if the area is considered for redevelopment in the future, a multi-family complex overlooking the lake should be considered. This area should be accessible to all the commercial retail and restaurants along East Moore Lake Drive.

13. Moon Plaza and Commercial Lots to the North

The Moon Plaza strip mall was constructed in the 1960s and was guided for commercial redevelopment in the last Comprehensive Plan update. The strip mall building is outdated and could use a face lift. The property is over-parked for the type of retail businesses that occupy the building. It also struggles with poor access issues, making it difficult for retail businesses to survive. Also included in this redevelopment area are three parcels to the north. One is occupied by the Alano Society, and the other is a small single story office building. The lot to the east is primarily vacant with a ¼ of the lot used for utility purposes. Office commercial uses should be considered in the redevelopment of this area.

14. West Train Station

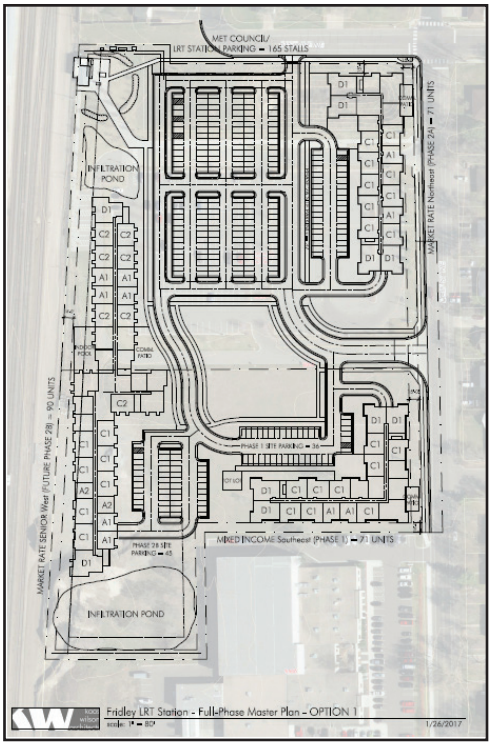
The Northstar Commuter Rail Line makes a stop in Fridley. The station provides public parking for riders on both the west and the east side of the tracks. A Transit Oriented Development (TOD), Tax Increment Financing (TIF) Master Plan was approved by the City Council in December 2014. (see Appendix 2) Within this plan, the west side of the location is being guided for medium density residential, with a townhome style development. The north side is being utilized for stormwater ponds and the east side, closest to the tracks will be designated for parking for the commuter rail users.

15. Georgetown Apartments and Apartments to the North

This redevelopment area will continue to be guided as multi-family. The Georgetown Apartments are generally in good condition; however the apartments to the north are in poor shape and need to be updated. This area has been on the City's radar for years to consider for redevelopment, which is one of the reasons that the HRA purchased the property at 6000 East River Road when it was for sale. Islands of Peace Park, along the river, is situated behind the apartment buildings. Increased visibility of the Park from East River Road is a component of the North Star TOD Master Plan. This would encourage more use of this hidden park. Multi-family housing will be situated around the park, along with the construction of new parkways.

16. East Train Station

The East Northstar Train Station redevelopment area is owned by the City's HRA and has a lease with Metro Transit to provide 337 parking stalls for Northstar train riders. The site is 11 acres and is currently over-parked and underutilized. The HRA staff have been in contact with Metro Transit to consider reducing the amount of parking stalls required for this transit stop. The HRA is working with a local developer to construct approximately 232 units of multi-family housing on the site in a phased development. Each building will provide for underground parking and surface parking to meet the demands of the tenants. A portion of the property will remain as parking for transit users, but staff believe that the required number can be decreased based on current demand needs and the ability to share parking areas with the new development. Shared parking would allow the Northstar riders to park during the day and visitors of the apartments to park during the evening and weekend.



17. Hyde Park Neighborhood

The Hyde Park Neighborhood consists of a mixture of single family housing and multi-family housing along with one commercial user. The City continues to guide this neighborhood for Mixed Residential. Mixed Residential can consist of a variety of residential types, including single family, medium density residential and high density residential. With its close proximity to both train and bus transit and the commercial retail users to the south, including a grocery store, this neighborhood offers the feasibility to live without a car. This neighborhood also provides a mixture of affordable housing types. However, due to the age of many of the buildings within this neighborhood, there is an opportunity for re-investment and redevelopment.

18. Home Depot/Goodwill

The property at 5650 and 5660 Main Street is occupied by a Home Depot and a Goodwill store. Both are successful businesses and contribute to the retail hub of this area. However, the overall property is underutilized and over-parked. City code standards have changed related to retail parking requirements, so the parking area could be reconfigured and reduced. The Northstar TOD Master Plan, approved in 2014, shows the addition of two commercial outlots along Main Street. The community continues to ask for more restaurant options, so these outlots could provide that amenity.

19. Commercial Strip Between 57th Place and 57th Avenue

This single block provides a buffer between the residential development to the north and the commercial area to the south. Redevelopment of this area should stay commercial; however, better pedestrian access and connections could be made between the Hyde Park neighborhood and the retail businesses. This area should be guided for commercial use.

20. Neighborhood South of 57th Avenue and East of University Avenue

The City is still interested in pursuing the City View Corridor Master Plan that was highlighted in the previous Comprehensive Plan update. This plan would make Medtronic Parkway a continuous roadway from Hwy 65 to Main Street and potentially East River Road. It would provide another much needed east-west connection in the City and connect 4,000 employees to what is the City's largest retail area.

The residential area that would need to be redeveloped to accommodate the new parkway is currently zoned single and multi-family housing. While this area could support some mixed use, it would support less commercial than previously thought ten years ago due to new commercial development along 57th Avenue, west of University Avenue.

21. Pawn America and Two Lots South

This redevelopment area was highlighted in the last Comprehensive Plan update; however, one of the properties highlighted ten years ago has been redeveloped. What was an old and outdated gas station site, at 5300 Central Avenue, is now a new multi-tenant commercial/retail building that is home to a Starbucks, an AT&T store and a restaurant. The parcels that continue to be in the redevelopment area consist of a restaurant, a vacant parcel (former car wash), and a multi-tenant building, with Pawn America as its main anchor. The properties were at one time part of the Target property and as a result, remain in a C-3, General Shopping Zoning District, which makes it difficult to allow for redevelopment, as they do not meet minimum lot requirements. These properties also have poor access. Future redevelopment should involve a rezoning to C-2, General Business, which will provide performance standards that will make redevelopment feasible. The retaining wall design and stormwater drainage issues need to be resolved, as well. This will be easier to do once the vacant site (former car wash) is redeveloped.

Redevelopment areas #5 and #15, which are on the Mississippi River, could provide natural habitat for wildlife, including rare species, according to DNR mapping. The City will look to the corresponding watershed districts and the DNR for guidance when reviewing development proposals for these two areas.

Figure 1.9 Redevelopment Area Potential Land Use Changes

Redevelopment Area	Existing Land Use by Acres	Potential Future Land Use by Acres	Net Change in Land Use
1.West Intersection of East River Road and Fairmont Street	0.56 Commercial 0.42 Vacant	0.20 Right-of-Way Alignment 0.22 SF Residential 0.56 Commercial	+0.20 ROW +0.22 SF Residential -0.42 Vacant
2. Osborne Road and University Ave. Intersection	10 Commercial	10 Commercial/ Industrial Mixed use	+10 C/I Mixed Use -10 Commercial
3. Southwest Intersection of Osborne Road and Hwy 65	2.96 Commercial 4.11 Industrial	7.04 Commercial/ Industrial Mixed use	+7.04 C/I Mixed Use -2.96 Commercial -4.11 Industrial
4. 7345 and 7365 Central Ave. and 1360 Onondaga Street	1.11 Commercial 0.97 SF Residential	2.08 SF Residential	- 1.11 Commercial +1.11 SF Residential
5. Girl Scout Camp on East River Road	22.00 Institution	2.66 SF Residential 13.20 Park & Recreation 3.70 MF Residential 2.50 Utility	+2.66 SF Residential +13.20 Park & Recreation +3.70 MF Residential +2.50 Utility -22.00 Institution
6. West Corner of Mississippi Way and East River Road	1.75 Commercial	1.75 Commercial	No change
7. Holly Center and (2) Properties to the West	8.20 Commercial	8.20 Mixed Use	+8.20 Mixed Use
8. East Intersection of Mississippi St. and Central Ave.	1.63 Commercial 1.87 SF Residential 2.43 Vacant	Mixed Use 1.77 Commercial 4.16 MF Residential	+0.14 Commercial +4.16 MF Residential -1.87 SF Residential -2.43 Vacant
9. Existing City Hall Campus	7.86 Institution 0.68 Commercial 0.46 Office	Mixed Use 6.00 Commercial 3.00 MF Residential	-7.86 Institution +4.86 Commercial +3.00 MF Residential
10. Banquets of MN, Vacant Lot and Daycare	5.33 Commercial	5.33 Commercial	No change
11. City Liquor Store on Hwy 65 and (3) Properties North	1.54 Commercial	0.62 Commercial 0.92 MF Residential	-0.92 Commercial +0.92 MF Residential
12. Residential Lots North of Moore Lake along Central Ave.	7.50 SF Residential	7.50 MF Residential	-7.50 SF Residential +7.50 MF Residential
13. Moon Plaza and Commercial Lots to the North	6.90 Commercial	6.90 Commercial	No change
14.West Train Station	3.51 Public/Semi-Public 1.21 SF Residential	1.38 Public/Semi-Public 3.34 MF Residential	-2.13 Public/Semi-Public -1.21 SF Residential +3.34 MF Residential
15. Georgetown Apts. and Apts. to the North	39.00 MF Residential 13.60 Park & Recreation	35.55 MF Residential 0.45 Commercial 13.60 Park & Recreation	-0.45 MF Residential +0.45 Commercial

16. East Train Station	6.15 Public/Semi-Public 4.50 Vacant	1.11 Public/Semi-Public 9.54 MF Residential	-5.04 Public/Semi-Public -4.50 Vacant +9.54 MF Residential
17. Hyde Park Neighborhood	63 Mixed Residential	63 Mixed Residential	No change
18. Home Depot/Goodwill	14.45 Commercial	14.45 Commercial	No change
19. Commercial strip between 57th Ave and 57th Place	3.59 Commercial	3.59 Commercial	No change
20. Neighborhood South of 57th Ave and East of University Ave	0.84 Commercial 24.50 Mixed Residential	1.29 Commercial 24.05 Mixed Residential	+0.45 Commercial -0.45 Mixed Residential
21. Pawn America and (2) Lots South	3.52 Commercial	3.52 Commercial	No change

Net Change

+0.20 ROW
-6.59 SF Residential
-7.35 Vacant
+17.04 C/I Mixed Use

-8.63 Commercial
-4.11 Industrial
+13.20 Park & Recreation
+31.71 MF Residential
+2.50 Utility

-29.86 Institution
+8.20 Mixed Use
-7.17 Public/Semi-Public
-0.45 Mixed Residential

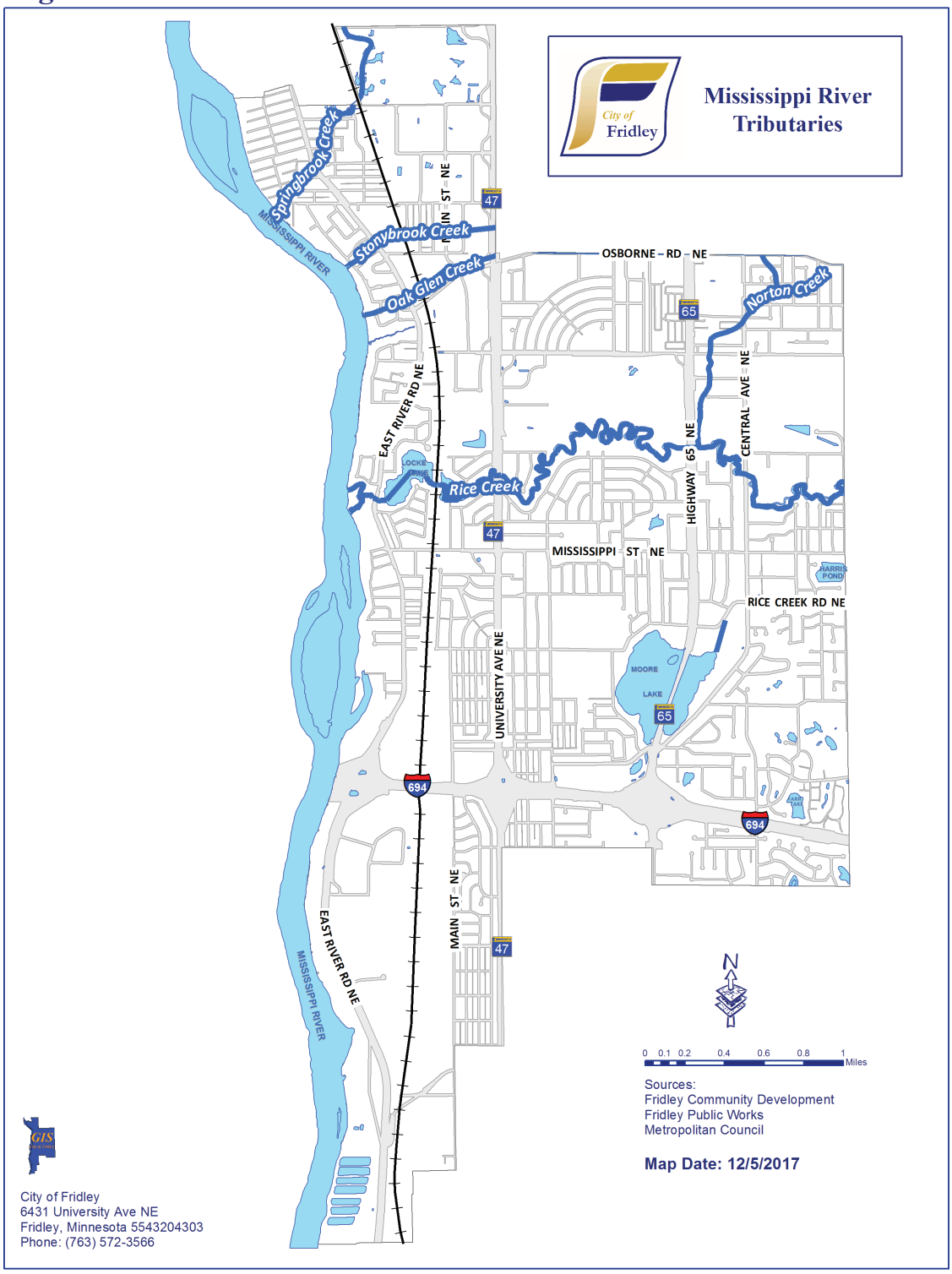
1.4 Natural Resources

The Mississippi River is the City of Fridley's greatest natural resource, and it is well protected by City Code. There are three overlay zoning districts that provide protections for the River:

1. Floodplain Management Overlay District
2. Critical Area Overlay District
3. Shoreland Overlay District

The City also has five tributary streams that drain into the Mississippi River: Rice Creek, Norton Creek, Stonybrook Creek, Springbrook Creek, and Oak Glen Creek.

Figure 1.10



There are two lakes in Fridley that are classified as recreational development lakes by the DNR and are protected waterways. Fridley has three general development lakes: Locke Lake, Harris Pond, and Farr Lake. They are also classified as protected waterways, as well as the ponds in Springbrook Nature Center, which are classified by the DNR as natural environment lakes.

The City also has a wetland overlay zoning district, which was adopted following a 1993 wetland inventory. The wetland inventory was in response to the Wetland Conservation Act, adopted in 1991. To date, the City continues to use the 1993 wetland inventory as its guide. When development is proposed near any of these areas, the developer is asked to conduct a wetland delineation.

Mississippi River

Urban Forest

Fridley's urban forest is important for many reasons:

- Increased property values
- Wildlife habitat
- Recreation
- Shading/cooling
- Air quality
- Stormwater interception

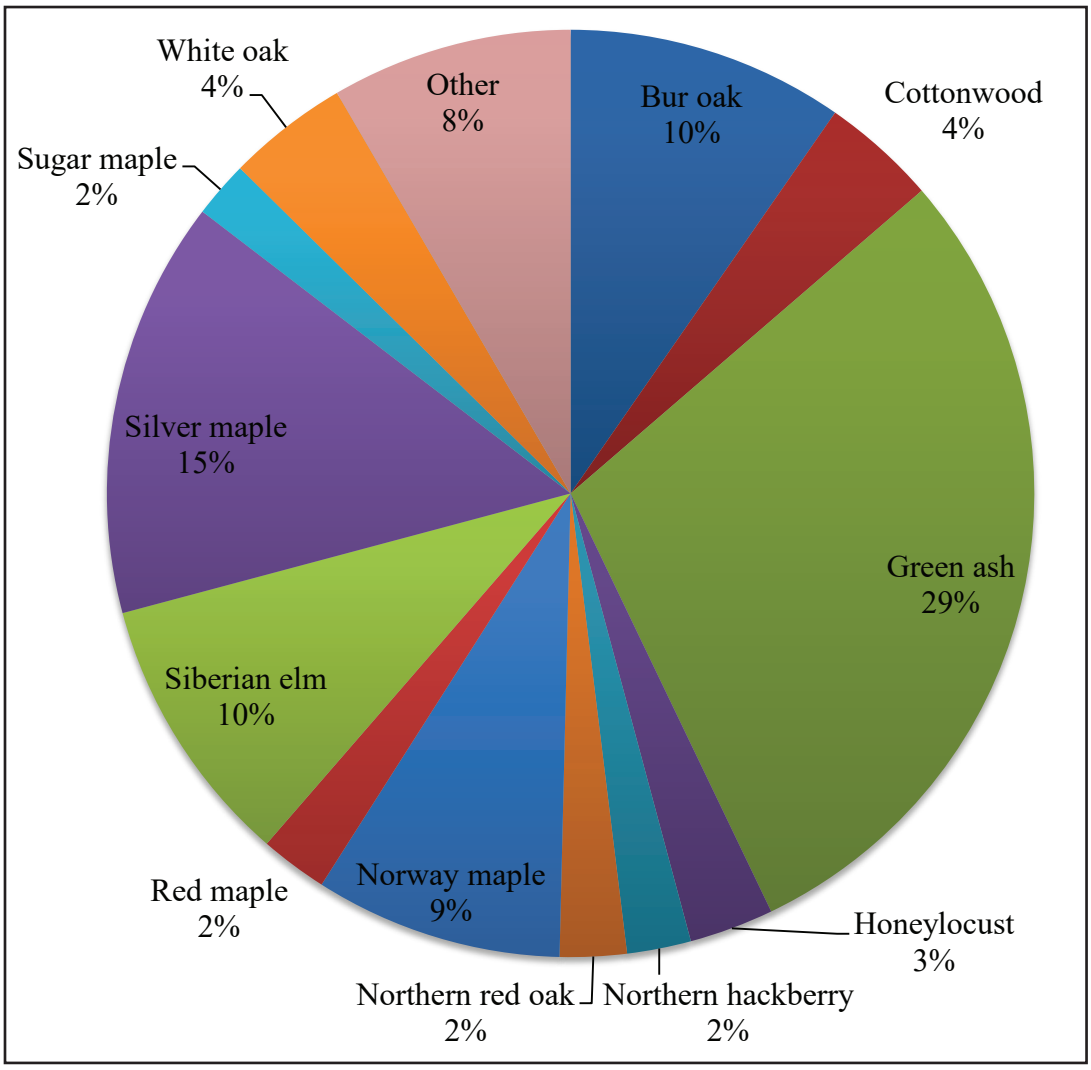
Erika Van Krevelen training a group of Medtronic volunteers in the rain

Therefore, Fridley has stringent landscaping requirements related to installation of trees in the Zoning Code. One area lacking in the Zoning Code landscaping requirements is single family residential zoning, where no trees are required. While very few new homes are constructed annually in Fridley, many newly constructed homes are lacking trees. This is one thing that needs to be changed in the Zoning Code.

Much more attention is now being given towards tree diversity since Emerald Ash Borer (EAB) was discovered near the City of Fridley. The urban tree canopy in Fridley was reduced significantly by the loss of oaks to oak wilt and many severe storms that have passed through parts of Fridley. The potential impacts of EAB are expected to compound these losses. Concerned about this tree loss, the City began inventorying trees in public spaces in 2016 with the assistance of a Green Corps volunteer.

In 2017, the City completed the tree inventory, an Urban Forestry Study, and created an Emerald Ash Borer (EAB) Response Plan. Upon completion of the tree inventory, it was apparent that the City was going to be greatly impacted by the impending loss of ash trees as 29% of deciduous trees in public spaces were ash trees.

Figure 1.11 Large Deciduous Trees in the City of Fridley



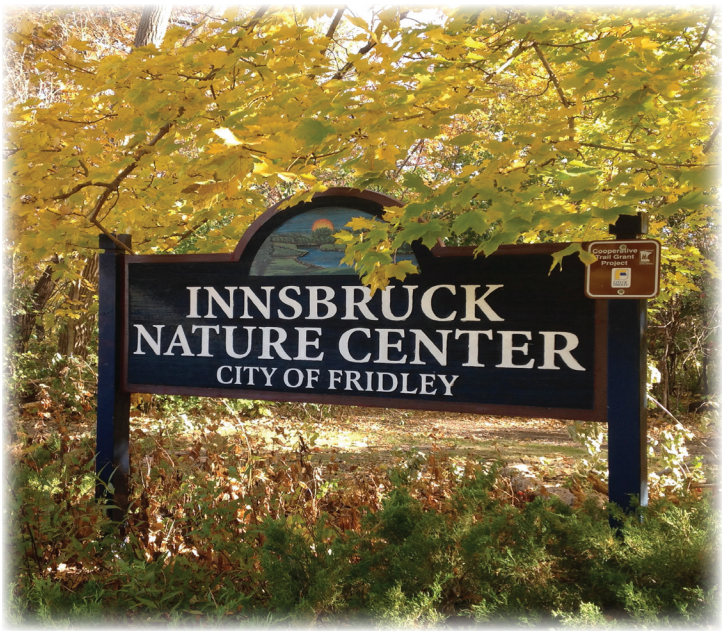
Source: City of Fridley

The City of Fridley has been pursuing grant funds for various tree planting efforts in order to increase the diversity of Fridley's urban forest. The City has been using a grant-funded gravel bed since 2016 to reduce the cost of the tree plantings.

Nature Centers

The City has two nature centers. Innsbruck Nature Center is a 24 acre nature area with open space and walking trails. There are no park buildings or staff at this location. Springbrook Nature Center is a 127 acre park which is staffed and funded by a special property tax to Fridley residents. This location is going through an extensive redevelopment and has become a showcase for nature education and outdoor recreation.

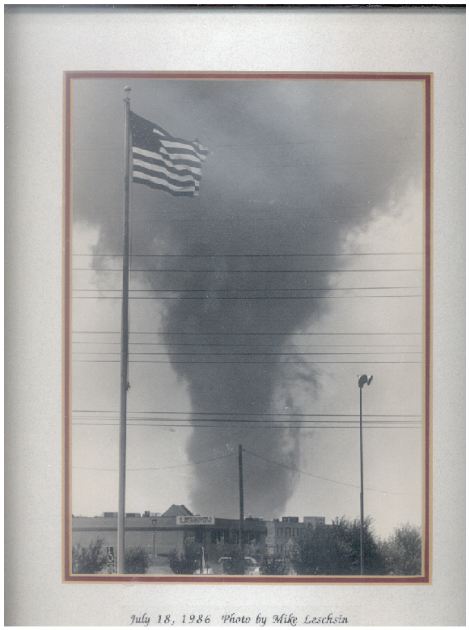
Springbrook Interpretive Center, Native Landscaping



Innsbruck Nature Center Park Sign

Historic Sites

The City only has one building that is listed in the Historic Register and that is the Banfill-Locke Center for the Arts building in Manomin Park at the confluence of Rice Creek and the Mississippi River. The park and building are under the ownership of Anoka County Parks, and the County is planning some additional restoration work on the building to begin soon.



Fridley Tornado

The Reidel Farmhouse is a historic home along the Mississippi River under the care of Anoka County Parks in Riverfront Park. While this structure is not on the Historic Registry, it is a remnant of Fridley's history. The County has renovated the home and rents it out for meetings and parties. The lawn of the Riedel House, with the backdrop of the Mississippi River, is used for many weddings.

The City is currently working with the Anoka County and Fridley Historical Societies to conduct our first Historic Home and Garden Tour on July 22, 2018. Because Fridley is known for being built up with ramblers in the 60s and 70s, and known for losing one third of its housing in 1965 to flooding and tornadoes, the event is going to focus on ramblers, and stories of people and homes that survived the tornadoes.

1.5 Resiliency

Resiliency is having the capacity to respond, adapt, and thrive under changing conditions. Consideration of vulnerabilities, and responses to those vulnerabilities, will strengthen Fridley's ability to prepare for and respond to climate impacts. Resiliency includes planning for more severe weather and prolonged heatwaves, for improved health of your residents, and planning for economic strength and diversity. Thrive MSP 2040 encourages communities to consider what needs to be done to be more resilient in the face of a changing climate. This means the City not only needs to plan for the impacts of climate change, but also consider how it can reduce the City's contribution to greenhouse gas (GHG) emissions. At the time of drafting the 2040 Comprehensive Plan, the City was developing a community-based Energy Action Plan through the Partners in Energy Program to address these issues.

Food Security

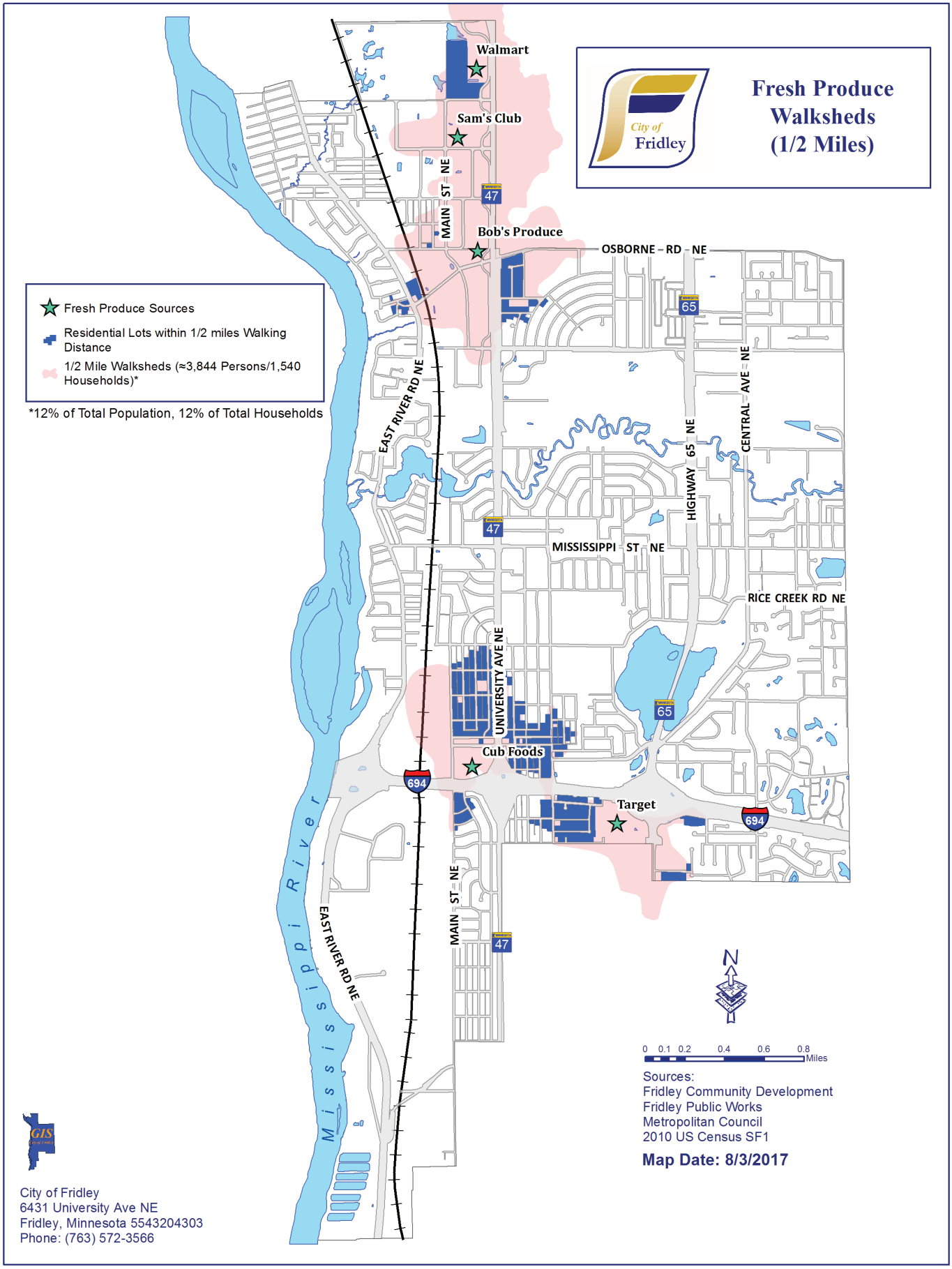
An important factor in creating stable neighborhoods is access to groceries. While most Fridley neighborhoods have reasonable walking access to a convenience store, there is limited walking access to a grocery store. (See Figure 1.12) Few residential areas in Fridley have the ability to walk to a source of fresh food within ½ mile of their home. Several parts of the City have dangerous barriers, such as railroad tracks, to cross in order to walk or bike to a grocery store. These barriers impede non-driving residents ability to obtain fresh food, especially those in walkers or wheelchairs, which makes crossing a barrier like a major highway or railroad tracks a serious public safety concern. While the City cannot force market realities that support the financial viability of a series of small grocery stores strategically placed in the community, the City can ensure that zoning is supportive of this use. For that reason, this plan guides certain redevelopment areas for community commercial zoning to make it easier for a grocery store to locate in certain food deserts in the community. In addition, the City is exploring options for more community gardens and farmers markets to increase access to fresh foods.

Landscaping

The landscaping on properties throughout the City impacts the resiliency of the community. Trees comprise the urban canopy, which offsets the urban heat island effect and improves air quality. Trees and other plants also play an important role in reducing stormwater runoff and cleaning infiltrated stormwater. Native vegetation provides a food source for pollinators which leads to increased biodiversity. The longer roots of native vegetation reduces erosion and decreases soil compaction. The type of landscaping on a property can greatly impact water usage in the City, which is at its highest in the heat of summer due to lawn irrigation. The City changed its landscaping code requirements many years ago to support native landscaping with the intent of protecting water quality and reducing water consumption.

Tree Planting at Riverview Heights Park

Figure 1.12


Fresh Produce Walksheds (1/2 Miles)
City of Fridley
Fresh Produce Sources
Residential Lots within 1/2 miles Walking Distance
1/2 Mile Walksheds (≈3,844 Persons/1,540 Households)*
*12% of Total Population, 12% of Total Households
Walmart
Sam's Club
Bob's Produce
Cub Foods
Target
OSBORNE RD NE
MISSISSIPPI ST NE
RICE CREEK RD NE
MAIN ST NE
EAST RIVER RD NE
UNIVERSITY AVE NE
CENTRAL AVE NE
HIGHWAY 65 NE
Mississippi River
47
65
694
N
0 0.1 0.2 0.4 0.6 0.8 Miles
Sources:
Fridley Community Development
Fridley Public Works
Metropolitan Council
2010 US Census SF1
Map Date: 8/3/2017
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

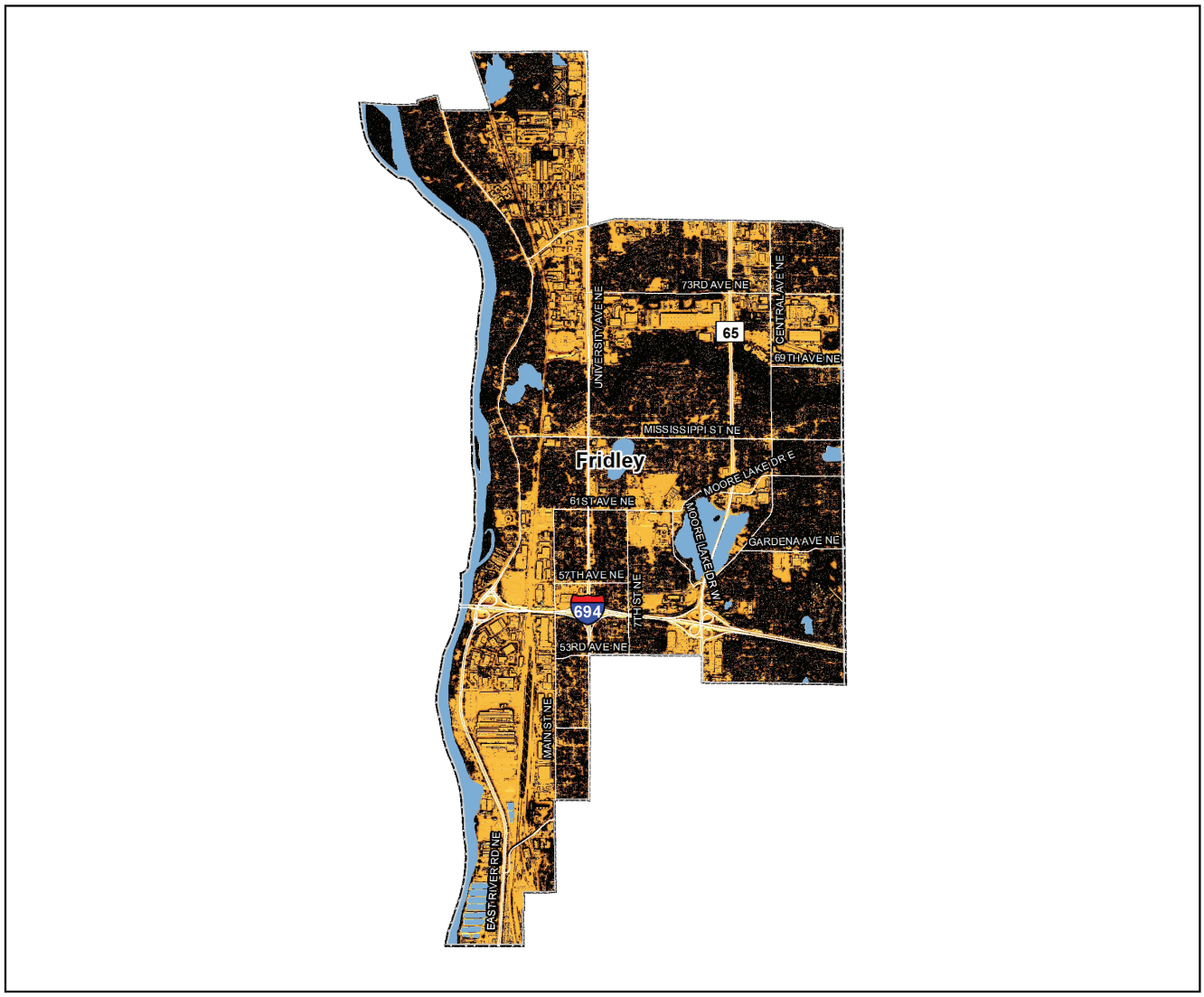
Solar Resources

In 2007, the Minnesota legislature adopted the Next Generation Energy Act which requires that 25% of the total energy used be derived from renewable energy sources by 2025. It also sets greenhouse gas reduction goals of 15% by 2015, 30% by 2025 and 80% by 2050. The City of Fridley is committed to supporting these goals in order to increase the City's environmental quality and resiliency.

The Metropolitan Council calculated the potential for solar generation within the City of Fridley. Based on existing technology, conversion efficiency, and limitations such as tree cover, it is estimated that there is a gross generation potential of 1,325,505 kilowatt hours per year and a rooftop generation potential of 226,707 kilowatt hours per year within the City. Much of this potential is concentrated within the City's industrial areas which are characterized by large roofs and extensive hardscape, as can be seen in Figure 1.13. The City of Fridley addresses the allowance of solar energy devices in all zoning districts, provided they are attached to the principal structure. Placing solar energy devices in a yard or hardscaped area does require obtaining a special use permit. There are two zoning districts where the allowance to obtain a special use permit for solar devices that are not attached to a building has mistakenly been overlooked in past text amendments. Those zoning districts are the M-3, Outdoor Intensive Heavy Industrial District, and S-1, the Hyde Park neighborhood. While the value of land in Fridley will limit the financial viability of installing a solar garden on open land, nearly all property owners have the opportunity with a special use permit.

Combination Solar and Pollinator Garden, Source: Prairie Restoration, Inc.

Figure 1.13 Gross Solar Potential City of Fridley, Anoka County



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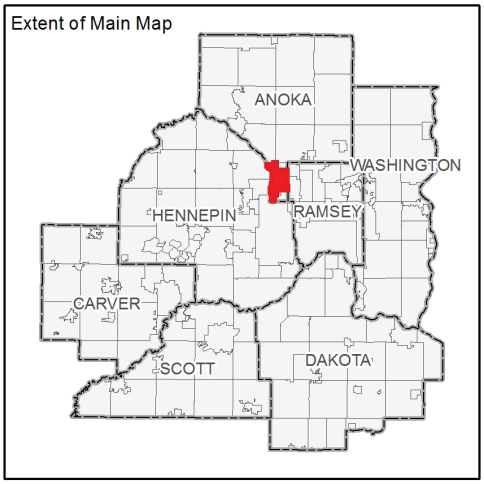


0 0.5 1 2 3 4

Miles

Gross Solar Potential
(Watt-hours per Year)

High : 1272856

Low : 900001

Solar Potential under 900,000 watt-hours per year

County Boundaries

City and Township Boundaries

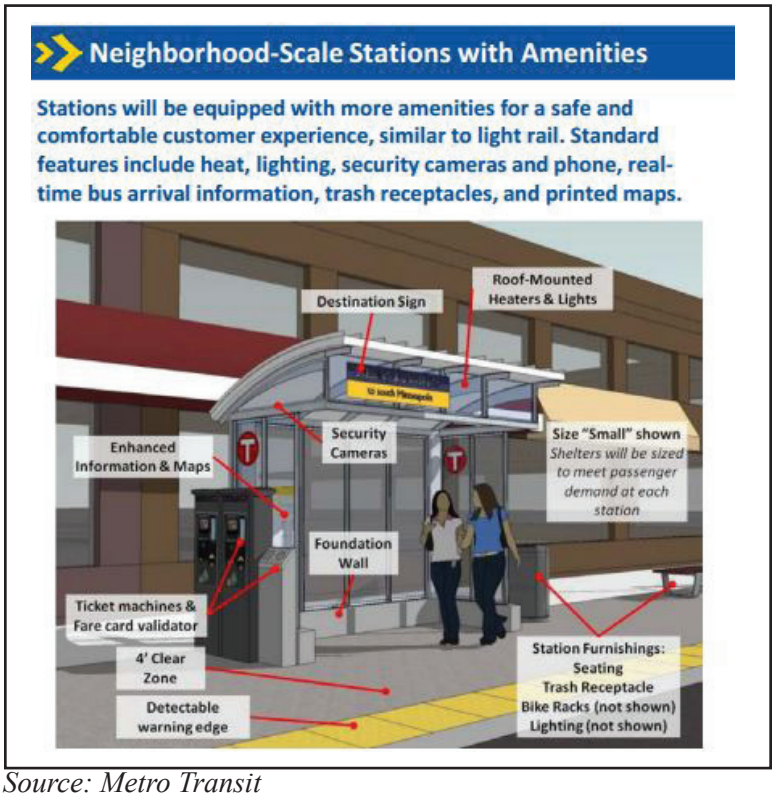
Wetlands and Open Water Features

Source: University of Minnesota U-Spatial Statewide Solar Raster.

1.6 Bus Rapid Transit

The primary potential regional transportation project affecting Fridley from the Metropolitan Council's 2040 Transportation Policy Plan is the proposed Central Bus Rapid Transit (BRT) line. The Central Line is bus route 10 which runs along University Avenue and 53rd Avenue. The most recent projections from Metro Transit staff indicate the Central BRT line will be funded in 2021. Therefore, the City needs to begin planning for the impacts of this new transit service. A map was created of the proposed BRT stops, which are the key stop locations on the 10 bus route running between downtown Minneapolis and Northtown Mall.

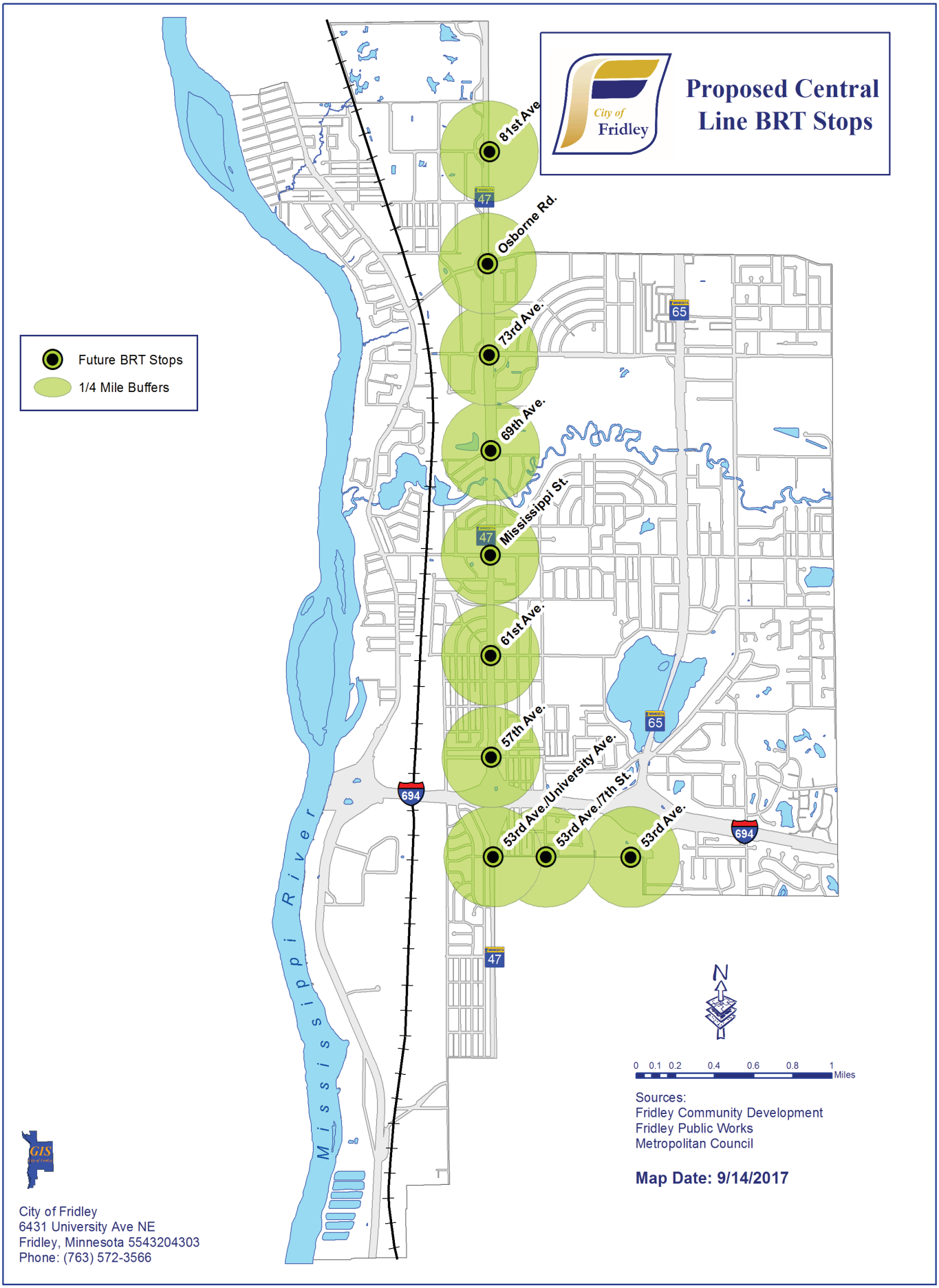
Existing BRT Stop Snelling and University in St. Paul, Photo provided by Metropolitan Council



Source: Metro Transit

There are ten proposed BRT stops in Fridley along the Central Line. The map was created to show ¼ mile distances from the center of each stop. Before these stops are created, the Metropolitan Council wants cities to master plan the areas around the stations, anticipating any land use or code changes. Staff is considering creating an overlay zoning district for the highlighted areas with allowances for higher density as the City has done in the Transit Oriented Development Overlay Zoning District.

Figure 1.14


Proposed Central Line BRT Stops
City of Fridley
Future BRT Stops
1/4 Mile Buffers
81st Ave
Osborne Rd.
73rd Ave.
69th Ave.
Mississippi St.
61st Ave.
57th Ave.
53rd Ave./University Ave.
53rd Ave./7th St.
53rd Ave.
47
65
694
Mississippi River
N
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Community Development
Fridley Public Works
Metropolitan Council
Map Date: 9/14/2017
GIS
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

1.7 Land Use & Redevelopment Goals and Objectives

Goal #1: Provide a **Safe** environment for residents and businesses

Objectives

- Plan for safe multi-modal access to and within development projects
- Ensure that design protections are in place for businesses that store hazardous materials
- Plan for adequate buffers and setbacks to protect life and property
- Ensure that development of living space does not occur in areas designated for potential flooding

Goal #2: Maintain Fridley as a **Vibrant** community in the Twin Cities

Objectives

- Ensure that City Code regulates adjacent uses to provide for compatible growth without being overly restrictive
- Encourage redevelopment and reuse of underutilized property
- Encourage developers to conduct market studies to provide assurances that the use they are proposing will be successful
- Pursue partnerships with other units of government and sources of funding that can finance needed improvements in the City
- Establish policies and implement programs that support Fridley's commitment to the environmental sustainability of our community and the region as a whole

Goal #3: Continue to be known as **Friendly** Fridley in the Twin Cities

Objectives

- Establish positive relationships with builders and developers working in the community
- Treat every customer with respect and strive to be responsive to their needs
- Celebrate the positive aspects of the City of Fridley
- Ensure zoning supports the potential for increased food security

Goal #4: Provide a **Stable** environment in which families and businesses can thrive

Objectives

- Protect the economic value of land and buildings in the community
- Zone compatible uses beside each other and restrict incompatible uses
- Encourage development of underutilized lands
- Maintain a diversity of housing options in the community
- Ensure that City Code protects Fridley's natural resources that are key to making Fridley a desirable place to live and work

1.8 Policies

In keeping with the City vision on making Fridley a ***safe, vibrant, friendly, and stable home for families and businesses,*** the following land use policies have been established:

- Require development projects to provide pedestrian connections according to Fridley's Active Transportation Plan.
- Protect existing wetlands and natural amenities in development projects.
- Consider impacts to water quality and storm water runoff in development plans.
- Encourage the integration of housing with compatible commercial development in an effort to create living areas where people can be less dependent on automobile transportation.
- Support opportunities for access to fresh food by zoning appropriate areas for community gardens, community orchards, farmers markets, and urban agriculture.
- Limit outside storage as a deterrent to crime.
- Encourage shared parking arrangements as a means to reduce underutilized impervious surfaces.
- Be in communication with Metro Transit regarding large development projects that can impact or benefit from transit.
- Protect surface water and groundwater resources when considering development projects.
- Encourage diverse and sustainable landscape plans as a means to strengthen Fridley's biodiversity.
- Preserve railroad spurs on industrial sites where they exist as they add value to the industry they serve.
- Support the State of Minnesota's Next Generation Energy Act Goals and the City's energy goals.
- Encourage the use of solar energy devices, especially on underutilized spaces, in a manner that minimizes visual impacts to residential properties.
- Ensure equitable access to alternative energy and energy efficiency programming across the City.

1.9 Conclusions and Action Steps

Land use is the first chapter of this 2040 Comprehensive Plan because it is intertwined with every other topic in this Plan. While Fridley is a fully-developed community, there are large segments of land in the City that are currently under redevelopment or awaiting approved plans. Many improvements have been made over the past ten years, but there are still many changes yet to happen. There are also new initiatives the City plans to introduce. Those steps related to Land Use are as follows:

Enforcing City Codes often puts staff at odds with the views of business owners in regards to the City's parking requirements. Fridley City Code prohibits on-street parking overnight in the winter time, and requires businesses to maintain enough off-street parking to accommodate their business needs. In addition, Fridley code requires 10' wide parking stalls. Upon suggestion from a Metropolitan Council staff person, an analysis was done to calculate the number of off-street and on-street parking stalls the City has. It was found that the City has approximately 23,000 parking stalls on Fridley streets (no parking areas, corners, and fire hydrant areas were subtracted) and has about another 40,000 parking spaces available on private property throughout the City. Considering the City has approximately 27,000 residents and an additional 21,321 workers that do not live in Fridley, there are about two parking spaces for every automobile we have in the City on the average work day.

Action Step: The City should consider amending commercial and industrial parking requirements in the Zoning Code following further study of current parking demands.

Fridley is scheduled to be served by the Central BRT Line along University Avenue by 2021. Part of the Northstar TOD Overlay Zoning District includes University Avenue. There have been many pedestrian deaths on University Avenue in recent years due to increased pedestrian activity in the area as a result of new housing and frequent transit service to the area. Recent survey results demonstrate clear public safety concerns regarding crossing University Avenue.

Action Step: As part of the effort to master plan each designated BRT station stop along University Avenue and 53rd Avenue, the City should partner with MnDOT, Metro Transit, Anoka County, and the City of Spring Lake Park to conduct a corridor study of University Avenue from 53rd Avenue to 85th Avenue before 2021.

While the City of Fridley has more than adequate landscaping requirements, in most zoning districts. The R-1, single-family residential zoning district does not have a tree planting requirement.

Action Step: Amend the R-1 Zoning Code to require the planting of a minimum of two trees per parcel in new home construction.

After World War II, Fridley was built up with ramblers, and they now have a unique place in Fridley's history. Many of these original homeowners are reaching a time in their life where they need assisted living options. As they sell their homes, it becomes more difficult to share the history the original owners of these homes can provide. It is important for the community to celebrate that history and the many survival stories that exist from enduring the hardship of the 1965 floods and tornadoes.

Action Step: The City will partner with Anoka County and Fridley Historical Society to create an annual Historic Home Tour in Fridley where we can showcase Fridley's history.

The Interstate 94 corridor from Detroit, Michigan, to the Minnesota/North Dakota border is one of 55 routes the Federal Highway Administration has designated nationally to promote alternative fuels and help drivers find vehicle charging stations nationwide. Interstate 694 could likely be designated as another alternative fuel route in the near future.

Action Step: In order to have economically competitive commercial areas along the I-694 corridor through Fridley, the City should encourage existing retailers along the corridor to install (Electric Vehicle) EV charging stations, and evaluate the potential need to amend the Zoning Code to permit EV charging stations in various zoning districts.

Action Step: In addition, the City should consider requiring EV charging stations in new, large commercial and multi-family developments.

The State of Minnesota has set greenhouse gas reduction and alternative energy goals through the Next Generation Energy Act. The City of Fridley supports these goals in order to ensure sustainable growth of the City and resiliency against climate change. Also, as a GreenStep City, Fridley strives to continue to implement best practices.

Action Step: Adopt and implement the City's Energy Action Plan.

Action Step: Amend the text in zoning districts M-3, and Outdoor Intensive Heavy Industrial District to allow solar energy devices detached from the principal structure as an accessory use.

Energy efficient design can result in long term savings for property owners and enhance the resale value of the property.

Action Step: Support financing programs for energy efficiency and integrate green building best practices information and assistance into the building permit process.

Communicating environmental resiliency requires creative methods of communication. The City of Fridley is home to a variety of arts and cultural institutions and can display art within its facilities. Using art as a communication tool is a strategic way to communicate environmental awareness while increasing the City's vibrancy.

Action Step: Utilize public art as a creative means of communicating environmental messages and inspiring community engagement.

In analyzing existing access to fresh food, it was discovered that very few Fridley residents have walking access to fresh food, and there are only 46 community garden plots which consistently sell out.

Action Step: Analyze the City Code to determine if any changes need to be made to allow more community gardens or community orchards.

Autonomous Vehicles (AVs) are expected to have a great impact on land use over the next 20 years. It is unknown if households will continue to own a vehicle or contract with a rideshare service.

Action Step: Monitor the land use impacts of AVs closely and amend the Zoning Code as appropriate.

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Housing

Brick Rambler in Fridley

Housing

Housing is a critical and essential component of the quality of life in Fridley. Since a majority of Fridley's housing was built in the 1950s and 1960s, the City has struggled to provide a variety of housing types and price points that allow residents to move through the life cycle housing chain while staying in Fridley. Providing a variety of housing types and price levels is key to maintaining stability in the community. It is also key to reducing traffic; giving Fridley's extensive working population the opportunity to live where they work.

2.0 Introduction

The City of Fridley has focused a great deal of its resources on maintaining the housing stock we have. For several decades now, the Fridley Housing and Redevelopment Authority (HRA) has spent funds on housing replacement and rehabilitation programs, removing blight, and encouraging reinvestment in older housing. The City's strong rental inspection and code enforcement programs also preserve housing values.

Since the last Comprehensive Plan update, the Fridley HRA has initiated two significant housing redevelopment projects - Cielo Apartments and Gateway West. Gateway West provided 16 new, larger single family homes valued higher than the average Fridley home price point. Cielo Apartments provides 256 market rate apartments at a price point that is higher than any other apartment complex in the City. The successful marketing of both of these projects has proven the need for this type of housing. However, the City continues to lack other housing choices, so more housing types need to be explored. The City is planning for new housing options in several proposed developments, including Locke Park Pointe and the Northstar TOD Zoning District. Low vacancy rates, rising rents, and demographics of higher divorce rates and single parent households in Fridley appear to be driving the need for more rental housing in the community.

The Cielo Apartments Phase 1 - April 2016

2.1 Existing Housing Assessment

In order to develop a plan for housing in Fridley, an analysis of existing housing types was performed. The breakdown of housing structure types has not changed much over the past two years except for more apartments due to the construction of Phase I and II of Cielo Apartments. New single family homes have been built, but in most cases, a home was torn down to make room for the new home. One structure type that is not separately listed is a cottage home. The City has a few cottage homes (one-level living without a

basement), but there have been many requests for more of this type of housing. This is a popular option for seniors looking for an accessible home. There have also been requests for more owner-occupied multi-family structure options, which is understandable as only 11% of existing housing structures are this type of housing.

Rambler
4,303 structures
52% of total housing stock

Split Foyer
914 structures
11% of total housing stock

Split Level
560 structures
7% of total housing stock

Other
547 structures
7% of total housing stock

Townhouse
602 structures
7% of total housing stock

Manufactured Home
416 structures
5% of total housing stock

Two-Story
320 structures
4% of total housing stock

Condominium
360 structures
4% of total housing stock

Duplex or Double Bungalow
186 structures
2% of total housing stock

Apartment Buildings
169 structures
2% of total housing stock

Twin Homes
14 structures
0% of total housing stock

Total
8,301 structures

Figure 2.1 Housing Type

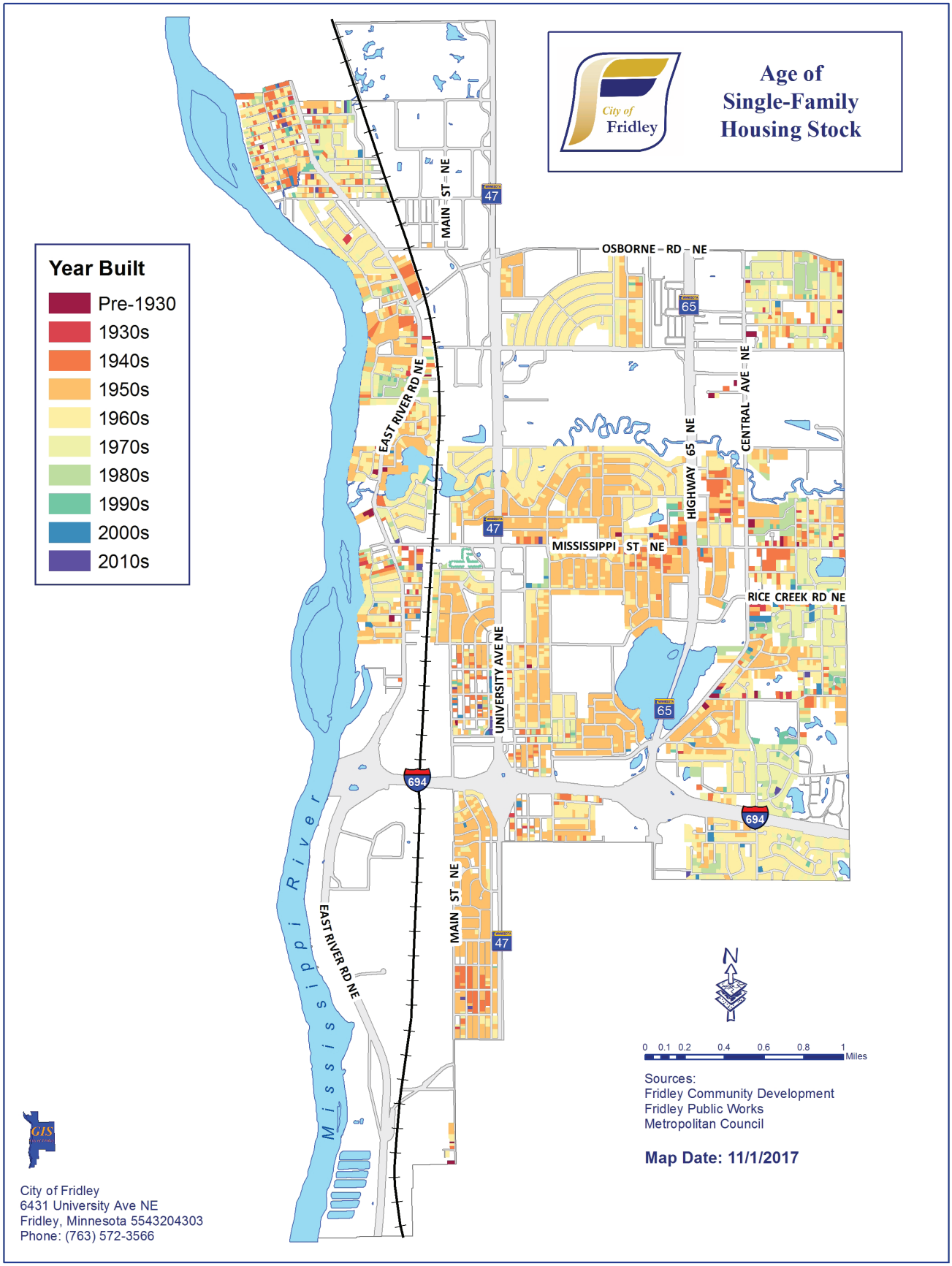
Housing Unit Type	No. of Units
Single Family Detached	6,643
Townhomes	658
Manufactured Homes	405
Total Single Family Units	**7,706 - 65%**
Twinhome, Duplex	370
Condominium	360
Multi-family Apartment (10 or less units)	576
Multi-family Apartment (11 or more units)	2,931
Total Multi-Family Units	**4,237 - 35%**
Total Housing Units	**11,943 - 100%**

Source of data: Anoka County Property Tax records, Fridley Utility Billing records, and Fridley Rental Licensing records

2.2 Age of Housing Stock

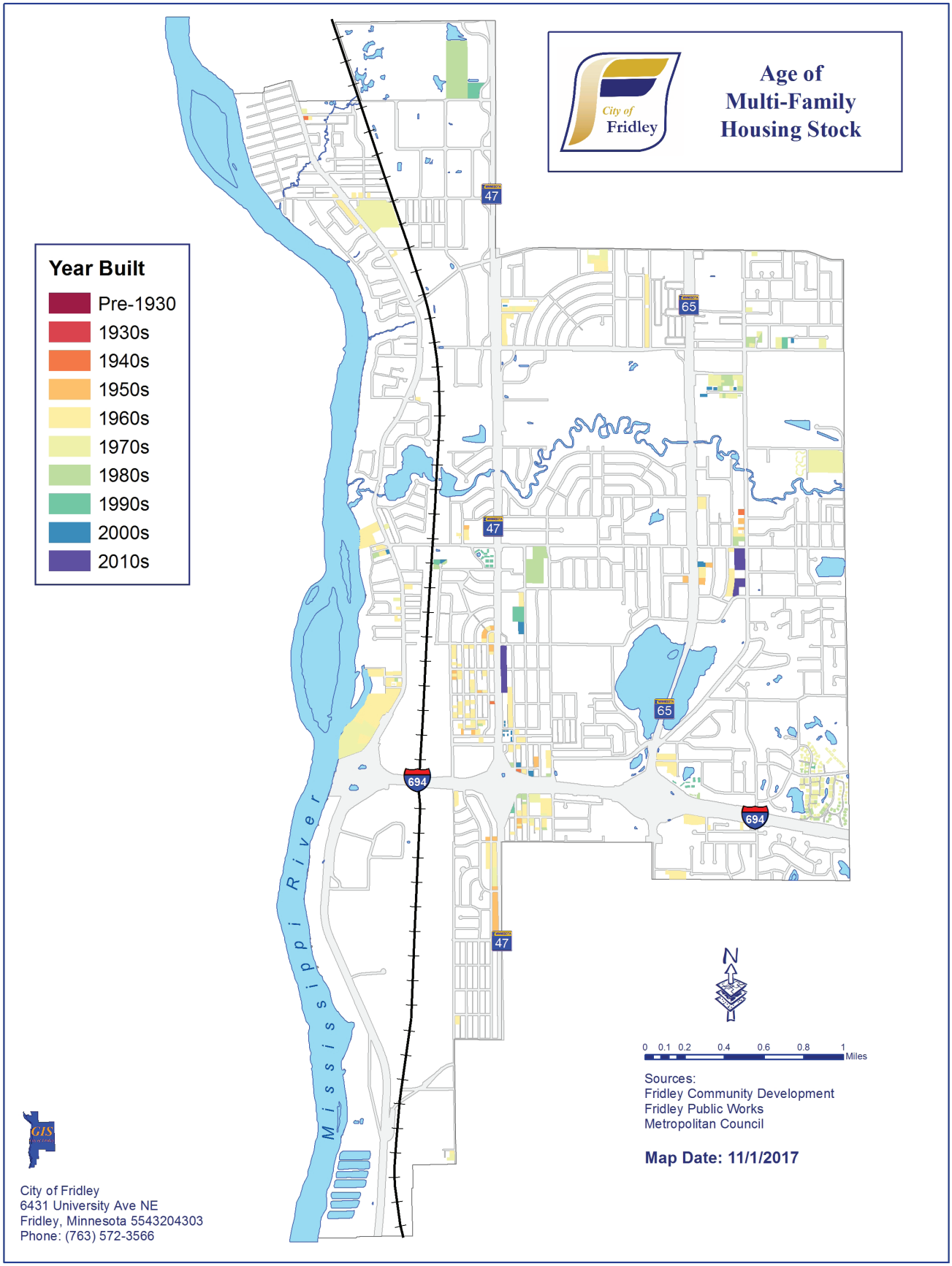
This map shows the majority of single family housing in Fridley was built in the 1950s and 1960s. In fact, 77% of Fridley homes are 57 years old or older.

Figure 2.2



This map shows the majority of Fridley's multi-family housing was built in the 1960s and 1970s, with very few new multi-family structures built from 1990 to 2010.

Figure 2.3



2.3 General Occupancy

Figure 2.4 shows that rental occupancy rates have increased one percent in the past ten years. This is not surprising considering that many single family homes that went into foreclosure during the recession were purchased as rental property investments. In addition, the first phase of Cielo Apartments was completed in 2016, which added 101 new apartments to the City's rental inventory.

Figure 2.4 Housing Occupancy

Tenure Type	1970	1980	1990	1998	2006	2016
Ownership	5,922 (74%)	6,941 (67%)	7,364 (67.5%)	7,658 (66%)	7,520 (65%)	7,609 (64%)
Rental	2,081 (26%)	3,475 (33%)	3,545 (32.5%)	3,945 (34%)	4,107 (35%)	4,294 (36%)
Total Units	8,003	10,416	10,909	11,603	11,627	11,903

Source: Metropolitan Council

Modern Rambler in Fridley

There is a misconception throughout the community that there is an overabundance of rental housing in Fridley. Compared to other first ring suburbs of Minneapolis, Fridley falls in the middle of the list in the ratio of owner occupied housing to rental housing. Demand for rental housing has been exhibited by low vacancy rates and quick leasing, months ahead of expectation. The construction of more apartments in the Cielo project are expected to fill just as fast.

Figure 2.5 Rental Housing Percentage Comparison of First-Ring suburbs of Minneapolis

City	% Ownership	% Rental
Hopkins	33.8%	66.2%
New Hope	53.4%	46.6%
St. Louis Park	57.3%	42.7%
Brooklyn Center	61.7%	38.3%
Richfield	62.5%	37.5%
Edina	62.9%	37.1%
Fridley	63.9%	36.1%
Columbia Heights	64.9%	35.1%
Robbinsdale	67.3%	32.6%
Crystal	71.9%	28.1%
Golden Valley	76.1%	23.9%

Source: Metropolitan Council

2.4 Housing Affordability

Cost of Home Ownership

In 2006, nearly 13% of Fridley's single family homes were valued over $249,999. The 2016 assessing data shows that Fridley has not recovered from the recession completely, because only 6% of Fridley single family homes are currently valued over $249,999. The median home value in 2006 for homes with tax codes: homestead (1A), partial homestead (.51A, .51AB, and .51B), blind homestead (1B) and non-homestead (4BB) was $209,116. This did not include manufactured homes.

In 2016, the median home value was $184,044. If you include manufactured homes, it was $178,800. The average Fridley home sale in 2016, based upon 379 sales, was $187,800, which is down $30,537 from ten years ago. Therefore, actual sales from MLS data for SOLD homes are also demonstrating that values have not yet recovered from where they were at the time of the last comprehensive plan update.

Figure 2.6 2016 Assessed Valuation of Single Family Housing

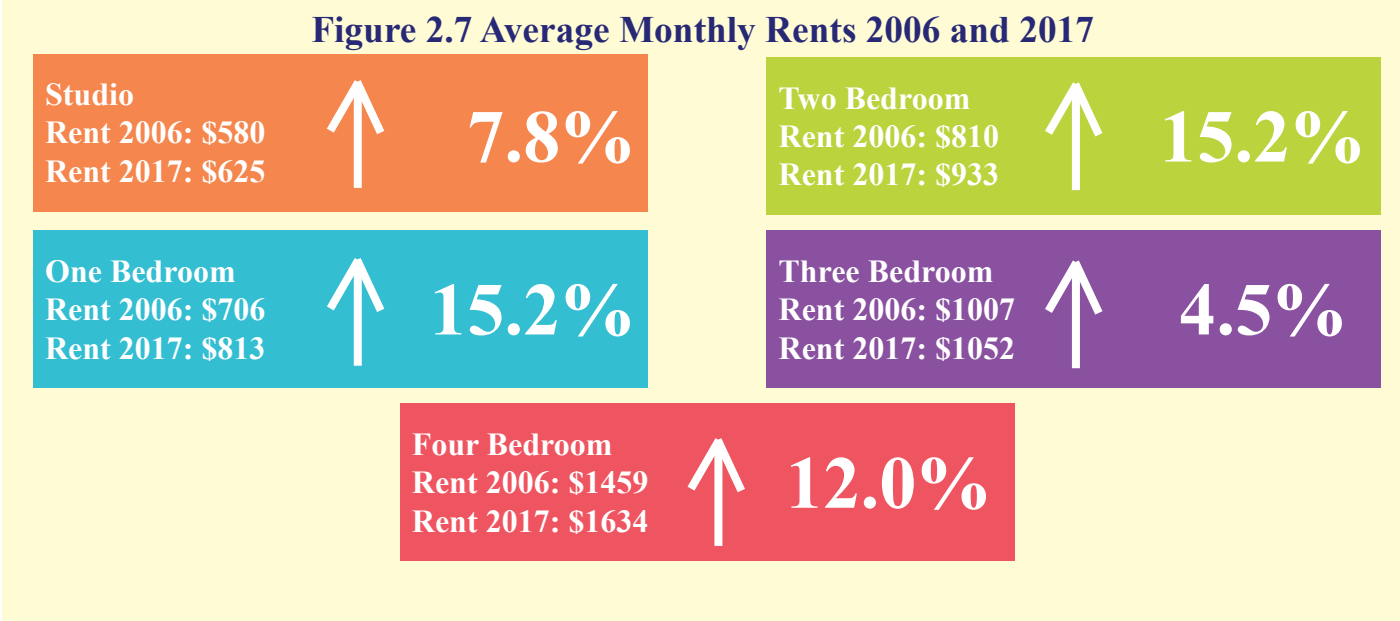
Est. Assessed Value Range	Number of Units	% of Total
Less than $60,000	556	6.8%
$60,000 to $99,999	237	2.9%
$100,000 to $149,999	1,570	19.3%
$150,000 to $199,999	4,165	51.2%
$200,000 to $249,999	1,107	13.6%
$250,000 to $349,999	428	5.3%
$350,000 to $499,999	58	.7%
$500,000 or more	9	.1%
Total	8,130	100%

Source: Anoka County Assessing Records

Rental Rates

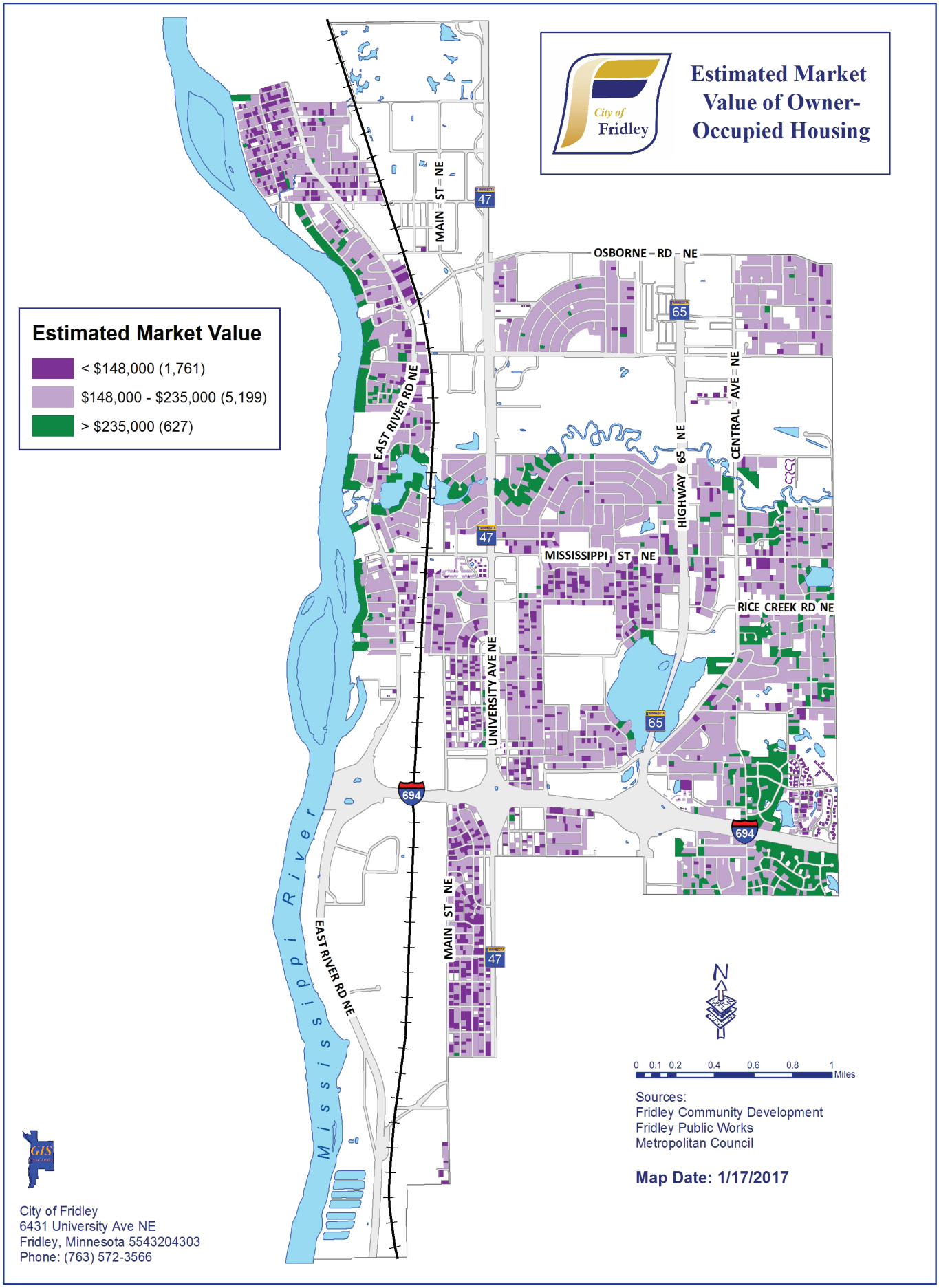
While the cost of home ownership has declined in the past ten years, the cost to rent has significantly increased. This is likely the result of supply and demand. While Fridley has experienced the construction of 202 rental apartments over the past two years, vacancy rates are currently very low in the City.

Figure 2.7 Average Monthly Rents 2006 and 2017



Source: Metropolitan Council HRA; Marquette Advisors

Figure 2.8


Estimated Market Value of Owner-Occupied Housing
City of Fridley
Estimated Market Value
< $148,000 (1,761)
$148,000 - $235,000 (5,199)
> $235,000 (627)
OSBORNE RD NE
MAIN ST NE
EAST RIVER RD NE
HIGHWAY 65 NE
CENTRAL AVE NE
MISSISSIPPI ST NE
RICE CREEK RD NE
UNIVERSITY AVE NE
Mississippi River
47
65
694
N
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Community Development
Fridley Public Works
Metropolitan Council
Map Date: 1/17/2017
GIS
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

Subsidized Housing

While 10 subsidized units were lost at Banfill Crossing (the only market rate senior highrise in Fridley) due to the expiration of special financing, Fridley still has 427 Section 8 rental units and vouchers. These units account for 4% of Fridley's housing units. All of the project-based Section 8 buildings in Fridley are concentrated in a one block stretch of the City. This is contrary to goals of dispersing low-income housing throughout the community, but the location of this housing is beneficial to its residents due to the fact that this is the only area of the City that has key services, including bus transit, a library, clinic, City Hall, community center, and drug store, within walking distance.

Figure 2.9 Subsidized Housing

Subsidized Housing in Fridley	Number of Units
Section 8 Vouchers	160
Brandes Place-Project Based Section 8	16
Norwood Square-Project Based Section 8	51
Village Green-Project Based Section 8 Senior	103
Village Green-Project Based Section 8 Disabled	80
Lutheran Social Services vouchers	4
Total Publicly Assisted Rental Housing Units	**414**

Source: Metro HRA, Fridley Rental Licensing Records, Lutheran Social Services

Manufactured homes have traditionally been classified separately from single family housing data, but the 405 manufactured housing units in two separate manufactured home parks in Fridley provide an essential unsubsidized, affordable, homeownership option for low-income residents. According to the organization All Parks Alliance for Change, approximately 1,050 people live in the 405 manufactured home units in Fridley. This organization also reports that lot rent in Fridley's manufactured home parks averages $510.50/month currently, compared to the average rent for a two-bedroom apartment of $1,000.

To advance affordability, one of Fridley's manufactured home parks, Park Plaza, recently became one of seven resident-owned park cooperatives in Minnesota. The management of the Park Plaza Cooperative has been successful in investing $1 million in infrastructure into the park, including a new storm shelter/community center.

Backpack giveaway led by Natividad Seefeld at Park Plaza for National Night Out

Allocation of Affordable Housing Need

The affordable housing need reflects a regional forecast of household growth by Metropolitan Council for the population making less than the area average. According to Metropolitan Council's projections, the Minneapolis/St. Paul region's total need for affordable housing for 2021 – 2030 is 37,900 dwelling units. This is further broken down by percentage of area median income. This allocation is divided into local calculations by Metropolitan Council. This forecast is the first step to determining the housing goals and objectives in local comprehensive plans. **Fridley's 2021- 2030 allocation of need is 268 housing units, broken down as follows:**

Figure 2.10 Allocation of Affordable Housing Units

Source: Metropolitan Council
**AMI = Area Median Income*

There are three significant new housing developments with approved master plans in the City of Fridley at this time:

1. Cielo Apartments on University Avenue with 54 new apartments yet to be completed
2. Northstar TOD Master Plan area with 950-1,150 new multi-family units proposed in plan
3. Locke Park Pointe on University Avenue with approximately 500 new housing units anticipated

Proposed densities for all three of these developments far exceeds the guidelines for affordable housing measures in Metropolitan Council guidelines with unit per acre ranging from 28 units/acre for Locke Park Point to 40.5 units/acre for the Northstar TOD area. The Cielo Apartments density is 35 units/acre. Fridley is classified as an Urban Community by the Metropolitan Council, meaning the City is required to plan for an average density of 10 units per acre.

Only 16% of the housing units in these three planned housing developments would need to be affordable to meet the affordable housing goals set for the City. However, it is unlikely that the entire TOD Master Plan area will be built out by 2030. It is anticipated that more than 16% of the units built in the next ten years will be affordable at 80% AMI. Some of the workforce housing anticipated at the East Northstar Train Station Site is planned to be affordable to lower incomes. Reaching the allocation in the 30% and 50% AMI levels will require funding from other agencies.

2.5 Existing Housing Programs

The Fridley HRA provides a variety of home rehabilitation programs for a variety of housing types as a means for everyone in the community to have a safe, stable place to live. In order to stretch their limited funding, the HRA contracts with the Center for Energy and the Environment, a non-profit organization, to administer these programs which include:

Home Remodeling Advisory

In order to maximize the funding available, the HRA provides a free advisory service to property owners, so they can get advice on necessary repairs, what program may work best to address their needs, and assist with the review of bids.

Home Improvement Loans

Whether or not it is internal or external repairs, the HRA offers home improvement loans to single family homeowners, manufactured home owners, and two to four unit multi-family homeowners. Income limits on this loan program were removed in 2016, making 20-year loans available to all homeowners. In 2016, the HRA added apartment buildings up to 10 units in size to the loan program, limiting improvements covered to exterior improvements. The HRA is also able to help with emergency deferred loans for situations like a sewer line break.

Home Energy Squad Enhanced Visits

The HRA partners with CenterPoint Energy, Xcel Energy, and the Center for Energy and the Environment to help homeowners conserve energy and save money on their utility bills through the installation of energy-saving materials.

Housing Replacement Program

Since this program's creation by the State Legislature in 1995, the Fridley HRA has purchased 31 blighted properties and 23 new homes have been built to encourage neighborhood reinvestment. This program continues, but it is rare to find a property that is blighted to the point that it meets the purchase price limitations of the program. This program's success is demonstrated by the fact that few blighted properties remain in the City.

Remodeling Ideas/Demonstrations

For people owning the typical Fridley rambler, the HRA has developed remodeling idea handbooks and completed demonstration projects to show owners changes that can be made to expand their rambler, modernize the existing space, or make the existing space accessible for older residents to age in place.

Senior Services

Fridley's Public School's Community Education Department staffs a Senior Center in the Fridley Community Center, providing senior dining, activities and educational opportunities for seniors. The Senior Center staff partners with the Anoka County Community Action Program (ACCAP) to help seniors meet their housing needs. Most seniors want to stay in their single family home as long as they can, so programs like Chores and More, are key to providing financial assistance to low income seniors, and to help with physically-demanding maintenance like raking leaves and shoveling snow. The Chores and More program is now administered by ACCAP, and residents pay for services on a sliding fee scale.

Mardi Gras at the Senior Center

Another program that the Senior Center staff use to help senior residents stay in their home is Lions Share. This program offers financial support to low income seniors by providing funding to the Friends of Fridley Senior Program Foundation. Fridley seniors that need to retrofit their home, like adding a ramp or moving a laundry room upstairs can apply to get financial support to make modifications. The average grant, which is paid directly to contractors, is only about $1,000, but staff work with ACCAP to get senior's additional financial assistance if needed.

2.6 Existing Housing Conditions and Needs

In the summer of 2017, the Fridley HRA financed a windshield housing conditions survey. Single family homes were ranked on a three-point scale on the condition of the roof, soffit/fascia, siding/paint, windows/doors, and foundation. The findings reported 97% of Fridley homes being in good to excellent condition. Scores were slightly improved from the same process followed for a housing conditions survey ten years earlier. This was expected, as the City had tightened up the Zoning Code language regarding exterior home maintenance and had proactively pursued getting all homes into compliance with the new code standards once they were in place.

Five years ago, City staff were inspecting rental housing once every four years. However, housing conditions indicated a need for more frequent inspections, so the City's policy was changed to inspect licensed rental properties once every three years. This change was made in addition to moving the rental licensing duties from the Fire Department into the Community Development Department with staff dedicated to solely inspect rental properties. The Fire Department continues to inspect rental building common areas.

Metropolitan Council's Existing Housing Assessment for Fridley shows that while 92% of Fridley's housing meets affordability standards and 4% of Fridley's housing units are publicly subsidized units, 25% of households are considered cost-burdened. What the data does not disclose is how many residents could afford move-up housing. The recent success of full lease-out of the Cielo Apartments has confirmed a long perceived demand for higher value rental housing in the community.

As was the situation a decade ago, Fridley still lacks a wide variety of housing and higher price points. There are still no options in the City for senior cooperative housing, high-rise condominiums, or large, high value, single family homes. Many of these types of housing are anticipated to be added to the community's portfolio as various master planned areas of the City are built out. While the City nor the HRA have financed a recent market study of housing need in the City, residents continue to comment that they want affordable senior housing options. Meeting the diverse life-cycle housing needs of Fridley residents continues to be a priority for the community.

Fridley Two Story Rambler

2.7 Housing Policies

There are several policies that have been agreed upon related to the vision of keeping Fridley's housing ***safe, vibrant, friendly, and stable:***

- Maintain City Code requirements and related procedures that preserve affordable housing without driving up costs
- Enforce code requirements, while treating homeowners and renters equitably
- Use the procedures and authority granted to staff in City Code to maintain safe and stable residential neighborhoods
- Encourage developers to build housing types that meets the market needs of the population of the City
- Monitor population trends and market changes that may affect the type of housing needed in the community in the future
- When warranted, the City will help determine market options for redevelopment of large sites through the funding of public engagement events similar to the Housing Corridor Initiative
- When special funding exists, the City/HRA will pursue subsidy options from other agencies to accommodate affordable housing needs within market rate developments
- Master Plan anticipated areas of redevelopment to guide future land use choices, preserve the stability of surrounding neighborhoods, and provide for the types of housing needed in the community
- Partner with other governmental agencies like ACCAP and the MHFA to accommodate affordable housing needs in the community
- In addition to supporting affordable housing, also support affordable living by supporting access to affordable transit options, utilities, healthy food, and recreation
- Follow Critical Area and Shoreland Overlay Zoning District guidelines for building setback, but encourage the density levels that will create the building heights needed to support views of natural amenities and affordability of dwelling units
- Strive to provide special services to seniors to help them have the option to remain safe in their home as they age

2.8 Action Steps and Summary

Due to code changes and purposeful staff efforts to enforce zoning and rental licensing codes, the housing stock in the City ranks as well-maintained. However, due to the age of the City's housing stock, the City needs to continue to concentrate a significant effort on proactive inspections to maintain housing condition standards.

Action Step: Continue to conduct systematic code enforcement inspections throughout the City.

Action Step: Continue to inspect all rental housing units on a three-year rotation to ensure rental housing is meeting minimum safety standards.

One type of housing that is no longer being inspected and licensed by the County or State is group homes without food services. Staff fear vulnerable populations will not be provided safe housing options without this licensing.

Action Step: City staff will now license and inspect group homes without food services as rental units when they become aware of them. Staff will also partner with the City Assessors and other agencies to identify such units in the City.

Data shows that almost all of the owner-occupied housing in Fridley is affordable which means the City is lacking higher-valued, move-up housing. Particularly lacking is one-level living units for seniors. Having this type of housing would lead to more single family homes being available for larger families. The Locke Park Pointe development and the Northstar TOD Overlay Zoning District offer possibilities for these housing types. A location in the City that could serve the need of future higher-valued, detached owner-occupied housing could be the Girl Scout Camp that was recently purchased by the Metropolitan Council for sewer management purposes.

Action Step: Guide the zoning of the Girl Scout Camp for mostly single family housing and some owner-occupied multi-family housing.

Survey data has shown a safety concern over the management of rental housing.

Action Step: The Police Department and Community Development Department will continue to work together on a Crime-Free Rental Housing initiative and enforce the requirements of Chapter 220 of the City Code.

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Transportation

Northstar Train during Rush Hour

Transportation

3.0 Introduction

While the City of Fridley developed along the Mississippi River due primarily to access to water, the City's transformation from a farming community to an industrial base was a result of its strong transportation system. It is that continued solid transportation system that is a major development strength of the City of Fridley today. With an interstate, two State highways, several County highways, a major freight train line, and both commuter train and bus transit options passing through Fridley, industry has many options for moving goods and drawing employees. However, these major roadways and rail line make it difficult for residents to make short trips within the community, particularly in a non-motorized method.

Purpose

The purpose of Fridley's transportation system is to provide a safe, cost effective, convenient and efficient means of moving both people and goods within and through the community and region. The primary emphasis of Fridley's Transportation Plan will be to manage, preserve and maintain the existing roadway network and expand the multimodal transportation alternatives available to the community.

Regional Setting

Fridley plays an important role in the regional transportation network. Many major roadways funnel traffic through Fridley from the north into downtown Minneapolis. The section of Interstate 694 running east-west through Fridley connects Minneapolis traffic to St. Paul traffic. Fridley is also the last stop on the Northstar Commuter Train and on several express bus routes, before heading into downtown Minneapolis. The City also boasts a national and a regional bike trail.

3.1 Existing Roadways

Existing roadways in Fridley are currently in excellent condition. Over the last five years both State highways and the Interstate running through the City have been resurfaced. Improvements to East River Road have been master planned, and the County will resurface the roadway in the next five years. For many years, the City has been rebuilding local streets, focusing on the ones in the worst condition. Street conditions are rated once every three years, and about two miles of street are replaced each year. This is the City's response to the limitations of the 40-year life cycle of a street. However, there are sections of County arterial roads that are overdue for rebuilding, as they are 30 years old.

Many American Disability Act (ADA) accessible improvements have been made to key intersections throughout the City. MnDOT updated pedestrian infrastructure on Highway 47 just a few years ago. The same was done at intersections on Highway 65 when the roadway was entirely rebuilt in 2015.

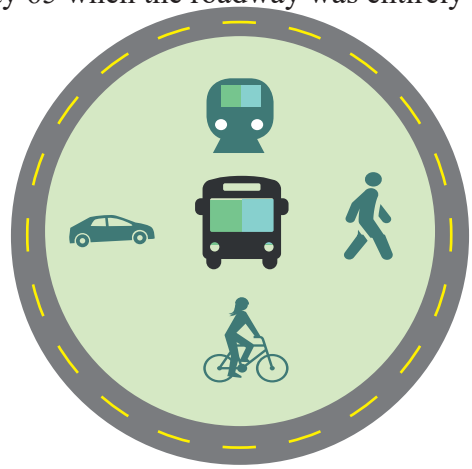


Figure 3.1

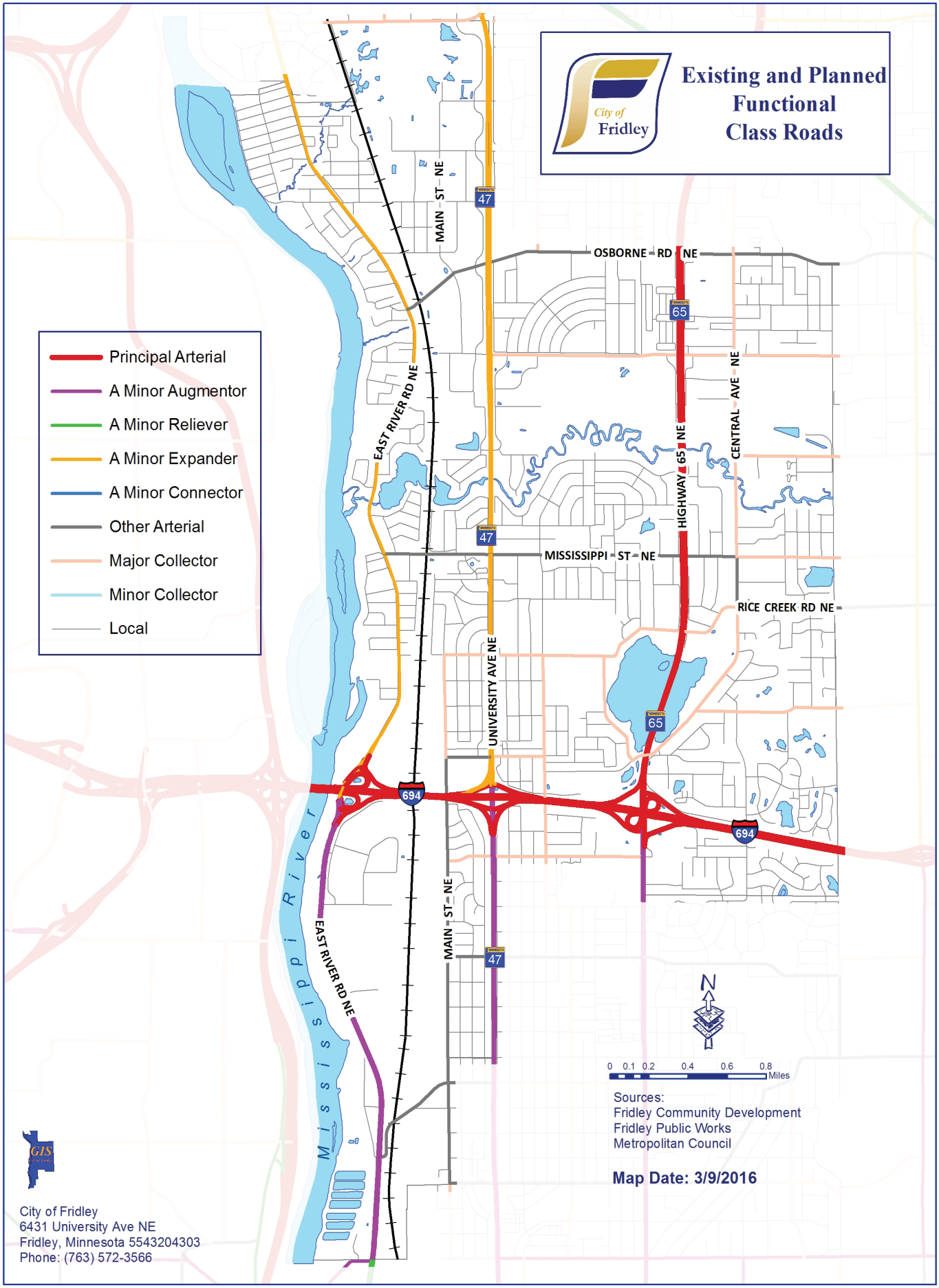

Existing and Planned Functional Class Roads
City of Fridley
Principal Arterial
A Minor Augmentor
A Minor Reliever
A Minor Expander
A Minor Connector
Other Arterial
Major Collector
Minor Collector
Local
MAIN ST NE
OSBORNE RD NE
EAST RIVER RD NE
HIGHWAY 65 NE
CENTRAL AVE NE
MISSISSIPPI ST NE
RICE CREEK RD NE
UNIVERSITY AVE NE
Mississippi River
47
65
694
N
0 0.1 0.2 0.4 0.6 0.8 Miles
Sources:
Fridley Community Development
Fridley Public Works
Metropolitan Council
Map Date: 3/9/2016
GIS
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

Figure 3.2

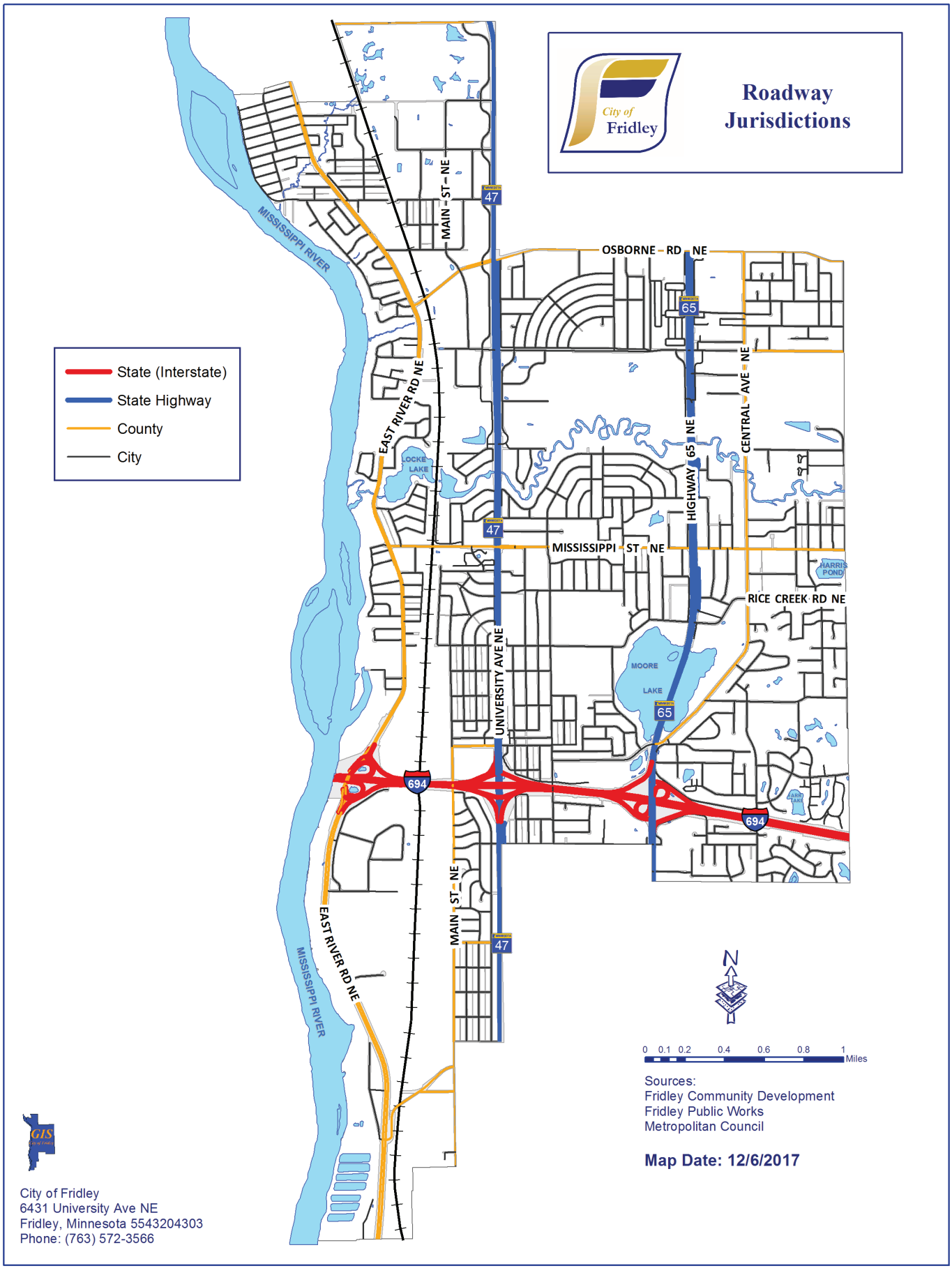

City of Fridley
Roadway Jurisdictions
State (Interstate)
State Highway
County
City
MISSISSIPPI RIVER
MAIN ST NE
47
OSBORNE RD NE
65
CENTRAL AVE NE
EAST RIVER RD NE
LOCKE LAKE
HIGHWAY 65 NE
MISSISSIPPI ST NE
HARRIS POND
RICE CREEK RD NE
UNIVERSITY AVE NE
MOORE LAKE
694
N
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Community Development
Fridley Public Works
Metropolitan Council
Map Date: 12/6/2017
GIS
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

Figure 3.3 Existing Roadway Classification, Jurisdiction, and Lanes

Roadway Segment	Functional Classification	Jurisdiction	Thru Lanes
Interstate 694	Principal Arterial	Federal/State	6
MN Trunk Highway 65 (from I-694 north)	Principal Arterial	State	4
Central Ave (MN Trunk Highway 65)(from I-694 south)	"A" Minor Arterial	State	4
University Ave (MN TH 47)	"A" Minor Arterial	State	4
East River Road (CSAH 1)	"A" Minor Arterial	County	4
Mississippi Street (CSAH 6) (from E. River Rd to Central Ave)	Other Arterial	County	4
Main Street (County Road 102)(from 57th south to County Road 2)	Other Arterial	County	2
Osborne Road (CSAH 8)	Other Arterial	County	4
Rice Creek Road (CSAH 6) (from Central Ave to Eastern border)	Other Arterial	County	2
57th Ave (CR 102) (Main St to University Ave)	Other Arterial	County	4
44th Ave (CSAH 2) (E. River Rd to Main St)	Other Arterial	County	4
49th Ave (CR 104) from Main St to TH 47	Other Arterial	County	2
Central Ave (CSAH 35 from I-694 north)	Collector	County	2
73rd Ave	Collector	City	4
69th Ave	Collector	City	2
Mississippi Street (County Road 106)(from Central Ave. to New Brighton Border)	Collector	County	2
61st Ave	Collector	City	2
Gardena Ave	Collector	City	2
53rd Ave	Collector	City	2
Main Street (from 57th Ave to 61st Ave)	Collector	City	2
7th Street NE (from Mississippi St. South)	Collector	City	2
West Moore Lake Drive	Collector	City	2
Other Roads	Local	City or Private	2

Source: Anoka County and City field inspections

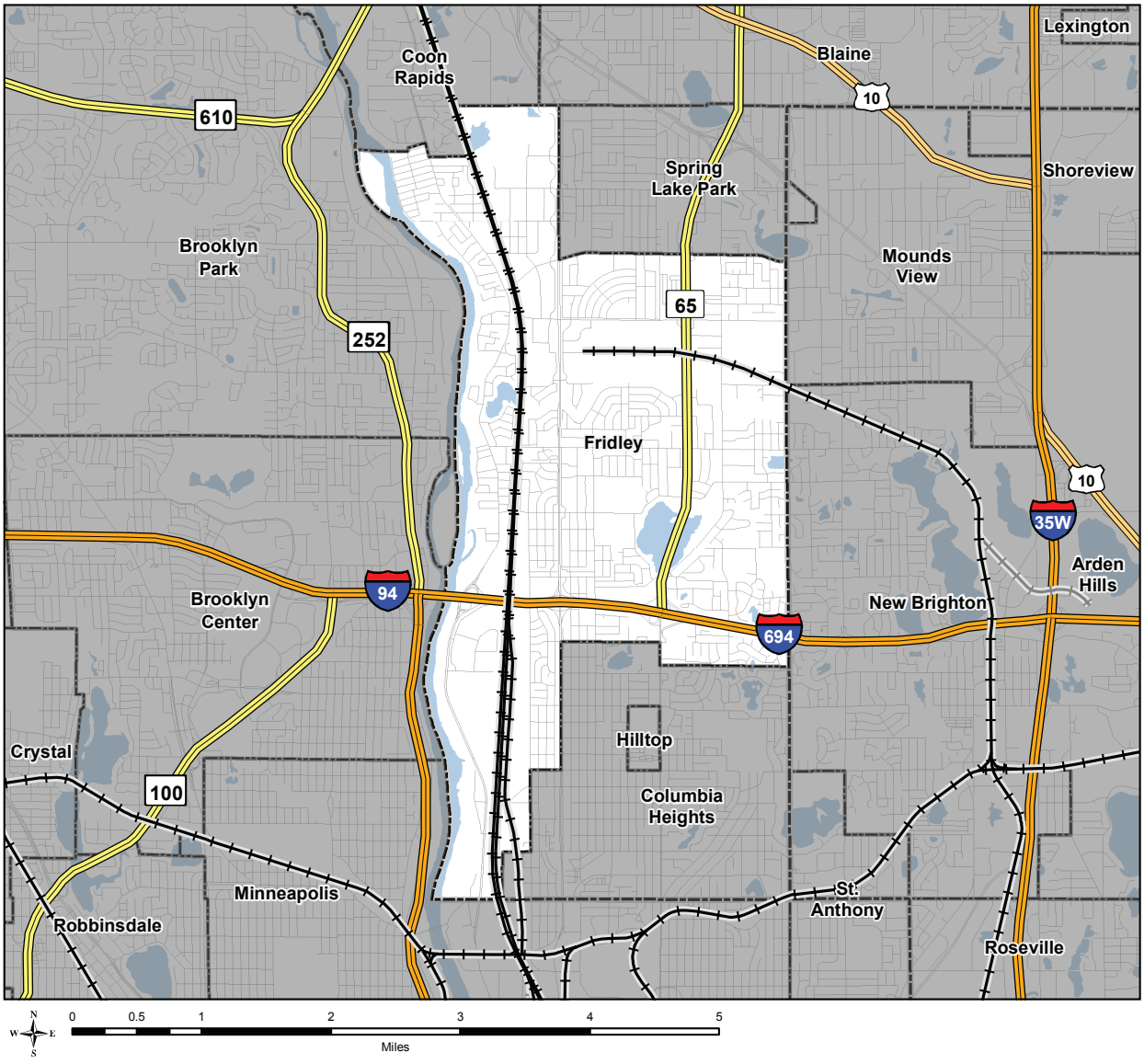
Fridley Walk Audit

3.2 Rail Transportation and Aviation

Fridley does not have an airport, but contains the largest rail switching yard between Chicago and Seattle. Some Fridley businesses have rail spurs, but most rail traffic is just passing through Fridley. Since the Burlington Northern Santa Fe (BNSF) rail line passes mostly by residential properties north of the interstate, Fridley implemented quiet zones in 2008.

Besides BNSF, which is a Class I railroad, running north-south through Fridley's length east of East River Road, Minnesota Commercial Railway Company also maintains a Class III regional rail line running east-west through Fridley on the north side of Rice Creek.

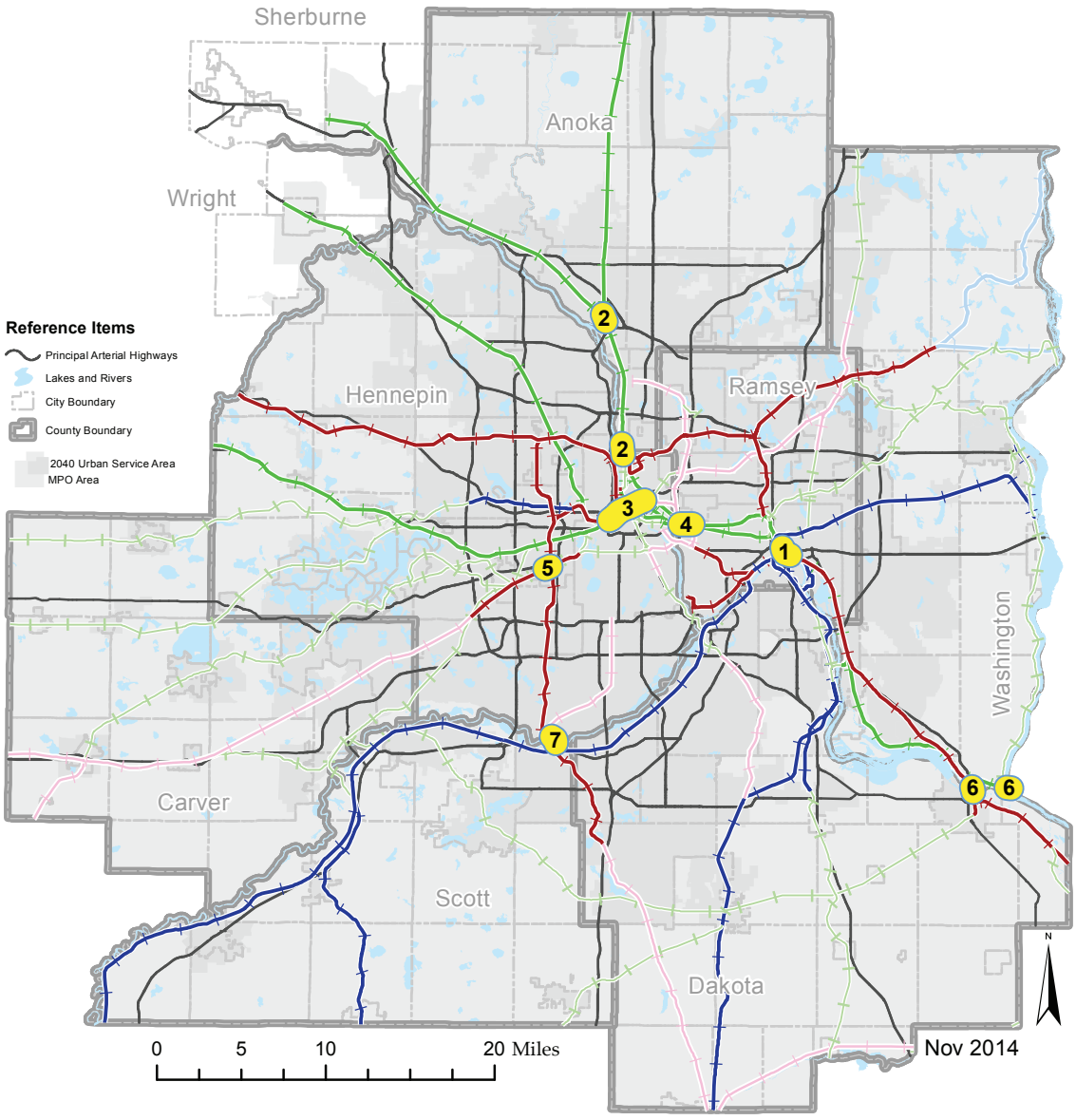
Figure 3.4 Metropolitan Freight System



Source: Metropolitan Council

To the north (“Coon Creek Junction”) and south (“Northtown Yard”) of Fridley are the second highest priority freight-rail bottlenecks in the Twin Cities area as identified in the regional strategic plan Thrive 2040. These bottlenecks limit both freight and passenger rail traffic through the corridor. These identified bottlenecks will also impact the planned Northern Lights Express (NLX) high speed commuter rail project identified in the draft 2015 State Rail plan. There is discussion of an additional third mainline track from the Coon Creek Junction to BNSF Northtown Yard (Third Main project) which would significantly increase track capacity for freight and passenger trains. It could be built by 2020 but the timing of its construction may depend on the construction of Northern Lights Express to Duluth. Alternatively, BNSF may construct all or part of the Third Main to improve the yard leads and train storage capacity immediately north of the Yard.

Figure 3.5 Railroad Bottleneck Map



Railroads by Class

- Class 1 - BNSF Railway
- Class 1 - Canadian National Railway
- Class 1 - Canadian Pacific Railway
- Class 1 - Union Pacific Railroad
- Class 3 & Private
- Abandoned

Bottlenecks

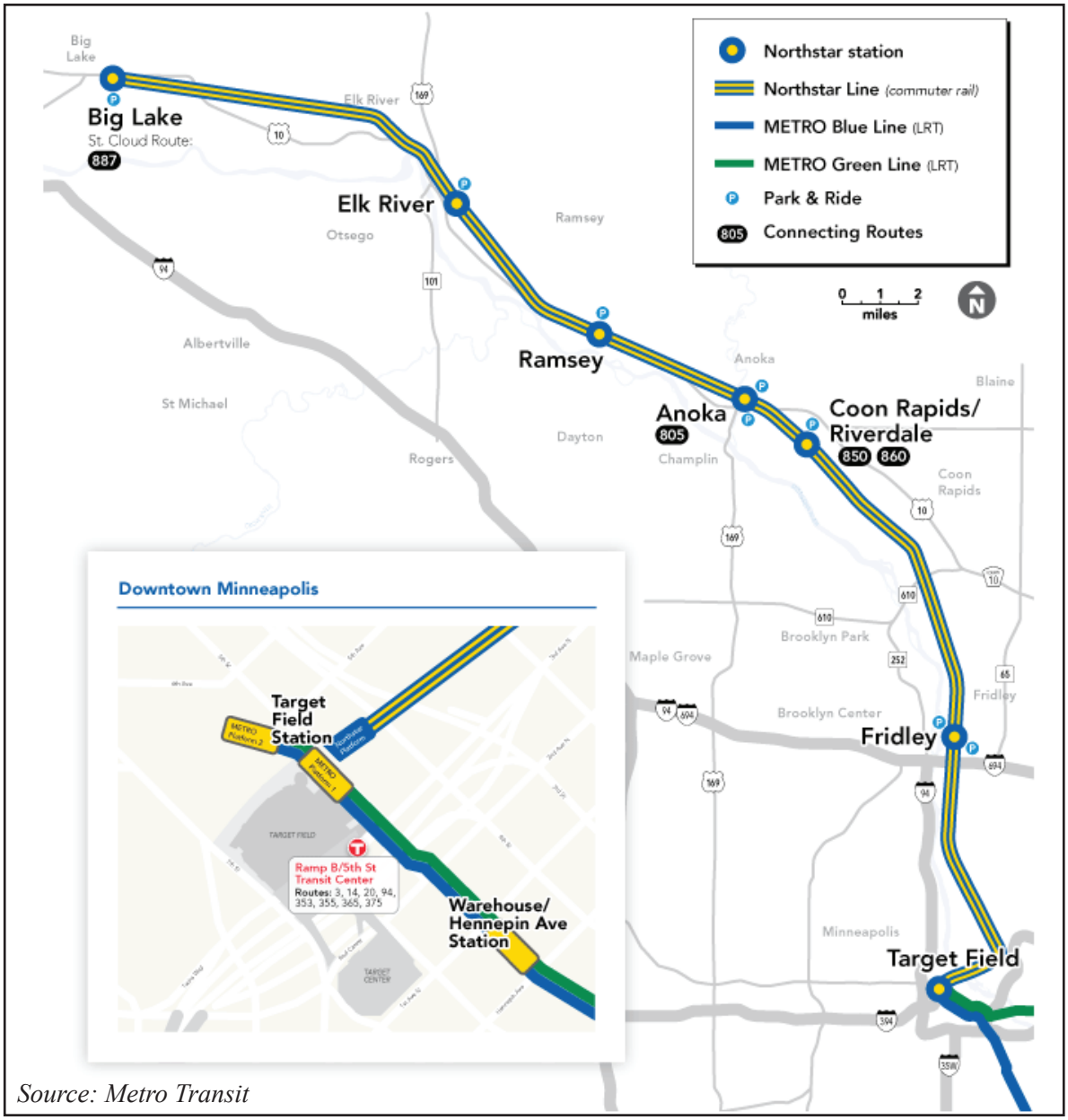
Source: MN Statewide Freight + Pass. Rail Plan, 2010

Passenger Rail

The Northstar Corridor Commuter Rail is a Metro Transit (Route 888) passenger train running on the same BNSF railroad tracks as existing freight trains. This rush hour transit option began in 2009. Trains run a 40 mile route in the Trunk Highway 10/47 corridor between downtown Minneapolis and the Big Lake area. The Northstar has seven stops: Big Lake, Elk River, Ramsey, Anoka, Coon Rapids-Riverdale, Fridley and Minneapolis. It serves Fridley residents for travel to and from downtown Minneapolis and also allows commuters who live in outlying suburbs to commute to their workplaces in Fridley. Commuters can connect to the light rail line at the Target Field Station and connect to other destinations like U.S. Bank Stadium, the University of Minnesota, the MSP Airport, and Mall of America.

Five trains run on weekdays during the morning rush hours into downtown Minneapolis and depart from downtown in the evening rush hours heading northward with a stop in Fridley. There is also one reverse commuter train during the morning and evening rush hours. On weekends less frequent service is provided. Special runs support major sport or concert events at Target Field and US Bank Stadium. Metro Transit has also used the East Northstar Station as an Express Park and Ride lot for State Fair buses. The trip from Fridley to downtown takes 19 minutes. The weekday fare from Fridley is currently $3.25 during the week and $2.75 on weekends ($1.00 for students and seniors).

Figure 3.6 Northstar Route Map



Source: Metro Transit

Ridership

A total of 26,574 rides were taken on the Northstar from the Fridley Station in 2016. In 2017, ridership from Fridley has increased every month, except February. Ridership is less at the Fridley Northstar Station than any other location (only 4% of rides) along the Northstar route as it is difficult to compete against express bus route drive times from Fridley. In addition, bus lines go down Nicollet, but Northstar riders get dropped off below grade at Target Field. To get downtown, riders can go upstairs and connect with light rail, or walk five blocks to connecting bus routes. Express bus routes from Fridley to downtown are also more frequent and cheaper than the Northstar. However future development around the Target Field Station and the connection with the Southwest Light Rail line will increase the attractiveness of Northstar services in the future.

Fridley Station

The Northstar Passenger Rail Service Stop in Fridley is located at 61st Ave. and 61st Way within Fridley's Transit Oriented Development District. The platforms are accessible from both sides of the station via a tunnel beneath the tracks. The tunnel is also used by elementary students who attend after school activities at Fridley Middle School east of University Avenue on 61st Street. The tunnel is closed at night for security reasons. The Fridley station provides park and ride facilities. Bike racks and bike lockers are available, but there is a special space on the Northstar train for taking your bike. There are also on-street bike lanes on Main Street along the East Northstar Station and south to 57th Avenue, where it connects to an off-road multi-purpose trail, heading south into Minneapolis.

Bike Lane along Fridley Northstar Station

Main Street Pedestrian bridge over I-694, Opened November 2017, Photo by Doug Katzung

Long Distance Passenger Train

There is an Amtrak train that uses the BNSF freight tracks through Fridley for the Empire Builder Route from Chicago to Seattle. This passenger line runs through Fridley between St. Paul and St. Cloud once per day in each direction, but does not stop in Fridley. There is a planned addition to the inter-city rail offering called the Northern Light Express (NLX). The NLX will run between Minneapolis and Duluth. The route is planned to pass through Fridley, with the closest stop being in Coon Rapids.

There is a rail transit support organization called All Aboard Minnesota, which has voiced interest in having a west metro stop (in addition to St. Paul) before the Amtrak train hits congestion in the BNSF switching yard. They find the Fridley Station to be a good option for such a stop, but would prefer a location that has retail uses like restaurants nearby for passengers to use when waiting. Fridley's TOD Master Plan, as adopted, does not plan for any future retail near either side of the station.

Northstar Train

Aviation

The Metropolitan Aviation System is comprised of nine airports. There are no new airports that have been added to the system in the 2040 Transportation Policy Plan.

Fridley is located in the Blaine Airport Service Area. Some of the far northern parts of Fridley are located within 3 NMs of the Blaine Airport. All of Fridley is located within 6 NMs of the Blaine Airport.

The City of Fridley regulates the height of structures in the City's Zoning Code, and limits the illumination of telecommunication towers except as required by the Federal Aviation Administration.

The Mississippi River is the only water body in Fridley where MnDOT allows seaplanes to land.

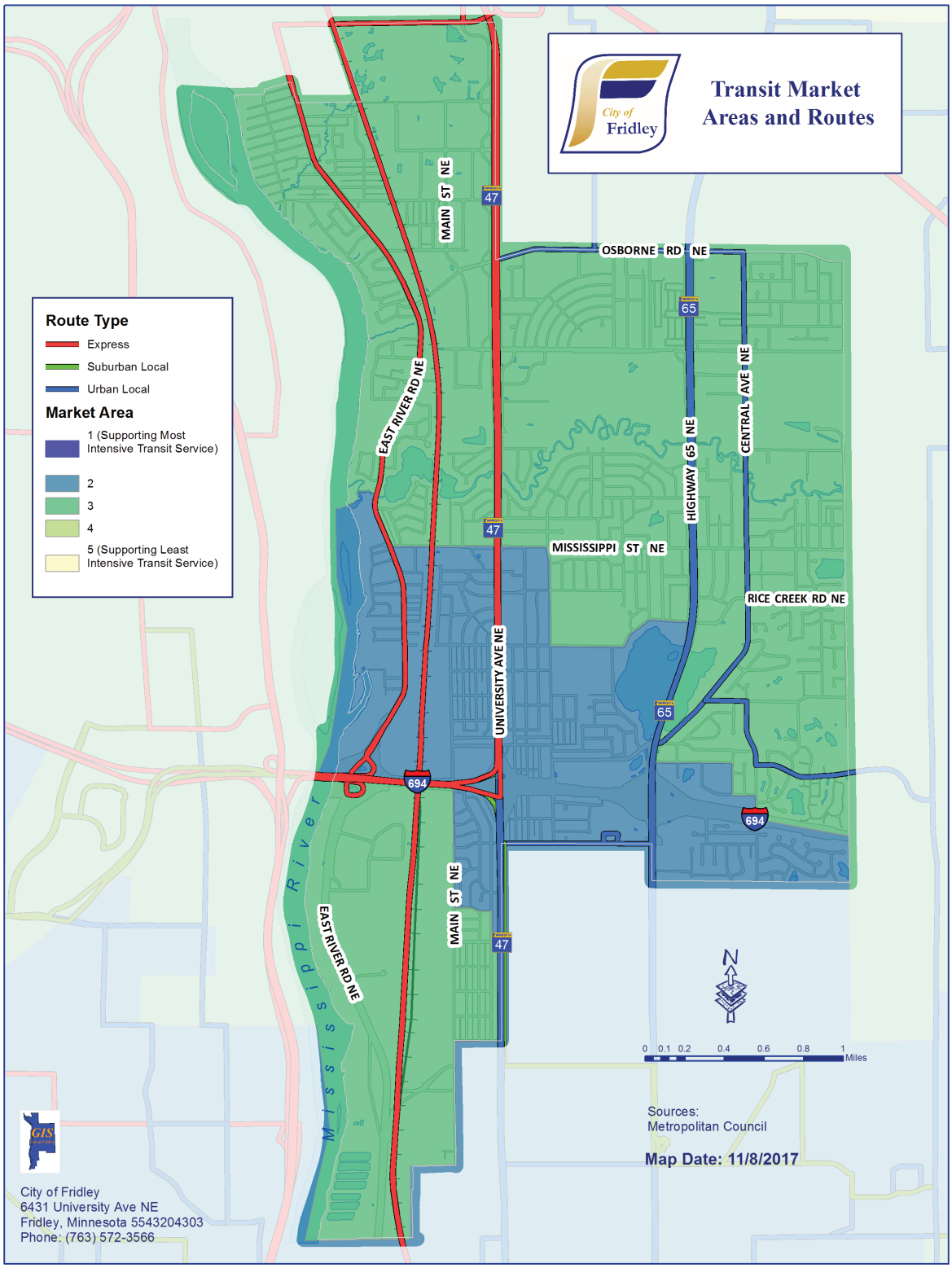
Mercy Unity Hospital in Fridley no longer operates a heliport, as they have moved much of their standard operations to their facility in Coon Rapids.

3.3 Public Transit Facilities and Services

Transit Market Area

Metropolitan Council has classified most of Fridley as Transit Market Area 3, but the mid-section of the City is classified as Area 2. Transit Market Areas approximate the level of transit service an area can support, based upon an index of population density, employment density, automobile availability (population over 16, less available automobiles), and intersection density. The existing market area definitions identify five market areas, with Area 1 supporting the most intensive transit service and Area 5 supporting the least intensive transit service.

Figure 3.7



The primary provider of transit services is the Metropolitan Council through its operating agency Metro Transit. In Fridley, Metro Transit provides regular-route locals, all-day express, paratransit services (Metro Mobility), ridesharing, and park-and-ride lots. The following are the major bus routes serving Fridley:

- Route 10 goes from Northtown Transit Station in Blaine to downtown Minneapolis. The 10U route follows University Avenue and at 53rd Avenue connects to Central Avenue. The 10C route travels on Monroe Street in Spring Lake Park and Osborne Road and then goes down Central Avenue into downtown Minneapolis. Route 10 is the only Frequent Local bus route serving Fridley, which means it runs at least every 30 minutes on weekdays and weekends with additional rush hour service.

- Route 25 provides services to Fridley through the adjacent communities of New Brighton and Spring Lake Park. It also eventually connects with downtown Minneapolis and Northtown Transit Station. This is the only All-Day Local bus route running in Fridley, meaning it operates all day but with less frequent service.

- Route 59 provides service between Coon Rapids and Downtown Minneapolis following Highway 65 in Fridley. This is strictly a rush-hour, Monday through Friday only service route.

- Routes 824 and 854 are Limited Stop Express bus routes that only run on weekdays, from the Northtown Transit Station to Downtown Minneapolis along University Avenue. Route 854 stops only at the intersection of Mississippi Street. Route 824 runs only three times in the morning and evening and stops on Osborne Road, 73rd Avenue, and 53rd Avenue. It also services Unity Hospital in Fridley.

- Route 801 is an Anoka County Traveler Route that has limited stops between the Brooklyn Center Transit Center and Rosedale Mall during peak periods. This route travels on I-694 & south on University Avenue to 44th Avenue in Columbia Heights. The route stops at the Columbia Heights Transit Center and Silver Lake Village before reaching Rosedale Mall.

- Route 852 is a Limited Service route from the City of Anoka to Northtown Mall and follows East River Road through Fridley. The route becomes an express route at I-694, and follows I-94 into downtown Minneapolis hourly Monday to Saturday.

Anoka County Services

Anoka Traveler and Anoka County Transit also provide bus services on a more local level than Metro Transit. Anoka County Transit serves limited fixed routes, which generally connect major transit hubs with major trip generators such as County facilities, major employers, educational institutions and retail hubs. Routes 801, 805 and 831 serve the City of Fridley and are scheduled to provide timed transfers to Metro Transit bus routes.

The Anoka County Traveler is under contract with Metro Transit to provide the Metro Mobility paratransit service for disabled people, dial-a-ride service, and other services based on demand. The Anoka County Traveler has limited service hours and can provide coordinated transfers to Anoka County Transit and Metro Transit bus routes. The entire City of Fridley is within the dial-a-ride service area.

In September 2017, Anoka County, through a Congestion Mitigation Air Quality (CMAQ) grant to its Transit Management Organization, Anoka Commute Solutions, which began providing shuttle bus services between the Fridley train station and major employers in Fridley. There are four routes being tested, through August 31, 2018:

Route 812 - Medtronic Operational Headquarters
Route 813 - Medtronic Rice Creek Campus
Route 814 - BAE Systems/Northern Stacks Development
Route 815 - Totino Grace High School

At this time it appears there is not enough ridership to justify continuing the service with public or private funding.

Voigt's Shuttle Bus

Figure 3.8 Fridley Northstar Shuttle Route

Source: Anoka County Commute Solutions

Private Transit

The private sector also provides transit services, primarily through taxi, ride hailing, and bus/van charter companies. These local transit services are generally small, producing minimal impact on citywide transportation patterns.

Existing Park and Ride Lots

The only park and ride lots in Fridley shown on Metro Transit's maps are Northtown Mall and the Fridley Northstar stations. However, for years, the St. Williams Church parking lot near the intersection of Trunk Highway 47 at 61st Avenue, has had 20 parking spaces reserved by Metro Transit and many people use it to access bus service at that busy corner. There are many other unauthorized "hide and ride" lots located near busy express bus route locations, such as the Holly Center at Mississippi and University Avenue, and CVS Pharmacy at 57th Avenue and University Avenue. While there seems to be adequate vehicle parking for bus users, there is a lack of secure bike parking at the stops for those that would rather bike to the bus stop.

Bus Stop Amenities

Even on the most frequent routes, many bus stops in Fridley lack basic amenities such as shelters or a bench. Fridley has many bus stops where there is no place for a rider to stand other than in the street, sometimes in a right turn lane. Since benches are not provided by a governmental agency and are placed by private parties that use them for advertising, they are not always placed in a useful location and are rarely ADA compliant. While MnDOT has a permitting process for bus benches, no one regulates them. The City has had many concerns about bus bench placement and maintenance over the past five years and has studied options for regulating them.

Boy waiting at the bus stop

There are also many bus stop locations in Fridley where it would be safer for customers to have a shelter to wait in. Metro Transit has guidelines, based on passenger ridership, that are used to determine bus stop shelter placement. Their minimum boarding required for a shelter in a suburban area like Fridley is to have at least 25 weekday daily passengers at a stop. Currently, only one bus stop, without a shelter, meets this threshold. The stop is located at the corner of University Avenue and 81st Avenue. This is a heavily used stop as it is near a large, affordable, multi-family housing complex on both the Fridley and the Spring Lake Park side of University Avenue.

Bus stop on University Avenue and 81st Avenue

Figure 3.9

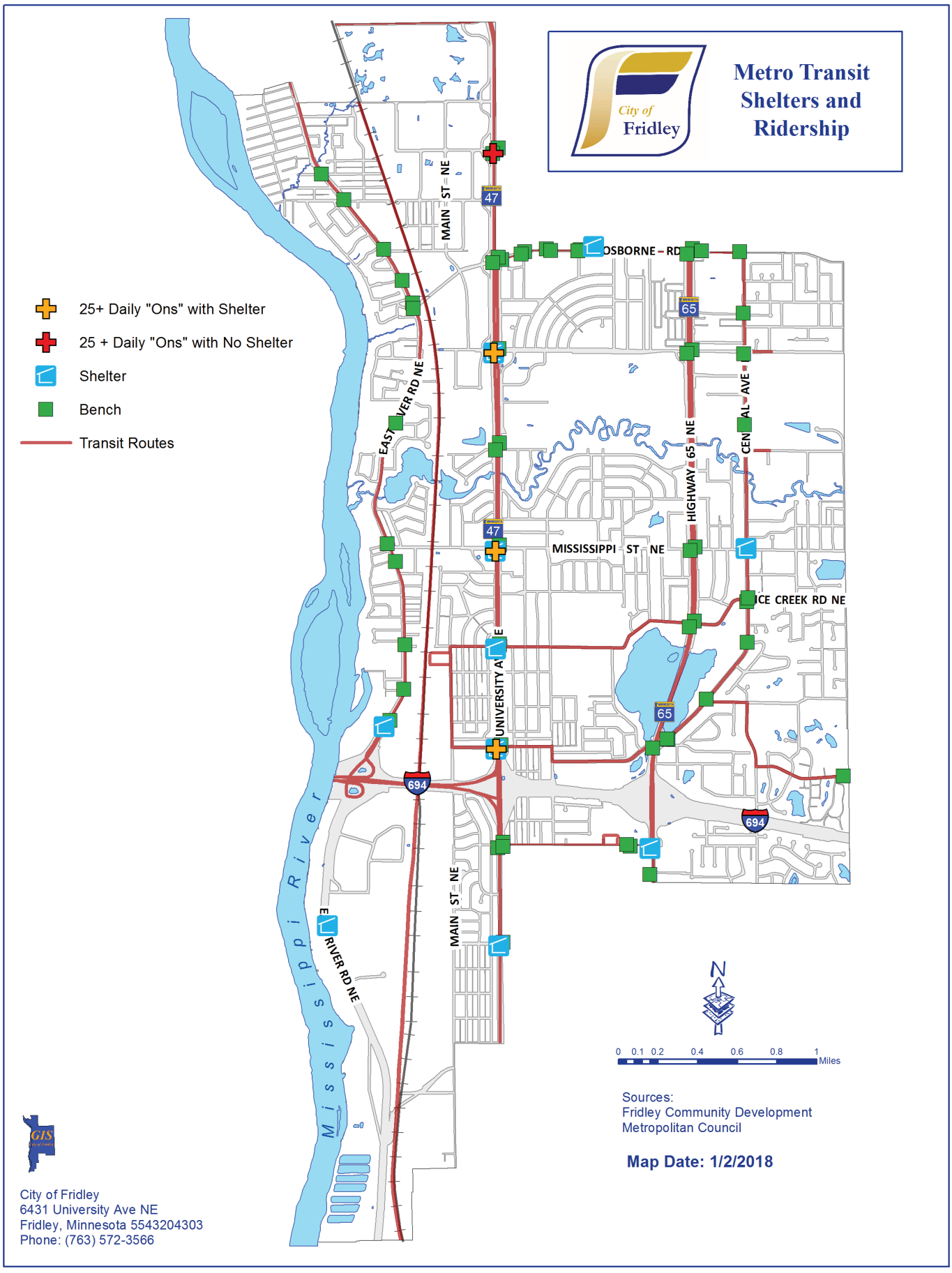
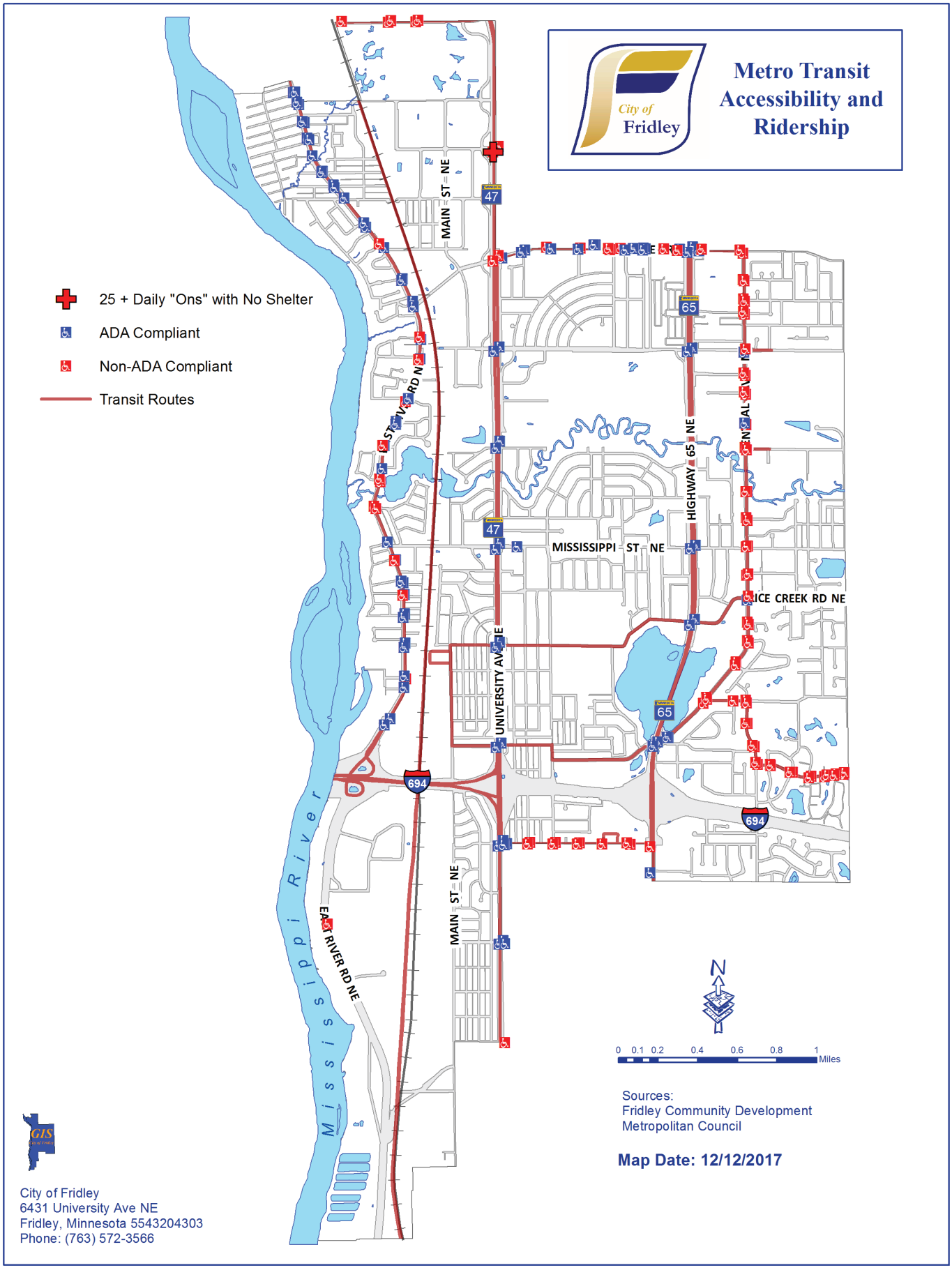

Metro Transit Shelters and Ridership
City of Fridley
25+ Daily "Ons" with Shelter
25 + Daily "Ons" with No Shelter
Shelter
Bench
Transit Routes
MAIN ST NE
OSBORNE RD
EAST RIVER RD NE
HIGHWAY 65 NE
CENTRAL AVE
MISSISSIPPI ST NE
ICE CREEK RD NE
UNIVERSITY AVE NE
RIVER RD NE
Mississippi River
47
65
694
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Community Development
Metropolitan Council
Map Date: 1/2/2018
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

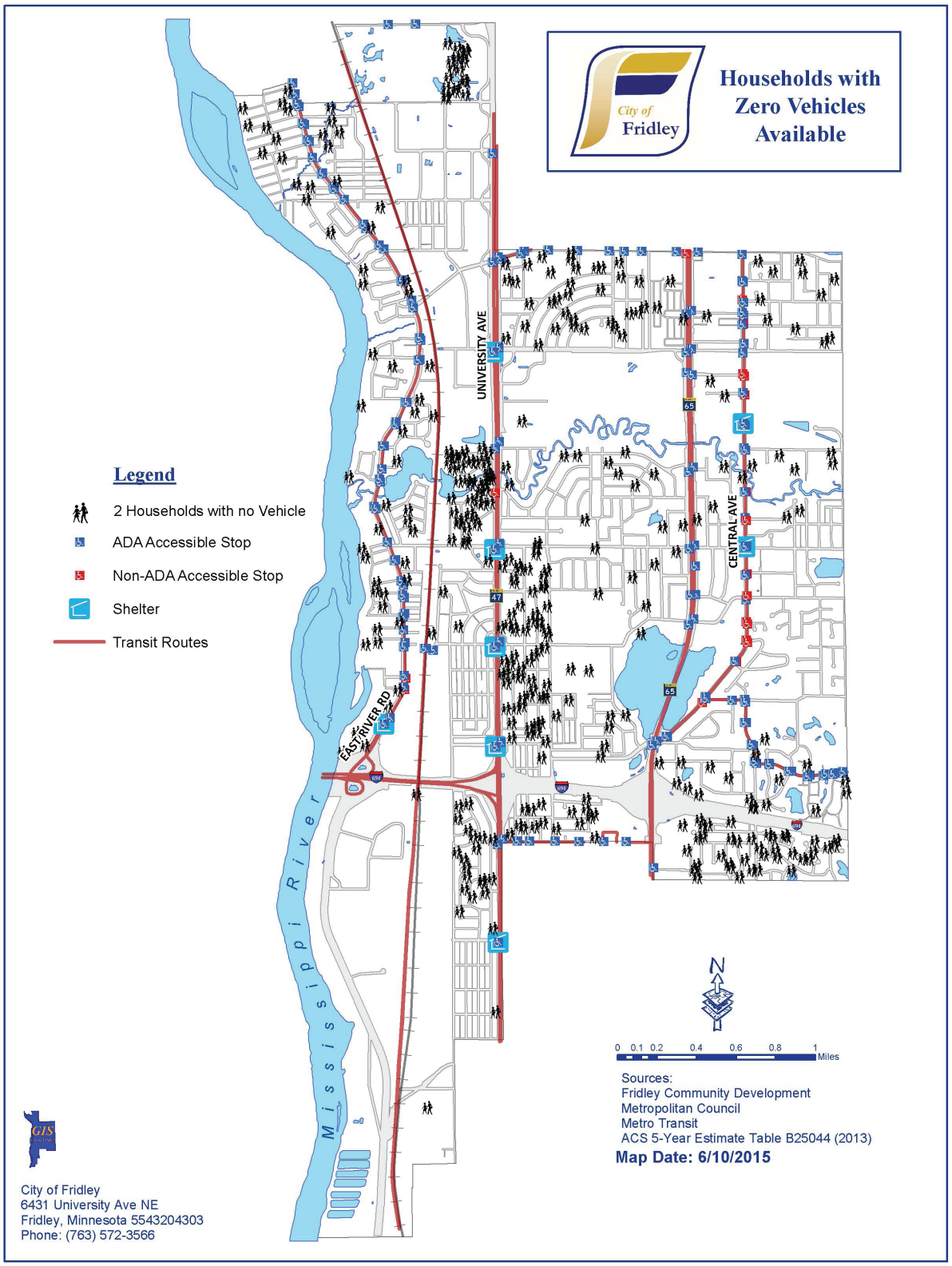
Figure 3.10


Metro Transit Accessibility and Ridership
City of Fridley
25 + Daily "Ons" with No Shelter
ADA Compliant
Non-ADA Compliant
Transit Routes
MAIN ST NE
47
65
694
HIGHWAY 65 NE
MISSISSIPPI ST NE
ICE CREEK RD NE
UNIVERSITY AVE NE
EAST RIVER RD NE
Mississippi River
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Community Development
Metropolitan Council
Map Date: 12/12/2017
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

3.4 Bike/Pedestrian Traffic

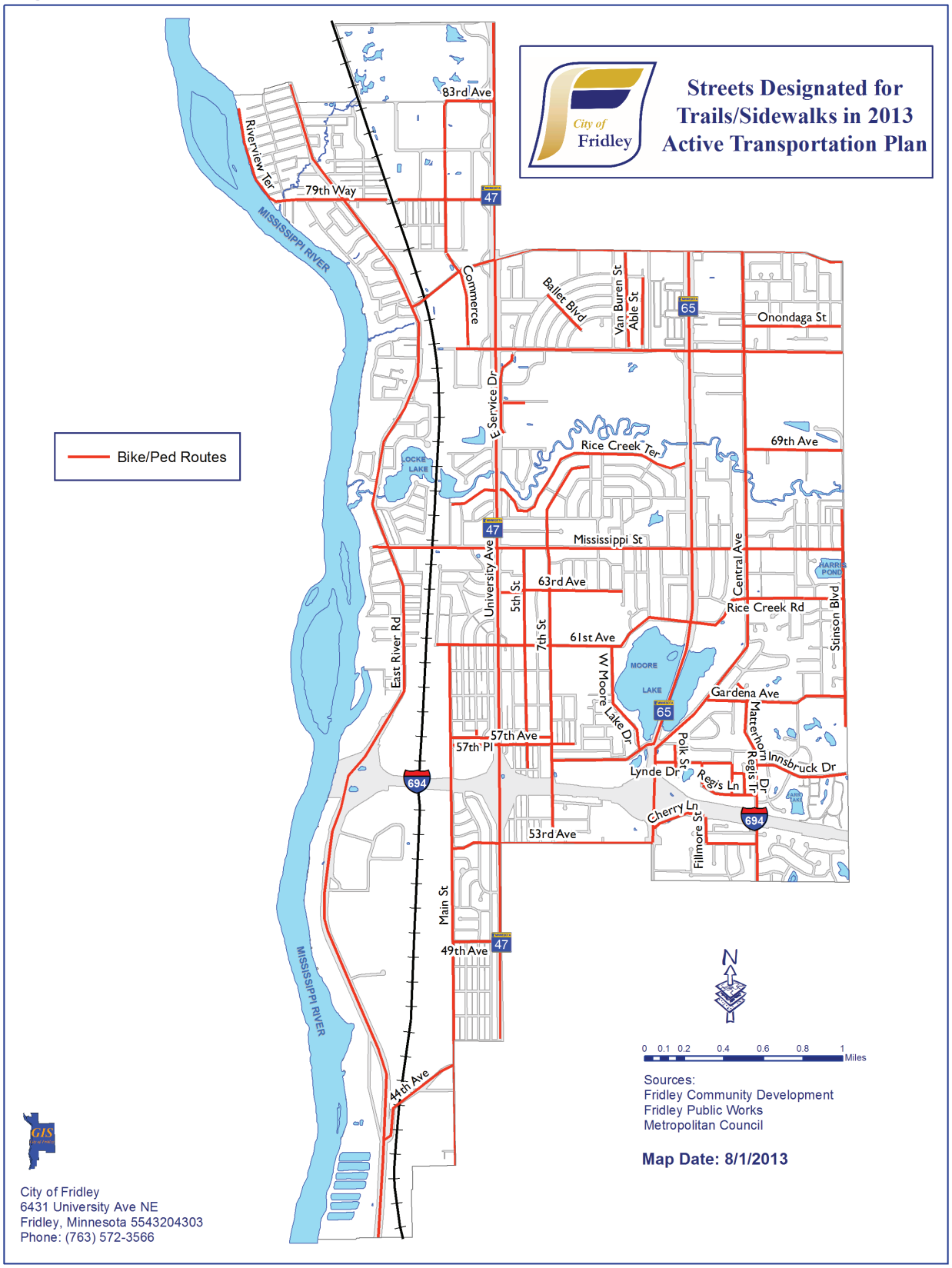
As stated in the beginning of this chapter, the many arterial and collector streets in Fridley make it very difficult for cyclists and pedestrians to get around safely. Getting around the community without a car is not just for recreation, for some residents it is a necessity. While at any given time 20-30% of residents don't have the ability to get around without a car, when Fridley staff applied for grant funding a few years ago, it was discovered that Fridley has a high percentage of handicapped households and a high percentage of households that do not own a car (see Figure 3.11).

Figure 3.11



The Fridley City Council adopted an Active Transportation Plan (ATP) on August 12, 2013. The ATP selected an existing street network that could provide convenient east/west and north/south routes throughout the City and mapped them. By adopting the plan, and then amending the Fridley Zoning Code to reference it, the City established a procedure to require developers to install bike/walk infrastructure when new buildings are developed along those designated routes. This adopted network is designed to connect to existing regional trails and to give residents safer access to schools, transit, parks, and shopping.

Figure 3.12



NPS Alternative Transportation Gateway

The National Park Service (NPS) has selected points along the Mississippi River in the Minneapolis and St. Paul area that meet certain criteria to allow park users to access the Mississippi National River and Recreation Area (MNRRA) without a car. This area is a national park which runs through Fridley. A one mile radius around the Fridley Northstar Train Stations was selected as a qualifying alternative transportation gateway.

The area qualifies as an alternative transportation node because of the train, bus, and bike trail access close to the Islands of Peace Park in Fridley. Having an alternative transportation node allows the City or the County to qualify for various grant funds to expand alternative transportation options in the Fridley node. Possibilities for other forms of transportation include kayak rental stations, bike rental stations, trail connections to the Mississippi River Trail and other parks, and improved bus amenities.

Mississippi River from Islands of Peace Park
Photo by Gordon Dietzman National Park Service

National Park Service Kayak Rental

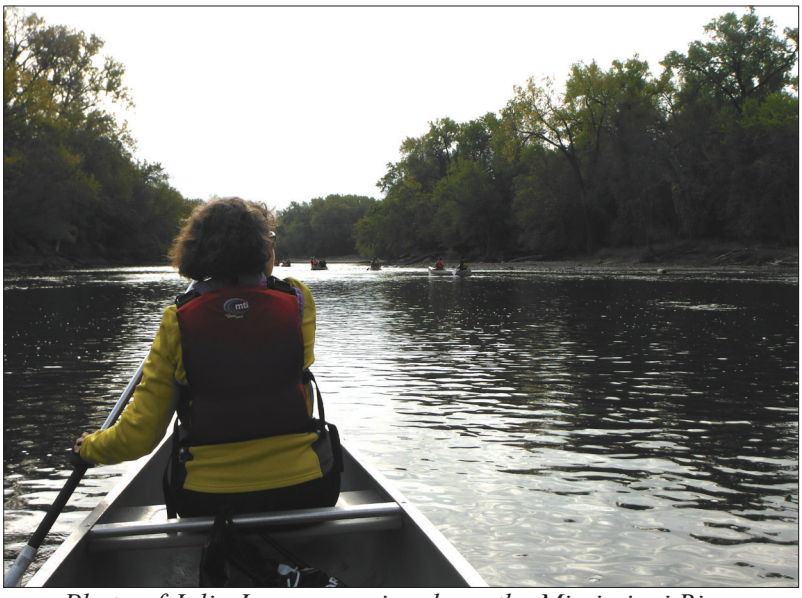
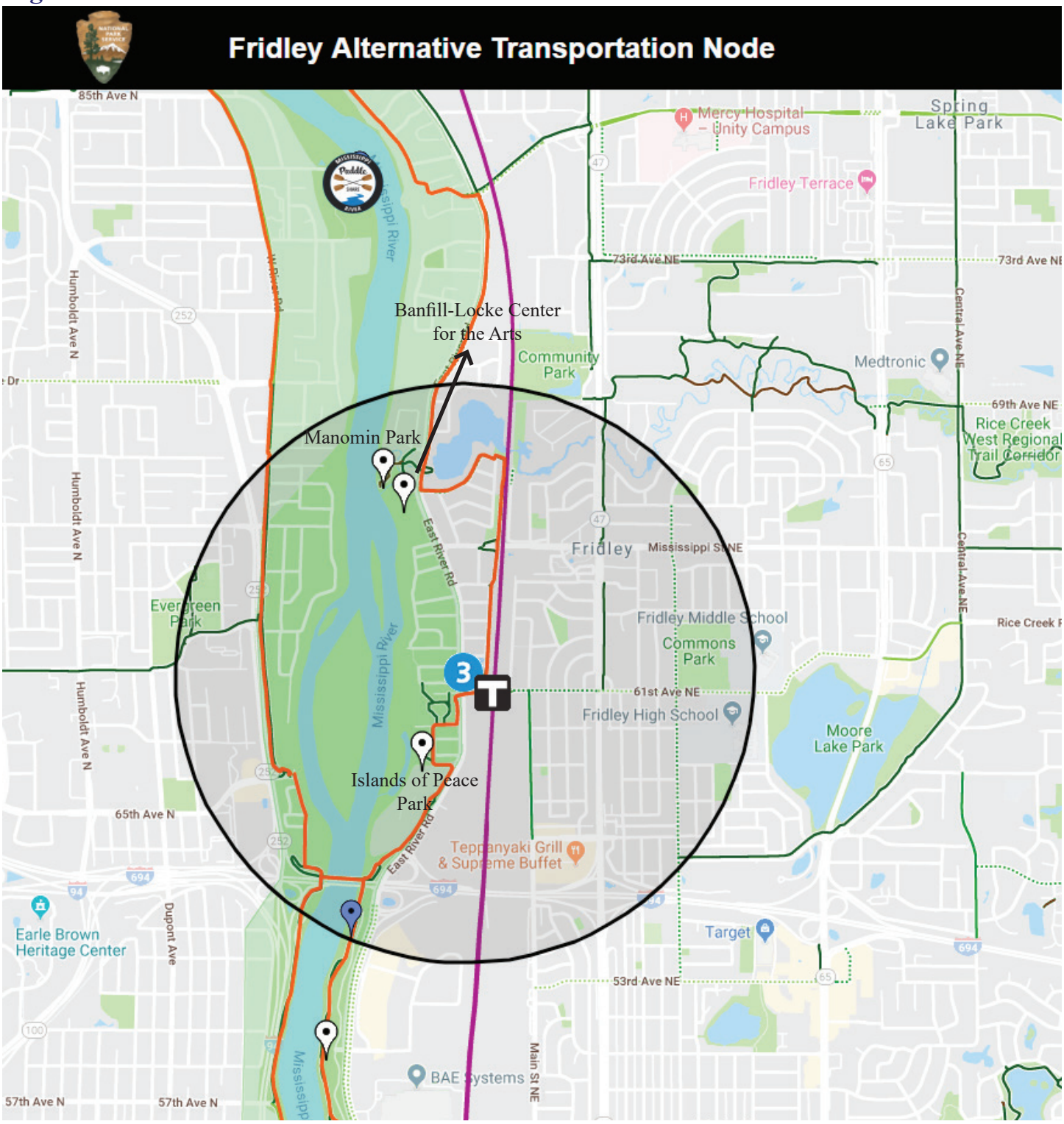


Photo of Julie Jones canoeing down the Mississippi River
Photo by Randall Thoreson

WCCO Nice Ride Bike Rental

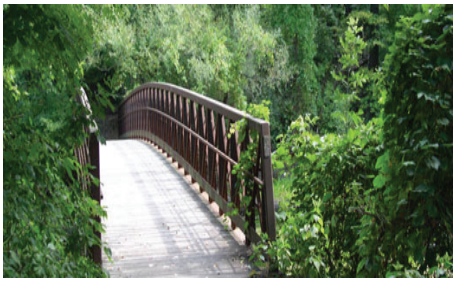
Figure 3.13



Mississippi River Trip Planner, National Park Service

Manomin Park, Source Banfill-Locke

Art Gallery at Banfill-Locke
Source Banfill-Locke



Islands of Peace Park
Source Anoka County Parks

Safe Routes to Schools

A Safe Routes to Schools (SRTS) Plan was created for the Columbia Heights School District in 2013 prior to adoption of Fridley's Active Transportation Plan, which was adopted in August, 2013. North Park Elementary is the only school in Fridley that belongs to that district, and a plan was created for that school, which is Appendix 3 of this Plan. To date, neither the City of Fridley or the City of Columbia Heights have applied for infrastructure funding to install the improvements suggested in the SRTS Plan for North Park Elementary.

The City of Fridley has applied for infrastructure improvements in the Fridley School District to make biking and walking to school safer. One federal SRTS grant was funded and completed. The Federal SRTS grant funded, expanded, and improved sidewalks near Stevenson and Hayes Elementary Schools. The federal SRTS grant also funded new bike racks, and a flashing stop sign at the Fridley Middle School. In addition, a speed monitoring sign was placed on Mississippi Street near Hayes Elementary. Other SRTS grant applications for the Fridley School District have been unsuccessful, so the City sought and received funding for a Planning grant from MnDOT in 2016. The Fridley School District SRTS Plan was completed in 2017 and adopted by both the Fridley City Council and the Fridley School District. The City now plans to seek infrastructure funding to complete the improvements in the Fridley SRTS Plan, which is in Appendices 4, 5, and 6. These proposed improvements, also need to be incorporated in the next Active Transportation Plan update.

Safe Routes to School Public Engagement Event on 7th Street

Traffic Accident Reduction

Over the past three years, Fridley has experienced its share of fatal crashes, both those involving vehicles vs. vehicles and those involving vehicles vs. pedestrians. In almost all cases, these accidents are occurring at, or very near intersections. The two main factors in these types of crashes are driver inattention/distraction or errors on behalf of the pedestrians. As indicated on the motor vehicle crash maps, all of the pedestrian fatalities have occurred along the University Avenue corridor. University Avenue receives the highest amount of foot traffic in the city as it is on a major Metro Transit transportation line and the roadway itself is lined with a mix of commercial, retail and residential uses. The Fridley Police Department has been actively enforcing distracted driving violations as well as pedestrian violations. One initiative for the upcoming year is a campaign to educate and enforce pedestrian laws.

Figure 3.14

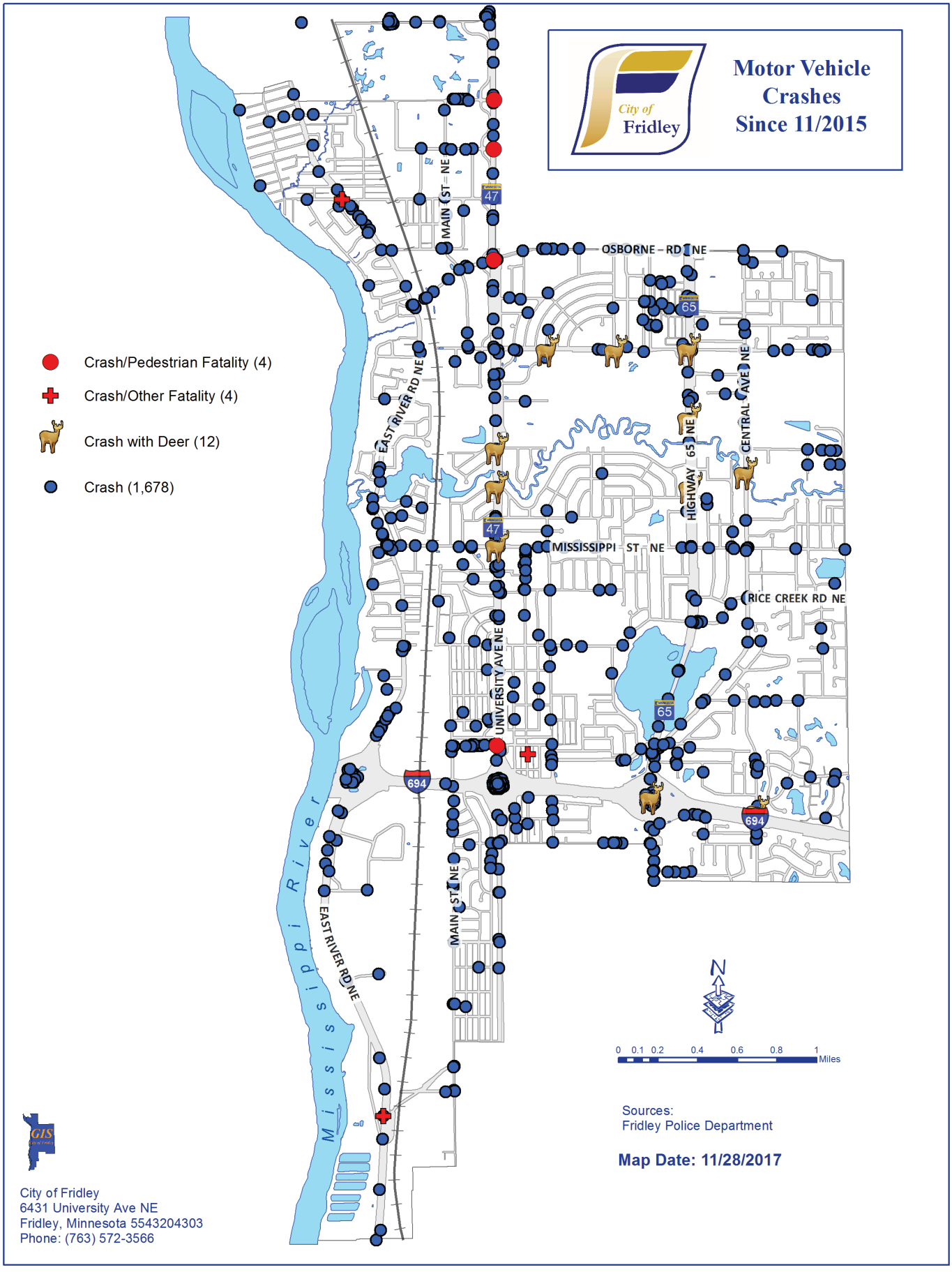
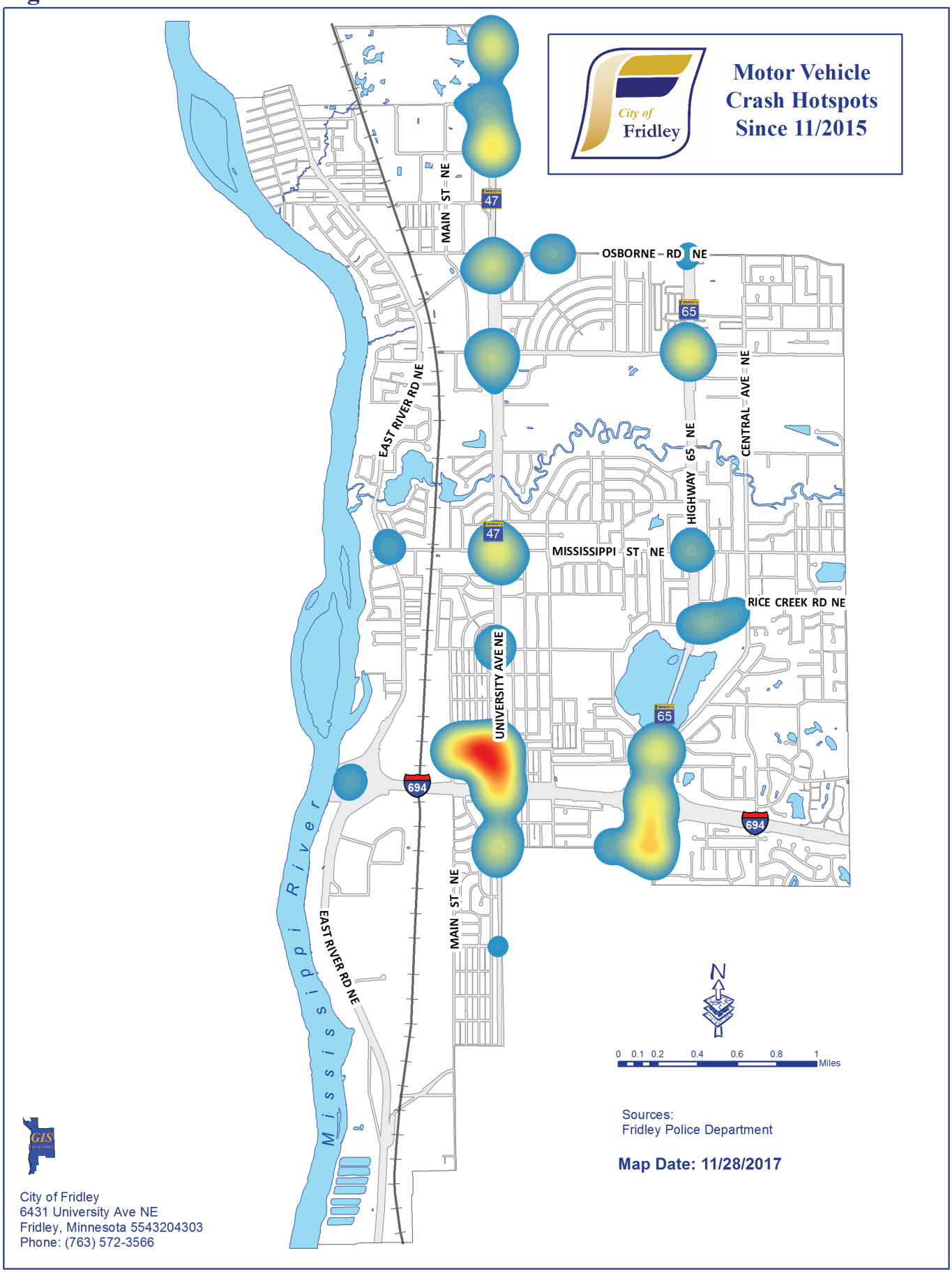

City of Fridley
Motor Vehicle Crashes Since 11/2015
Crash/Pedestrian Fatality (4)
Crash/Other Fatality (4)
Crash with Deer (12)
Crash (1,678)
OSBORNE RD NE
MISSISSIPPI ST NE
RICE CREEK RD NE
MAIN ST NE
EAST RIVER RD NE
UNIVERSITY AVE NE
CENTRAL AVE NE
HIGHWAY 65 NE
Mississippi River
47
65
694
N
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Police Department
Map Date: 11/28/2017
GIS
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

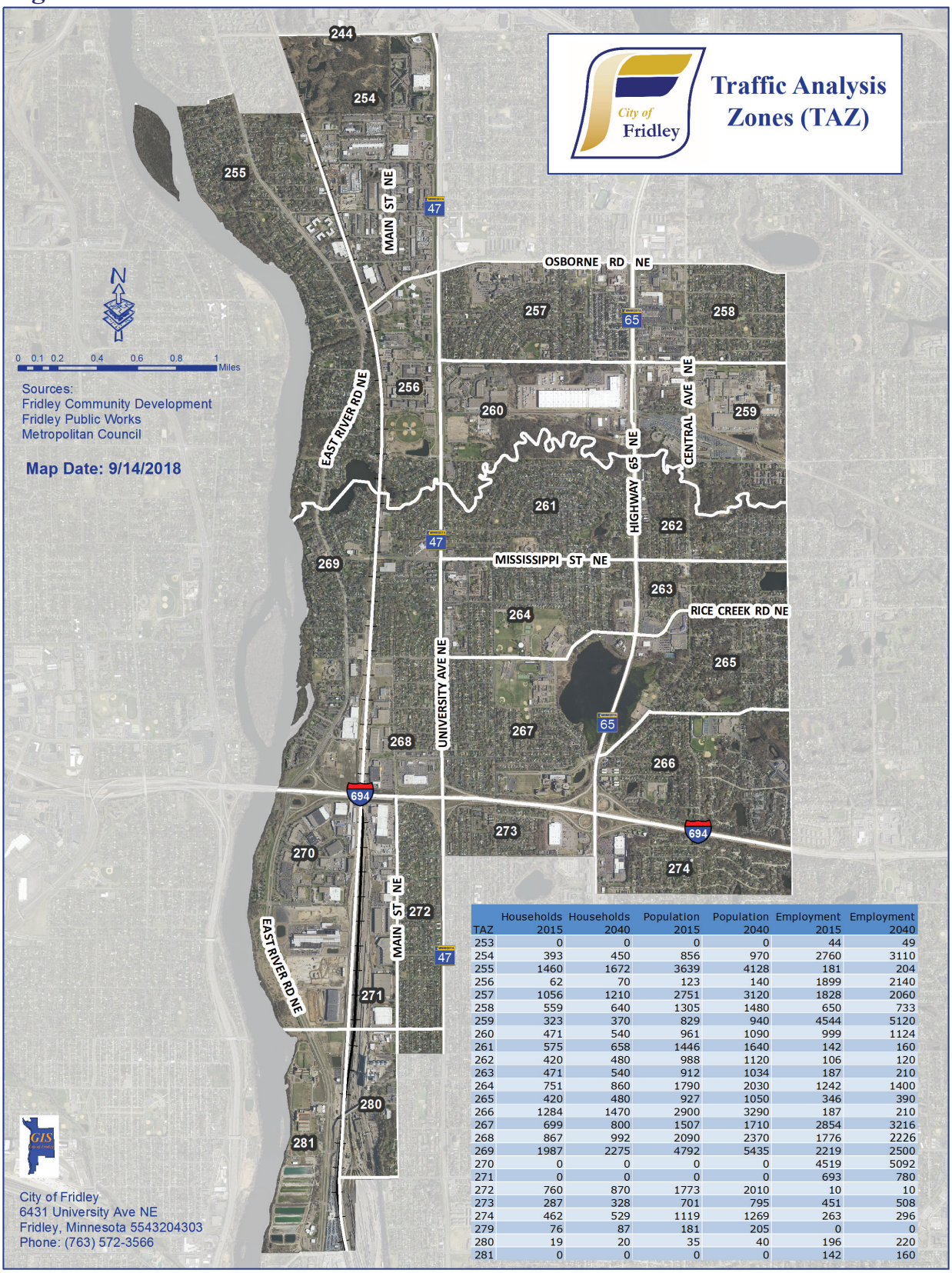
Figure 3.15


City of Fridley
Motor Vehicle Crash Hotspots Since 11/2015
MAIN ST NE
47
OSBORNE RD NE
65
EAST RIVER RD NE
CENTRAL AVE NE
HIGHWAY 65 NE
MISSISSIPPI ST NE
RICE CREEK RD NE
UNIVERSITY AVE NE
694
Mississippi River
N
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Police Department
Map Date: 11/28/2017
GIS
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

3.5 Traffic Analysis Zones

The Metropolitan Council has provided the City with projections for population, household, and employment changes over the next 30 years (see p. 20). The City has worked with SEH, Anoka County's consultant, to break those projections down by Traffic Analysis Zones (TAZ). This was accomplished by using the projections for anticipated new construction in certain areas of the City with anticipated or planned redevelopment.

Figure 3.16



TAZ	Households 2015	Households 2040	Population 2015	Population 2040	Employment 2015	Employment 2040
253	0	0	0	0	44	49
254	393	450	856	970	2760	3110
255	1460	1672	3639	4128	181	204
256	62	70	123	140	1899	2140
257	1056	1210	2751	3120	1828	2060
258	559	640	1305	1480	650	733
259	323	370	829	940	4544	5120
260	471	540	961	1090	999	1124
261	575	658	1446	1640	142	160
262	420	480	988	1120	106	120
263	471	540	912	1034	187	210
264	751	860	1790	2030	1242	1400
265	420	480	927	1050	346	390
266	1284	1470	2900	3290	187	210
267	699	800	1507	1710	2854	3216
268	867	992	2090	2370	1776	2226
269	1987	2275	4792	5435	2219	2500
270	0	0	0	0	4519	5092
271	0	0	0	0	693	780
272	760	870	1773	2010	10	10
273	287	328	701	795	451	508
274	462	529	1119	1269	263	296
279	76	87	181	205	0	0
280	19	20	35	40	196	220
281	0	0	0	0	142	160

Traffic Volumes

Every four years, the City is required to submit traffic count data for streets under City jurisdiction to MnDOT. In 2017, in response to growing problems with broken equipment, the City began hiring a consultant to collect traffic data. While this new data has not yet been approved by MnDOT, it is expected to be more accurate than the 2016 data shown. Data on State and County roads is supplied by MnDOT.

Figure 3.17 Traffic Volumes Trends 1997-2016

Roadway Segment	Daily Volumes[1]						
	1997	2001	2005	2009	2013	2016	Annual % Change 1997-2016
I-694							
@ Bridge	146,000	160,000	142,000	155,000	150,000	152,000	+0.2
East of TH 47	131,000	134,000	123,000	133,000	128,000	135,000	+0.2
TH 65							
@Moore Lake	36,000	35,000	30,000	30,000	30,500	31,500	-0.7
North of Mississippi St	37,000	35,500	35,000	34,000	33,000	30,000	-1.0
South of Osborne Rd	37,000	35,500	35,000	34,000	33,000	30,000	-1.0
University Avenue (TH 47)							
South of Mississippi St	35,500	36,000	34,500	31,000	33,500	34,000	-0.2
South of 73rd Avenue	38,000	37,000	34,000	32,000	34,000	32,500	-0.8
North of Osborne Road	37,000	38,000	34,500	30,000	31,000	31,000	-0.9
East River Road (CSAH 1)							
North of Osborne Road	17,700	19,500	18,600	15,400	13,600	13,200	-1.3
South of Osborne Road	18,000	20,000	18,700	16,500	14,900	14,200	-1.1
South of Mississippi Street	21,000	25,000	22,000	17,800	17,700	17,200	-1.0
Osborne Road (CSAH 8)							
West of University	11,000	11,600	11,500	8,100	7,100	7,800	-1.5
East of University	13,000	11,700	11,500	9,900	8,900	8,600	-1.8
East of TH 65	5,600	6,400	6,700	5,500	5,300	5,100	-0.5
73rd Avenue							
East of University	11,000	5,300	4,750	6,400	7,700	8,700	-1.1
East of TH 65	8,000	7,600	9,000	6,800	7,200	6,700	-0.9
Mississippi Street (CSAH 6)							
West of University	9,000	8,300	7,800	6,500	7,000	6,900	-1.2
West of TH 65	6,300	6,900	6,000	5,600	5,400	5,400	-0.8
East of Central	4,800	4,700	4,600	3,800	4,450	4,250	-0.6
Central Avenue (CSAH 35)							
Northeast of TH 65	8,300	8,500	8,900	8,100	8,200	8,200	-0.1
Rice Creek Road (CSAH 6)							
East of Central	4,600	4,300	4,050	4,050	4,050	4,000	-0.7
61st Avenue							
East of 7th Street	4,600	4,500	5,300	4,400	3,950	3,750	-1.0
West of 7th Street	6,700	4,500	5,100	3,950	3,500	4,350	-1.8
Moore Lake Drive							
West of TH 65	3,850	3,700	4,200	3,150	3,200	3,050	-1.1
East of TH 65	11,000	10,100	9,600	8,300	7,800	7,900	-1.5
Matterhorn							
@I-694	3,100	2,500	2,600	2,250	2,150	2,050	-1.8
North of Mississippi St.	8,800	9,000	8,600	7,200	7,100	6,600	-1.3

1 Daily traffic volumes from MnDOT Traffic Flow Maps

3.6 Commuting and Trucking Impacts

A projected increase in traffic congestion is going to incite more people to take transit or other non-motorized means to commute. A review of the latest census data (2014 ACS) for Fridley shows that although driving alone remains the overwhelmingly dominant commuting choice at 74.8%, alternative modes have shown a significant increase. From 2009 to 2014 carpooling increased from 7.8% to 13.7% and biking and walking more than doubled from 1.5% to 3.7% since 2009. The percentage of people taking transit remained nearly the same at 4.7%. The trend away from driving alone is expected to continue in future years and should be accommodated in the next 25 year transportation plan by investing more in transit, bike and pedestrian infrastructure, and promoting the usage of carpooling and other shared vehicles. Special focus on improving transit facilities and convenient connections to neighborhoods should result in increasing usage of the transit options available in Fridley.

With many industrial businesses in Fridley, traffic congestion is of great concern to those with trucking operations. While Fridley is situated close to major highways and an interstate, those roadways are heavily congested during rush hour. Increased congestion is going to affect the profitability of many business operations in Fridley.

Organized Garbage Collection

From 2010 to 2014, the City of Fridley staff, commissions, and haulers studied the possibility of converting Fridley's garbage hauling system from an open system to an organized system. One of the key reasons for the investigation was concern from homeowners who had recently paid street assessments for the rebuilding of the street in front of their home. With many neighborhoods having all six of the licensed haulers traveling on a given street, homeowners were concerned that their street investment was being quickly deteriorated by this heavy truck traffic.

In response to the concern, the City used data from a heavy vehicle impact study by the Local Road Research Board to estimate the financial impact open hauling had on street maintenance costs. That analysis led to the determination that the City could save $100,000-200,000 per year in road repair costs if garbage collection in Fridley was organized. In addition, there are environmental costs and impacts to pedestrian safety under the current open system. While the Fridley City Council voted against organizing garbage collection at the conclusion of the study in 2014, the desire for organizing garbage collection was mentioned by several residents in the survey as a service they want the City to implement.

Intersection Study

In February 2017, MnDOT and the Metropolitan Council completed a highway intersection study of principal intersections in the Metropolitan Area. Of 91 intersections included in the study, several along Highway 65 qualified for further analysis in Phase II of the study. 5 of 34 intersections that qualified for the Phase II analysis were along Highway 65 in Fridley (see Figure 3.17 and 3.18). The intersection of Medtronic Parkway and Highway 65 scored highest in need in the Fridley and Spring Lake Park area. Realizing the incredible costs of building grade-separated interchanges in fully developed areas, the study analyzed other less expensive solutions for these intersections. The study notes a need to also consider traffic growth, because that could affect the appropriate timing and extent of future improvements, which could lead to higher intersection priorities. Medtronic Parkway is an intersection anticipated to be significantly impacted by future growth with the complete build-out of the Medtronic campus master plan.

Figure 3.18

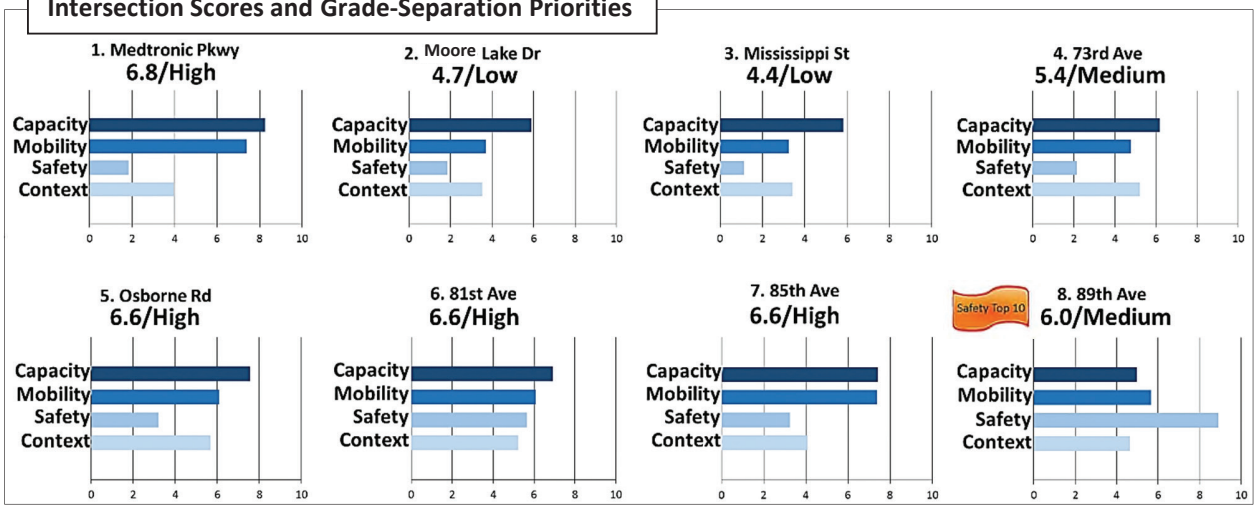
TH 65-A: I-694 to TH 10 (Anoka County 3 of 5)

Corridor Context. Constrained Limited-Access Expressway with eight at-grade intersections evaluated in the study, as well as three ramp intersections (see ***Figure 10***). This corridor generally has four through lanes of mainline capacity, a median, and is a proposed future BRT corridor. The posted speed limit is 50-55 mph. The corridor is constrained by development, includes the railroad crossing as shown, and often includes wide setbacks and frontage roads. Other characteristics include:

- Intersection Spacing – The eight intersections are spaced approximately 0.4 to 1.0 mile(s) apart, and are about 0.2 miles from the I-694 interchange and less than 0.1 miles from the TH 10 interchange.
- Access – Roadway access between the major intersections is limited to right-in/right-out access and private access roadways.
- Previous Planning for Interchanges? No. Grade separations have not been proposed for this area in previous planning documents.

Intersection measures:
Capacity: Do peak-hour volumes exceed design?
Mobility: Are daily volumes and congestion high?
Safety: Are there many or severe crashes?
Context: Are plans and multi-modal factors supportive?

Intersection Scores and Grade-Separation Priorities



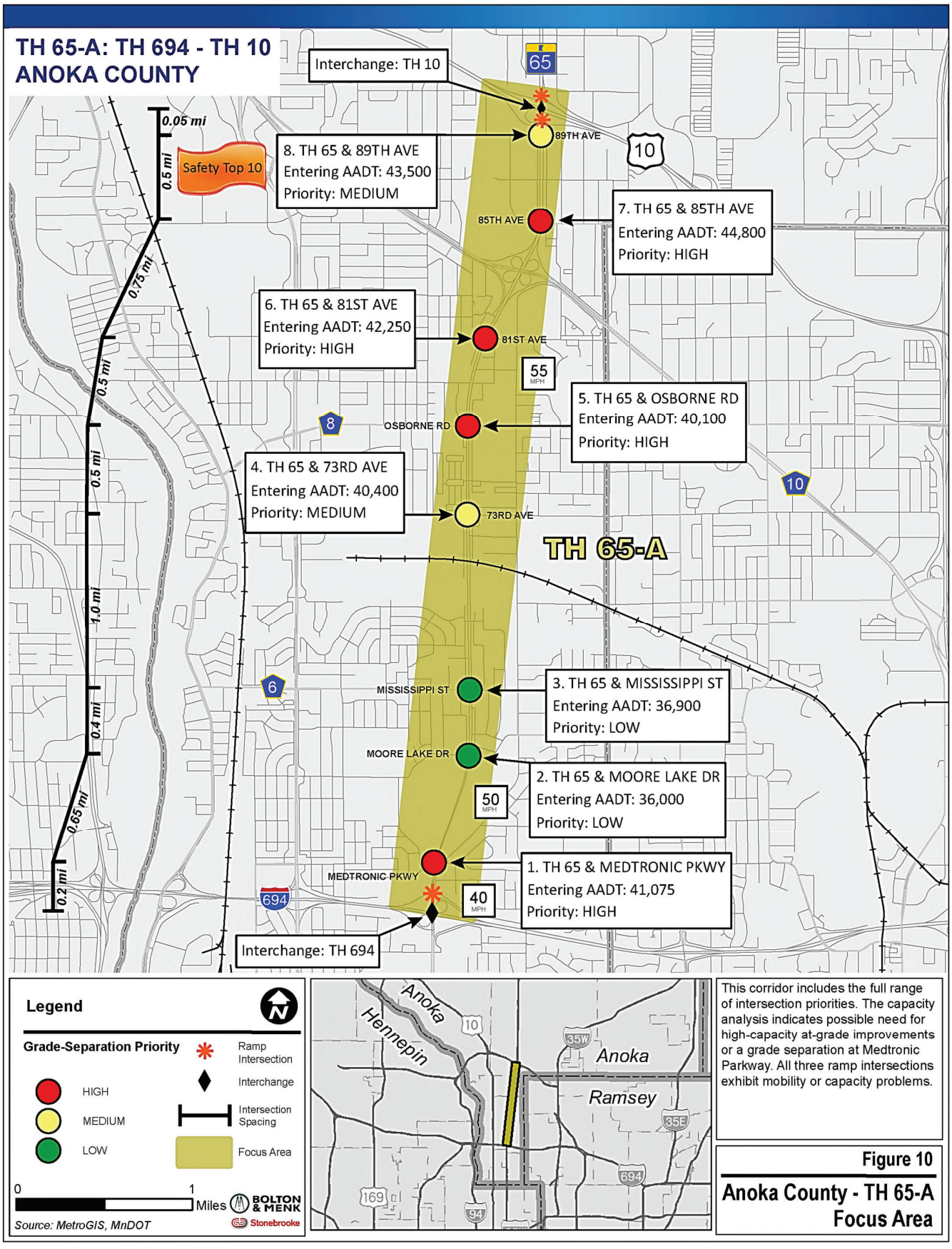
Capacity Analysis, Needs, and Opportunities. This corridor includes the full range of intersection priorities. The capacity analysis indicates possible need for high-capacity at-grade improvements or a grade separation at the Medtronic Parkway intersection, located 0.2 miles north of the I-694 interchange. The segment from Osborne Avenue to the north also warrants attention for possible capacity improvements. All three ramp intersections exhibit mobility or capacity problems.

Capacity Analysis Summary

		Existing Intersection	Expanded Intersection	Alternative At-Grade Intersection	Add PA Capacity	Hybrid Interchange	Full Interchange
TH 65-A							
1	Medtronic Pkwy.	⊠	⊠	⊠	▨	☐	☐
2	Moore Lake Dr.	☐	☐	☐	☐	☐	☐
3	Mississippi St.	☐	☐	☐	☐	☐	☐
4	73rd Ave.	☐	☐	▨	☐	☐	☐
5	Osborne Rd.	⊠	⊠	⊠	☐	▨	☐
6	81st Ave.	▨	▨	▨	☐	▨	☐
7	85th Ave.	▨	▨	⊠	☐	☐	☐
8	89th Ave.	☐	☐	☐	☐	☐	☐
	Key	⊠ V/C ≥ 1.0		▨ V/C > 0.85 & < 1.0		☐ V/C ≤ 0.85	

Source: MnDOT and Metropolitan Council

Figure 3.19



Source: MnDOT and Metropolitan Council

3.7 East-West Travel

No matter what your mode of transportation, getting across Fridley in the east-west direction is difficult. East River Road, the BNSF Railroad Line, Highway 47, and Highway 65 are major barriers. These barriers slow response time for emergency personnel. Pedestrians illegally crossing these barriers against the light, over frustration of long wait times at signal lights, are cause for great public safety concern. The predictions for significantly increased traffic congestion on north-south roadways is going to impact the quality of life and the economic competitiveness of the City. Therefore, in addition to studying the potential need for overpasses on Highway 65, and corridor studies for Highway 47 and Mississippi Street, consideration of an east-west thoroughfare in Fridley is warranted. It would also improve public safety if Fridley had an east-west greenway for pedestrians and cyclists.

3.8 Maintenance

Roadways in Fridley are maintained by the State (MnDOT), County, or City. The City maintains approximately 110 miles of streets. Major maintenance activities include snowplowing, street sweeping, sealcoating, pavement marking, sign repair, street light repairs, tree trimming, and mowing. Due to a lack of acceptable maintenance by the State, the City regularly mows University Avenue. Since neither the state or the County plow snow from their trails in the winter, the City plows several trail sections in the winter to meet pedestrian needs. During snow events, the City also removes snow from Metro Transit bus stops, because Metro Transit usually takes several days to clear snow after a snowfall. All of these measures are a priority for the City to maintain safe conditions year-round for drivers and pedestrians.

The City rehabilitates about two miles of selected streets each year using mill/overlay or full-depth reconstruction. Streets are selected for repair based upon an assessment of road conditions throughout the entire City, which is performed by City Engineers every three years. Public hearings are held to obtain public input and provide assessment information before the start of each year's projects.

3.9 Resiliency

A resilient transportation system must be resistant to natural disasters – such as floods, heat wave events, and tornadoes. The City is already seeing the impacts of climate change to the transportation infrastructure with increased street flooding problems related to massive rain events, which, with climate change, are predicted to be more severe and occur more frequently.

To increase the City's resiliency, the City's transportation infrastructure must incorporate Living Street design elements. Living Streets balance the safe access for all users (including, pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities) alongside mitigation of the environmental impacts of impervious surface through appropriate stormwater management and landscaping. While many of Fridley's streets were designed to focus on motorized transport, redevelopment offers significant opportunity for the incorporation of Living Street designs.

3.10 Future Improvement Needs

There are several approved plans for redevelopment and traffic studies that are needed to guide Fridley's Transportation Plan. Only two of them, however, require changes in street locations. One of those is the Northstar Transit Oriented Development Master Plan (see Appendix 2). This plan calls for a new bridge over the BNSF Railroad tracks at 57th Avenue. It also calls for new streets, lined with trails and sidewalks throughout the redeveloped multi-family housing area between East River Road and the River. Outside of the study, is the plan to make Medtronic Parkway a continuous parkway from Hwy. 65 to East River Road. See redevelopment area number 21 in the Land Use Chapter for a drawing of the concept.

The other plan that changes and adds new street connections is the Locke Park Pointe development, where

the new Civic Campus is under construction along University Avenue. The most recent plans for this site involve changing the access to the Holiday Hills neighborhood and creating a new connection from the Locke Park Pointe development to 73rd Avenue. These changes are proposed to increase safety at the intersection of University Avenue and 69th Avenue and the intersection of University Avenue and 73rd Avenue.

Anoka County has completed an Osborne Road Improvement Plan, which would convert the four-lane road to a three-lane road with safer pedestrian connections. The same process needs to occur with Mississippi Street, which is also in poor condition and needs to be redesigned as the level of traffic does not support a four-lane road design.

In 2012, the City amended its 2030 Comprehensive Plan to incorporate another study completed jointly with Anoka County and the City of Coon Rapids. This plan (See Appendix 7) adopted a design for East River Road to be more of a parkway with trail on one side and sidewalk on the other. The plan put priority on improvements south of Mississippi Street as traffic is congested in this area, which contains a school and the West Northstar Train Station. Traffic is predicted to worsen in this area, so an emphasis was placed on creating a bridge at 57th Avenue to relieve Interstate 694 traffic, provide non-motorized access to a large number of low income residents to retail and jobs, and to offer the Fridley School District better school access.

The City also amended its 2030 Comprehensive Plan to incorporate the 2013 Active Transportation Plan (See Appendix 8). This plan designated streets that require any new adjacent development to include sidewalks or trails.

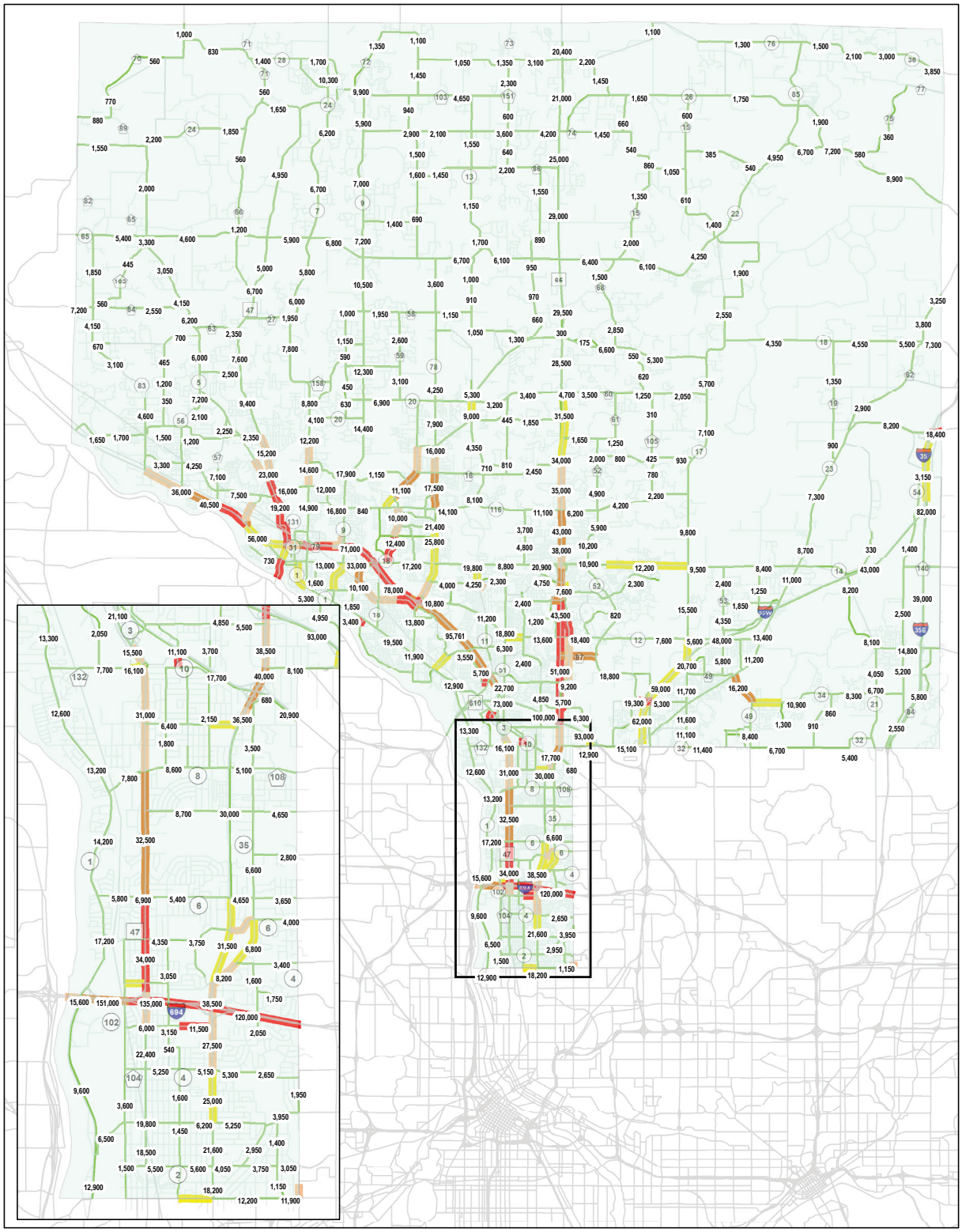
In 2017, The Fridley School District and the City of Fridley adopted a Safe Routes to Schools Plan for the Fridley School District. This plan calls for infrastructure changes related to Stevenson Elementary School on East River Road, Hayes Middle School on Mississippi Street, and the Fridley Middle School. See Appendices 4, 5, and 6 for detailed plans.

A Safe Routes to Schools Plan for North Park Elementary School shows a need for safer bike walk connections around this school in the Columbia Heights School District. (see Appendix 3)

Another area in need of multi-modal connections is University and 53rd Avenues due to the future installation of the Central BRT Line.

In general, the existing width of Fridley streets offers many opportunities for installation of multi-modal retrofits and Living Streets design principles. A GIS study demonstrated that the City has enough paved parking spaces to park every vehicle in the City on a given day three times over. This coupled with the City's policy that businesses not use the street for their business needs and drivers cannot park on the street overnight in the winter months, proves that there are opportunities to remove on-street parking in many locations in exchange for added green space, stormwater treatment, or sidewalks and trails. When surveyed, most residents were in favor of giving up parking on one side of the street for such improvements. This public feedback looks to support a complete streets policy in the City, where public right-of-ways can be used differently to support all forms of transportation – not just the automobile.

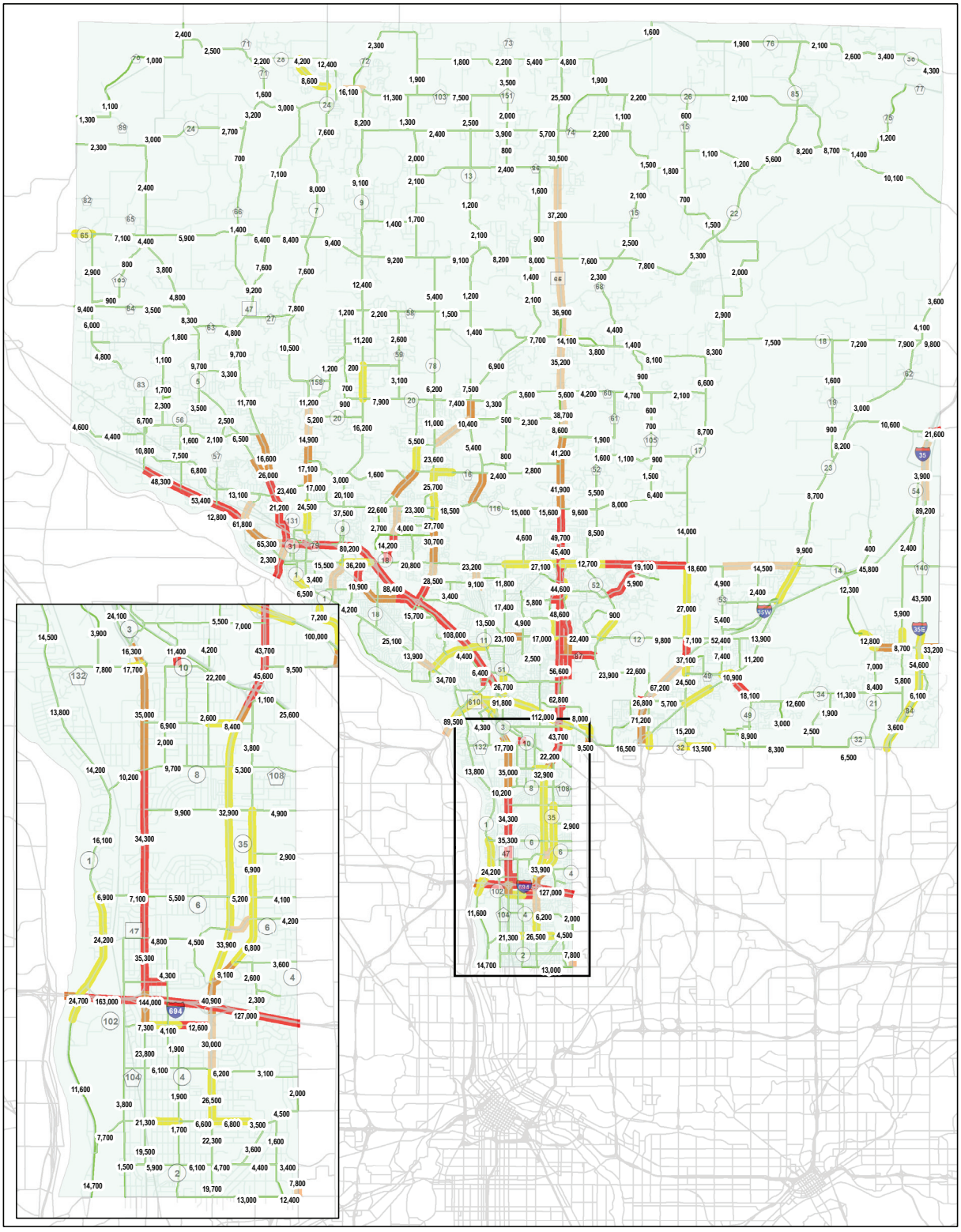
Figure 3.20 Existing Congestion Levels



Note: Daily capacities for roadways are estimated based on the number of lanes and functional class in the original regional model. See Table 2.2

Source: Anoka County

Figure 3.21 2040 Projected Congestion Levels



Note: Daily capacities for roadways are estimated based on the number of lanes and functional class in the original regional model. See Table 2.2

Source: Anoka County

2040 Traffic Congestion Forecasts

The continued growth north of Fridley is projected to dramatically increase congestion levels on Fridley's arterial roadways. According to projections compiled by Anoka County's consultant, (shown in figures 3.20 and 3.21) traffic levels which are already dangerously congested on Interstate 694 through Fridley in both directions in the morning and evening rush hours are projected to worsen by 2040. This section of roadway operates at a Level of Service (LOS) F now, and vehicle per day (VPD) counts are projected to increase from the current 151,000 VPD to 163,000 in 2040.

Traffic counts show that Highway 65 is operating at LOS F or E. Central Avenue north of I-694 is congested at LOS D. By 2040, that same area of Central Avenue will be operating at LOS E according to County projections.

Traffic congestion is also projected to worsen on 53rd Avenue. This roadway is in need of replacement and redesign, which has been complicated by the fact that the roadway is shared by Fridley and the City of Columbia Heights. Another complication is the Central BRT Line which is planned to have several stops along this section of road. Due to right-of-way width limitations, major buried utilities, and steep slopes in boulevard areas, redesigning this section of City street to accommodate BRT stops and sidewalks or trails is going to be challenging.

The most striking change in the traffic congestion projections, however, is on University Avenue. While University Avenue is currently operating at LOS F south of Mississippi Street, it is projected to be operating at LOS F all the way up to Osborne Road by 2040 and at LOS E between Osborne Road and Coon Rapids Boulevard. The projected traffic impacts to University Avenue coupled with the number of pedestrian deaths along University Avenue translates into a need to complete detailed study and planning for future infrastructure needs along this highway that is considered the "Gateway" into Fridley.

3.11 Goals and Objectives

Following the City's Vision Statement (We believe Fridley will be a *safe, vibrant, friendly and stable* home for families and businesses), goals and objectives were developed pertaining specifically for transportation:

Goal #1: Provide a **Safe** environment for residents and businesses

Objectives

- Efficiently preserve and maintain local streets in a good state of repair
- Partner with other roadway jurisdiction entities to improve the safety of Fridley roadways
- Use City resources where feasible to provide public safety during roadway emergencies
- Plan for safe transportation options for all modes of transportation
- Prepare for weather events to keep roadways safe for travel

Goal #2: Maintain Fridley as a **Vibrant** community in the Twin Cities

Objectives

- Ensure that City Code regulates adjacent uses to provide for compatible growth without being overly restrictive
- Ensure that key destinations in the City can be safely reached
- Study what is working well in other Metro Area communities and copy their successful measures
- Pursue partnerships with other units of government and sources of funding that can finance needed improvements in the City
- Continue to be a leader in City services that balances the demands of the public and City finances
- Incorporate Living Streets design and operations principles during road reconstruction and redevelopment

Goal #3: Continue to be known as **Friendly** Fridley in the Twin Cities

Objectives

- Maintain "Welcome to Fridley" signs at key entrances into the City
- Strive to have clear street signage throughout the community
- Maintain road right of ways clear of litter and weeds

Goal #4: Provide a **Stable** environment in which families and businesses can thrive

Objectives

- Maintain economically sustainable policies for street reconstruction and maintenance
- Provide a sound transportation system that supports commerce stability
- Provide a variety of transportation options to enable people to get to jobs, shopping, and recreational opportunities in the community
- Encourage increased car sharing, biking, walking, and transit usage as a means to reduce traffic congestion in the community

3.12 Policies

There are several policies that have been agreed upon related to the vision of keeping Fridley's transportation network ***safe, vibrant, friendly, and stable:***

- Before the rebuilding of arterial roadways in the City, staff will analyze redesign options that make the roadway safer for all modes of transportation.
- Before the rebuilding of collector or local streets, the City will consider the feasibility of incorporating Living Streets principles.
- The City will partner with Metro Transit, the County, and MnDOT to improve access and safety at transit stops.
- The City will work with the County and MnDOT to modify signal-controlled highway intersections to provide reasonable wait times and adequate crossing time allowances for ages 8-80.
- Establish policies and programs that minimize wear and tear on City streets.
- Pursue alternative transportation opportunities that the Mississippi River, a National Park, has to offer.
- Convert existing street lighting to higher energy efficient options when replacing fixtures.
- Reduce the environmental impact of our transportation network when feasible.

3.13 Conclusions and Action Steps

Fridley benefits from good road, rail, and public transit access for people and businesses. Transit options include a Northstar commuter train station and several express bus routes to downtown Minneapolis. The City's transportation weaknesses consist of traffic congestion on major roadways during rush hour and the difficulty to cross highway and railroad barriers, especially in the east-west direction. These barriers result in a lack of safety to walk or bike throughout the city. The demographic evolution with an increase in younger and older residents supports the demand of pedestrian and bike improvements and other alternatives to automobiles. Planned redevelopment projects are going to create increased residential density that will support future transit ridership.

The following are action steps necessary to create a transportation system in Fridley that is ***safe, vibrant, friendly, and stable*** in accordance with Fridley values:

The Northstar TOD Master Plan calls for a railroad bridge crossing at 57th Avenue. However, Burlington Northern Santa Fe officials have indicated that they will not allow bridge supports to be placed in their right-of-way which would double the cost of a bridge.

Action Step: City staff need to meet with BNSF again to pursue less expensive options for a bridge crossing.

Action Step: The City needs to acquire the necessary land, or easements on both sides of the rail road tracks for future rail crossing use.

Fridley is scheduled to be served by the Central BRT Line along University Avenue by 2021. Part of the Northstar TOD Overlay District includes University Avenue. There have been many pedestrian deaths on

University Avenue in recent years with increasing pedestrian activity in the area growing with new housing and frequent transit service to the area. Recent survey results demonstrate clear public safety concerns regarding crossing University Avenue.

Action Step: As part of the effort to master plan each designated BRT station stop along University Avenue and 53rd Avenue, the City should partner with MnDOT, Metro Transit, Anoka County, and the City of Spring Lake Park to conduct a corridor study of University Avenue from 53rd Avenue to 85th Avenue before 2021. This study should also analyze speed limits in combination with increased traffic projections.

A 2017 Metropolitan Council/MnDOT Intersection Study found that two intersections along Highway 65 ranked high in priority for a grade-separated interchange. Those two locations were the intersection at Osborne Road and Medtronic Parkway. The intersection of Medtronic Parkway/Hackmann Avenue/Highway 65 was ranked the highest of the five intersections in Fridley that were noted as needing safety improvements.

Action Step: While there currently is no MnDOT funding for such improvements, the City should consider conducting further study of the intersection of Medtronic Parkway and Highway 65 – especially since the Medtronic Campus is only halfway constructed to its approved master plan. In addition, the City, County, and MnDOT need to initiate discussions about the need to consider an east-west route through Fridley that can better serve local traffic needs and provide a safer route for pedestrians and cyclists.

In order to properly budget needed street repairs, needs must be continually prioritized.

Action Step: The City will continue to rate conditions of City streets every three years and repave approximately two miles of street per year to address maintenance needs to meet minimum road condition standards for the City.

Sylvan Hills Street Repavement

Fridley's senior and disabled population has special transportation needs.

Action Step: To ensure that seniors and disabled individuals can safely remain in their home, the City will continue to connect senior residents to available County and Metro Transit home pick-up transportation services.

MnDOT's goal in setting speed limits and the timing of stop lights on University Avenue is to move a heavy volume of traffic and reduce congestion. Due to lengthy wait times (nearly 5 minutes at many crossings) to cross University Avenue, many pedestrians cross against the lights daily. In addition, drivers are often running red lights and making illegal right turns on red. There have been many preventable pedestrian deaths on University Avenue in Fridley in recent years.

Action Step: The Police Department will be monitoring pedestrian crossing violations at Univeristy Avenue and Mississippi Street, and warning or citing violators.

The traffic levels on Mississippi Street are less than Osborne Road and the recent traffic study of Osborne Road revealed that current and projected traffic levels did not warrant a four-lane road.

Action Step: Work with Anoka County to analyze redesign options for Mississippi Street in a similar planning process that was completed for the redesign of Osborne Road. Redesign options should include modification to the BNSF railroad bridge drainage system which causes the south sidewalk to ice up in the winter.The County and City should also involve MnDOT in this planning process to investigate options for making the University/Mississippi intersection more pedestrian friendly, like considering no right turn on red.

University Avenue Service Road

Once City Hall moves to the new Civic Campus, there is no need to maintain direct access onto Highway 47 for emergency vehicles. In addition, there will be no need to maintain the frontage road on the west side of the Fire Station to Mississippi Street. Since the design of this frontage road at the intersection of Mississippi Street and University Avenue poses hazards for drivers and pedestrians, it should be removed and closed off at Fourmies Avenue.

Action Step: Once City offices move to the new Civic Campus, the University Avenue frontage road access at Mississippi Street should be closed off. The vacated street could be added to adjoining property for future redevelopment purposes. Removing the frontage road will also allow for design of a safer at-grade pedestrian crossing and offers an opportunity to continue the multi-use trail on the east side of University Avenue south to 61st Avenue.

There is one Metro Transit bus stop location on University Avenue that qualifies, based on number of users, for having a shelter, but does not have one. This particular bus stop has a bench placed less than 10 feet from 55 mph traffic with no barrier to protect bus patrons from road spray, let alone from a vehicle crash. Also, there isn't a paved path leading to this bus stop, so it is not ADA accessible. It is a heavily used stop because it is located near large, affordable, multi-family housing complexes.

Action Step: Work with Metro Transit to install a bus shelter that is ADA compliant at 81st Avenue and University Avenue.

In order to make bus stops more pleasing to use, the City is providing trash bins at many Metro Transit bus stop locations and City crews are collecting the trash once a week from the bus stops that have trash bins. Another long unmet infrastructure need at Metro Transit bus stops is the lack of bike racks.
Action Step: The City will work with Metro Transit to find funding to install bike racks at bus stop locations near high use trails.

Action Step: In order to get more transit ridership, bus stop locations need to be accessible. The City could initiate a bus bench permitting process, and the installer of the bench would be required to make access to the bench accessible in exchange for no temporary sign permit fees as long as the bench location is maintained.

There continues to be many unmet trail needs in the City.

Action Step: Update the Active Transportation Plan at least once every five years to update and prioritize current needs for sidewalk and trail connections, and incorporate newly adopted Fridley and Columbia Heights Safe Routes to Schools Plans.

Gardena Avenue Crossing

Fridley has a completed SRTS plan for North Park Elementary, Stevenson Elementary, Hayes Elementary, and Fridley Middle School. Staff has met with the principal of Woodcrest Elementary and the Osborne Road reconstruction plans address most of their needs. Attention has not been given, however, to two busy private schools: Al-Amal School and Totino Grace, which are on Gardena Avenue.

Action Step: The city staff should meet with the appropriate staff of these two schools to determine safety needs for kids walking, biking, and taking transit to these private schools, and then incorporate those needs into the next Active Transportation Plan update.

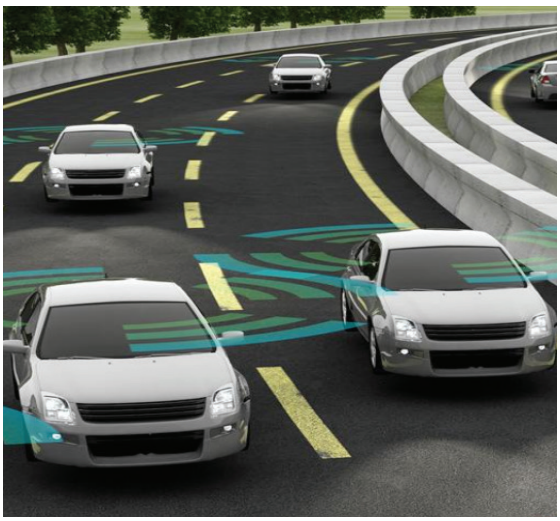


Illustration of autonomous vehicles on a roadway, Photo credit: Karneg via istock

By 2040, the USDOT is estimating that 90% of light vehicles on the road will be V2V assist (Vehicle to Vehicle. A recent Metropolitan Council study predicts that by the year 2024, autonomous vehicles (AVs) will outnumber self-owned vehicles on the road. The greatest interest in AVs is in the trucking industry. Fridley, having a heavy industrial base, will be greatly impacted by this change.

Action Step: Monitor development of Autonomous Vehicles and their impacts on land use and road design.

The presence of the heavy amount of rail traffic on the BNSF Railroad line poses the hazard of critical delays for emergency personnel. When a call comes in for help west of the railroad tracks, response times can be delayed significantly when a train is passing through.

Action Step: Explore means for a train-passing alert system for emergency dispatch use when instructing first responders to a call, so that they can take alternative routes when a train is blocking their normal response route.

The five-year study of organized garbage collection and a heavy vehicle impact study by the Local Road Research Board, led to the determination that the City could save $150,00-200,000 per year in road repair costs if garbage collection in Fridley was organized. In addition, there are environmental costs and impacts to pedestrian safety under the current open system. While the Fridley City Council voted against organizing garbage collection in 2014, the desire for organizing garbage collection was mentioned by several residents during surveys as a service they want the City to implement.

Action Step: Organized garbage collection would result in decreased road maintenance costs, so the City should consider studying the option of organized garbage collection again. The City should also immediately amend Chapter 113 to limit the number of garbage hauler licenses allowed in the City.

Qualifying for grants and demonstrating need to other road jurisdictions requires data.

Action Step: The City should collect bicycling and pedestrian count data on key intersections on University Avenue and other locations with unmet trail connection needs. This data would then be used in the Active Transportation Plan to guide planned improvements.

The streetscape that the HRA financed in past years on 57th Avenue, and Mississippi Street near Highway 47 is in need of maintenance. Before making improvements, however, the City may want to consider redesigning these areas and requiring the adjoining businesses to maintain them collectively as has been done on Moore Lake Drive.

Action Step: The streetscape conditions on 57th Avenue, University Avenue, and Mississippi Street should be analyzed and a plan developed to finance maintenance needs with an emphasis on replacing outdated streetlights with more energy efficient options.

The Metropolitan Council has designated regional job concentration areas in the Metro Area. One such area in Fridley is the Northern Stacks Development. However, Fridley no longer has a bus line on East River Road that travels south of I-694. The Fridley stop on the Northstar Train is 2-3 miles north of this site. Currently, the City is partnering with Anoka County Commute Solutions to use CMAQ grant funds to provide a shuttle from the train station to the Northern Stacks Development. However, a better solution would be to restore a bus route that services other bus users on East River Road with a route into downtown Minneapolis south of the freeway with a stop at Northern Stacks.

Action Step: Advocate for standard transit service to the Northern Stacks Development and other large employers in the area, such as BNSF and General Mills.

The Fridley Northstar Train Station is the center of one of the National Park Service's Alternative Transportation Nodes, where they strive to reduce vehicle impacts on national parks. As the Mississippi River is a national park, and there is a national bike trail that runs through the west train station that leads to a regional park on the river, Fridley was selected as a node that qualifies for alternative transportation accommodations. Boating and biking are those two main modes of focus.

Action Step: Pursue establishment of a car sharing service like Car2Go and a bike sharing system like Nice Rides at the Fridley Northstar Station.

Action Step: Being in an alternative transportation node affords Fridley the eligibility for certain federal funding sources that can help pay for easements, so the City should pursue such funds when they become available to obtain the easements needed along the River to expand Islands of Peace Park Trails north to River Edge Way Park, which could lead to bringing the MRT closer to the River.
Anoka County has made it clear that if bike/pedestrian infrastructure is going to get built on East River Road according to the East River Road Corridor Study, then the City will need to finance it.

Action Step: Pursue funding options for the infrastructure planned in the East River Road Corridor Study.

Action Step: Now that the Main Street off-road multi-use trail is complete to 44th Avenue, the City needs to work with Anoka County to complete the needed connection to the MRT.

Action Step: The City needs to begin obtaining easements where needed to complete the future sidewalk and trail additions as specified in the East River Road Corridor Study and the Northstar TOD Master Plan.

2017 community survey results showed public support for removing on-street parking on one side of the street to provide space for trails, sidewalks, or greenspace.

Action Step: Incorporate Living Streets design elements into street redevelopments based on unique street needs and characteristics.

In 2016, the Fridley Environmental Quality and Energy Commission (EQEC) developed design goals for auto-oriented corridors, (see Appendix 13) particularly for University Avenue. This criteria was approved by the Planning Commission and allowed the City to meet another GreenStep City Best Management Practice.

Action Step: Incorporate the adopted auto-oriented corridor design goals into the future University Avenue corridor study. Also use the design goals as a guideline when pursuing landscaping grant funds for University Avenue.

53rd Avenue is scheduled for reconstruction in the next few years. Because this roadway is shared with the City of Columbia Heights it is more complicated to make improvements.

Action Step: Partner with the City of Columbia Heights and Metro Transit to develop a street design that supports multi-modal and future BRT needs on 53rd Avenue when the street is rebuilt.

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Parks and Trails

Parks and Trails

4.0 Introduction

Fridley's parks, trails and open spaces are important elements of the community. As Fridley developed over the past six decades, the City established an extensive network of park and recreation facilities. Today, the Fridley park system offers areas for active and passive recreation, preserves natural habitat, and provides non-vehicular connections to points of interest within the community and beyond Fridley's borders.

Fridley's park system is not likely to expand in future years because the city is nearly fully developed and has limited opportunities for park land expansion. If additional parks are acquired or if expansions take place, they will generally result from specific opportunities and circumstances such as redevelopment efforts or changes in land uses. In the future, the primary focus on Fridley's park system will be to continue updating and maintaining the existing park and open space facilities. Within this chapter, the term *facility* is meant to include the natural, landscaped, and built environment.

Riverview Heights Park Bridge in the fall, Photo by Doug Katzung

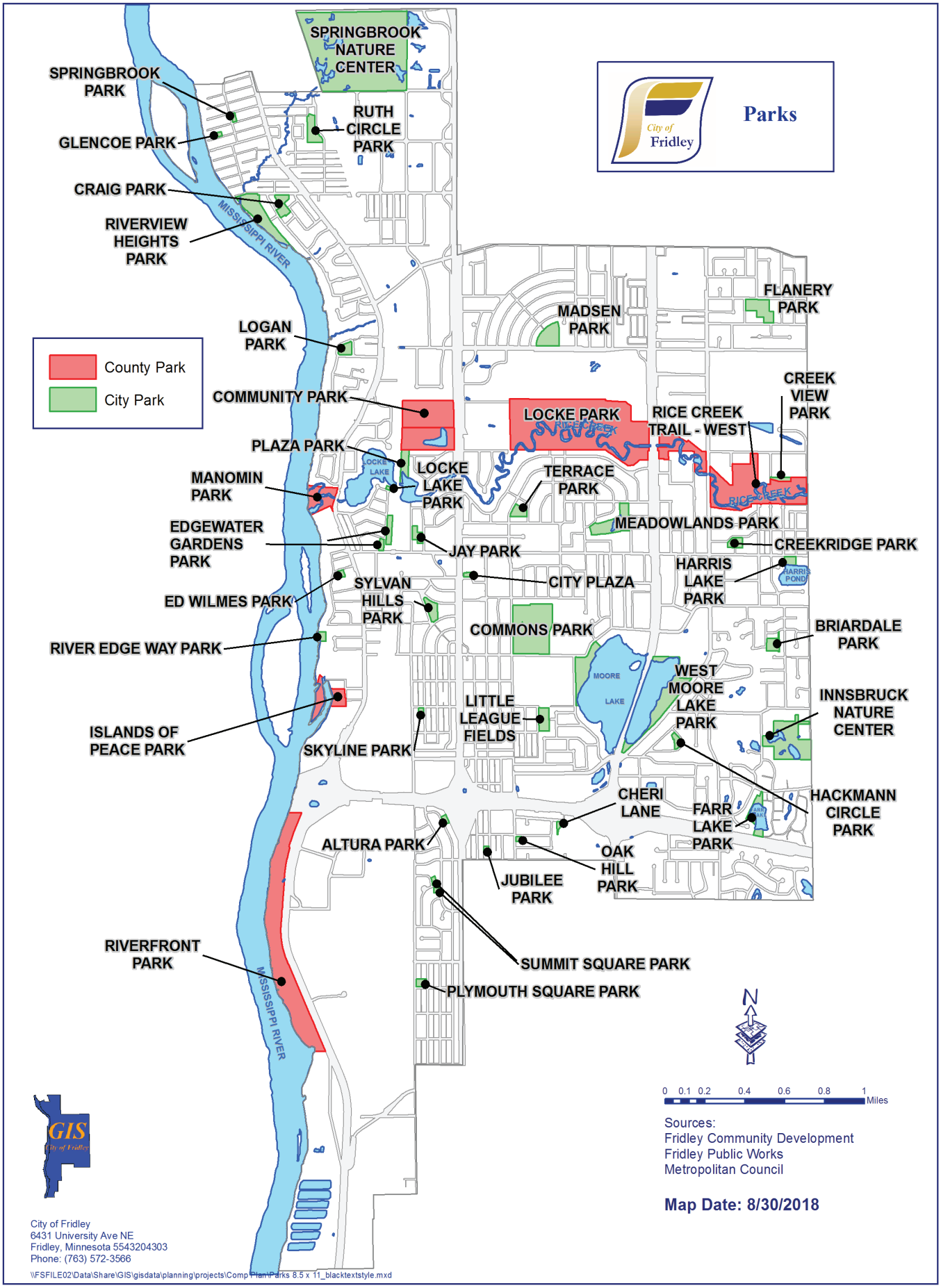
4.1 Existing Parks, Trails, and Facilities

Fridley has a strong park system consisting of 295 acres of land owned by the City, 57 acres of property that is owned and operated by four different school districts, as well as, 300 acres of park land operated by Anoka County. Collectively, these facilities offer Fridley residents, business employees, and visitors over 652 acres of park, open space areas, and miles of trails. The system was built through park dedications, partnerships with local schools, and individual and civic organization donations. In addition to a vast array of facilities, Fridley also offers a broad range of recreational programs through its Recreation Department as well as some that are sponsored by school districts and private recreational organizations. These programs, while important to the community, are not addressed in detail in the comprehensive plan. Rather, the plan focuses on the physical needs of the park system. The existing park system is shown on the map included as Figure 4.1.

National Standards

While there is no official government standard for the provision of parks and recreation facilities, the National Recreation and Park Association or NRPA (a private, non-profit professional organization) has established park, recreation and open space guidelines. The NRPA suggests that a park system be composed of a "core" system of park lands, providing a minimum of 6.25 to 10.5 acres of park land per 1000 residents. The Metropolitan Council encourages cities to provide a minimum of 7 to 14 acres of park land per 1000 residents. Fridley far exceeds that minimum with 24 acres of City and County park land per 1,000 residents.

Figure 4.1 Existing City of Fridley Park System



Commons Park Playground

4.2 Park Classification System

Fridley has many different types of parks that are key components to the overall park system. In order to examine existing parks and to discuss future park needs, a uniform system of classification, developed by the NRPA, is used in this plan. This system is compatible with the classifications used in the 2017 Park Service Area Study as well as the 2030 Comprehensive Plan.

Mini-Parks (Mini)

Standard - .5 acres per 1000 people

Mini-parks are facilities that are intended to serve concentrated populations residing generally within ¼ mile of park sites. Because of the limited purpose of such parks, they typically contain one acre of land or less. Mini-parks were popular in the 1970s and 1980s as a means of supplying convenient recreational facilities. Throughout the 1990s, many communities elected not to include mini-parks within their overall park systems because of maintenance and budget concerns. Numerous small parks are more difficult and costly to maintain than fewer, but larger neighborhood parks.

Neighborhood Parks (N)

Standard - 2 acres per 1000 people

Neighborhood parks are recreational facilities that are intended to serve populations residing within a ½ mile radius of the site. Neighborhood parks typically contain open space areas that accommodate uses such as field games, court games, play equipment and other uses. Although ten acres is generally recognized as an ideal minimum for neighborhood parks, smaller tracts of land can be used due to natural conditions or in areas where larger land parcels are not available.

Ruth Circle Park

Community Parks (C)

Standard - 8 acres per 1000 people

Community parks provide recreational facilities that appeal to a broad spectrum of users. Activities may include athletic complexes, fishing, nature study, hiking, picnicking and other related uses. Community parks commonly contain facilities that are designed to appeal to both active and passive users within one park site. The location of community parks is usually established on the basis of topography and other natural features as well as accessibility.

Commons Park, Photo by Doug Katzung

Special Use Facilities (SU)

Fridley also has a number of special use facilities that contribute significantly to the overall park and open space system. Special use facilities are areas that preserve, maintain and provide specialized or single purpose recreational activities such as nature centers, mountain bike trails, display gardens, arenas, and sites of historic or archaeological significance.

Springbrook Nature Center Interpretive Center

Conservation Areas (CA)

Conservation areas are parcels of natural quality such as wetlands and watercourses that are preserved for environmental or aesthetic benefits to the community and/or because of the negative environmental or economic effects of development in them.

4.3 Facility Inventory

Local recreational facilities are provided by a number of sources. City parks are perhaps the most obvious of these resources, however, recreational opportunities provided by other entities need to be considered in assessing the total park and recreation system. Other entities providing public-access park and recreational opportunities in Fridley include the schools districts and Anoka County. A complete listing of existing parks as well as a tabulation of recreational facilities is shown on Figure 4.2.

Figure 4.2

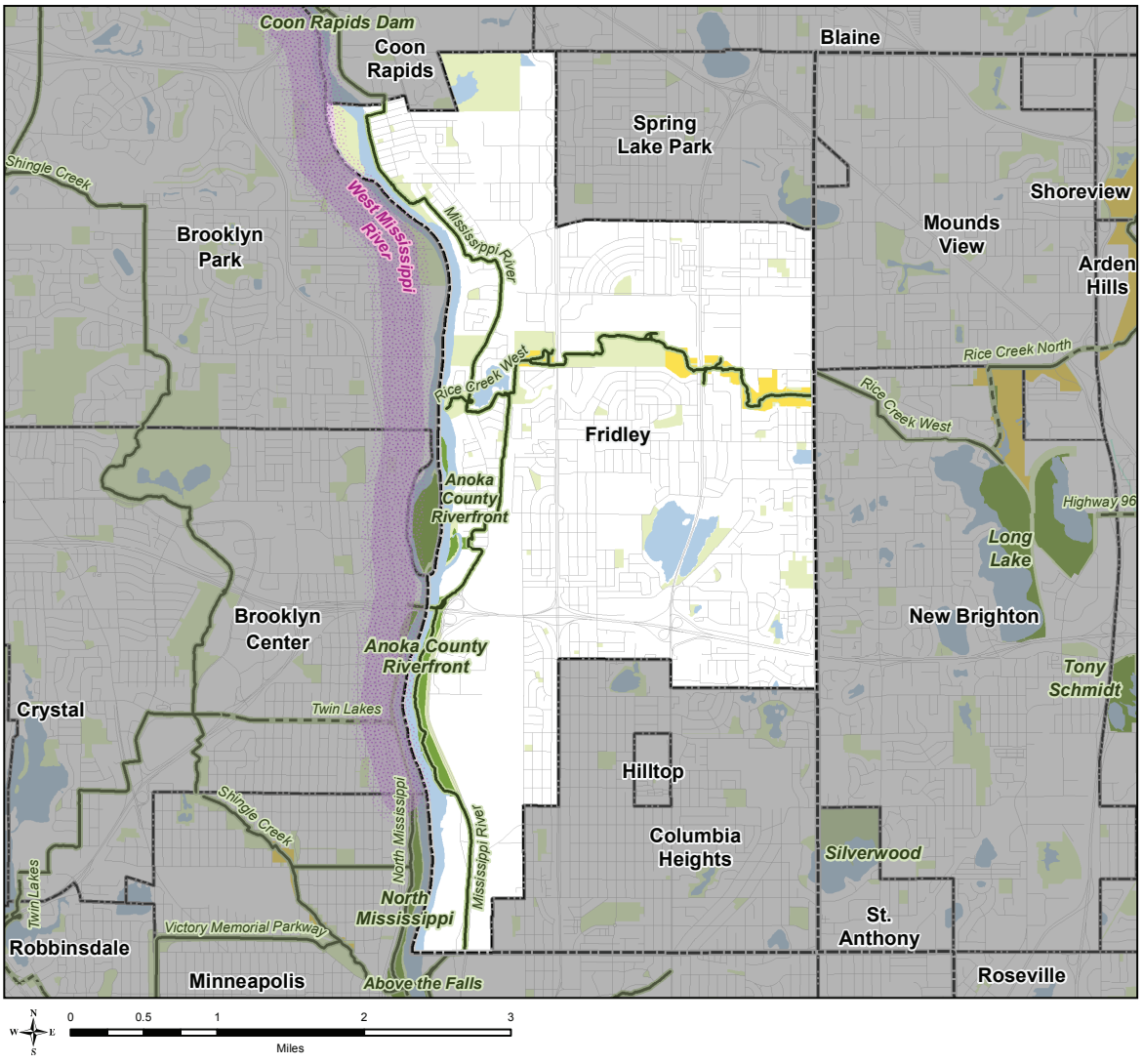
Parks & Recreation Areas

PARKS - CITY OF FRIDLEY	Classification	Acres	Picnic Area	Picnic Shelter	Park Building	Playground Equip.	Walking/Biking Trail	Ball Diamonds	Basketball	Football Fields	Soccer Fields	Hockey Rinks	Skating Rinks	Sand Volleyball	Tennis Courts	Other
Altura, 5445 Altura Road	Mini	0.7				◆			◆							
Briardale, 6171 Rice Creek Drive	N	2.8	◆	◆		◆	◆		◆						1-L	
City Plaza, 6431 University Avenue	SU	0.9	◆													
Commons, 6249 - 7th Street	C	23	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	2-L	Sliding Hill
Community, 7000 University Avenue	C	21	◆	◆	◆	◆	◆	◆		◆						
Craig, 410 - 79th Way	N	2.8	◆			◆		◆	◆						2-L	
Creekridge, 1380 Creek Park Lane	N	2.2	◆	◆		◆		◆	◆						1-L	
Creek View, 6801 Anoka Street	Mini	0.8				◆			◆							
Ed Wilmes, 150 - 64-1/2 Avenue	Mini	0.6	◆			◆										
Edgewater Gardens, 6700 Ashton Avenue	N	4.4				◆	◆		◆						1-L	
Farr Lake, 1510 North Innsbruck	N	6.6					◆									
Flanery, 1505 Onondaga Street	N	7.9	◆	◆	◆	◆		◆	◆			◆			2-L	
Glencoe, 661 Glencoe Street	Mini	0.4							◆							
Hackmann, 1071 Hackmann Circle	N	1.9	◆			◆			◆							
Harris Lake, 1620 Mississippi Street	N	1.7	◆	◆		◆										
Innsbruck, 5815 Arthur Street	SU	24					◆									
Jay, 6540 - 2nd Street	N	1.8				◆	◆		◆							
Jubilee, 5334 - 5th Street	Mini	0.4	◆			◆										
Locke, 6911 University Avenue	C	16.7				◆										
Locke Lake, 6725 Ashton Avenue	Mini	0.5					◆									
Logan, 155 Logan Parkway	N	2	◆	◆		◆		◆	◆						1	
Madsen, 725 - 73rd Avenue	N	6.2	◆			◆			◆		◆	◆	◆		1-L	
Meadowlands, 6641 Kennaston Street	N	9.9	◆	◆		◆	◆									
Moore Lake, 5890 Central Avenue	C	14	◆	◆	◆	◆	◆	◆	◆					◆	2-L	Beach & Fishing Pier
Oak Hill, 5391 - 7th Street	Mini	0.5	◆			◆										
Plaza, 170 - 69th Avenue	N	3	◆			◆			◆							
Plymouth Square, 4801 Main Street	Mini	1.1				◆			◆				◆			
Ray Thompson Little League, 5875 Jefferson	SU	3.5			◆			◆								
River Edge Way, 154 River Edge Way	CA	1.3														
Riverview Heights, 500 - 79th Avenue	N	7.4	◆	◆			◆									
Ruth Circle, 8160 Ashton	N	3.6	◆		◆	◆		◆	◆			◆	◆		1-L	
Skyline, 5880 - 2nd Street	Mini	0.9				◆			◆							
Springbrook, 8155 Broad Avenue	Mini	0.6				◆										
Springbrook Nature Center, 100 - 85th Avenue	SU	127	◆	◆	◆	◆	◆									Interpretive Center/Amphitheater
Summit Square, 5201 Capitol Street	Mini	1				◆			◆						1	
Sylvan Hills, 6205 Jupiter Drive	N	2.6	◆			◆		◆	◆				◆		1	
Terrace, 6735 - 7th Street	N	3.5				◆		◆							1	
West Moore Lake, 6091 West Moore Lake Drive	CA	7.6					◆									
PARKS - ANOKA COUNTY																
Islands of Peace, 200 Charles Street	R	79	◆	◆	◆		◆									
Locke, 450 - 71st Avenue	R	95.3	◆	◆		◆	◆									Dog Park
Manomin, 6666 East River Road	R	15	◆	◆			◆									
Rice Creek Trail West, 1410 - 69th Avenue	R	32.5					◆	◆								
Riverfront, 5100 East River Road	R	60	◆	◆		◆	◆	◆								Boat Launch
SCHOOL FACILITIES																
Community Center, 6085 - 7th Streeet	ISD 14	10	◆						◆							Senior & Teen Center
Fridley Middle School, 6100 West Moore Lake Drive	ISD 14	46.7						◆		◆	◆				6-L	Indoor Pool
Fridley Senior High, 6000 West Moore Lake Drive	ISD 14	32.9						◆		◆	◆				7	Auditorium
Hayes Elementary, 615 Mississippi Street	ISD 14	10.5				◆		◆	◆			◆	◆			
North Park Elementary, 5575 Fillmore Street	ISD 13	7				◆			◆							
Stevenson Elementary, 6080 East River Road	ISD 14	13.7				◆		◆	◆		◆				2	
Woodcrest Elementary, 880 Osborne Road	ISD 16	8.5				◆		◆								

4.4 Trail System

The City of Fridley has four types of trails. Some parts of the community have traditional concrete sidewalks (about five feet wide) located off street and within the public right-of-way (portions of 61st Avenue and Mississippi Street for example). The second type of trail in Fridley includes multi-purpose bikeway/walkway trails. Bikeway/walkways are usually 8 to 10 foot wide bituminous surface trails. The Rice Creek West Regional Trail is a good example of the bikeway/walkway trail. The third type of trail is the on-street bikeway (or sometimes referred to as bike lanes). The on-street bikeway is usually delineated by striping and signage that identify bike routes. These on-street bike routes require a five foot width. Seventh Street south of 59th Avenue is a good example of a street with an on-street bike route. The last type of trail includes primarily unpaved trails entirely within parks. These are commonly used for hiking and mountain biking. These trail surfaces are made of boardwalk, wood chips, or cleared dirt pathways.

Figure 4.3 Regional Parks System, City of Fridley, Anoka County



Regional Trails
- Existing
- Planned

Regional Parks
- Regional Parks
- Park Reserves
- Special Recreation Features
- Planned Units
- Regional Trail Corridor Land

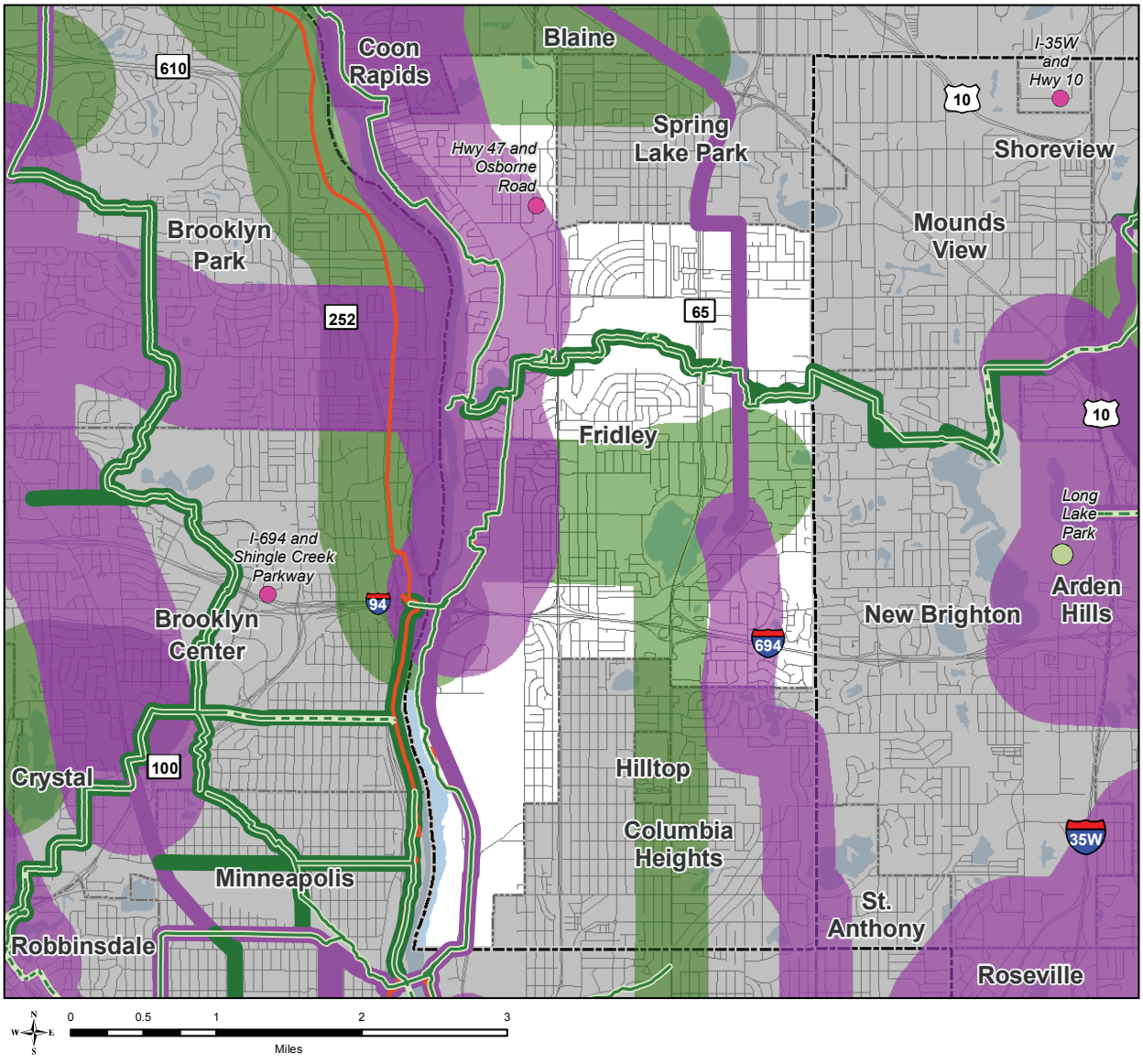
Regional Park Search Areas and Regional Trail Search Corridors
- Boundary Adjustments
- Search Areas
- Regional Trail Search Corridors
- Regional Trails - 2040 System Additions

- Existing State Trails
- Street Centerlines (NCompass)
- Lakes and Major Rivers
- Minnesota Valley National Wildlife Refuge
- State Parks
- State Wildlife Management Areas (Publicly Accessible)
- Scientific and Natural Areas (SNA)
- Other Parks and Preserves

Source: Metropolitan Council

Trails serve several purposes for Fridley residents, visitors, and employees. They function as a mode of transportation connecting residents to park and recreation facilities, transit stops, places of employment and shopping destinations. Trails also provide a safe place for biking, walking, jogging, or other forms of recreation. Fridley's trail system connects many regional sources of recreation. These attractions include the Coon Rapids Dam Regional Park to the north, the City of Minneapolis Trail and Park System to the south (both of these systems are accessed via the Mississippi River Regional Trail), and the Rice Creek West Regional Trail connection to Long Lake Regional Park in New Brighton.

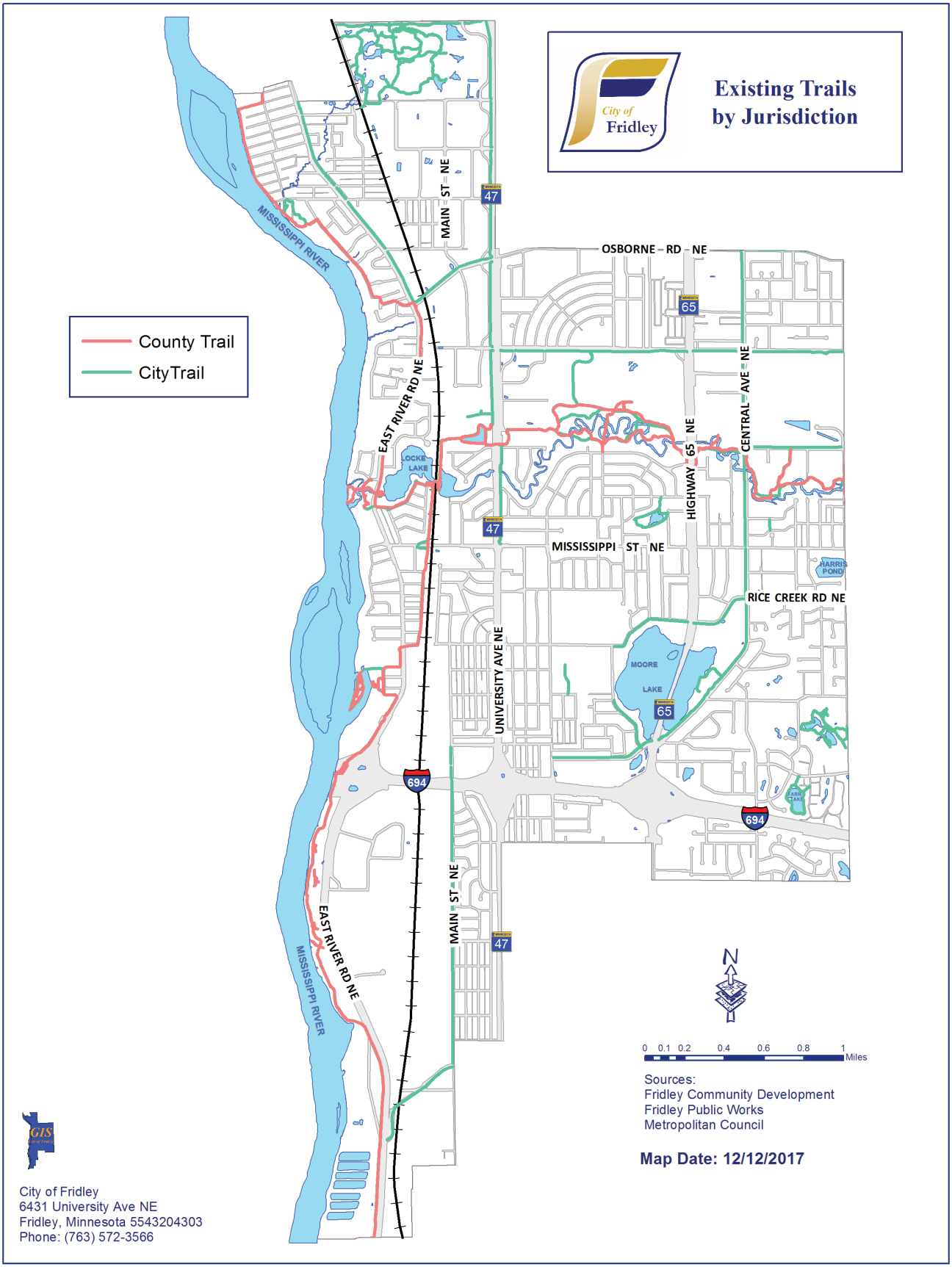
Figure 4.4 Regional Bicycle Transportation Network (RBTN), City of Fridley, Anoka County



Source: Metropolitan Council

There is also a need to maintain the trails for American Disability Act (ADA) Compliance and the safety of all users. The last time trail conditions were analyzed was in 2013, so they are due to be reviewed again. Funds are budgeted in the Capital Improvements Budget annually for trail repairs. When old trails are rebuilt, ADA compliance features are incorporated.

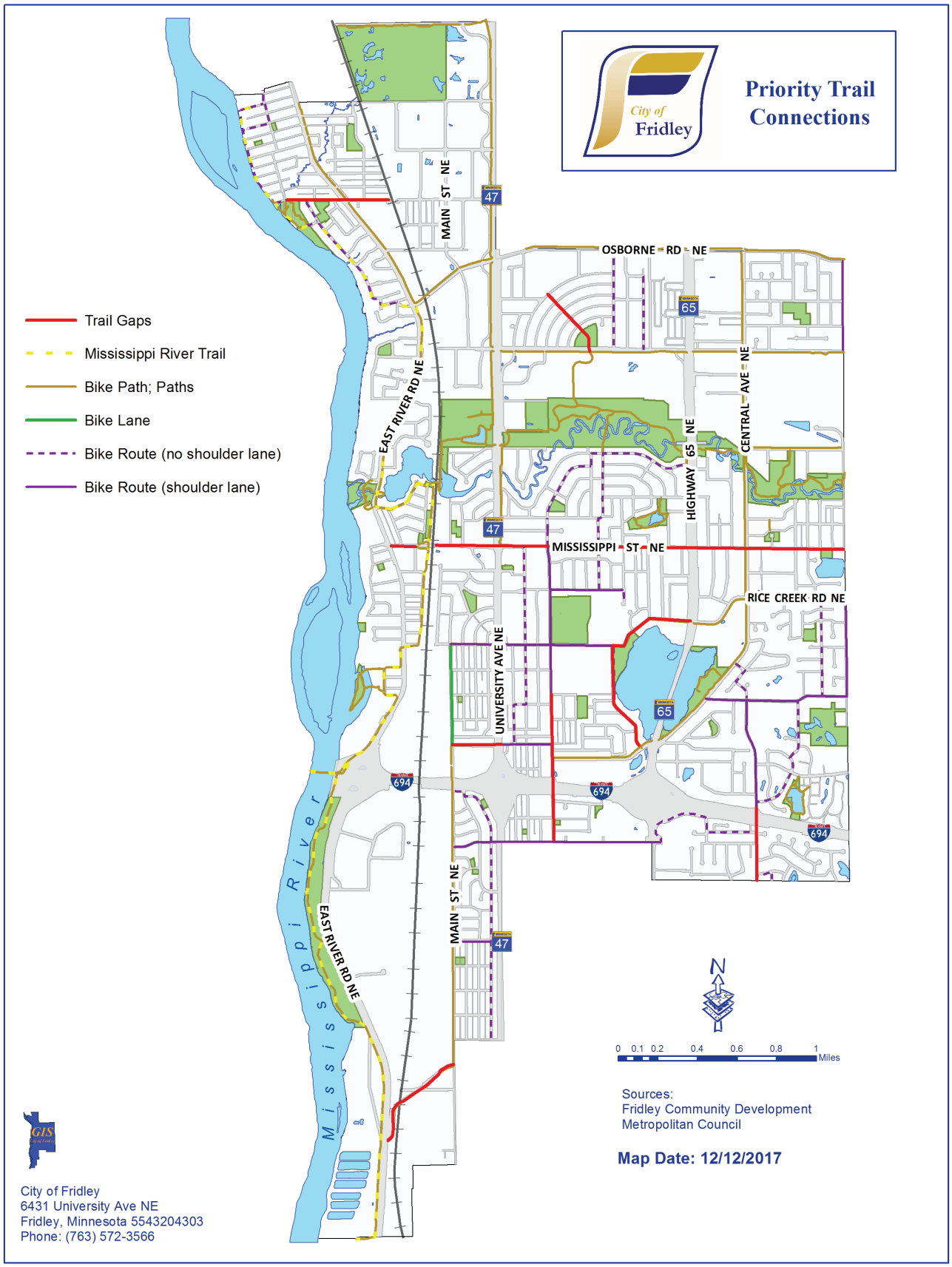
Figure 4.5



4.5 Trail System Needs

Several trail segments have been identified as needed additions to the Fridley Bikeway/Walkway System. These are illustrated in Figure 4.6. Descriptions of the needed trails are listed in the Conclusions and Action Steps section of this chapter.

Figure 4.6



4.6 Recreational Uses in Parks

Fridley has a well-established park system that is the product of the development of the community over the past 50 years. Because the city lacks vacant land it is reasonable to assume that the park system will not change dramatically. Rather, change in the park system is likely to be more of an evolution that reflects the needs to the community based on changing demographics and recreational interests. For example, in the 1960s and 1970s, tennis was a very popular sport and in response communities like Fridley constructed numerous tennis courts to meet demand. Today, tennis is not as popular as it once was and accordingly many communities are converting tennis courts to other uses such as basketball, sand volleyball, or in-line skating. In some cases, cities are simply removing courts rather than incurring substantial renovation costs for older facilities.

Rice Creek Regional Trail

4.7 Parks and Trails Trends

Based on national and local information, the following trends should be continually monitored to assess their impact on the Fridley recreation system:

Changing Demographics

In Fridley, the general aging of the population may be accompanied by the strong retention of younger segments of the population. This may occur due to the fact that the housing supply in Fridley is relatively affordable and attractive to younger families with younger children. As a result, the City may see higher demand, in the future, for passive recreational facilities such as walking trails and strategic bench placements; as well as active play equipment for young children in neighborhood parks.

Parks viewed as Community Gathering Spaces

More large groups are using park facilities as the community gathering space for day long socializing. The popularity of renting picnic shelters has remained high and there are increased requests for reserving of adjacent park land to accommodate additional participants and activities.

Increased Demand for Multi-Sport Open Play Areas

With a more diverse interest in sport and recreation opportunities, there is a movement away from set park athletic areas being designated for one sport or activity only. More and more park areas are designated as multi-sport/open play fields to accommodate a variety of interests such as football, soccer, ultimate frisbee, lacrosse, rugby, kickball, and cricket on the same field.

Desire to Preserve Open Space and Other Natural Features

Communities throughout the Twin Cities Metropolitan Area have expressed an interest in preserving open space areas and key natural features. Since Fridley is a built community, it is more difficult to acquire new areas to preserve open space and balance development within the community. Most likely, this trend will result in a continued strong interest in preserving the natural areas that currently exist in the community.

Increased Interest in Trails

Regional trends point to increased interest in the development of trails both for recreational purposes and to provide an alternative to the automobile. Fridley has been active in developing a trail system that links neighborhoods, parks, commercial areas and other points of interest, such as the Springbrook Nature Center. The trail system needs identified in the plan further support the City's commitment to connect major land uses, transit stations, and "gathering spaces" with residential areas or employment centers. There is also growing support for wider and more multi-use trails (accommodating biking, running, walking, scooters, and skateboards on the same surface), along with trail system loops, returning the trail user to a starting point following a continuous circuit.

Increased Demand for Year-round Facilities

For many years, sports programs were generally confined to a specific season and/or time of year. For example, baseball was in the summer, football in the fall, hockey and basketball in the winter. While there is still participation in various sports during the traditional season, more participants than ever are pursuing their sports on a year round basis.

Increased Interest in Outdoor Winter Recreation Opportunities

There is growing interest in having facilities available for winter pursuits such as fat tire biking, snowshoeing, cross country skiing, skate skiing and trail walking/running. Special treatment and maintenance of facilities may be required to accommodate these opportunities.

Springbrook Trail

Increased Environmental Awareness

People in Fridley and throughout Minnesota are taking an active role in promoting important environmental issues such as concern for global warming, energy conservation, protection of our natural resources, and improving water quality. Maintenance practices and improvement to the park and recreation system will be expected to enhance efforts to protect and improve the environment and achieve resiliency.

Increased Demand for Specialized Sports and Recreation Facilities

Indoor and outdoor alternative sports and challenge activities have continued to gain popularity and the participants want to see more facilities available and opportunities close to their home. Examples of specialized sports and recreation facilities include mountain biking, pickleball, in-line skating, rock climbing, nature experiences, sand volleyball and splashpads.

Growing Interest in Shared Equipment Stations

Specialized recreation equipment such as kayaks, canoes, paddleboards and bicycles are being provided in many park systems through shared equipment rental stations. Participants generally use the shared equipment on site and return the equipment to the rental station when use is complete.

Park Opportunities with Pets

There have been local residents showing an interest in more local dog parks or dog runs be a part of our City's Park and Recreation system. Making parks more pet-friendly will likely appeal to a growing number of participants.

Dog Park in Locke Park

More Themed Playgrounds and Special Use Parks

Fridley has recently opened a Nature Based Playground area at Springbrook Nature Center and other cities provide parks based on themes such as teddy bears, butterflies, woodlands and challenge courses.

Springbrook Nature Based Playground

All Inclusive Parks

The concept of accessibility is not new and many park and recreation facilities are legally mandated to meet accessibility requirements. There is an on-going movement toward even greater accessibility with playgrounds, trails and athletic facilities being adapted to meet the needs of all citizens, to provide for all people.

Resiliency

Since Fridley has a well-established park system, the City's challenge is maintaining infrastructure that exists. Heavy rainfall events and severe wind events have caused unanticipated costs in tree replacement and open space flooding that pose financial challenges. If climate change is going to bring more of these events, the City needs to be creative in how those expenses can be covered. Like every other aspect of municipal operations, parks pose an opportunity to be energy conscious and conserve resources.

The changes that have taken place at Springbrook Nature Center over the past year are a great example of how the City can lessen its impact on the environment. The building expansion at Springbrook incorporated many sustainable design features like water-saving bathroom fixtures, natural lighting, bird-friendly glass, and a green roof. The parking lot was partially constructed with a pervious surface. The landscape around the building was planted with native wildflowers rather than turf grass, and an outdoor play area was created to give kids the means to feel more connected to the natural environment in a safe, enclosed space.

The City is expanding the native landscaping concept beyond Springbrook Nature Center and is installing more pollinator-friendly landscape in other park locations in areas where mowing turf has been problematic. The City has also been removing ash trees and replanting with a diverse mix of tree species to help create a resilient urban forest.

4.8 Parks and Trails Policies

There are several policies that have been agreed upon related to the vision of keeping Fridley's parks and trails ***safe, vibrant, friendly, and stable:***

- The City will continue to maintain all park and recreation areas to a high level of safety and cleanliness.

- The City will continue to develop park and recreation facilities which minimize the maintenance demands on the City. This will be done by emphasizing the acquisition of well-planned parks, quality materials, and labor saving devices and practices. When appropriate, the City should submit grant applications to obtain funding assistance for the park and recreation system from regional, state, and federal agencies, and private organizations, foundations, businesses, and individuals.

- The Parks and Recreation Commission will, each year, recommend the adoption of a five-year Capital Investment Plan for the parks and recreation system.

- The City should continue to include citizen participation in the planning and improvement of the local parks and trail system.

- The City should consider acquiring sites to develop park land or create appropriate access to nearby parks for under serviced neighborhoods identified in the 2017 Parks Service Area Study.

- The City should continue to require park dedication of land or cash when land is platted and redeveloped for residential, commercial, or industrial purposes. Wetlands and storm water ponding areas shall not be accepted as fulfillment of park dedication requirements.

Edgewater Gardens 4th grade park cleanup

- The Parks and Recreation Commission and City staff should continue to utilize and support citizen volunteers wherever possible to help with programs, services, and beautification projects in the parks and recreation system.

- The City should carefully address park and trail needs as part of any future redevelopment efforts, incorporating different facilities as demographics change in the community.

- The City should not allow conversion of park land and public open space to other uses except when no feasible alternative exists. When such conversion is unavoidable, the taking agency shall pay for replacement of equal or greater value land and facilities to serve the need of the people in that area.

- Fridley would cautiously consider development of any additional mini-parks in the future because of the availability of existing facilities and concerns for maintenance. The City shall continue to retain and maintain its existing mini-parks.

- When considering the total acreage for community parks serving the City, Fridley should include areas and facilities provided for public use by other agencies such as the public schools. The City will continue to cooperate with other governmental and private organizations in providing park, open space and recreation areas.

- Give high priority to the provision of public access to the River and public use of River shoreline.

- Ensure that park design and development will provide for a balance between function and aesthetics, including the conservation of natural resources wherever possible.

- Open space contributes to health and well-being of residents, business employees, visitors and the environment. The City shall preserve open space whenever possible. Open Space is considered undeveloped land in a natural state.

- The City will integrate GreenStep Cities best practices into park design, management and maintenance.

- The City will integrate low impact design standards (such as pervious pavement and raingardens) for parks and trails where appropriate.

- The City will identify, prioritize and take steps to remedy gaps and lack of connectivity within City sidewalk and trail networks; and plan for needed changes in updates to the City's Active Transportation Plan.

- The City should encourage multi-modal transportation through kayak/canoe and bike sharing programs and infrastructure installation.

- The City should work with partners to increase recreational access to the Mississippi River and Rice Creek.

4.9 Parks and Trails Goals

Goals have been assembled related to our parks and trail system. The term "goals" is used throughout this plan to define the City's desired outcome relative to key community issues. There were several Parks and Trails goals that emerged from the neighborhood planning meetings and the community survey.

1. Provide park and recreation opportunities for all ages who live in, work in, and visit our community.

2. Provide a park and recreation system that meets the needs and interests of local residents by maintaining quality facilities and being responsive by keeping pace with changing facility/program trends.

3. Provide more bike/walk opportunities and keep them maintained for year round community use.

4. Protect our natural resources in the City's park system by implementing careful park design, sound use policies and proven maintenance practices. Use educational programs and demonstration projects to further the protection efforts.

5. Promote Fridley as a river community by providing park and recreation opportunities that connect people to the Mississippi River resource.

Riverfront Park

4.10 Conclusions and Action Steps

Several general statements can be drawn from the analysis of the existing parks, and trails system in the City. The following statements have been discussed and debated and related action steps have been developed. Action steps reflect the city's general intentions and will guide the community in the attainment of goals.

1. Sustaining a well-maintained parks and recreation infrastructure is a necessity for public safety.

Action Step: The City should develop a Parks Master Plan and continue to maintain and implement park maintenance and upgrade plans in accordance with the capital improvements program. The overall Master Plan will be completed in 2019 to provide additional guidance and detail for future improvements and development.

- Parks recommended for play equipment replacement in the next 2 to 5 years are as follows: Commons Park, Locke Park, and Moore Lake Park.
- Parks recommended for play equipment replacement within the next 10 to 12 year time span are as follows: Springbrook Park, Ruth Circle Park, Craig Park, Flanery Park, Logan Park, Plaza Park, Community Park, Creekview Park, Edgewater Gardens Park, Jay Park, Terrace Park, Meadowlands Park, Creekridge Park, Ed Wilmes Park, Sylvan Hills Park, Harris Lake Park, Briardale Park, Hackmann Park, Jubilee Park, Summit Square Park and Plymouth Square Park.
- All hard surface basketball and tennis court areas in the parks should be placed on a regular resurfacing program.

Action Step: A consistent signing policy shall be developed for all park and recreation areas and buildings, to include directional and informational signs.

Action Step: Implement the park redesign and trail improvements/expansions identified in the Northstar TOD Master Plan (see Appendix 2) and the Islands of Peace Park Plan (see Appendix 9) as redevelopment of the area occurs.

Action Step: Evaluate opportunities to add more lighting and benches to the neighborhood parks in response to these amenities being given a high priority in the 2017 Citizen Survey.

Action Step: The City should update a promotional map that highlights park and trails throughout the City. This map should be made available for viewing on the City's web page and printed copy available at City Hall.

Springbrook Nature Center Amphitheater

2. Visits to the Nature Center have increased significantly over the years and the City of Fridley has partnered with the Springbrook Nature Center Foundation to create and implement the S.P.R.I.N.G. (Sanctuary Protection and Renewal Into the Next Generation) Project to revitalize the 7 acre entrance area and interpretive building. The SPRING Project has four main goals:

   a) Provide additional and improved environmental and science education capabilities.

   b) Create an expanded environment to host special events and community celebrations.

   c) Provide enhanced, wonderful outdoor experiences

   d) Continue to protect the park's fragile ecosystem while still catering to the increasing number of visitors. The SPRING Project is well underway and an expanded and renovated interpretive center was opened in 2016. A new amphitheater and Children's nature based play area were opened in 2017.

   Action Step: Work with the Springbrook Nature Center Foundation to replace the old picnic shelter with a new picnic pavilion/outdoor classroom structure with a fall 2019 target date for completion.

Springbrook Nature Center Amphitheater Opening

Action Step: Work with the Springbrook Nature Center Foundation to complete the green roof installation on the new interpretive center addition.

Action Step: Improve the entrance gate and trail system at the park entrance area adjacent to the Springbrook Apartments.

Action Step: Improve the entrance gate and trail system at the park entrance area adjacent to the pedestrian entrance in the southwest corner of the park.

3. Trails serve several purposes for Fridley residents, business employees and visitors. They function as a mode of transportation connecting residents to park and recreation facilities, transit stops, places of employment and shopping destinations. Trails also provide a safe place for biking, walking, jogging or other forms of recreation. The 2017 Citizen Survey results indicated support for trail connections to the neighborhood parks.

Bicyclists on the Trail

Action Step: The City should continue to expand the existing trail network to service all neighborhoods and areas of the city.

Action Step: Publicize the local trail system through updated maps and appropriate trail signage; include identifying the Mississippi River Trail, which runs through four of the local parks located adjacent to the Mississippi River.

Action Step: Continue to cooperate with other governmental and non-governmental agencies in the development of trails that complement the local system.

Action Step: Construct an off street bikeway/walkway connection linking the existing trail on Medtronic parkway, through the proposed City View area, to the University Avenue corridor when the future road development occurs.

Action Step: Pursue infrastructure funding for the 2017 Safe Routes to School (District 14) Plan for 7th Street and Commons Park between Mississippi Street on the north and 53rd Avenue on the south.

Action Step: Evaluate expanded opportunities for walking and biking along the south side of 61st Avenue from Main Street to the Fridley High School/Middle School 4-way intersection at West Moore Lake Drive.

Action Step: Pursue Safe Routes to School (District 13) infrastructure funding to provide walking and biking opportunities on Matterhorn Drive, south of Interstate 694 – to North Park Elementary School and Park facilities located north of the freeway.

Action Step: Pursue funding for the East River Road Corridor Plan of 2013 to expand trail and sidewalk connections along East River Road.

Action Step: Survey and rate trail conditions regularly and use the information to budget for needed improvements in the Capital Investment Program allocations.

4. Moore Lake Park is one of the City's most heavily utilized park areas during the months of May through August. With recreation amenities such as the swimming beach, sand volleyball, fishing piers, picnic shelters, trails and play equipment, the park is a destination for residents and visitors to the community. To plan for better handling of the many visits to this park each year, the City enlisted the services of Hoisington Koegler Group, Inc. in 2016 to assist with the development of a master plan for Moore Lake Park. (see Appendix 10) While the master plan document is a recommendation to the redevelopment and improvements to the park, the city's overall Master Parks Plan will address Moore Lake and future actions.

Moore Lake Beach and Park

Action Step: Move the sand volleyball court area to the south end of the beach area.

Action Step: Reconfigure and install a new parking lot in 2018 next to the existing beach house building.

Action Step: Work with the Rice Creek Watershed District to provide shoreline restoration, infiltration basins and iron-enhanced sand filters to improve water quality at the lake.

Action Step: Install a new 75 person picnic shelter in 2019 in the former location of the sand volleyball courts.

Action Step: Replace the outdated playground equipment with new and modern play structures.

Action Step: Remove the tennis courts and basketball court in keeping with the park master plan developed in 2016.

Action Step: Remove the softball infield area and backstop, and replace with a flexible open-space multi-use field as per the master plan.

Action Step: Relocate the newer fishing pier in the location of the original fishing pier to provide better fishing opportunities.

5. Heavy rain events in recent years have led to extremely wet conditions in some of the parks in the City. Creative solutions may be needed to provide usable park land for all or a portion of the existing park area.

   Action Step: Work with local watershed districts and engineering professionals to determine cost effective solutions to the water issues in Craig Park, Madsen Park and Springbrook Nature Center.

6. Natural Resource management deals with planning, controlling and overseeing the way people and landscapes interact. Being good stewards of our natural resource areas will help insure healthy park natural environments for future generations.

   Action Step: Work with volunteer groups to provide annual buckthorn removal programs at Innsbruck Park, Springbrook Nature Center and West Moore Lake Sand Dunes Park.

   Action Step: Work with the USDA Department of Wildlife to provide management of the deer herd at Springbrook Nature Center.

   Action Step: Work with Canada Goose Management to control the number of Canadian Geese at Moore Lake Beach and Park.

opportunities to plant more trees in City parks and ensure that a wide diversity of tree species are planted to protect against massive loss due to disease.

Action Step: Analyze the suitability of the City parks for planting alternative grass species, native perennial plantings, low maintenance grasses, and plants that provide habitat for pollinators and migrating birds. Consider planting these options in appropriate areas and including signage and other public education regarding the change.

Couple walking the trails at Springbrook Nature Center,
Photo by Doug Katzung

4.11 Summary

The natural amenities that Fridley parks, trails, and open space provide impacts property values and property owners desire to call Fridley home. The preservation of many of Fridley's parks along waterways also helps preserve water quality in the region. On-line survey results showed that residents ranked their neighborhood park as their favorite thing about Fridley. Park conditions ranked high. Responses also indicated that many residents are biking and walking to parks and therefore would like safer pedestrian access to parks.

City of Fridley Local Water Supply Plan

Third Generation Plan for 2016

Formerly called Water Emergency & Water Conservation Plan

INTRODUCTION TO WATER SUPPLY PLANS (WSP)

Who needs to complete a Water Supply Plan

Public water suppliers serving more than 1,000 people, large private water suppliers in designated Groundwater Management Areas, and all water suppliers in the Twin Cities metropolitan area are required to prepare and submit a water supply plan.

The goal of the WSP is to help water suppliers: 1) implement long term water sustainability and conservation measures; and 2) develop critical emergency preparedness measures. Your community needs to know what measures will be implemented in case of a water crisis. A lot of emergencies can be avoided or mitigated if long term sustainability measures are implemented.

Groundwater Management Areas (GWMA)

The DNR has designated three areas of the state as Groundwater Management Areas (GWMAs) to focus groundwater management efforts in specific geographies where there is an added risk of overuse or water quality degradation. A plan directing the DNRs actions within each GWMA has been prepared. Although there are no specific additional requirements with respect to the water supply planning for communities within designated GWMAs, communities should be aware of the issues and actions planned if they are within the boundary of one of the GWMAs. The three GWMAs are the North and East Metro GWMA (Twin Cities Metro), the Bonanza Valley GWMA and the Straight River GWMA (near Park Rapids). Additional information and maps are included in the DNR webpage at http://www.dnr.state.mn.us/gwmp/areas.html

Benefits of completing a WSP

Completing a WSP using this template, fulfills a water supplier's statutory obligations under M.S.

M.S.103G.291 to complete a water supply plan. For water suppliers in the metropolitan area, the WSP will help local governmental units to fulfill their requirements under M.S. 473.859 to complete a local comprehensive plan. Additional benefits of completing WSP template:

- The standardized format allows for quicker and easier review and approval.
- Help water suppliers prepare for droughts and water emergencies.
- Create eligibility for funding requests to the Minnesota Department of Health (MDH) for the Drinking Water Revolving Fund.
- Allow water suppliers to submit requests for new wells or expanded capacity of existing wells.
- Simplify the development of county comprehensive water plans and watershed plans.
- Fulfill the contingency plan provisions required in the MDH wellhead protection and surface water protection plans.

- Fulfill the demand reduction requirements of Minnesota Statutes, section 103G.291 subd 3 and 4.
- Upon implementation, contribute to maintaining aquifer levels, reducing potential well interference and water use conflicts, and reducing the need to drill new wells or expand system capacity.
- Enable DNR to compile and analyze water use and conservation data to help guide decisions.
- Conserve Minnesota's water resources

Table 1. General information regarding this water supply plan.

Requested Information	Description
DNR Water Appropriation Permit Number(s)	**1975-6244, 756244**
Ownership	■ Public or □ Private
Metropolitan Council Area	■ Yes or □ No (and county name)
Street Address	**6431 University Avenue NE**
City, State, Zip	**Fridley, MN 55432**
Contact Person Name	James Kosluchar
Title	Director of Public Works / City Engineer
Phone Number	763-572-3550
MDH Supplier Classification	Municipal

PART 1. WATER SUPPLY SYSTEM DESCRIPTION AND EVALUATION

The first step in any water supply analysis is to assess the current status of demand and availability. Information summarized in Part 1 can be used to develop Emergency Preparedness Procedures (Part 2) and the Water Conservation Plan (Part 3). This data is also needed to track progress for water efficiency measures.

A. Analysis of Water Demand

Table 2 summarizes the most recent 10 years of demand data. Total Water Pumped includes water purchased from the City of New Brighton.

Table 2. Historic water demand (see definitions in the glossary after Part 4)

Year	Pop. Served	Total Connec-tions	Residential Water Delivered (MG)	C/I/I Water Delivered (MG)	Water used for Non-essential	Wholesale Deliveries (MG)	Total Water Delivered (MG)	Total Water Pumped* (MG)	Water Supplier Services	Percent Unme-tered/ Unac-counted	Average Daily Demand (MGD)	Max. Daily Demand (MGD)	Date of Max. Demand	Residen-tial Per Capita Demand (GPCD)	Total per capita Demand (GPCD)
2005	**26,679**	**8,232**	**796.808**	**543.423**	**34.309**	**0.000**	**1374.540**	**1603.997**	**70.000**	**9.9%**	**3.77**	**10.131**	**7/19/2005**	**81.8**	**141.2**
2006	**26,603**	**8,235**	**849.136**	**576.951**	**34.287**	**0.000**	**1460.374**	**1559.193**	**70.000**	**1.8%**	**4.00**	**10.990**	**7/13/2006**	**87.4**	**150.4**
2007	**26,459**	**8,230**	**873.556**	**568.260**	**17.792**	**0.000**	**1459.608**	**1614.599**	**70.000**	**5.3%**	**4.00**	**10.435**	**8/1/2007**	**90.5**	**151.1**
2008	**26,709**	**8,233**	**823.947**	**530.645**	**15.949**	**0.000**	**1370.541**	**1564.287**	**70.000**	**7.9%**	**3.74**	**9.470**	**7/31/2008**	**84.3**	**140.2**
2009	**26,958**	**8,230**	**877.428**	**431.748**	**15.291**	**0.000**	**1324.467**	**1613.653**	**70.000**	**13.6%**	**3.63**	**9.224**	**6/4/2009**	**89.2**	**134.6**
2010	**27,208**	**8,228**	**763.956**	**435.312**	**14.633**	**0.000**	**1213.901**	**1465.248**	**70.000**	**12.4%**	**3.33**	**6.862**	**8/31/2010**	**76.9**	**122.2**
2011	**27,427**	**8,222**	**704.716**	**464.488**	**13.974**	**0.000**	**1183.179**	**1362.517**	**70.000**	**8.0%**	**3.24**	**7.464**	**6/9/2011**	**70.4**	**118.2**
2012	**27,646**	**8,227**	**790.282**	**522.511**	**13.316**	**0.000**	**1326.109**	**1397.693**	**70.000**	**0.1%**	**3.62**	**8.661**	**7/12/2012**	**78.1**	**131.1**
2013	**27,865**	**8,230**	**761.036**	**430.928**	**12.658**	**0.000**	**1204.622**	**1518.398**	**70.000**	**16.1%**	**3.30**	**9.009**	**8/28/2013**	**74.8**	**118.4**
2014	**28,206**	**8,229**	**668.079**	**369.856**	**12.000**	**0.000**	**1049.935**	**1364.730**	**99.190**	**15.8%**	**2.88**	**7.439**	**8/5/2014**	**64.9**	**102.0**
2015	**28,547**	**8,229**	**659.392**	**483.490**	**14.136**	**0.000**	**1157.018**	**1255.898**	**72.433**	**2.1%**	**3.17**	**6.803**	**7/29/2015**	**63.3**	**111.0**
Avg. 2010-2015	**27,817**	**8,228**	**724.577**	**451.098**	**13.453**	**0.000**	**1189.127**	**1394.081**	**75.271**	**9.1%**	**3.26**	**7.706**		**71.4**	**117.2**

MG – Million Gallons **MGD –** Million Gallons per Day **GPCD** – Gallons per Capita per Day

See Glossary for definitions

*** Includes Water from New Brighton Interconnect**

Table 3 shows largest volume users with most recent annual data. Fridley has several large users, the top ten users consumed over one-sixth of water production in 2015-16.

Table 3. Large volume users

Customer	Use Category (residential, Industrial, Commercial, Institutional, Wholesale)	Amount Used (Gallons per Year)	Percent of Total Annual Water Delivered	Implementing Water Conservation Measures? (Yes/No/Unknown)
1. ARAMARK UNIFORM SERVICES	Industrial	32,345,360	2.80%	Unknown
2. ECO FINISHING	Industrial	30,387,200	2.63%	Unknown
3. CUMMINS, INC	Industrial	24,439,650	2.11%	Unknown
4. CONAGRA FOODS, INC	Industrial	23,883,200	2.06%	Unknown
5. UNITY HOSPITAL	Institutional	16,912,200	1.46%	Unknown
6. MEDTRONIC, INC (HEADQUARTERS)	Institutional	14,948,240	1.29%	Unknown
7. STYLMARK, INC	Industrial	13,713,400	1.19%	Unknown
8. DUGAS BOWERS PLATING	Industrial	13,401,390	1.16%	Unknown
9. MEDTRONIC, INC (OPERATIONS)	Industrial	12,713,300	1.10%	Unknown
10. KAP5TONE CONTAINER CORP	Industrial	12,518,970	1.08%	Unknown

B. Treatment and Storage Capacity

Table 4 describes where water is treated, treatment methods, and capacities. Treatment processes are currently providing water that meets all drinking water quality requirements. The City's treatment system has substantial capacity above peak day demand.

Table 4. Water treatment capacity and treatment processes

Treatment Site ID (Plant Name or Well ID)	Year Constructed	Treatment Capacity (MGD)	Treatment Method	Treatment Type	Annual Amount of Residuals	Disposal Process for Residuals	Do You Reclaim Filter Backwash Water?
Commons Park WTP	1960	12.1	Iron Removal	8 Pressure Filters		Sanitary Sewer	Yes
	1988		Manganese Removal	8 Pressure Filters			
			Fluoridation	Liquid Injection			
			Chlorination	Chloramine Addition			
			Radionuclide	Removal			
Locke Park WTP	1968	2.9	Iron Removal	2 Pressure Filters		Storm Sewer and Sanitary Sewer	No
	1994		Manganese Removal	2 Pressure Filters			
			Fluoridation	Liquid Injection			
			Chlorination	Chloramine Addition			
WTP #3	1997	2.2	Iron Removal	2 Pressure Filters		Sanitary Sewer	No
			Manganese Removal	2 Pressure Filters			
			Fluoridation	Liquid Injection			
			Chlorination	Chloramine Addition			
Total Treated Capacity		17.2					
Emergency Capacity		23.2					

Treatment and storage capacity versus demand

Table 5 shows storage facilities and total capacity. Storage exceeds current average day demand by a factor of two, and is equivalent to 1.67 times peak forecasted average day demand.

Table 5. Storage capacity, as of the end of the last calendar year

Structure Name	Type of Storage Structure	Year Constructed	Primary Material	Storage Capacity (Gallons)
1. Commons Park	Elevated storage	1960	Steel	500,000
2. Highway 65	Elevated storage	1993	Steel	1,500,000
3. Commons Park	Ground storage	1964	Concrete	3,000,000
4. Marian Hills	Ground storage	1988	Concrete	1,500,000
Total				6,500,000

C. Water Sources

A summary of water sources is included in Table 6. Well records and a maintenance summary for each well that has occurred since our last approved plan is included in **Appendix 1.**

Table 6. Water sources and status

Resource Type (Groundwater, Surface water, Interconnection)	Resource Name	MN Unique Well # or Intake ID	Year Installed	Capacity (Gallons per Minute)	Well Depth (Feet)	Status of Normal and Emergency Operations (active, inactive, emergency only, retail/wholesale interconnection))	Does this Source have a Dedicated Emergency Power Source? (Yes or No)
Groundwater	Well 1	206685	1957	700	389	Standby	No
Groundwater	Well 2	206674	1961	525	675	Active	Yes
Groundwater	Well 3	206670	1961	700	720	Active	Yes
Groundwater	Well 4	201158	1961	725	663	Active	Yes
Groundwater	Well 5	206675	1961	725	656	Active	Yes
Groundwater	Well 6	206673	1964	1400	153	Active	Yes
Groundwater	Well 7	206671	1966	800	138	Active	Yes
Groundwater	Well 8	206669	1966	1550	138	Active	Yes
Groundwater	Well 9	206672	1966	1500	153	Active	Yes
Groundwater	Well 10	206658	1969	800	128	Active	Yes
Groundwater	Well 11	206657	1970	825	344	Active	Yes
Groundwater	Well 12	29207	1970	1550	234	Active	Yes
Groundwater	Well 13	206696	1970	825	191	Standby	No
Groundwater augmentation (purchased)	City of New Brighton		1994	2000		Currently not available, online in 2018	Yes
Groundwater Emergency Supply	City of Mounds View			350		Emergency Only	Yes
Surface Water Emergency Supply	City of Minneapolis			1500		Emergency Only	Yes

Limits on Emergency Interconnections

Wells 2 through 9 exceed the capacity of Commons Park Water Treatment Plant, where they are located. Typically one to four pumps are run in accordance with demand.

Wells 1 and 13 are currently operated only if demand exceeds available supply; this has not been necessary since our last Water Supply Plan in 2008. They are maintained as fully operable, however.

The New Brighton supply is not available until treatment processes are in place, anticipated in the end of 2018.

The Minneapolis emergency supply is surface water and would take time to set up to provide proper drinking water quality; this supply may only be suited to be made available in the events of 1) a catastrophic emergency, 2) a long-term loss of capacity.

D. Future Demand Projections – *Key Metropolitan Council Benchmark*

Water Use Trends

The following trends are noted in current water use, shown in Table 2:

1) Population served is increasing at a modest rate, and is projected to do so through 2040.

2) Total per capita water demand, along with residential per capita demand, has declined in the past 10 years. Commercial and Industrial demand trends remain more steady, although there are annual fluctuations.

3) The average daily demand has decreased substantially, and is approximately half of the peak demands of 30 years ago.

4) The maximum daily demand has decreased significantly, and has a peaking factor of below 2.0 for the past two years.

Trends for all customer categories are declining; residential customer class is the most obvious. Reasons include low-flow fixtures, elimination of discharge single-use cooling water, conservation rates, and education/efficiency/rebate programs and efforts.

Projection Method

Table 7 shows the projected annual demand for the next ten years. The population estimates, provided by the Metropolitan Council, are used as a basis for the projection. Employment projections also provided by the Metropolitan Council, are used to project Commercial and Industrial demand at a fixed rate of 62 gallons per employee per day (consistent with current usage, and conservative).

Table 7. Projected annual water demand

Year	Projected Total Population	Projected Population Served	Projected Residential Per Capita Water Demand (GPCD)	Projected Total Per Capita Water Demand (GPCD)	Projected Average Daily Demand (MGD)	Projected Maximum Daily Demand (MGD)
2016	**28,892**	**28,912**	**68.0**	**118.0**	**3.47**	**6.94**
2017	**28,994**	**29,014**	**68.0**	**118.0**	**3.48**	**6.96**
2018	**29,096**	**29,116**	**68.0**	**118.0**	**3.49**	**6.99**
2019	**29,198**	**29,218**	**68.0**	**118.0**	**3.51**	**7.01**
2020	**29,300**	**29,320**	**65.0**	**115.0**	**3.52**	**7.04**
2021	**29,683**	**29,703**	**65.0**	**115.0**	**3.56**	**7.13**
2022	**30,067**	**30,087**	**65.0**	**115.0**	**3.61**	**7.22**
2023	**30,450**	**30,470**	**65.0**	**115.0**	**3.66**	**7.31**
2024	**30,833**	**30,853**	**65.0**	**115.0**	**3.70**	**7.40**
2025	**31,217**	**31,237**	**65.0**	**115.0**	**3.75**	**7.50**
2030	**31,600**	**31,620**	**63.0**	**113.0**	**3.79**	**7.59**
2040	**32,500**	**32,520**	**60.0**	**110.0**	**3.90**	**7.80**

GPCD – Gallons per Capita per Day **MGD** – Million Gallons per Day

E. Resource Sustainability

Monitoring

Source monitoring is summarized in the table below, and includes monitoring of both aquifer impacts and source water quality monitoring that the City of Fridley performs.

Table 8. Information about source water quality and quantity monitoring

MN Unique Well # or Surface Water ID	Type of monitoring point	Monitoring program	Frequency of monitoring	Monitoring Method
Well 1 206685	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 2 206674	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 3 206670	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 4 201158	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 5 206675	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge

MN Unique Well # or Surface Water ID	Type of monitoring point	Monitoring program	Frequency of monitoring	Monitoring Method
Well 6 206673	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 7 206671	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 8 206669	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 9 206672	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 10 206658	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 11 206657	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge

MN Unique Well # or Surface Water ID	Type of monitoring point	Monitoring program	Frequency of monitoring	Monitoring Method
Well 12 29207	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge
Well 13 206696	■ production well ☐ observation well ☐ source water intake ☐ source water reservoir	■ routine MDH sampling ■ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ■ monthly ■ quarterly ■ annually	☐ SCADA ■ grab sampling ■ steel tape ☐ stream gauge

Water Level Data

A water level monitoring plan is included in **Appendix 2.**

Table 9 summarizes water level data for each well being monitored. **Appendix 3** has water level graphs showing all available data, and a more recent 10-year trend. Production rates measured at the time of drawdown are also shown on these figures.

Table 9. Water level data

Unique Well Number or Well ID	Aquifer Name	Seasonal Variation (Feet)	Long-term Trend in water level data	Water level measured during well/pumping maintenance
Well 1 206685	Franconia, Galesville, Mt. Simon-Hinckley	40	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 2 206674	Mt. Simon-Hinckley	30-60	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 3 206670	Mt. Simon-Hinckley	40	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 4 201158	Mt. Simon-Hinckley	70	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 5 206675	Mt. Simon-Hinckley	30-50	☐ Falling ■ Stable ☐ Rising	See Appendix 3

Unique Well Number or Well ID	Aquifer Name	Seasonal Variation (Feet)	Long-term Trend in water level data	Water level measured during well/pumping maintenance
Well 6 206673	Prairie du Chien-Jordan	5-10	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 7 206671	Prairie du Chien-Jordan	5	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 8 206669	Prairie du Chien-Jordan	5	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 9 206672	Prairie du Chien-Jordan	3-5	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 10 206658	Drift	5	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 11 206657	Franconia-Galesville	50	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 12 29207	Prairie du Chien-Jordan	5-10	☐ Falling ■ Stable ☐ Rising	See Appendix 3
Well 13 206696	Prairie du Chien-Jordan	2	☐ Falling ■ Stable ☐ Rising	See Appendix 3

Potential Water Supply Issues & Natural Resource Impacts

Table 10 lists the types of natural resources that are or could be impacted by permitted water withdrawals. Surface waters are presumed to be at low risk, as historic pumping rates have declined by 50% over the past three decades. Monitoring of indicator resources would be conducted to ensure that there are no impacts.

Table 10. Natural resource impacts

Resource Type	Resource Name	Risk	Risk Assessed Through	Describe Resource Protection Threshold*	Mitigation Measure or Management Plan	Describe How Changes to Thresholds are Monitored
■ Aquifer	Mt. Simon-Hinckley	■ Flow/water level decline □ Degrading water quality trends and/or MCLs exceeded □ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts □ Other: _____	□ GIS analysis □ Modeling □ Mapping ■ Monitoring □ Aquifer testing □ Other: ___	Sustained decline over five year period	□ Revise permit ■ Change groundwater pumping ■ Increase conservation □ Other	Monthly measurements
■ Aquifer	Prairie du Chien-Jordan	■ Flow/water level decline ■ Degrading water quality trends and/or MCLs exceeded □ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts □ Other: _____	□ GIS analysis □ Modeling □ Mapping ■ Monitoring □ Aquifer testing □ Other: ___	Sustained decline over five year period, water quality issue	□ Revise permit ■ Change groundwater pumping ■ Increase conservation □ Other	Monthly measurements, quarterly water quality monitoring
■ Lake	Moore Lake	■ Flow/water level decline □ Degrading water quality trends and/or MCLs	□ GIS analysis □ Modeling □ Mapping ■ Monitoring	Decline over non-drought period, multiple seasons	□ Revise permit ■ Change groundwater pumping ■ Increase	Lake level readings, bi-weekly

Resource Type	Resource Name	Risk	Risk Assessed Through	Describe Resource Protection Threshold*	Mitigation Measure or Management Plan	Describe How Changes to Thresholds are Monitored
		exceeded ☐ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts ☐ Other: _____	☐ Aquifer testing ☐ Other: ___		conservation ☐ Other	
■ Wetland	Various stormwater wetlands that recharge aquifers in Fridley	■ Flow/water level decline ☐ Degrading water quality trends and/or MCLs exceeded ☐ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts ☐ Other: _____	■ GIS analysis ☐ Modeling ☐ Mapping ■ Monitoring ☐ Aquifer testing ☐ Other: ___	Site monitoring/GIS analysis shows decline over non-drought period, multiple seasons	☐ Revise permit ■ Change groundwater pumping ■ Increase conservation ☐ Other	Bi-annual review when new aerial photography available

* Examples of thresholds: a lower limit on acceptable flow in a river or stream; water quality outside of an accepted range; a lower limit on acceptable aquifer level decline at one or more monitoring wells; withdrawals that exceed some percent of the total amount available from a source; or a lower limit on acceptable changes to a protected habitat.

Wellhead Protection (WHP) and Surface Water Protection (SWP) Plans

Table 11 provides the status information about the City of Fridley's Wellhead Protection Plan (WHP). The City of Fridley has contributed to the establishment of the Municipal Wellhead Protection Group that coordinates protection of City's Wellhead Areas that may extend into a neighboring community.

Table 11. Status of Wellhead Protection and Surface Water Protection Plans

Plan Type	Status	Date Adopted	Date for Update
WHP	☐ In Process ■ Completed ☐ Not Applicable	2009	2018
	☐		

F. Capital Improvement Plan (CIP)

Adequacy of Water Supply System

Table 12 contains information about the adequacy of wells, storage facilities, treatment facilities, and distribution systems to sustain current and projected demands. Listed are highlights of planned capital improvements for system components, in chronological order.

The City's latest Capital Improvement Plan is attached as **Appendix 4**.

Table 12. Adequacy of Water Supply System

System Component	Planned action	Anticipated Construction Year	Notes
Wells/Intakes	☐ No action planned - adequate ■ Repair/replacement ☐ Expansion/addition	Ongoing	Bi-annual project including 2-3 well rehabilitations
Water Storage Facilities	☐ No action planned - adequate ■ Repair/replacement ☐ Expansion/addition	2023 2028 2030	Marian Hills Highway 65 #2 Commons #1 and Ground
Water Treatment Facilities	☐ No action planned - adequate ■ Repair/replacement ☐ Expansion/addition	2017 2025 2030	Locke Filter and Backwash Commons Filter I Commons Filter II
Distribution Systems (pipes, valves, etc.)	☐ No action planned - adequate ■ Repair/replacement ☐ Expansion/addition	Ongoing	Annual Main Rehab, Valve and Hydrant Replacement
Pressure Zones	■ No action planned - adequate ☐ Repair/replacement ☐ Expansion/addition		

System Component	Planned action	Anticipated Construction Year	Notes
Other:	☐ No action planned - adequate ■ Repair/replacement ☐ Expansion/addition	Wellhouses and Plant Buildings 63rd Booster Station Rehab Minnneapolis Interconnect Rehab	Ongoing 2018 2018

Proposed Future Water Sources

Table 13 identifies new water source installation planned over the next ten years.

Table 13. Proposed future installations/sources

Source	Installation Location (approximate)	Resource Name	Proposed Pumping Capacity (gpm)	Planned Installation Year	Planned Partnerships
Groundwater	No Future Sources Planned				
Surface Water					
Interconnection to another supplier					

Water Source Alternatives - *Key Metropolitan Council Benchmark*

Do you anticipate the need for alternative water sources in the next 10 years? Yes ☐ No ■

For metro communities, will you need alternative water sources by the year 2040? Yes ☐ No ■

Table 14. Alternative water sources

Alternative Source Considered	Source and/or Installation Location (approximate)	Estimated Amount of Future Demand (%)	Timeframe to Implement (YYYY)	Potential Partners	Benefits	Challenges
☐ Groundwater	No Alternative Sources Planned					
☐ Surface Water						
☐ Reclaimed stormwater						
☐ Reclaimed wastewater						
☐ Interconnection to another supplier						

Part 2. Emergency Preparedness Procedures

The emergency preparedness procedures outlined in this plan are intended to comply with the contingency plan provisions required by MDH in the WHP and SWP. Water emergencies can occur as a result of vandalism, sabotage, accidental contamination, mechanical problems, power failings, drought, flooding, and other natural disasters. The purpose of emergency planning is to develop emergency response procedures and to identify actions needed to improve emergency preparedness. In the case of a municipality, these procedures should be in support of, and part of, an all-hazard emergency operations plan. Municipalities that already have written procedures dealing with water emergencies should review the following information and update existing procedures to address these water supply protection measures.

A. Federal Emergency Response Plan

Section 1433(b) of the Safe Drinking Water Act, (Public Law 107-188, Title IV- Drinking Water Security and Safety) requires community water suppliers serving over 3,300 people to prepare an Emergency Response Plan.

Do you have a federal emergency response plan? Yes ■ No □

If yes, what was the date it was certified? 1/1/2011

Complete Table 15 by inserting the noted information regarding your completed Federal Emergency Response Plan.

Table 15. Emergency Preparedness Plan contact information

Emergency Response Plan Role	Contact Person	Contact Phone Number	Contact Email
Emergency Response Lead	BRIAN WEIERKE		BRIAN.WEIERKE@FRIDLEYMN.GOV
Alternate Emergency Response Lead	RYAN GEORGE		RYAN.GEORGE@FRIDLEYMN.GOV

B. Operational Contingency Plan

All utilities should have a written operational contingency plan that describes measures to be taken for water supply mainline breaks and other common system failures as well as routine maintenance.

Do you have a written operational contingency plan? Yes ■ No □

At a minimum, a water supplier should prepare and maintain an emergency contact list of contractors and suppliers.

C. Emergency Response Procedures

Water suppliers must meet the requirements of MN Rules 4720.5280 . Accordingly, the Minnesota Department of Natural Resources (DNR) requires public water suppliers serving more than 1,000 people to submit Emergency and Conservation Plans. Water emergency and conservation plans that have been

approved by the DNR, under provisions of Minnesota Statute 186 and Minnesota Rules, part 6115.0770, will be considered equivalent to an approved WHP contingency plan.

Emergency Telephone List

A list of emergency contacts, including the MN Duty Officer is provided in **Appendix 5**.

Current Water Sources and Service Area

Quick access to concise and detailed information on water sources, water treatment, and the distribution system may be needed in an emergency. System operation and maintenance records should be maintained in secured central and back-up locations so that the records are accessible for emergency purposes. A detailed map of the system showing the treatment plants, water sources, storage facilities, supply lines, interconnections, and other information that would be useful in an emergency should also be readily available. It is critical that public water supplier representatives and emergency response personnel communicate about the response procedures and be able to easily obtain this kind of information both in electronic and hard copy formats (in case of a power outage).

Do records and maps exist? Yes ■ No □

Can staff access records and maps from a central secured location in the event of an emergency?

Yes ■ No □

Does the appropriate staff know where the materials are located?

Yes ■ No □

Procedure for Augmenting Water Supplies

Tables 16 and 17 by list all available sources of water that can be used to augment or replace existing sources in an emergency.

Table 16. Interconnections with other water supply systems to supply water in an emergency

Other Water Supply System Owner	Capacity (GPM & MGD)	Note Any Limitations On Use	List of services, equipment, supplies available to respond
CITY OF NEW BRIGHTON	3 MGD	CURRENTLY OFFLINE UNTIL 2018 FOR TREATMENT UPGRADE	
CITY OF MOUNDS VIEW	0.5 MGD		
CITY OF MINNEAPOLIS	2.19 MGD	SURFACE WATER SOURCE WOULD NEED TO EVALUATE WATER QUALITY PRIOR TO OPERATING	

GPM – Gallons per minute MGD – million gallons per day

Table 17. Utilizing surface water as an alternative source

Surface Water Source Name	Capacity (GPM)	Capacity (MGD)	Treatment Needs	Note Any Limitations On Use

The New Brighton supply is not available until treatment processes are in place, anticipated in the end of 2018.

The Minneapolis emergency supply is surface water and would take time to set up to provide proper drinking water quality; this supply may only be suited to be made available in the events of 1) a catastrophic emergency, 2) a long-term loss of capacity.

Allocation and Demand Reduction Procedures

Table 18 prioritizes allocation of water and reduction in demand during an emergency.

Water use categories has been prioritized in a way that is consistent with Minnesota Statutes 103G.261 (#1 is highest priority) as follows:

1. Water use for human needs such as cooking, cleaning, drinking, washing and waste disposal; use for on-farm livestock watering; and use for power production that meets contingency requirements.

2. Water use involving consumption of less than 10,000 gallons per day (usually from private wells or surface water intakes)

3. Water use for agricultural irrigation and processing of agricultural products involving consumption of more than 10,000 gallons per day (usually from private high-capacity wells or surface water intakes)

4. Water use for power production above the use provided for in the contingency plan.

5. All other water use involving consumption of more than 10,000 gallons per day.

6. Nonessential uses – car washes, golf courses, etc.

Water used for human needs at hospitals, nursing homes and similar types of facilities should be designated as a high priority to be maintained in an emergency. Lower priority uses will need to address water used for human needs at other types of facilities such as hotels, office buildings, and manufacturing plants. The volume of water and other types of water uses at these facilities must be carefully considered. After reviewing the data, common sense should dictate local allocation priorities to

protect domestic requirements over certain types of economic needs. Water use for lawn sprinkling, vehicle washing, golf courses, and recreation are legislatively considered non-essential.

Table 18. Water use priorities

Customer Category	Allocation Priority	Average Daily Demand (MGD)	Short-Term Emergency Demand Reduction Potential (MGD)
Institutional	**1**	**0.24**	**0.00**
Residential	**2**	**1.98**	**0.20**
Commercial	**3**	**0.15**	**0.05**
Industrial	**4**	**0.70**	**0.40**
Irrigation	**5**	**0.15**	**0.15**
Non-Essential	**6**	**0.04**	**0.04**
Wholesale	**7**	**0.00**	**0.00**
TOTAL		**3.26**	**0.84**

MGD – Million Gallons per Day

Table 19 indicates the possible triggers and actions during water supply disruption conditions.

Table 19. Emergency demand reduction conditions, triggers and actions

Emergency Triggers	Short-term Actions	Long-term Actions
■ Contamination ■ Loss of production ■ Infrastructure failure ■ Executive order by Governor □ Other: _____	■ Supply augmentation through New Brighton, Mounds View ■ Adopt (if not already) and enforce a critical water deficiency ordinance to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. □ Water allocation through____ ■ Meet with large water users to discuss their contingency plan.	■ Supply augmentation through New Brighton, Mounds View, Minneapolis ■ Adopt (if not already) and enforce a critical water deficiency ordinance to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. □ Water allocation through____ ■ Meet with large water users to discuss their contingency plan.

Notification Procedures

Table 20 shows selected triggers for informing customers regarding conservation requests, water use restrictions, and suspensions; notification frequencies; and partners that may assist in the notification process.

Table 20. Plan to inform customers regarding conservation requests, water use restrictions, and suspensions

Notification Trigger(s)	Methods (select all that apply)	Update Frequency	Partners
■ Short-term demand reduction declared (< 1 year)	■ Website □ Email list serve ■ Social media (e.g. Twitter, Facebook) ■ Direct customer mailing, ■ Press release (TV, radio, newspaper), ■ Meeting with large water users (> 10% of total city use) □ Other: _____	□ Daily ■ Weekly ■ Monthly □ Annually	
■ Long-term Ongoing demand reduction declared	■ Website □ Email list serve ■ Social media (e.g. Twitter, Facebook) ■ Direct customer mailing, ■ Press release (TV, radio, newspaper), □ Meeting with large water users (> 10% of total city use) □ Other: _____	□ Daily □ Weekly ■ Monthly ■ Annually	
■ Governor's critical water deficiency declared	■ Website □ Email list serve ■ Social media (e.g. Twitter, Facebook) □ Direct customer mailing, □ Press release (TV, radio, newspaper), ■ Meeting with large water users (> 10% of total city use) □ Other: _____	□ Daily ■ Weekly ■ Monthly □ Annually	

Enforcement

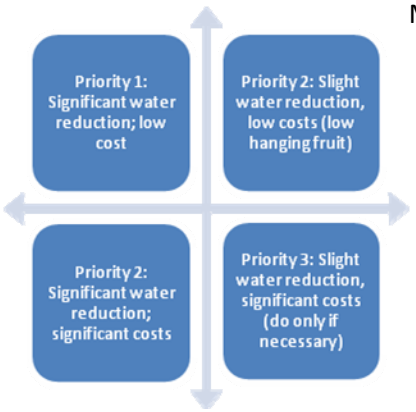
Does the city have a critical water deficiency restriction/official control in place that includes provisions to restrict water use and enforce the restrictions? (This restriction may be an ordinance, rule, regulation, policy under a council directive, or other official control) Yes ■ No □

The official control document is attached to this WSP as **Appendix 7**.

Irrespective of whether a critical water deficiency control is in place, does the public water supply utility, city manager, mayor, or emergency manager have standing authority to implement water restrictions? Yes ■ No □

If yes, cite the regulatory authority reference: _____.

PART 3. WATER CONSERVATION PLAN



Minnesotans have historically benefited from the state's abundant water supplies, reducing the need for conservation. There are however, limits to the available supplies of water and increasing threats to the quality of our drinking water. Causes of water supply limitation may include: population increases, economic trends, uneven statewide availability of groundwater, climatic changes, and degraded water quality. Examples of threats to drinking water quality include: the presence of contaminant plumes from past land use activities, exceedances of water quality standards from natural and human sources, contaminants of emerging concern, and increasing pollutant trends from nonpoint sources.

There are many incentives for conserving water; conservation:

- reduces the potential for pumping-induced transfer of contaminants into the deeper aquifers, which can add treatment costs
- reduces the need for capital projects to expand system capacity
- reduces the likelihood of water use conflicts, like well interference, aquatic habitat loss, and declining lake levels
- conserves energy, because less energy is needed to extract, treat and distribute water (and less energy production also conserves water since water is use to produce energy)
- maintains water supplies that can then be available during times of drought

It is therefore imperative that water suppliers implement water conservation plans. The first step in water conservation is identifying opportunities for behavioral or engineering changes that could be made to reduce water use by conducting a thorough analysis of:

- Water use by customer
- Extraction, treatment, distribution and irrigation system efficiencies
- Industrial processing system efficiencies
- Regulatory and barriers to conservation
- Cultural barriers to conservation
- Water reuse opportunities

Once accurate data is compiled, water suppliers can set achievable goals for reducing water use. A successful water conservation plan follows a logical sequence of events. The plan should address both conservation on the supply side (leak detection and repairs, metering), as well as on the demand side (reductions in usage). Implementation should be conducted in phases, starting with the most obvious and lowest-cost options. In some cases one of the early steps will be reviewing regulatory constraints to water conservation, such as lawn irrigation requirements. Outside funding and grants may be available for implementation of projects. Engage water system operators and maintenance staff and customers in brainstorming opportunities to reduce water use. Ask the question: "How can I help save water?"

Progress since 2006

Is this your community's first Water Supply Plan? Yes ☐ No ■

Table 21 to summarizes conservation actions taken since the adoption of the 2006 water supply plan.

Table 21. Implementation of previous ten-year Conservation Plan

2006 Plan Commitments	Action Taken?
Complete a rate study and change water rates structure to provide conservation pricing	■ Yes ☐ No
Develop a plan for systematically replacing water mains over a scheduled period	■ Yes ☐ No
Update Emergency Management Plan	■ Yes ☐ No
Monitor Peak Hourly Demands and Consider Legislation and Education as Needed	■ Yes ☐ No
Develop Guidelines for Unmetered Water Usage	■ Yes ☐ No
Complete a Rate Study and Incorporate Conservation Rates	■ Yes ☐ No
Complete Wellhead Protection Plan	■ Yes ☐ No

The City of Fridley has seen the following from the actions in Table 21: Steady demand reduction, particularly with residential customers. Results are shown in annual usage data. The City monitors the impacts of these actions annually during reporting periods.

A. Triggers for Allocation and Demand Reduction Actions

Table 22 checks each trigger that may be utilized below, as appropriate, and the actions to be taken at various levels or stages of severity.

Table 22. Short and long-term demand reduction conditions, triggers and actions

Objective	Triggers	Actions
Protect surface water flows	■ Low stream flow conditions ☐ Reports of declining wetland and lake levels ☐ Other: _____	■ Increase promotion of conservation measures ☐ Other: _____
Short-term demand reduction (less than 1 year	☐ Extremely high seasonal water demand (more than double winter demand) ■ Loss of treatment capacity ■ Lack of water in storage ■ State drought plan	■ Adopt (if not already) and enforce the critical water deficiency ordinance to restrict or prohibit lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. ■ Supply augmentation through New

Objective	Triggers	Actions
	■ Well interference ■ Other: Demand exceeding 80% of adjusted firm capacity	Brighton ☐ Water allocation through____ ■ Meet with large water users to discuss user's contingency plan.
Long-term demand reduction (>1 year)	☐ Per capita demand increasing ■ Total demand increase (higher population or more industry) ■ Water level in well(s) below elevation of _____ ☐ Other: _____	☐ Develop a critical water deficiency ordinance that is or can be quickly adopted to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. ■ Enact a water waste ordinance that targets overwatering (causing water to flow off the landscape into streets, parking lots, or similar), watering impervious surfaces (streets, driveways or other hardscape areas), and negligence of known leaks, breaks, or malfunctions. ■ Meet with large water users to discuss user's contingency plan. ■ Enhanced monitoring and reporting: audits, meters, billing, etc.
Governor's "Critical Water Deficiency Order" declared	■ Describe	■ Respond in conformance with order

B. Conservation Objectives and Strategies

This section establishes water conservation objectives and strategies for eight major areas of water use.

Objective 1: Reduce Unaccounted (Non-Revenue) Water loss to Less than 10%

The Minnesota Rural Waters Association, the Metropolitan Council and the Department of Natural Resources recommend that all water uses be metered. Metering can help identify high use locations and times, along with leaks within buildings that have multiple meters.

It is difficult to quantify specific unmetered water use such as that associated with firefighting and system flushing or system leaks. Typically, water suppliers subtract metered water use from total water pumped to calculate unaccounted or non-revenue water loss.

Is your five-year average (2005-2014) unaccounted Water Use in Table 2 higher than 10%?

Yes ☐ No ■

The City of Fridley's leak detection monitoring schedule is bi-annually in spring and fall for the entire system.

Water Audits - are intended to identify, quantify and verify water and revenue losses. The volume of unaccounted-for water should be evaluated each billing cycle. The American Water Works Association (AWWA) recommends that ten percent or less of pumped water is unaccounted-for water. Water audit

procedures are available from the AWWA and MN Rural Water Association www.mrwa.com . Drinking Water Revolving Loan Funds are available for purchase of new meters when new plants are built.

What is the date of your most recent water audit? 2016

Frequency of water audits: ■ **yearly** □ **other (specify frequency) _____**

Leak detection and survey: ■ **every year** □ **every other year** □ **periodic as needed**

Year last leak detection survey completed: 2016

Metering -AWWA recommends that every water supplier install meters to account for all water taken into its system, along with all water distributed from its system at each customer's point of service. An effective metering program relies upon periodic performance testing, repair, maintenance or replacement of all meters. AWWA also recommends that water suppliers conduct regular water audits to ensure accountability. Some cities install separate meters for interior and exterior water use, but some research suggests that this may not result in water conservation.

Table 23 shows information regarding the number, types, testing and maintenance of customer meters.

Table 23. Information about customer meters

Customer Category	Number of Customers	Number of Metered Connections	Number of Automated Meter Readers	Meter testing intervals (years)	Average age/meter replacement schedule (years
Residential	7745	7745	3500	20	___ / ___
Irrigation meters	--	--	--		___ / ___
Institutional / Public Facilities	38	38	38	20	___ / ___
Commercial / Industrial	445	445	445	20	___ / ___
TOTALS	8228	8228	3983	NA	NA

No unmetered customers at this time. AMR meters being installed for all residential customers by the end of 2018.

Table 24. Water source meters

	Number of Meters	Meter testing schedule (years)	Number of Automated Meter Readers	Average age/meter replacement schedule (years
Water source (wells/intakes)	13	5	13	4 / 20
Treatment plant	6	5	6	4 / 20

Objective 2: Achieve Less than 75 Residential Gallons per Capita Demand (GPCD)

The 2002 average residential per capita demand in the Twin Cities Metropolitan area was 75 gallons per capita per day.

Is your average 2010-2015 residential per capita water demand in Table 2 more than 75? Yes □ No ■

What was your 2010 – 2015 five-year average residential per capita water demand? 71.4g/person/day

Residential per capita use has declined by nearly 20%.

Table 25 indicates strategies you may use to continue reducing residential per capita demand and projects likely timeframes for completing each checked strategy

Table 25. Strategies and timeframe to reduce residential per capita demand

Strategy to reduce residential per capita demand	Timeframe for completing work
■ Revise city ordinances/codes to encourage or require water efficient landscaping.	2020
■ Revise city ordinance/codes to permit water reuse options, especially for non-potable purposes like irrigation, groundwater recharge, and industrial use. Check with plumbing authority to see if internal buildings reuse is permitted	2022
□ Revise ordinances to limit irrigation. Describe the restricted irrigation plan:	
□ Revise outdoor irrigation installations codes to require high efficiency systems (e.g. those with soil moisture sensors or programmable watering areas) in new installations or system replacements.	
■ Make water system infrastructure improvements	Ongoing
■ Offer free or reduced cost water use audits) for residential customers.	Ongoing
□ Implement a notification system to inform customers when water availability conditions change.	
■ Provide rebates or incentives for installing water efficient appliances and/or fixtures indoors (e.g., low flow toilets, high efficiency dish washers and washing machines, showerhead and faucet aerators, water softeners, etc.)	Ongoing
■ Provide rebates or incentives to reduce outdoor water use (e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	2020
□ Identify supplemental Water Resources	
■ Conduct audience-appropriate water conservation education and outreach.	Ongoing
□ Describe other plans	

Objective 3: Achieve at least a 1.5% per year water reduction for Institutional, Industrial, Commercial, and Agricultural GPCD over the next 10 years or a 15% reduction in ten years.
Table 26 indicates proposed strategies may be used to continue reducing non-residential customer use demand and projects a likely timeframe for completing each checked strategy (add rows for additional strategies).

Table 26. Strategies and timeframe to reduce institutional, commercial industrial, and agricultural and non-revenue use demand

Strategy to reduce total business, industry, agricultural demand	Timeframe for completing work
■ Conduct a facility water use audit for both indoor and outdoor use, including system components	Ongoing programs offered
■ Install enhanced meters capable of automated readings to detect spikes in consumption	2025
☐ Compare facility water use to related industry benchmarks, if available (e.g., meat processing, dairy, fruit and vegetable, beverage, textiles, paper/pulp, metals, technology, petroleum refining etc.)	
■ Install water conservation fixtures and appliances or change processes to conserve water	2018
■ Repair leaking system components (e.g., pipes, valves)	Ongoing
■ Investigate the reuse of reclaimed water (e.g., stormwater, wastewater effluent, process wastewater, etc.)	2018
■ Reduce outdoor water use (e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	Ongoing
■ Train employees how to conserve water	Ongoing
☐ Implement a notification system to inform non-residential customers when water availability conditions change.	
☐ Rainwater catchment systems intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, industrial processes, water features, vehicle washing facilities, cooling tower makeup, and similar uses shall be approved by the commissioner. Proposed plumbing code 4714.1702.1 http://www.dli.mn.gov/PDF/docket/4714rule.pdf	
☐ Describe other plans:	

Objective 4: Achieve a Decreasing Trend in Total Per Capita Demand
Included as **Appendix 8** one graph showing total per capita water demand for each customer category (i.e., residential, institutional, commercial, industrial) from 2005-2014 and add the calculated/estimated linear trend for the next 10 years.

Trends for all customer categories are declining; residential customer class is the most obvious. Reasons include low-flow fixtures, elimination of discharge single-use cooling water, conservation rates, and education/efficiency/rebate programs and efforts.

Objective 5: Reduce Peak Day Demand so that the Ratio of Average Maximum day to the Average Day is less than 2.6

Is the ratio of average 2005-2014 maximum day demand to average 2005-2014 average day demand reported in Table 2 more than 2.6? Yes □ No ■

Calculate a ten year average (2005 – 2014) of the ratio of maximum day demand to average day demand: 2.17 for the period, no years exceeding 2.6 for the period, and below 2.0 for 2014 and 2015.

The position of the DNR has been that a peak day/average day ratio that is above 2.6 for in summer indicates that the water being used for irrigation by the residents in a community is too large and that efforts should be made to reduce the peak day use by the community.

It should be noted that by reducing the peak day use, communities can also reduce the amount of infrastructure that is required to meet the peak day use. This infrastructure includes new wells, new water towers which can be costly items.

Objective 6: Implement a Conservation Water Rate Structure and/or a Uniform Rate Structure with a Water Conservation Program

Water Conservation Program

Municipal water suppliers serving over 1,000 people are required to adopt demand reduction measures that include a conservation rate structure, or a uniform rate structure with a conservation program that achieves demand reduction. These measures must achieve demand reduction in ways that reduce water demand, water losses, peak water demands, and nonessential water uses. These measures must be approved before a community may request well construction approval from the Department of Health or before requesting an increase in water appropriations permit volume (*Minnesota Statutes*, section 103G.291, subd. 3 and 4). Rates should be adjusted on a regular basis to ensure that revenue of the system is adequate under reduced demand scenarios. If a municipal water supplier intends to use a Uniform Rate Structure, a community-wide Water Conservation Program that will achieve demand reduction must be provided.

Current Water Rates

Include a copy of the actual rate structure in **Appendix 9** or list current water rates including base/service fees and volume charges below.

Volume included in base rate or service charge: _____ gallons or ____ cubic feet ■other (varies)

Frequency of billing: □ Monthly □ Bimonthly ■ Quarterly □ Other: _____

Water Rate Evaluation Frequency: ■ every year □ every ___ years □ no schedule

Date of last rate change: **December 2015**

Table 27. Rate structures for each customer category

Customer Category	Conservation Billing Strategies in Use *	Conservation Neutral Billing Strategies in Use **	Non-Conserving Billing Strategies in Use ***
Residential	☐ Monthly billing ■ Increasing block rates (volume tiered rates) ☐ Seasonal rates ☐ Time of use rates ■ Water bills reported in gallons ☐ Individualized goal rates ☐ Excess use rates ☐ Drought surcharge ☐ Use water bill to provide comparisons ☐ Service charge not based on water volume ☐ Other (describe)	☐ Uniform ☐ Odd/even day watering	☐ Service charge based on water volume ☐ Declining block ☐ Flat ☐ Other (describe)
Commercial/ Industrial/ Institutional	☐ Monthly billing ■ Increasing block rates (volume tiered rates) ☐ Seasonal rates ☐ Time of use rates ■ Water bills reported in gallons ☐ Individualized goal rates ☐ Excess use rates ☐ Drought surcharge ☐ Use water bill to provide comparisons ☐ Service charge not based on water volume ☐ Other (describe)	☐ Uniform	☐ Service charge based on water volume ☐ Declining block ☐ Flat ☐ Other (describe)
☐ Other			

*** Rate Structures components that may promote water conservation:**

- **Monthly billing:** is encouraged to help people see their water usage so they can consider changing behavior.
- **Increasing block rates (also known as a tiered residential rate structure):** Typically, these have at least three tiers: should have at least three tiers.
    - The first tier is for the winter average water use.
    - The second tier is the year-round average use, which is lower than typical summer use. This rate should be set to cover the full cost of service.

  - The third tier should be above the average annual use and should be priced high enough to encourage conservation, as should any higher tiers. For this to be effective, the difference in block rates should be significant.
- **Seasonal rate:** higher rates in summer to reduce peak demands
- **Time of Use rates:** lower rates for off peak water use
- **Bill water use in gallons:** this allows customers to compare their use to average rates
- **Individualized goal rates:** typically used for industry, business or other large water users to promote water conservation if they keep within agreed upon goals. **Excess Use rates**: if water use goes above an agreed upon amount this higher rate is charged
- **Drought surcharge:** an extra fee is charged for guaranteed water use during drought
- **Use water bill to provide comparisons**: simple graphics comparing individual use over time or compare individual use to others.
- **Service charge or base fee that does not include a water volume** – a base charge or fee to cover universal city expenses that are not customer dependent and/or to provide minimal water at a lower rate (e.g., an amount less than the average residential per capita demand for the water supplier for the last 5 years)
- **Emergency rates** -A community may have a separate conservation rate that only goes into effect when the community or governor declares a drought emergency. These higher rates can help to protect the city budgets during times of significantly less water usage.

****Conservation Neutral****

- **Uniform rate**: rate per unit used is the same regardless of the volume used
- **Odd/even day watering** –This approach reduces peak demand on a daily basis for system operation, but it does not reduce overall water use.

***** Non-Conserving *****

- **Service charge or base fee with water volume:** an amount of water larger than the average residential per capita demand for the water supplier for the last 5 years
- **Declining block rate:** the rate per unit used decreases as water use increases.
- **Flat rate:** one fee regardless of how much water is used (usually unmetered).

The City has no conservation neutral or non-conserving rate structures.

Objective 7: Additional strategies to Reduce Water Use and Support Wellhead Protection Planning

Development and redevelopment projects can provide additional water conservation opportunities, such as the actions listed below. Indicated are those actions that we intend to implement within the next 10 years.

Table 28. Additional strategies to Reduce Water Use & Support Wellhead Protection

■	Participate in the GreenStep Cities Program, including implementation of at least one of the 20 "Best Practices" for water
□	Prepare a master plan for smart growth (compact urban growth that avoids sprawl)
□	Prepare a comprehensive open space plan (areas for parks, green spaces, natural areas)
□	Adopt a water use restriction ordinance (lawn irrigation, car washing, pools, etc.)
□	Adopt an outdoor lawn irrigation ordinance
□	Adopt a private well ordinance (private wells in a city must comply with water restrictions)
■	Implement a stormwater management program

■	Adopt non-zoning wetlands ordinance (can further protect wetlands beyond state/federal laws- for vernal pools, buffer areas, restrictions on filling or alterations)
□	Adopt a water offset program (primarily for new development or expansion)
■	Implement a water conservation outreach program
□	Hire a water conservation coordinator (part-time)
■	Implement a rebate program for water efficient appliances, fixtures, or outdoor water management
□	Other

Objective 8: Tracking Success: How will you track or measure success through the next ten years?

Monitor annual consumption data.

A. Regulation

Table 29 by selects which regulations are used to reduce demand and improve water efficiencies. Copies of adopted regulations or proposed restrictions are included in **Appendix 10**.

Table 29. Regulations for short-term reductions in demand and long-term improvements in water efficiencies

Regulations Utilized	When is it applied (in effect)?
□ Rainfall sensors required on landscape irrigation systems	□ Ongoing □ Seasonal □ Only during declared Emergencies
■ Water efficient plumbing fixtures required	■ New development ■ Replacement ■ Rebate Programs
■ Critical/Emergency Water Deficiency ordinance	■ Only during declared Emergencies
■ Watering restriction requirements (time of day, allowable days, etc.)	□ Odd/even □ 2 days/week ■ Only during declared Emergencies
□ Water waste prohibited (for example, having a fine for irrigators spraying on the street)	□ Ongoing □ Seasonal □ Only during declared Emergencies
□ Limitations on turf areas (requiring lots to have 10% - 25% of the space in natural areas)	□ New development □ Shoreland/zoning □ Other
■ Soil preparation requirement s (after construction, requiring topsoil to be applied to promote good root growth)	■ New Development ■ Construction Projects □ Other
■ Tree ratios (requiring a certain number of trees per square foot of lawn)	■ New development □ Shoreland/zoning □ Other

Regulations Utilized	When is it applied (in effect)?
■ Permit to fill swimming pool and/or requiring pools to be covered (to prevent evaporation)	■ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
☐ Ordinances that permit stormwater irrigation, reuse of water, or other alternative water use (Note: be sure to check current plumbing codes for updates)	☐ Describe

B. Retrofitting Programs

Education and incentive programs aimed at replacing inefficient plumbing fixtures and appliances can help reduce per capita water use, as well as energy costs. It is recommended that municipal water suppliers develop a long-term plan to retrofit public buildings with water efficient plumbing fixtures and appliances. Some water suppliers have developed partnerships with organizations having similar conservation goals, such as electric or gas suppliers, to develop cooperative rebate and retrofit programs.

A study by the AWWA Research Foundation (Residential End Uses of Water, 1999) found that the average indoor water use for a non-conserving home is 69.3 gallons per capita per day (gpcd). The average indoor water use in a conserving home is 45.2 gpcd and most of the decrease in water use is related to water efficient plumbing fixtures and appliances that can reduce water, sewer and energy costs. In Minnesota, certain electric and gas providers are required (Minnesota Statute 216B.241) to fund programs that will conserve energy resources and some utilities have distributed water efficient showerheads to customers to help reduce energy demands required to supply hot water.

Retrofitting Programs

Table 30 indicates which water uses are targeted, the outreach methods used, the measures used to identify success, and any participating partners for the City of Fridley's retrofit program.

Table 30. Retrofitting programs (Select all that apply)

Water Use Targets	Outreach Methods	Partners
■ Low flush toilets, ☐ Toilet leak tablets, ☐ Low flow showerheads, ☐ Faucet aerators;	☐ Education about ☐ Free distribution of ■ Rebate for ☐ Other	☐ Gas company ☐ Electric company ☐ Watershed organization
■ Water conserving washing machines, ☐ Dish washers, ☐ Water softeners;	☐ Education about ☐ Free distribution of ■ Rebate for ☐ Other	☐ Gas company ☐ Electric company ☐ Watershed organization
■ Rain gardens, ■ Rain barrels, ■ Native/drought tolerant landscaping, etc.	■ Education about ☐ Free distribution of ☐ Rebate for ■ Other – Cost share	☐ Gas company ☐ Electric company ☐ Watershed organization

Results of the program are somewhat inconclusive, as the program was begun approximately six months ago, and data is not available to fully measure impacts of the program.

C. Education and Information Programs

Customer education should take place in three different circumstances. First, customers should be provided information on how to conserve water and improve water use efficiencies. Second, information should be provided at appropriate times to address peak demands. Third, emergency notices and educational materials about how to reduce water use should be available for quick distribution during an emergency.

Proposed Education Programs

Table 31 selects methods to be used to provide water conservation and information, including the frequency of program components.

Table 31. Current and Proposed Education Programs

Education Methods	General summary of topics	#/Year	Frequency
Billing inserts or tips printed on the actual bill			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Consumer Confidence Reports	Conservation, water quality, wellhead protection	1	☐ Ongoing ■ Seasonal ☐ Only during declared emergencies
Press releases to traditional local news outlets (e.g., newspapers, radio and TV)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Social media distribution (e.g., emails, Facebook, Twitter)	Advertise events, education, best practices	6	■ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Presentations to community groups	Rain garden, lawn practices, conservation, wellhead protection	4	☐ Ongoing ■ Seasonal ☐ Only during declared emergencies
Staff training	Public works MS4 staff	1	☐ Ongoing

Education Methods	General summary of topics	#/Year	Frequency
	training includes relevant material Select personnel seminars	 15	■ Seasonal □ Only during declared emergencies
Facility tours	Middle school tours of water treatment facilities	2	□ Ongoing ■ Seasonal □ Only during declared emergencies
Displays and exhibits	Subject matter varies, stormwater, BMPs, conservation, wellhead protection	2	□ Ongoing ■ Seasonal □ Only during declared emergencies
Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices)	Washing machines, irrigation systems, toilets	100	■ Ongoing □ Seasonal □ Only during declared emergencies
Community news letters	Subject matter varies, stormwater, BMPs, conservation	6	■ Ongoing □ Seasonal □ Only during declared emergencies
Direct mailings (water audit/retrofit kits, showerheads, brochures)			□ Ongoing □ Seasonal □ Only during declared emergencies
Information kiosk at utility and public buildings	Brochures	200	■ Ongoing □ Seasonal □ Only during declared emergencies
Public service announcements			□ Ongoing □ Seasonal □ Only during declared emergencies
Cable TV Programs	Subject matter varies, stormwater, BMPs, conservation, rebate programs	4	□ Ongoing ■ Seasonal □ Only during declared emergencies
Demonstration projects (landscaping or plumbing)			□ Ongoing ■ Seasonal □ Only during declared emergencies
K-12 education programs (Project Wet,			□ Ongoing

Education Methods	General summary of topics	#/Year	Frequency
Drinking Water Institute, presentations)			☐ Seasonal ☐ Only during declared emergencies
Community events (children's water festivals, environmental fairs)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Community education classes	BMPs, conservation	2	☐ Ongoing ■ Seasonal ☐ Only during declared emergencies
Water week promotions			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Website (include address:)	Stormwater, BMPs, conservation, wellhead protection, drinking water quality	20 pages	■ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Targeted efforts (large volume users, users with large increases)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Notices of ordinances			☐ Ongoing ☐ Seasonal ■ Only during declared emergencies
Emergency conservation notices			☐ Ongoing ☐ Seasonal ■ Only during declared emergencies
Other:			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies

The City is evaluating options for education and information activities to consider implementing in the future:

Part 4. ITEMS FOR METROPOLITAN AREA COMMUNITIES

Minnesota Statute 473.859 requires WSPs to be completed for all local units of government in the seven-county Metropolitan Area as part of the local comprehensive planning process.

Much of the information in Parts 1-3 addresses water demand for the next 10 years. However, additional information is needed to address water demand through 2040, which will make the WSP consistent with the Metropolitan Land Use Planning Act, upon which the local comprehensive plans are based.

This Part 4 provides guidance to complete the WSP in a way that addresses plans for water supply through 2040.

A. Water Demand Projections through 2040

Table 7 in Part 1D provides information about long-term water demand projections through 2040. Total Community Population projections are consistent with the community's system statement, found on the Metropolitan Council's website and which was sent to the community in September 2015.

Projected Average Day, Maximum Day, and Annual Water Demands are calculated by the method described.

B. Potential Water Supply Issues

Table 10 in Part 1E provides information about the potential water supply issues in our community, including those that might occur due to 2040 projected water use.

The *Master Water Supply Plan* provides information about potential issues for your community in *Appendix 1 (Water Supply Profiles).*

C. Proposed Alternative Approaches to Meet Extended Water Demand Projections

Table 12 in Part 1F provides information about potential water supply infrastructure impacts (such as replacements, expansions or additions to wells, water storage and treatment capacity, distribution systems, and emergency interconnections) of extended plans for development and redevelopment, in 10-year increments through 2040.

Table 14 in Part 1F indicates approaches the City of Fridely is considering to meet future demand, and provides, information about the amount of future water demand to be met using that approach, the timeframe to implement the approach, potential partners, and current understanding of the key benefits and challenges of the approach. This section of the plan considers the need for: evaluation of geologic conditions (mapping, aquifer tests, modeling), identification of areas where domestic wells could be impacted, measurement and analysis of water levels & pumping rates, triggers & associated actions to protect water levels, etc.

D. Value-Added Water Supply Planning Efforts (Optional)

The following information is not required to be completed as part of the local water supply plan, but is completed to help strengthen source water protection throughout the region and help Metropolitan Council and partners in the region to better support local efforts.

Source Water Protection Strategies

Does a Drinking Water Supply Management Area for a neighboring public water supplier overlap your community? Yes ■ No □

Table 32 includes information about new water demand or land use planning-related local controls that are being considered to provide additional protection in this area.

Table 32. Local controls and schedule to protect Drinking Water Supply Management Areas

Local Control	Schedule to Implement	Potential Partners
□ None at this time		
■ Comprehensive planning that guides development in vulnerable drinking water supply management areas		Cities of New Brighton, Spring Lake Park, and Brooklyn Center
■ Zoning overlay		Cities of New Brighton, Spring Lake Park, and Brooklyn Center
□ Other:		

Technical assistance

From your community's perspective, what are the most important topics for the Metropolitan Council to address, guided by the region's Metropolitan Area Water Supply Advisory Committee and Technical Advisory Committee, as part of its ongoing water supply planning role?

□ Coordination of state, regional and local water supply planning roles

□ Regional water use goals

□ Water use reporting standards

□ Regional and sub-regional partnership opportunities

□ Identifying and prioritizing data gaps and input for regional and sub-regional analyses

□ Others: _____

GLOSSARY

Agricultural/Irrigation Water Use - Water used for crop and non-crop irrigation, livestock watering, chemigation, golf course irrigation, landscape and athletic field irrigation.

Average Daily Demand - The total water pumped during the year divided by 365 days.

Calcareous Fen - Calcareous fens are rare and distinctive wetlands dependent on a constant supply of cold groundwater. Because they are dependent on groundwater and are one of the rarest natural communities in the United States, they are a protected resource in MN. Approximately 200 have been located in Minnesota. They may not be filled, drained or otherwise degraded.

Commercial/Institutional Water Use - Water used by motels, hotels, restaurants, office buildings, commercial facilities and institutions (both civilian and military). Consider maintaining separate institutional water use records for emergency planning and allocation purposes. Water used by multi-family dwellings, apartment buildings, senior housing complexes, and mobile home parks should be reported as Residential Water Use.

Commercial/Institutional/Industrial (C/I/I) Water Sold - The sum of water delivered for commercial/institutional or industrial purposes.

Conservation Rate Structure - A rate structure that encourages conservation and may include increasing block rates, seasonal rates, time of use rates, individualized goal rates, or excess use rates. If a conservation rate is applied to multifamily dwellings, the rate structure must consider each residential unit as an individual user. A community may have a separate conservation rate that only goes into effect when the community or governor declares a drought emergency. These higher rates can help to protect the city budgets during times of significantly less water usage.

Date of Maximum Daily Demand - The date of the maximum (highest) water demand. Typically this is a day in July or August.

Declining Rate Structure - Under a declining block rate structure, a consumer pays less per additional unit of water as usage increases. This rate structure does not promote water conservation.

Distribution System - Water distribution systems consist of an interconnected series of pipes, valves, storage facilities (water tanks, water towers, reservoirs), water purification facilities, pumping stations, flushing hydrants, and components that convey drinking water and meeting fire protection needs for cities, homes, schools, hospitals, businesses, industries and other facilities.

Flat Rate Structure - Flat fee rates do not vary by customer characteristics or water usage. This rate structure does not promote water conservation.

Industrial Water Use - Water used for thermonuclear power (electric utility generation) and other industrial use such as steel, chemical and allied products, paper and allied products, mining, and petroleum refining.

Low Flow Fixtures/Appliances - Plumbing fixtures and appliances that significantly reduce the amount of water released per use are labeled "low flow". These fixtures and appliances use just enough water to be effective, saving excess, clean drinking water that usually goes down the drain.

Maximum Daily Demand - The maximum (highest) amount of water used in one day.

Metered Residential Connections - The number of residential connections to the water system that have meters. For multifamily dwellings, report each residential unit as an individual user.

Percent Unmetered/Unaccounted For - Unaccounted for water use is the volume of water withdrawn from all sources minus the volume of water delivered. This value represents water "lost" by miscalculated water use due to inaccurate meters, water lost through leaks, or water that is used but unmetered or otherwise undocumented. Water used for public services such as hydrant flushing, ice skating rinks, and public swimming pools should be reported under the category "Water Supplier Services".

Population Served - The number of people who are served by the community's public water supply system. This includes the number of people in the community who are connected to the public water supply system, as well as people in neighboring communities who use water supplied by the community's public water supply system. It should not include residents in the community who have private wells or get their water from neighboring water supply.

Residential Connections - The total number of residential connections to the water system. For multifamily dwellings, report each residential unit as an individual user.

Residential Per Capita Demand - The total residential water delivered during the year divided by the population served divided by 365 days.

Residential Water Use - Water used for normal household purposes such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns and gardens. Should include all water delivered to single family private residences, multi-family dwellings, apartment buildings, senior housing complexes, mobile home parks, etc.

Smart Meter - Smart meters can be used by municipalities or by individual homeowners. Smart metering generally indicates the presence of one or more of the following:

- Smart irrigation water meters are controllers that look at factors such as weather, soil, slope, etc. and adjust watering time up or down based on data. Smart controllers in a typical summer will reduce water use by 30%-50%. Just changing the spray nozzle to new efficient models can reduce water use by 40%.

- Smart Meters on customer premises that measure consumption during specific time periods and communicate it to the utility, often on a daily basis.
- A communication channel that permits the utility, at a minimum, to obtain meter reads on demand, to ascertain whether water has recently been flowing through the meter and onto the premises, and to issue commands to the meter to perform specific tasks such as disconnecting or restricting water flow.

Total Connections - The number of connections to the public water supply system.

Total Per Capita Demand - The total amount of water withdrawn from all water supply sources during the year divided by the population served divided by 365 days.

Total Water Pumped - The cumulative amount of water withdrawn from all water supply sources during the year.

Total Water Delivered - The sum of residential, commercial, industrial, institutional, water supplier services, wholesale and other water delivered.

Ultimate (Full Build-Out) - Time period representing the community's estimated total amount and location of potential development, or when the community is fully built out at the final planned density.

Unaccounted (Non-revenue) Loss - See definitions for "percent unmetered/unaccounted for loss".

Uniform Rate Structure - A uniform rate structure charges the same price-per-unit for water usage beyond the fixed customer charge, which covers some fixed costs. The rate sends a price signal to the customer because the water bill will vary by usage. Uniform rates by class charge the same price-per-unit for all customers within a customer class (e.g. residential or non-residential). This price structure is generally considered less effective in encouraging water conservation.

Water Supplier Services - Water used for public services such as hydrant flushing, ice skating rinks, public swimming pools, city park irrigation, back-flushing at water treatment facilities, and/or other uses.

Water Used for Nonessential Purposes - Water used for lawn irrigation, golf course and park irrigation, car washes, ornamental fountains, and other non-essential uses.

Wholesale Deliveries - The amount of water delivered in bulk to other public water suppliers.

Acronyms and Initialisms

AWWA – American Water Works Association

C/I/I – Commercial/Institutional/Industrial

CIP – Capital Improvement Plan

GIS – Geographic Information System

GPCD – Gallons per capita per day

GWMA – Groundwater Management Area – North and East Metro, Straight River, Bonanza,

MDH – Minnesota Department of Health

MGD – Million gallons per day

MG – Million gallons

MGL – Maximum Contaminant Level

MnTAP – Minnesota Technical Assistance Program (University of Minnesota)

MPARS – MN/DNR Permitting and Reporting System (new electronic permitting system)

MRWA – Minnesota Rural Waters Association

SWP – Source Water Protection

WHP – Wellhead Protection

APPENDICES TO BE SUBMITTED BY THE WATER SUPPLIER

Appendix 1: Well records and maintenance summaries – see Part 1C

Appendix 2: Water level monitoring plan – see Part 1E

Appendix 3: Water level graphs for each water supply well - see Part 1E

Appendix 4: Capital Improvement Plan - see Part 1E

Appendix 5: Emergency Telephone List – see Part 2C

Appendix 6: Cooperative Agreements for Emergency Services – see Part 2C

Appendix 7: Municipal Critical Water Deficiency Ordinance – see Part 2C

Appendix 8: Graph showing annual per capita water demand for each customer category during the last ten-years – see Part 3 Objective 4

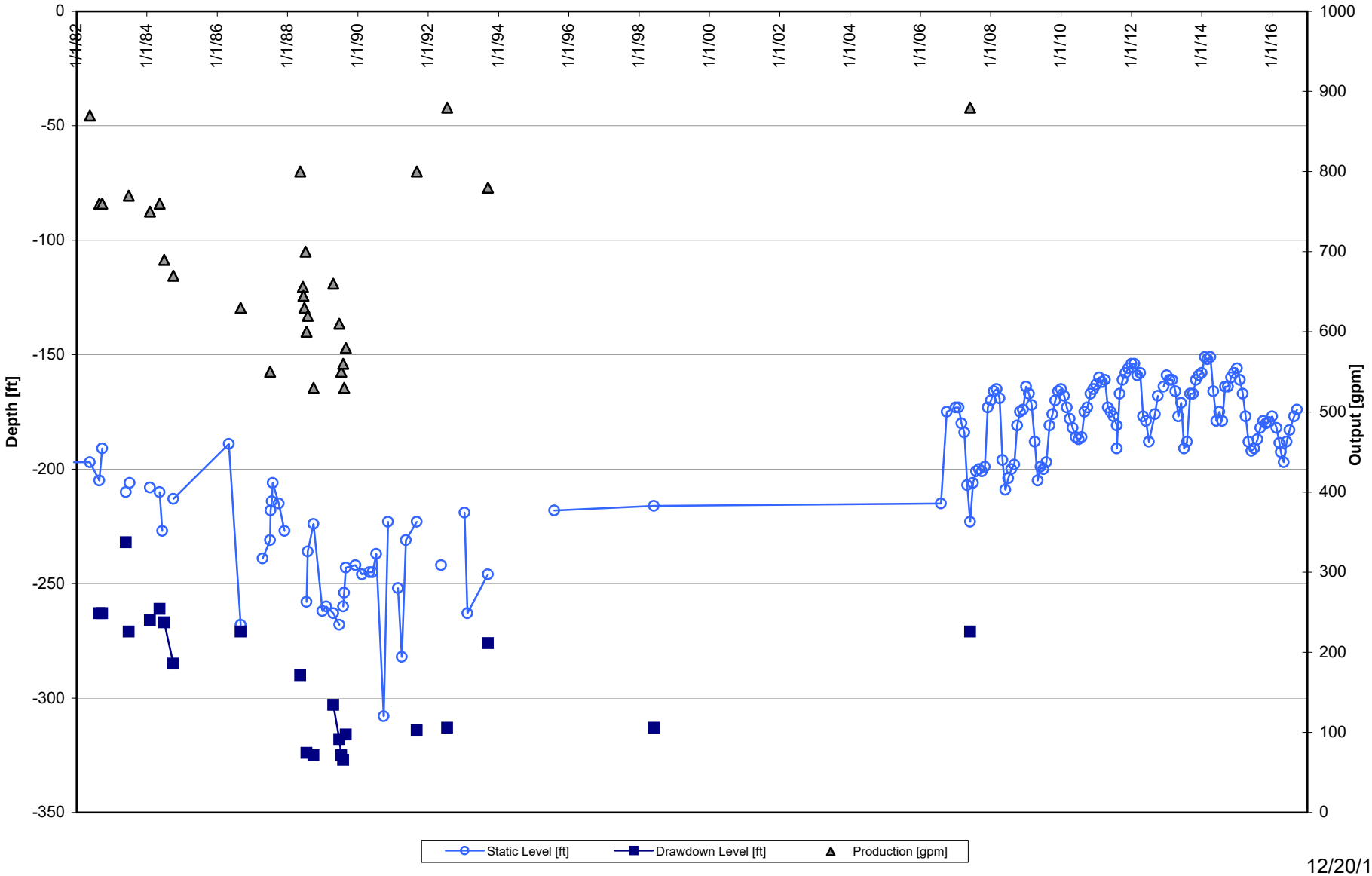
Appendix 9: Water Rate Structure – see Part 3 Objective 6

Appendix 10: Adopted or proposed regulations to reduce demand or improve water efficiency – see Part 3 Objective 7

Appendix 11: Implementation Checklist – summary of all the actions that a community is doing, or proposes to do, including estimated implementation dates – see www.mndnr.gov/watersupplyplans

City of Fridley - Well 1 Drawdown History

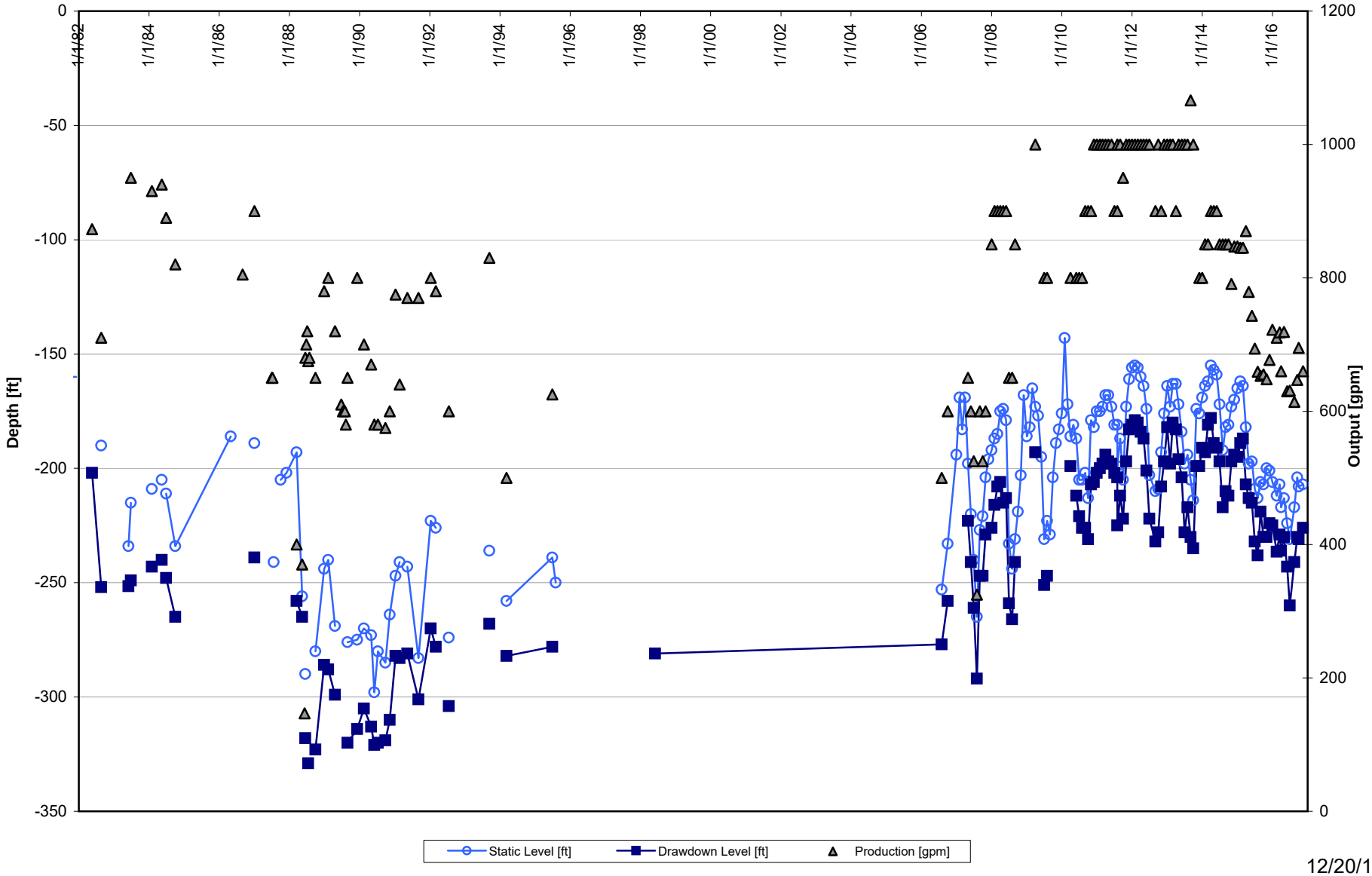
1982 to Present



12/20/16

City of Fridley - Well 2 Drawdown History

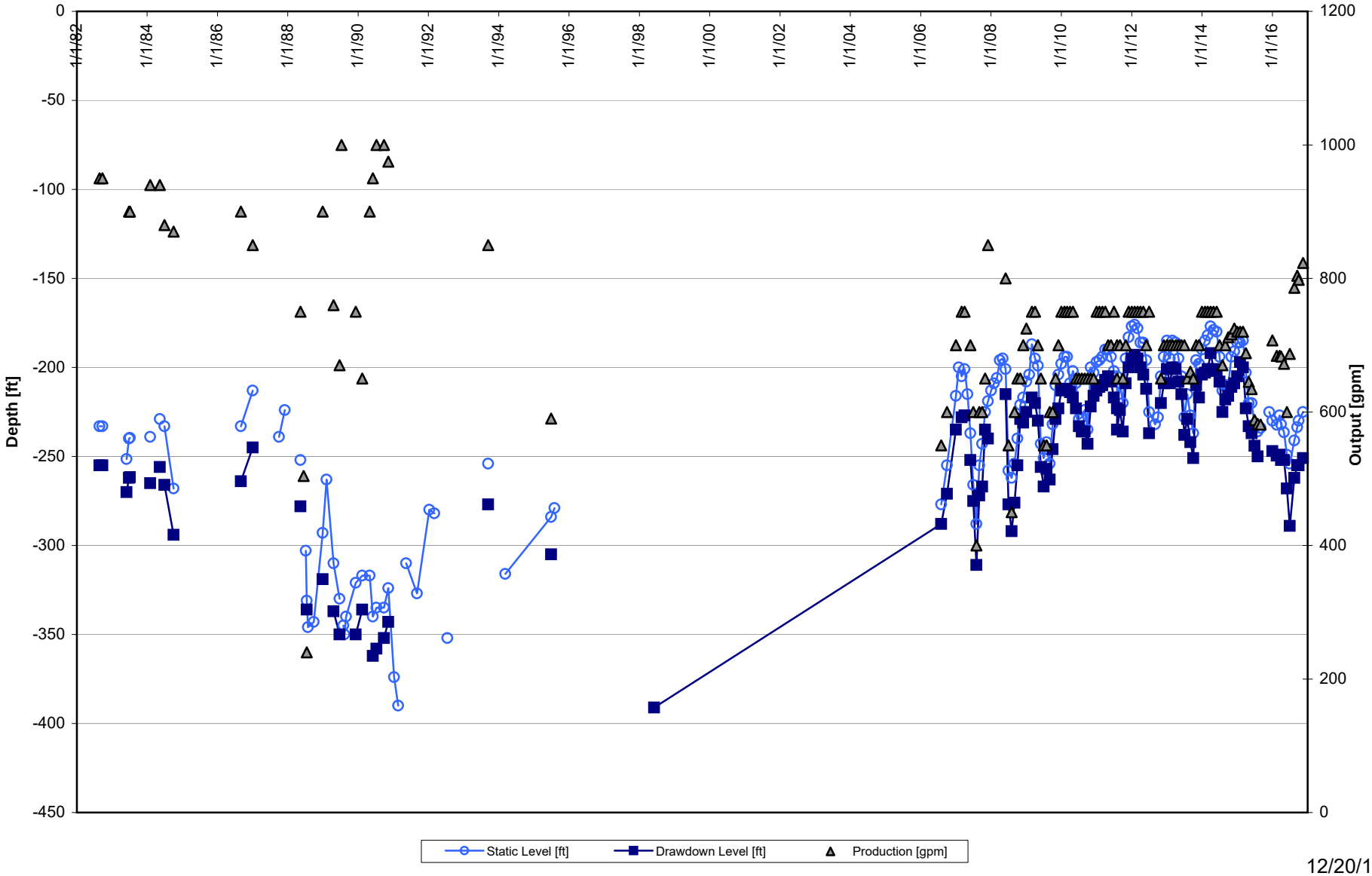
1982 to Present



12/20/16

City of Fridley - Well 3 Drawdown History

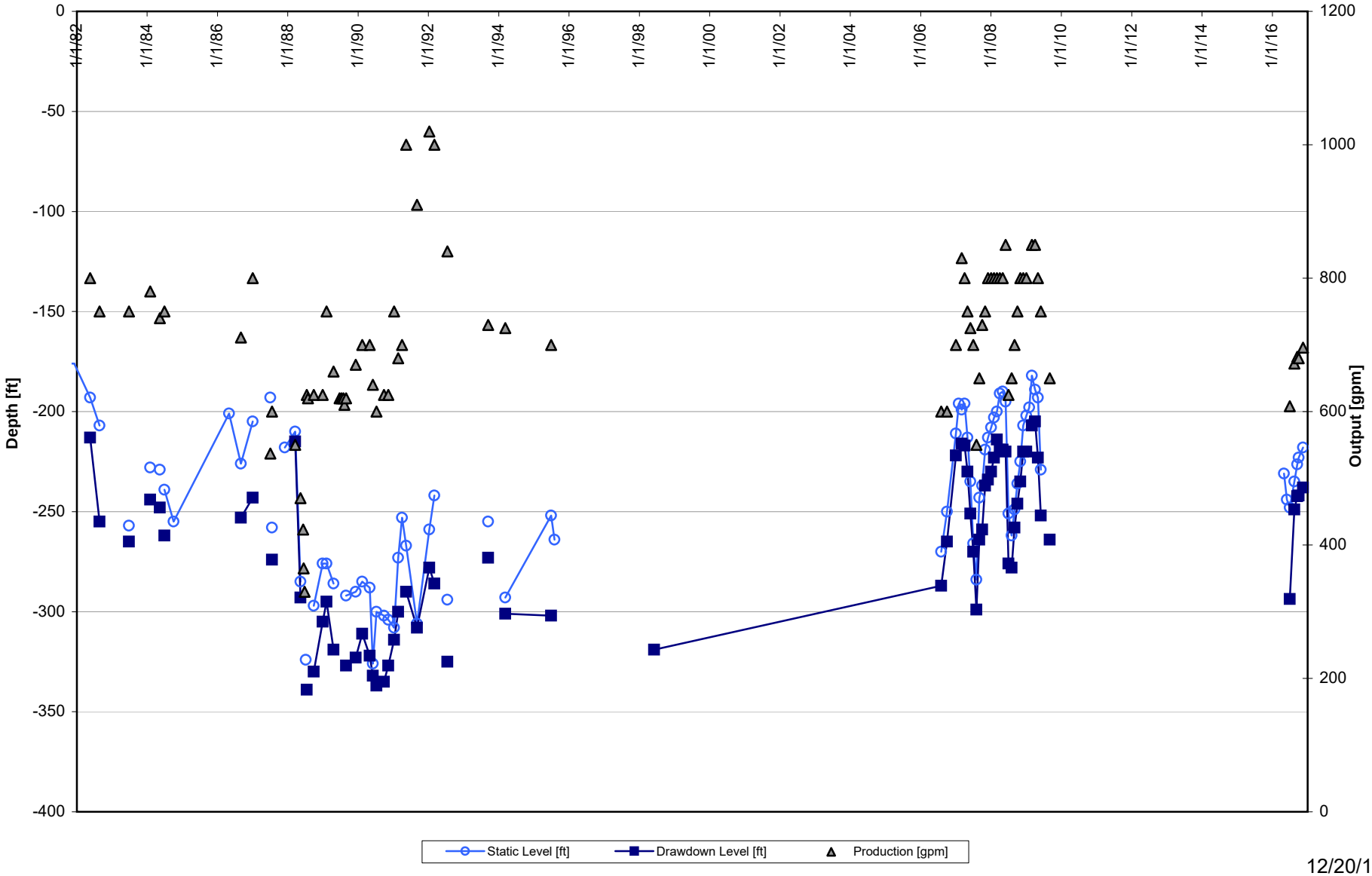
1982 to Present



12/20/16

City of Fridley - Well 4 Drawdown History

1982 to Present



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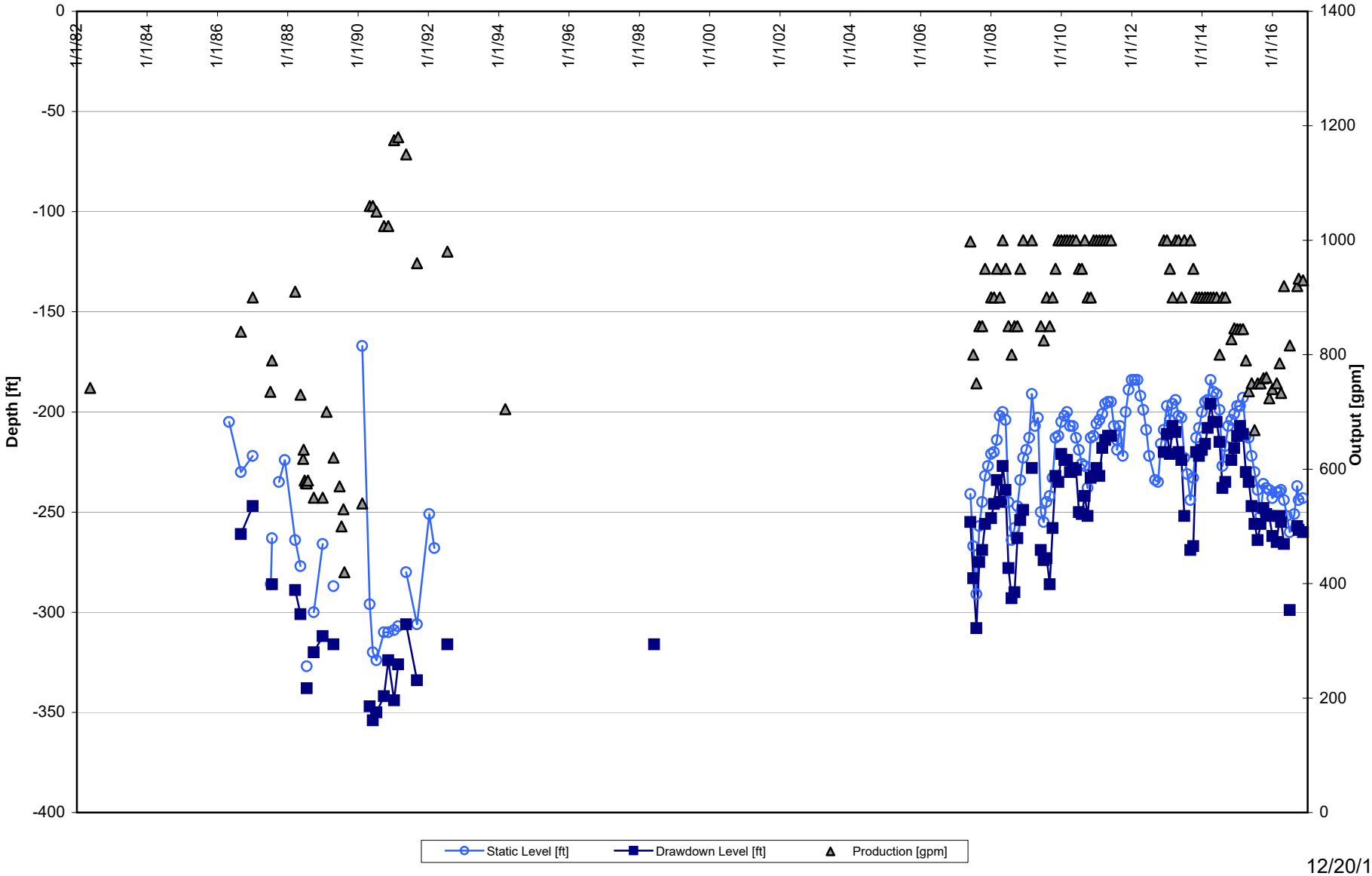

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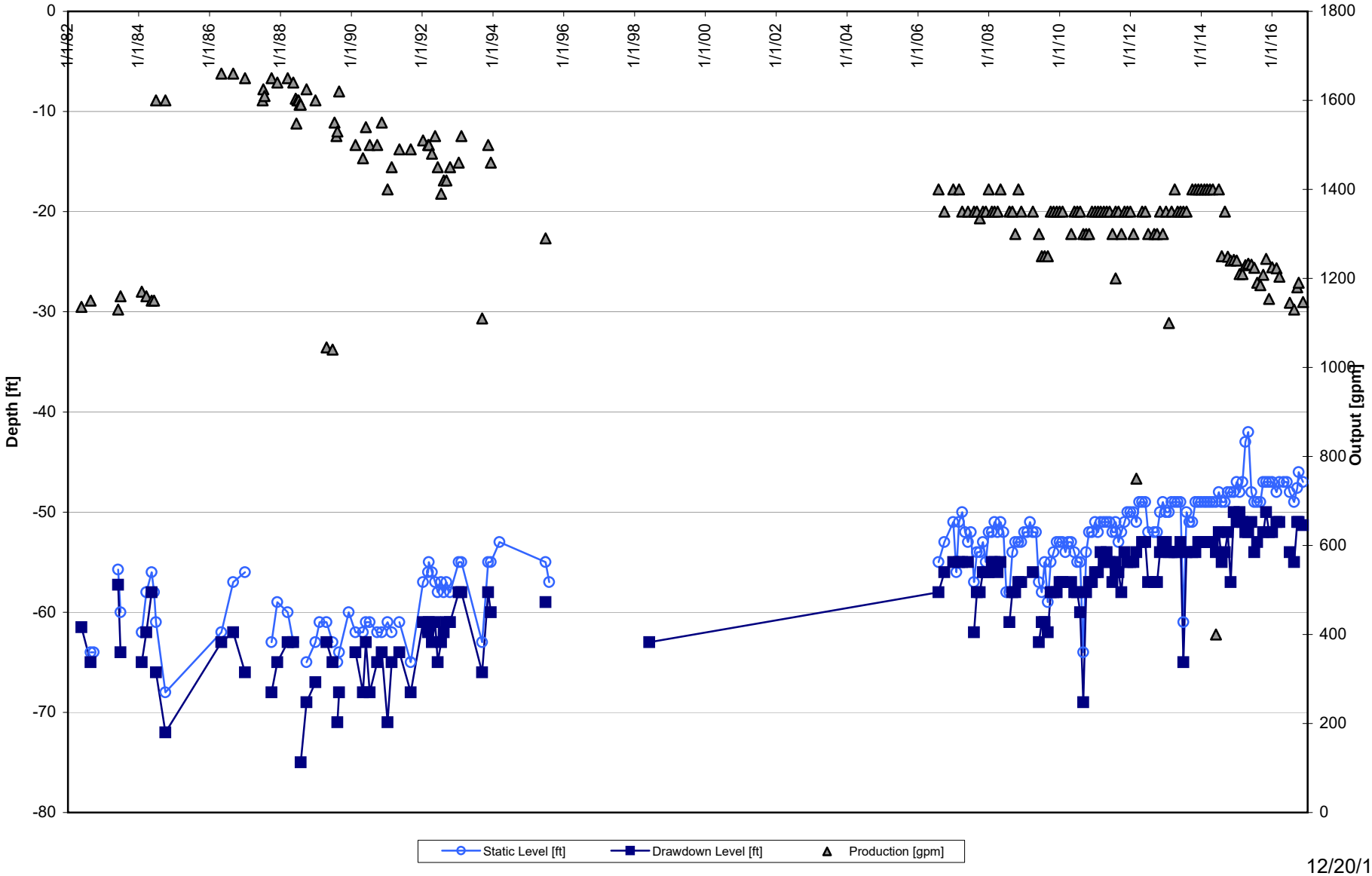

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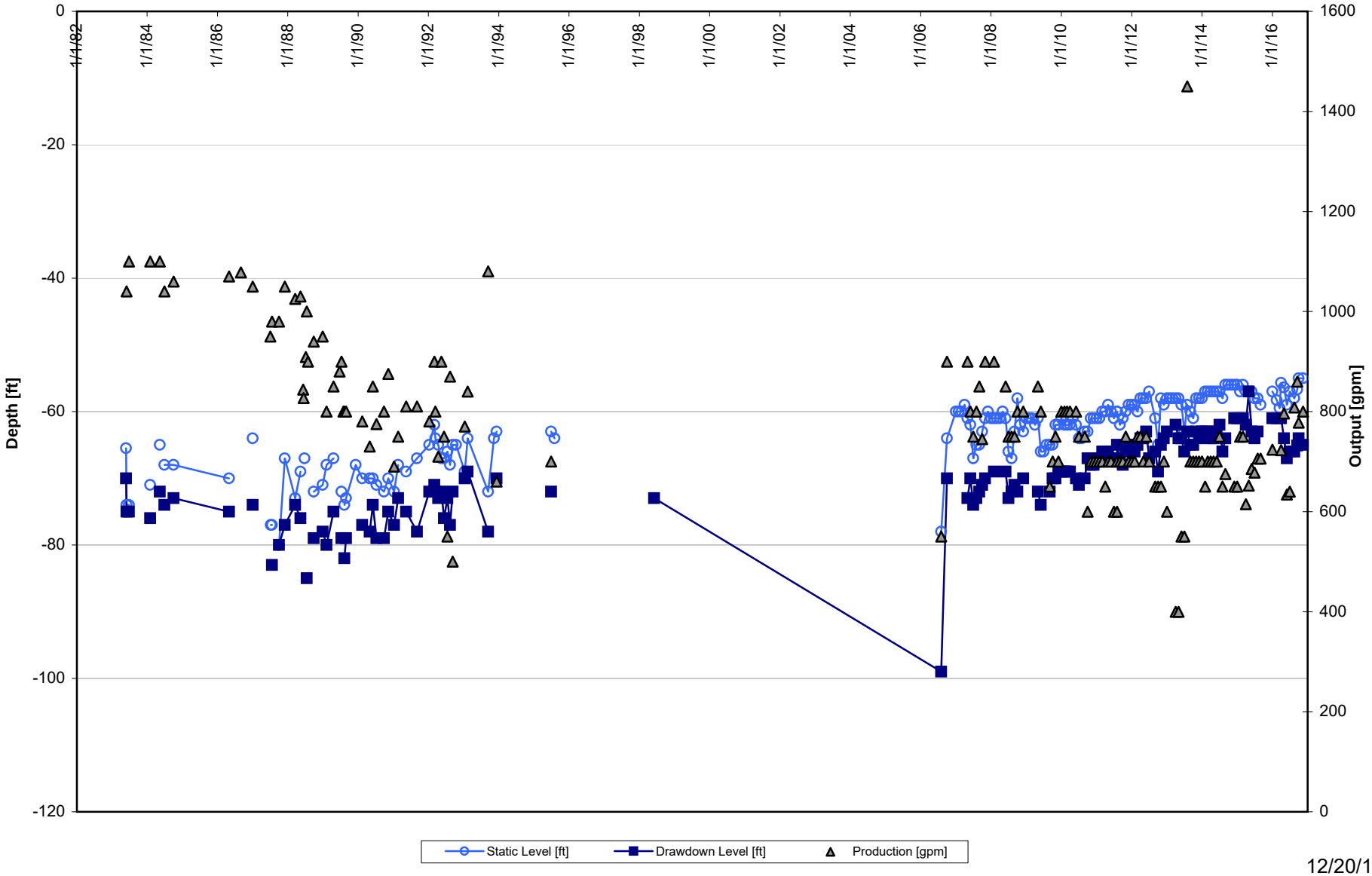

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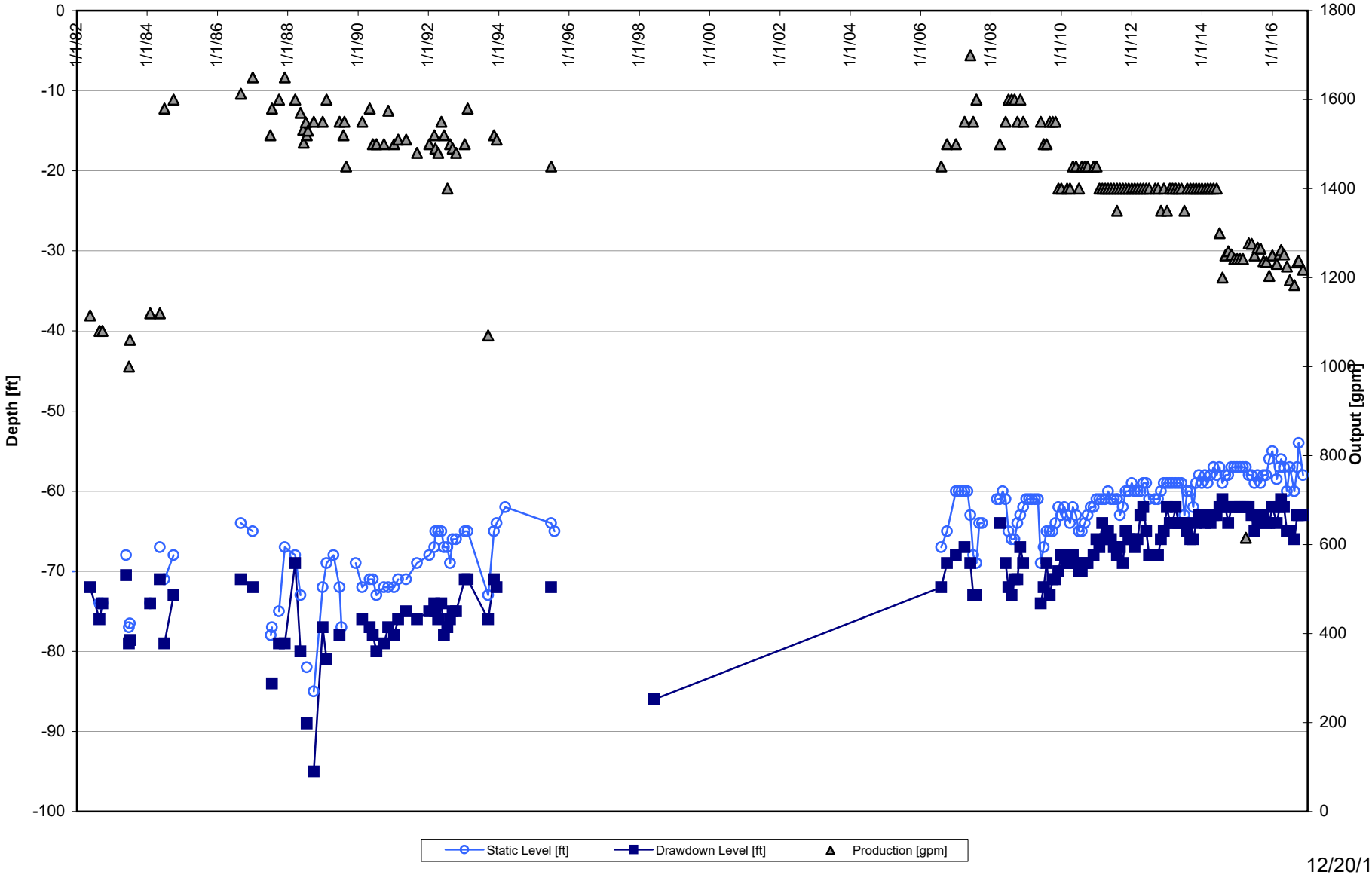

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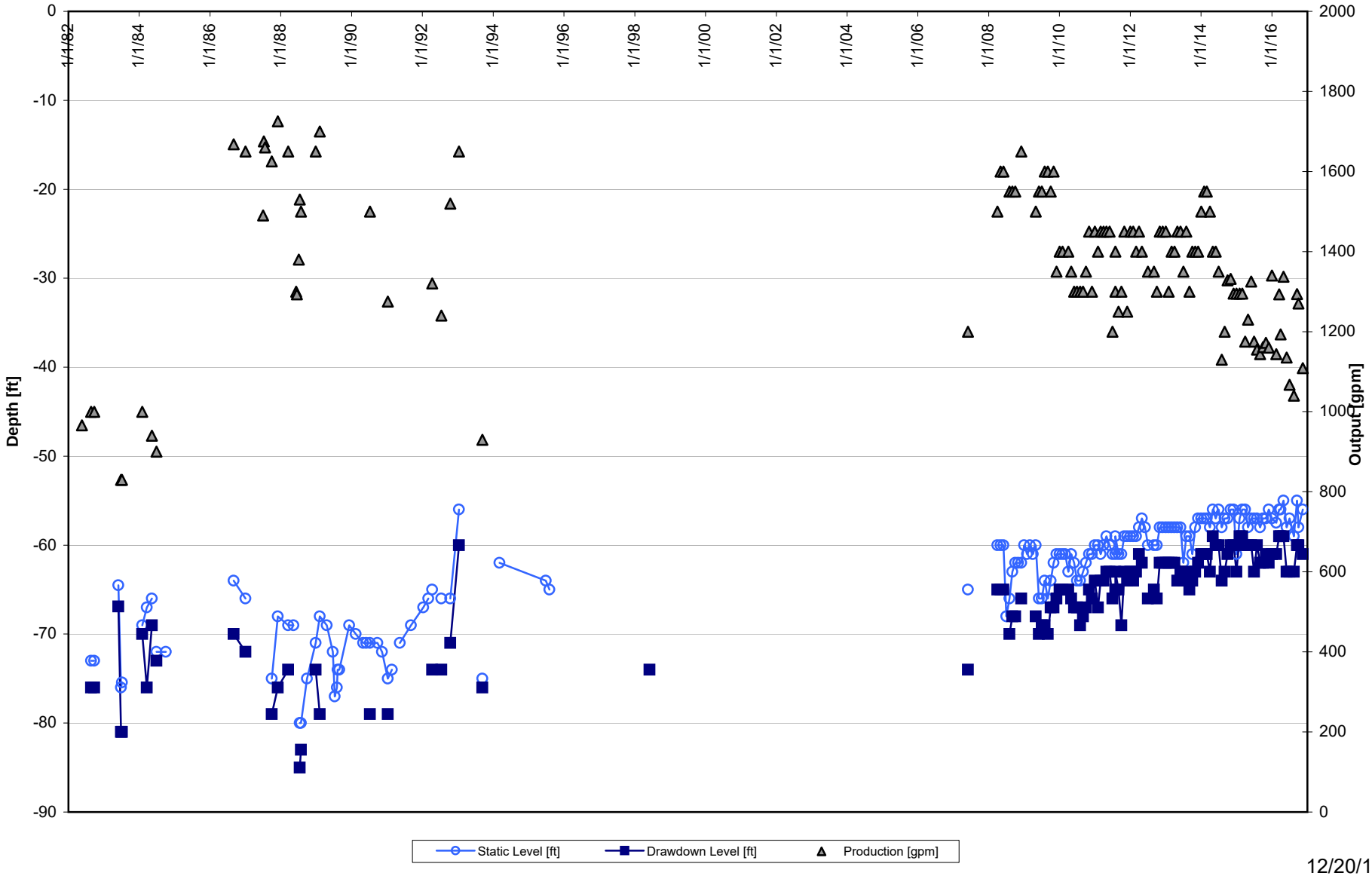

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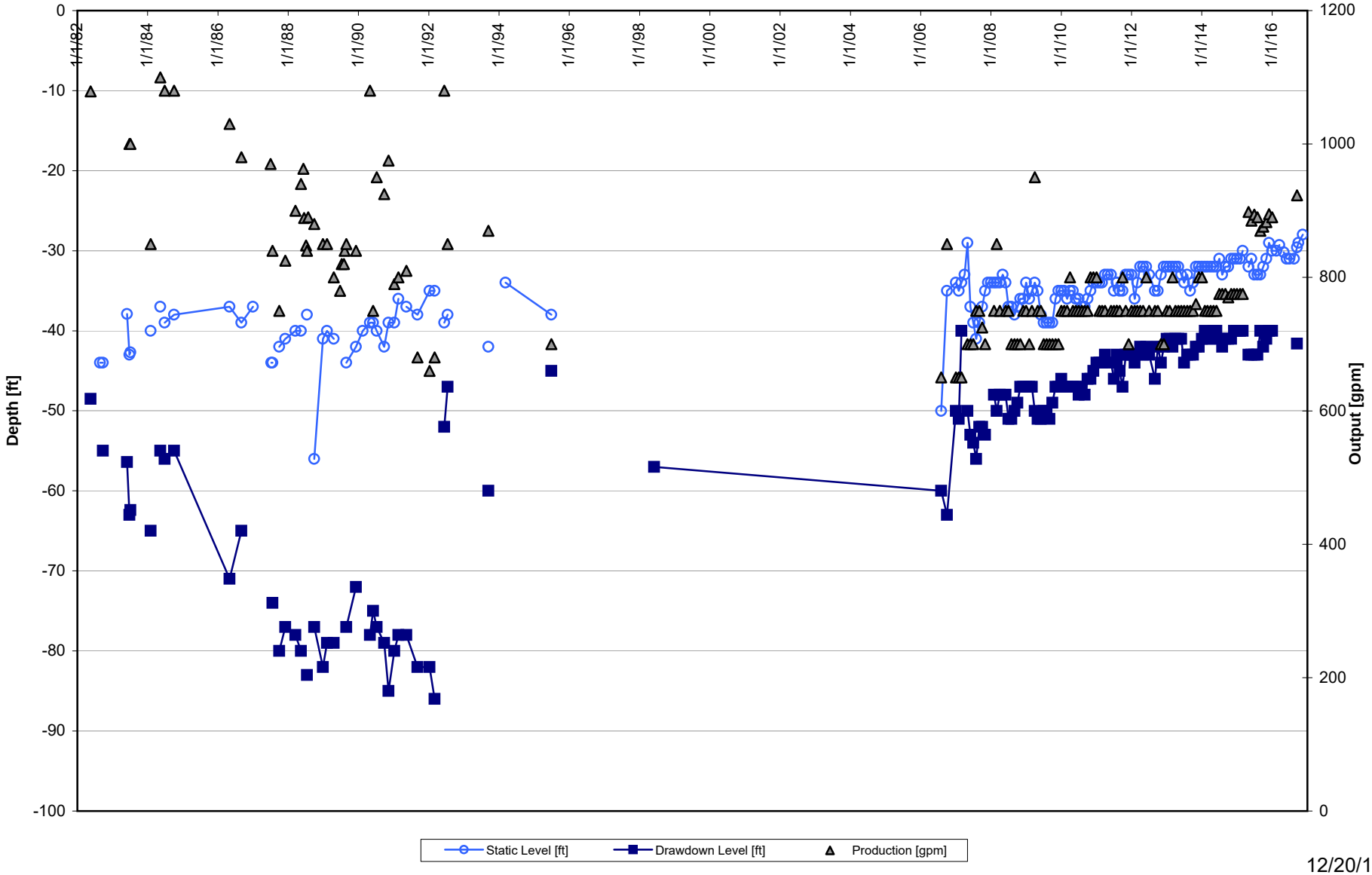

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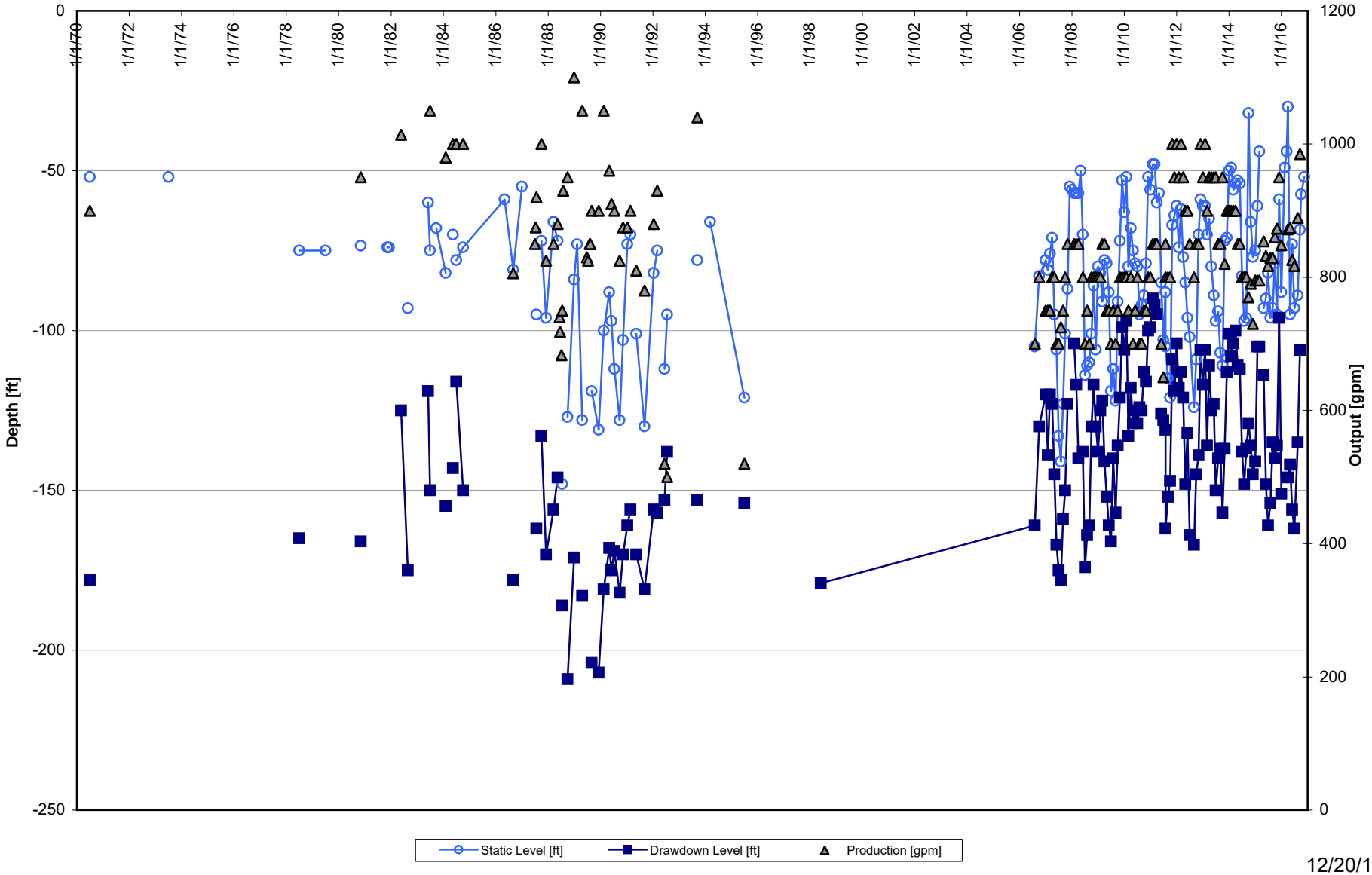

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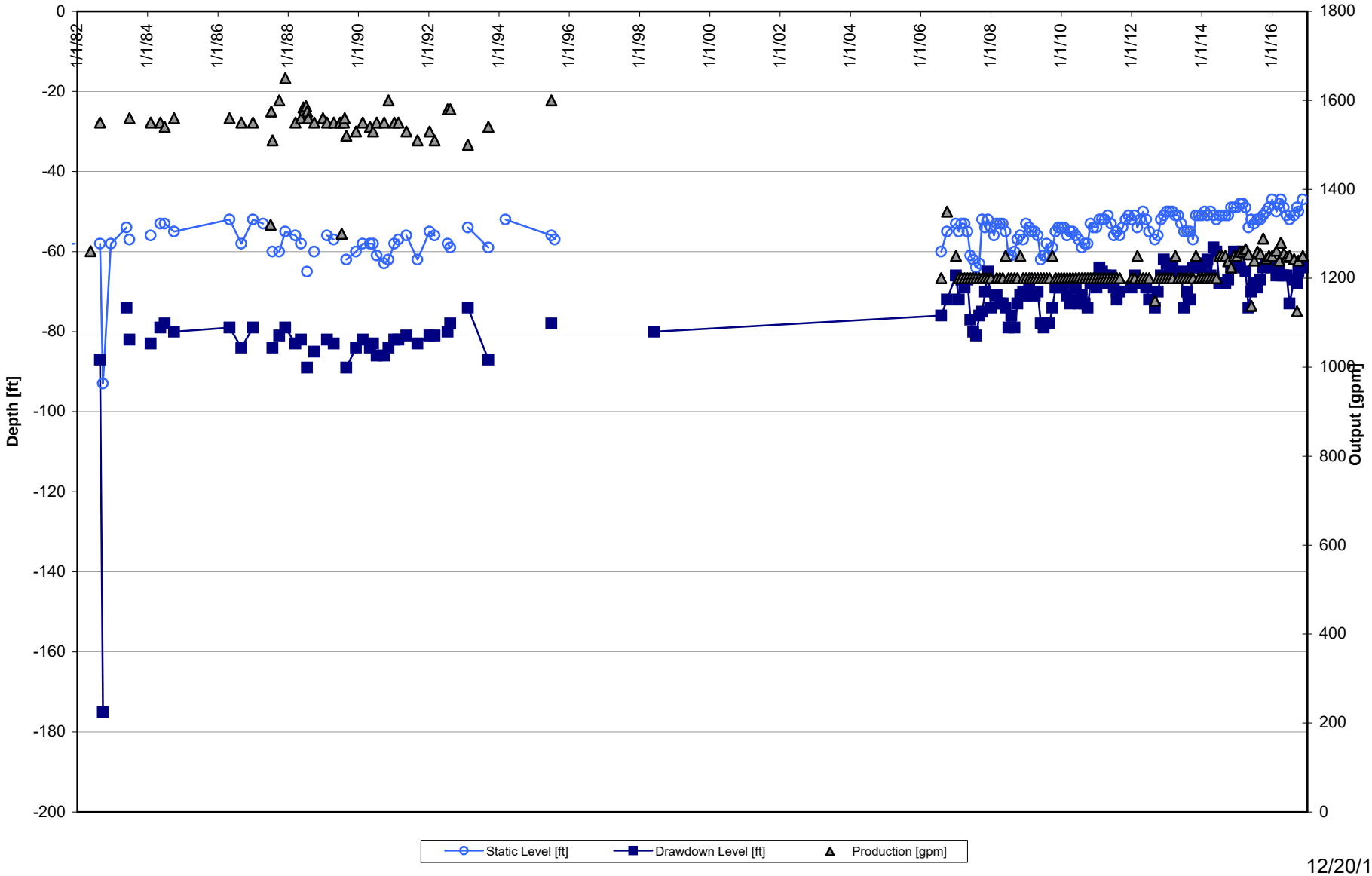

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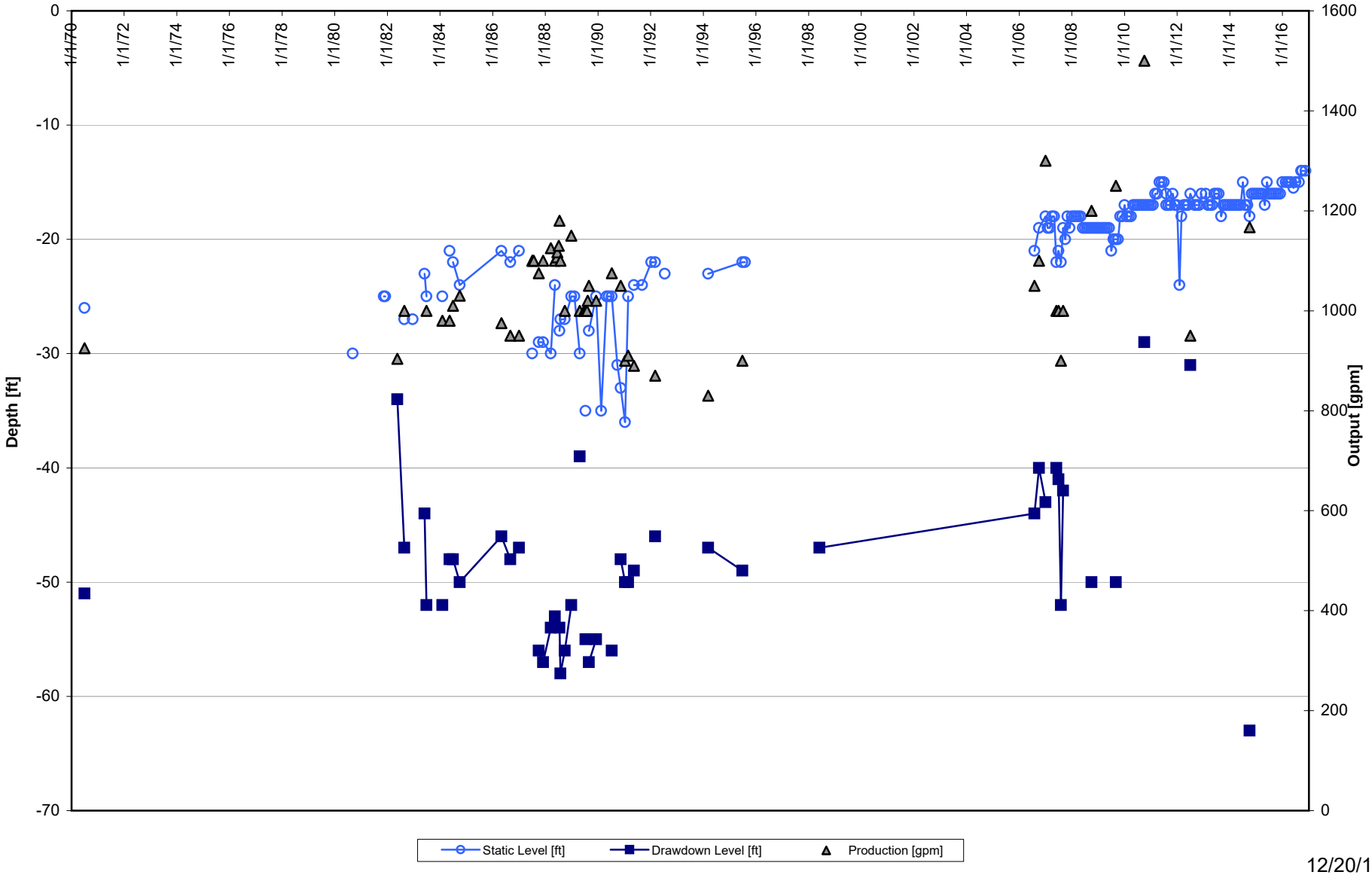

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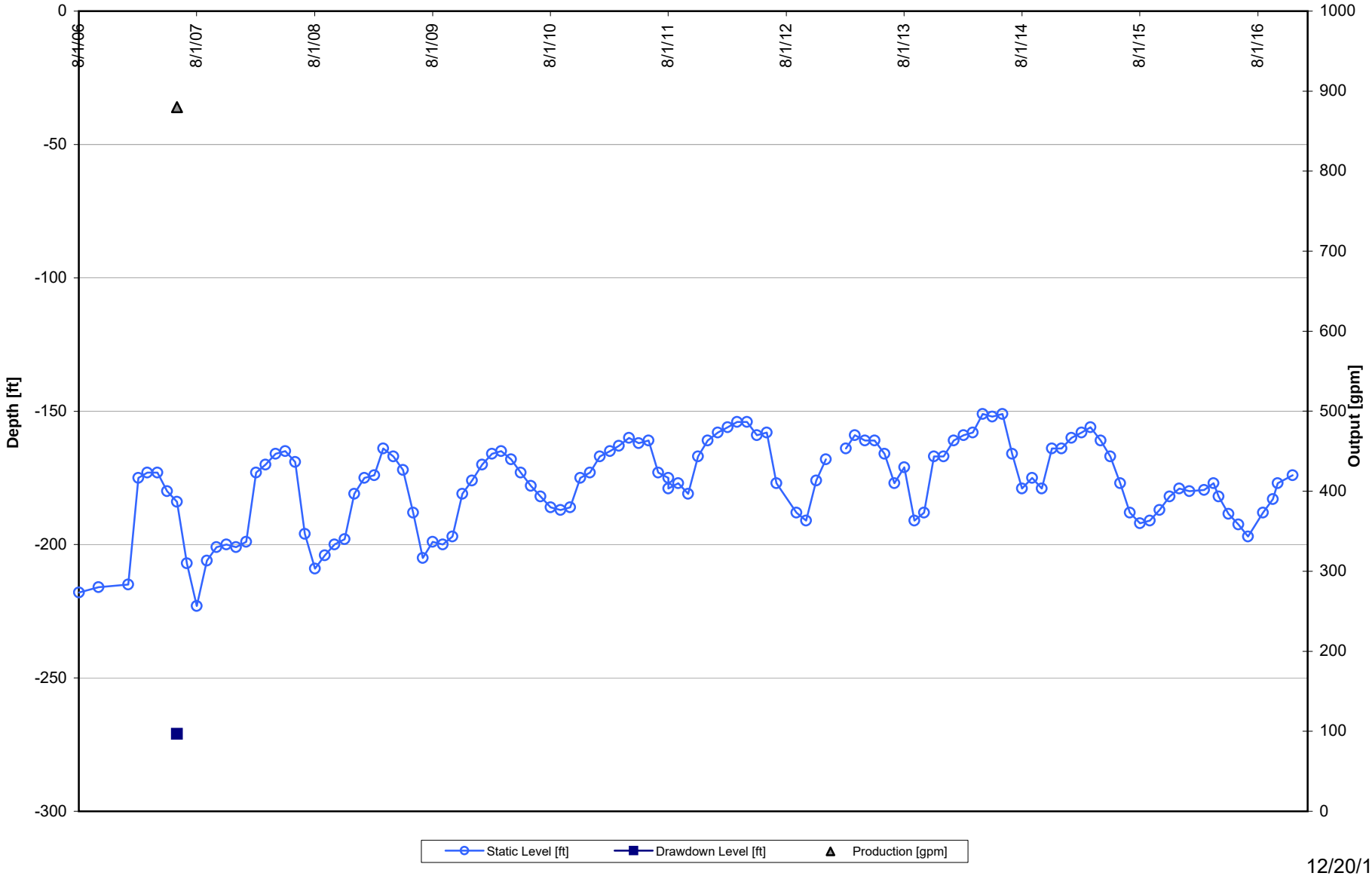

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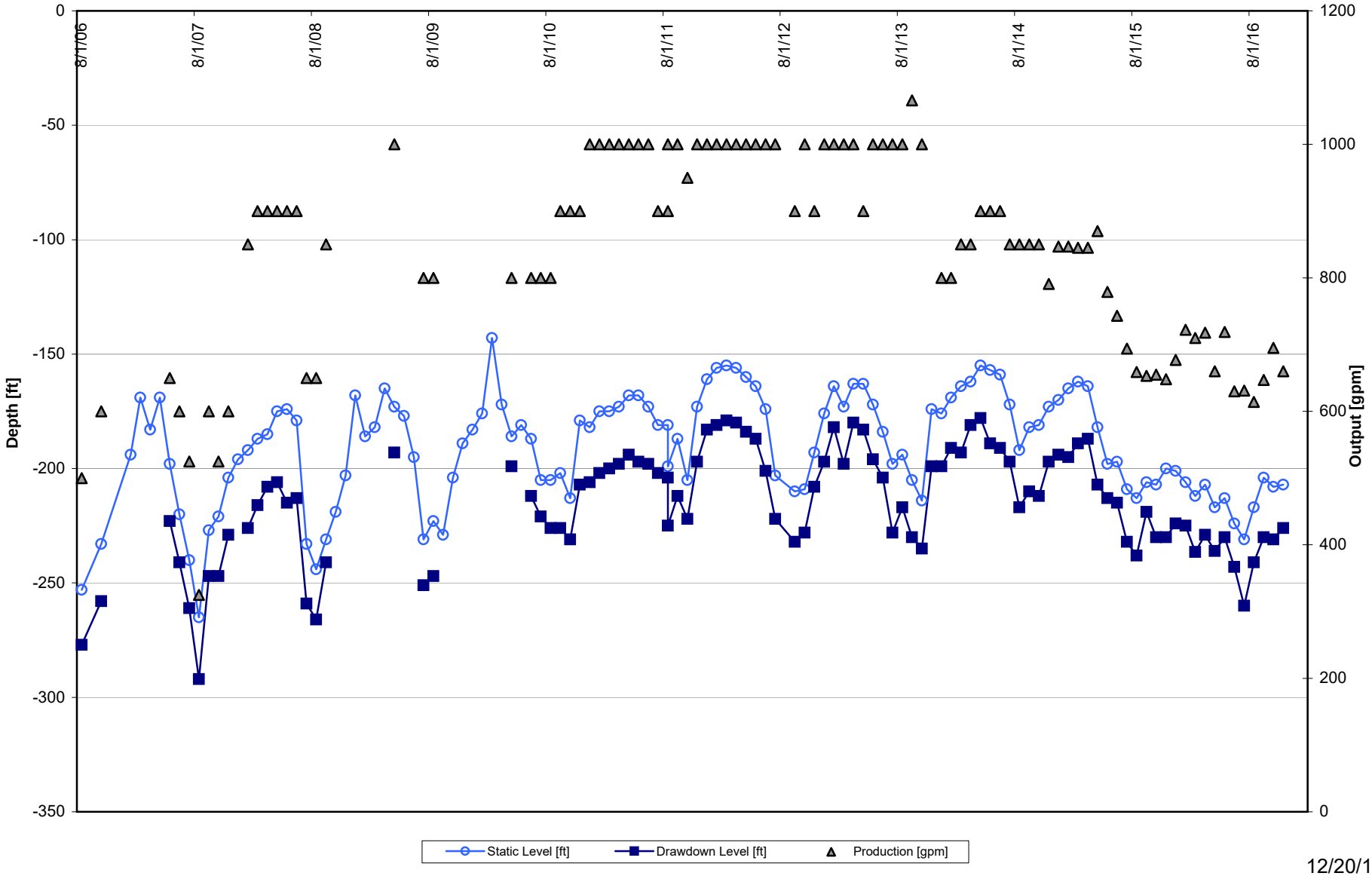

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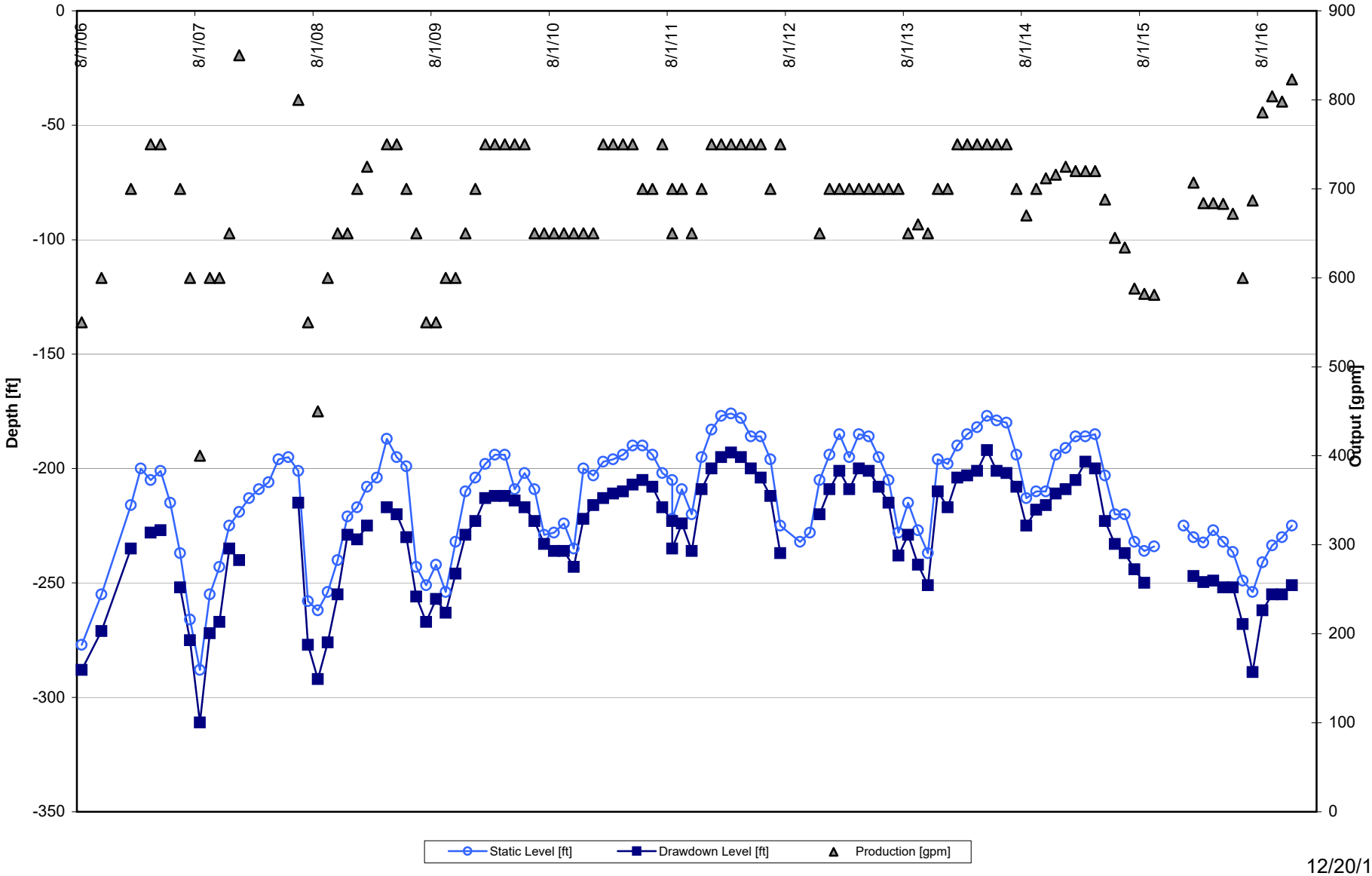

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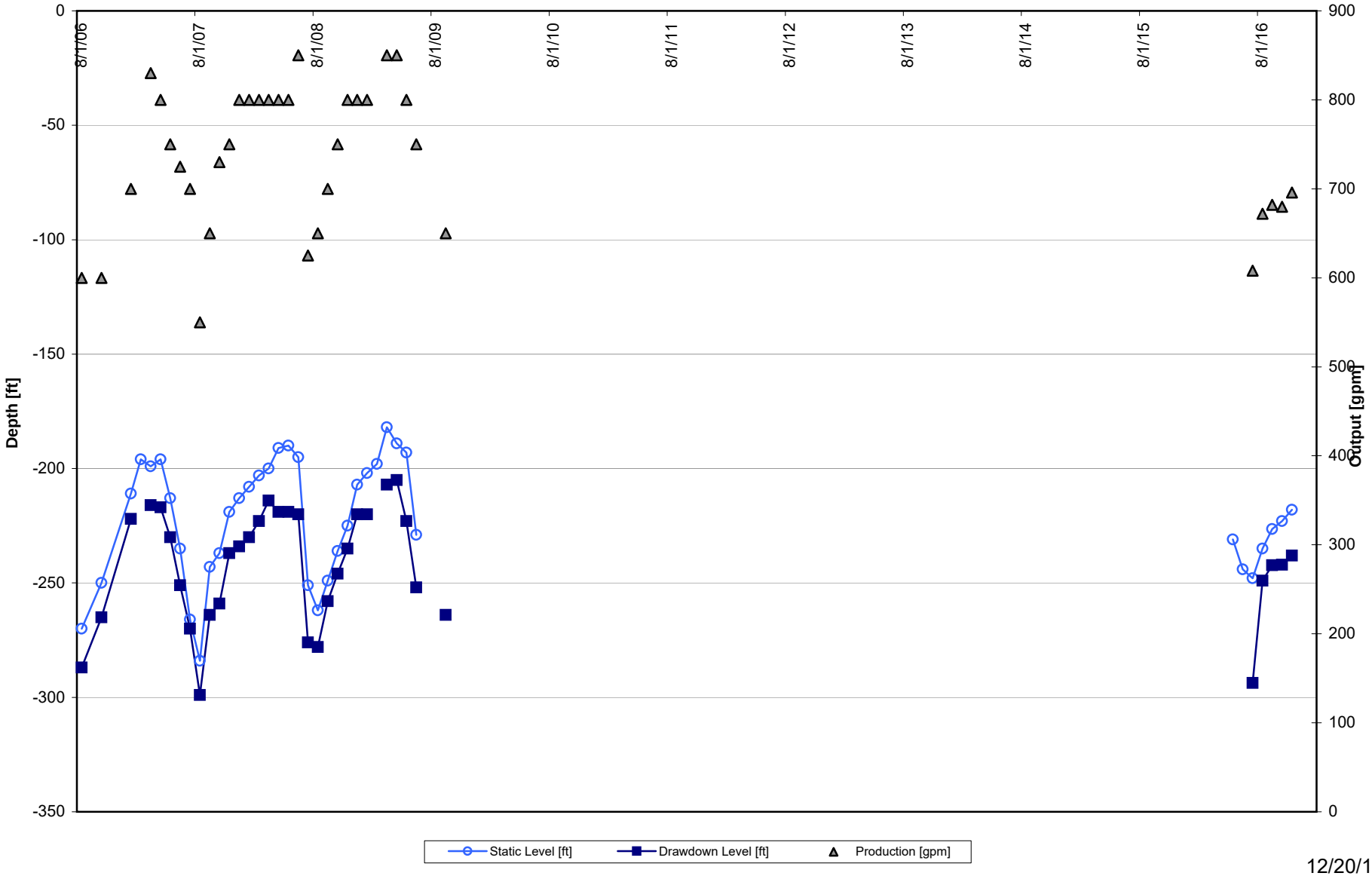

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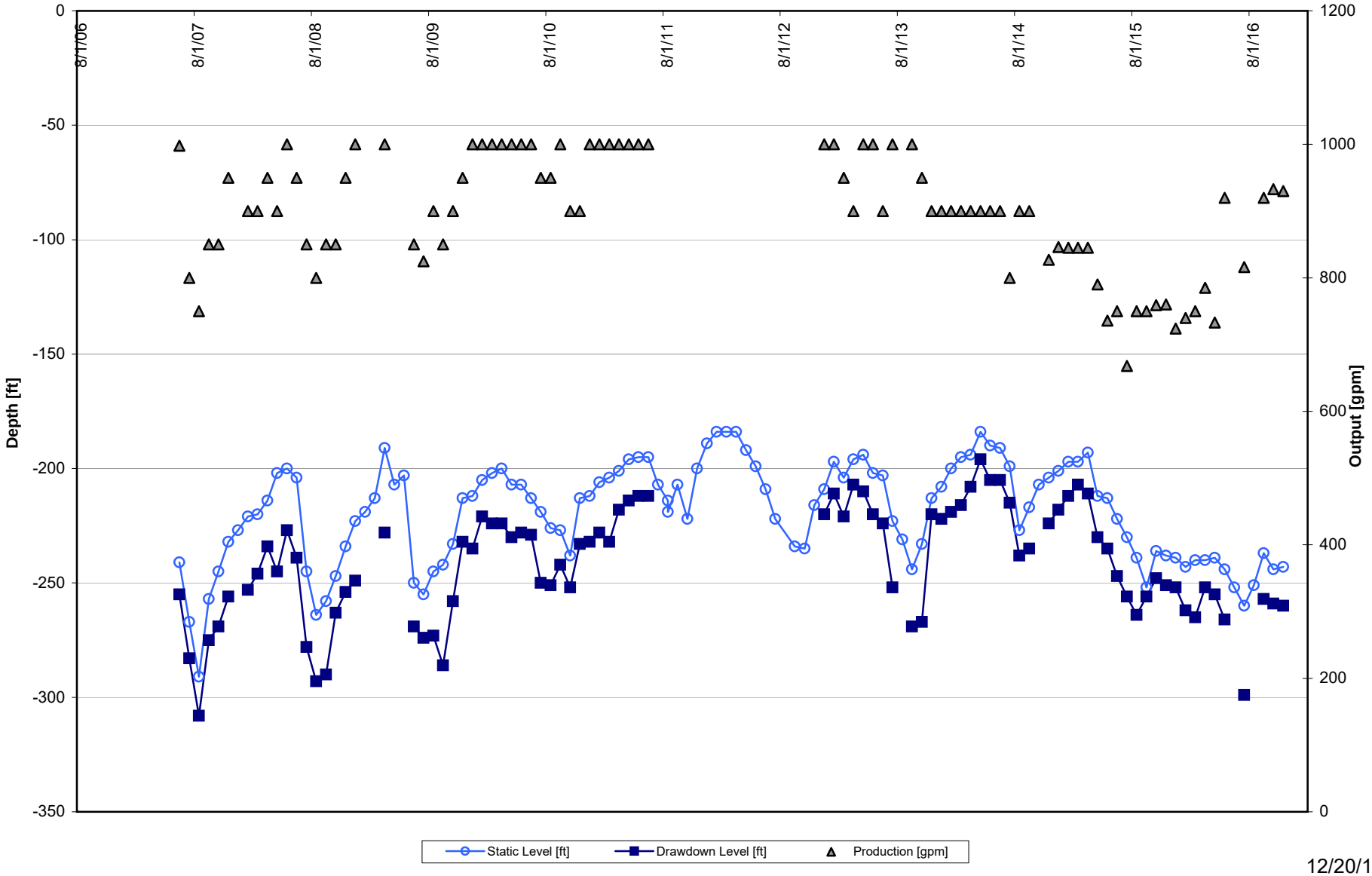

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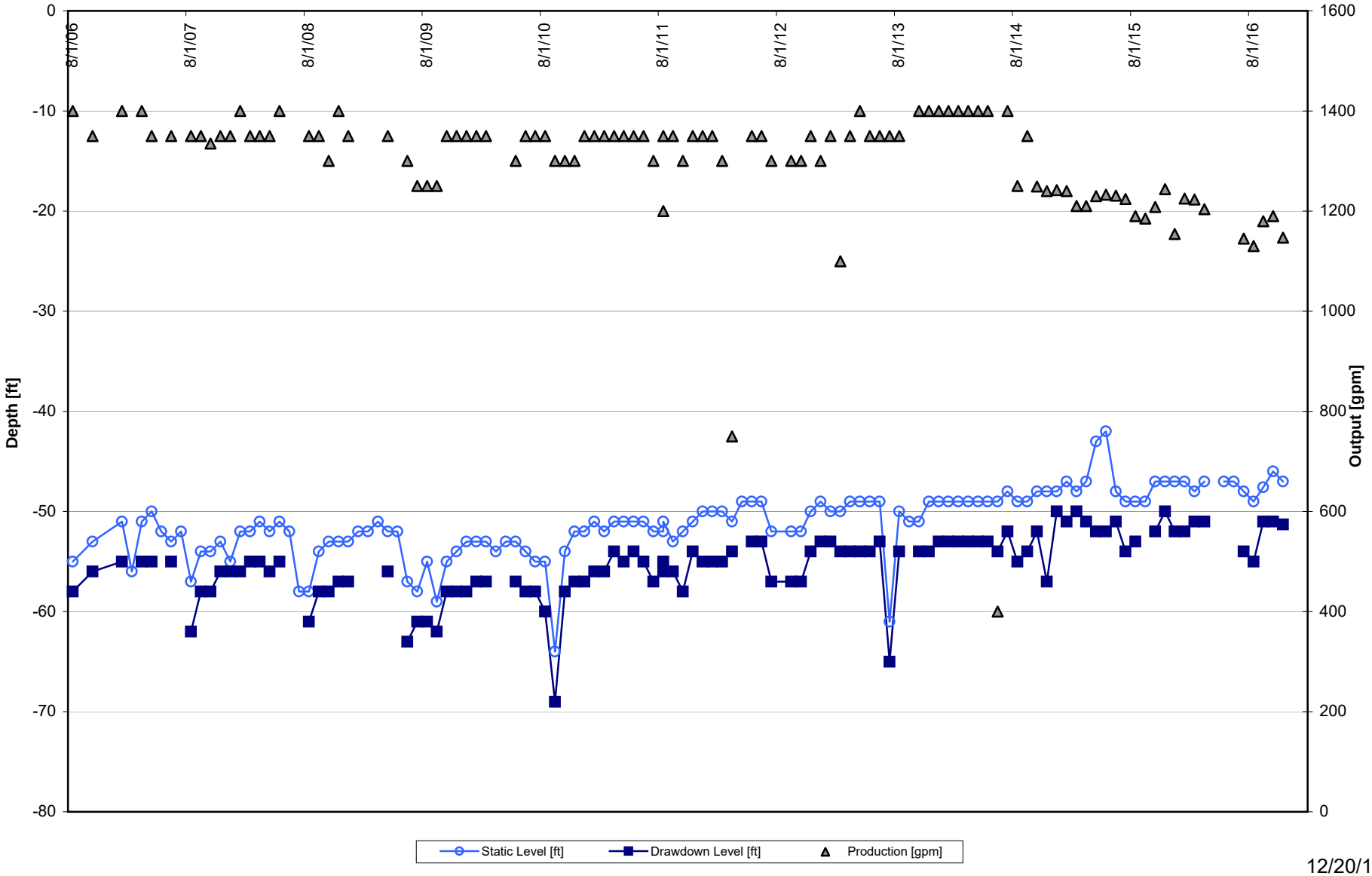

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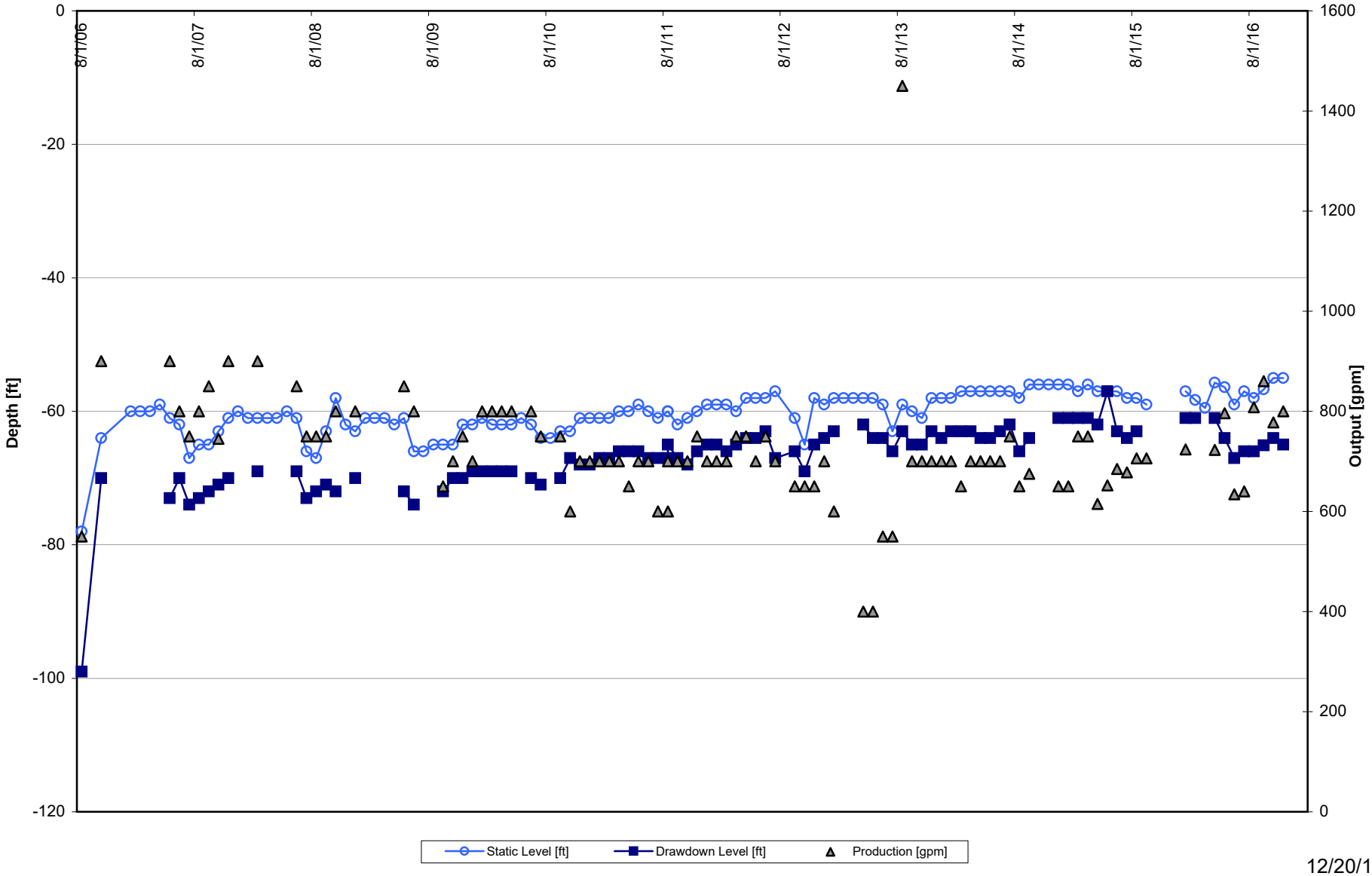

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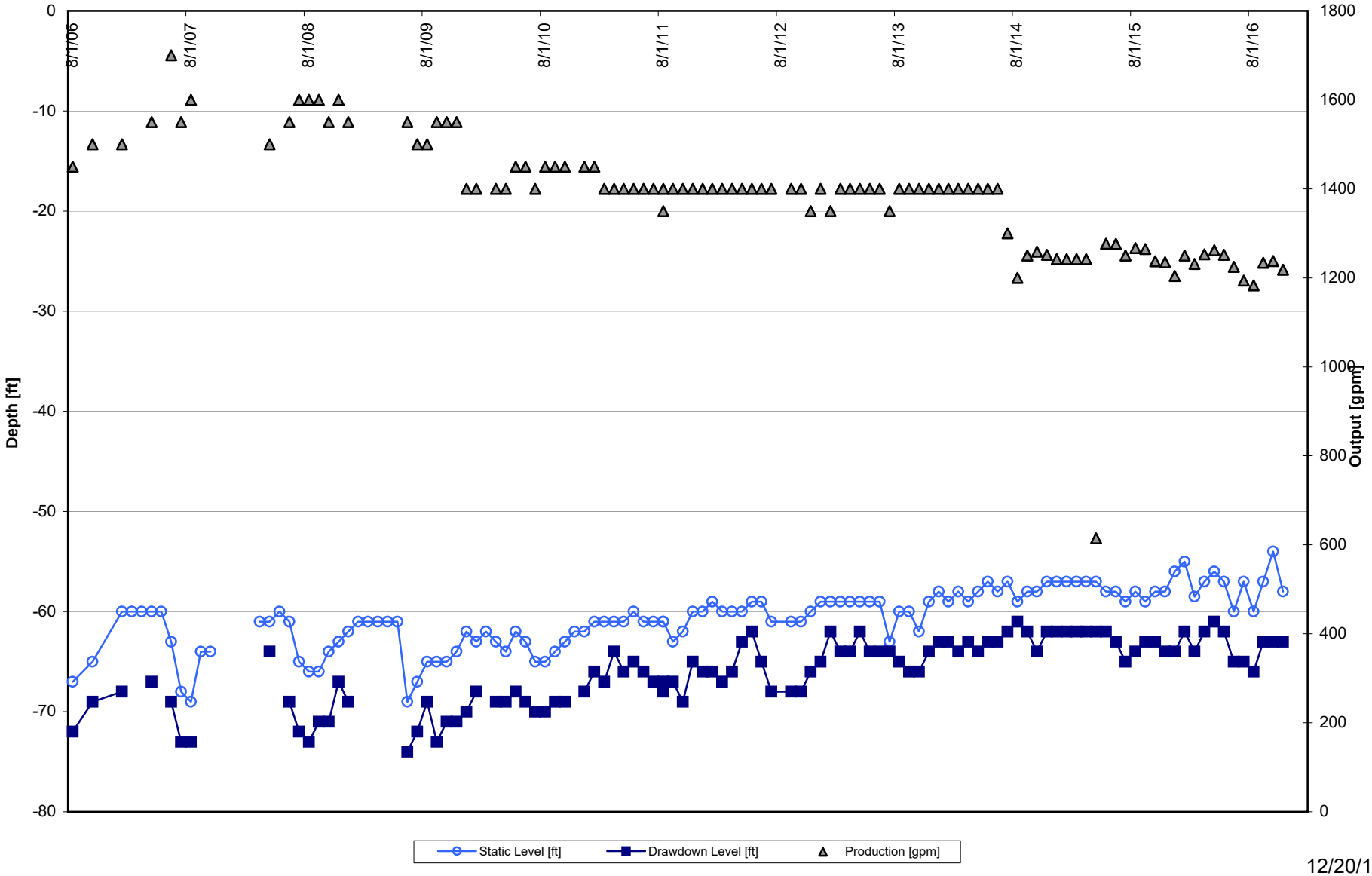

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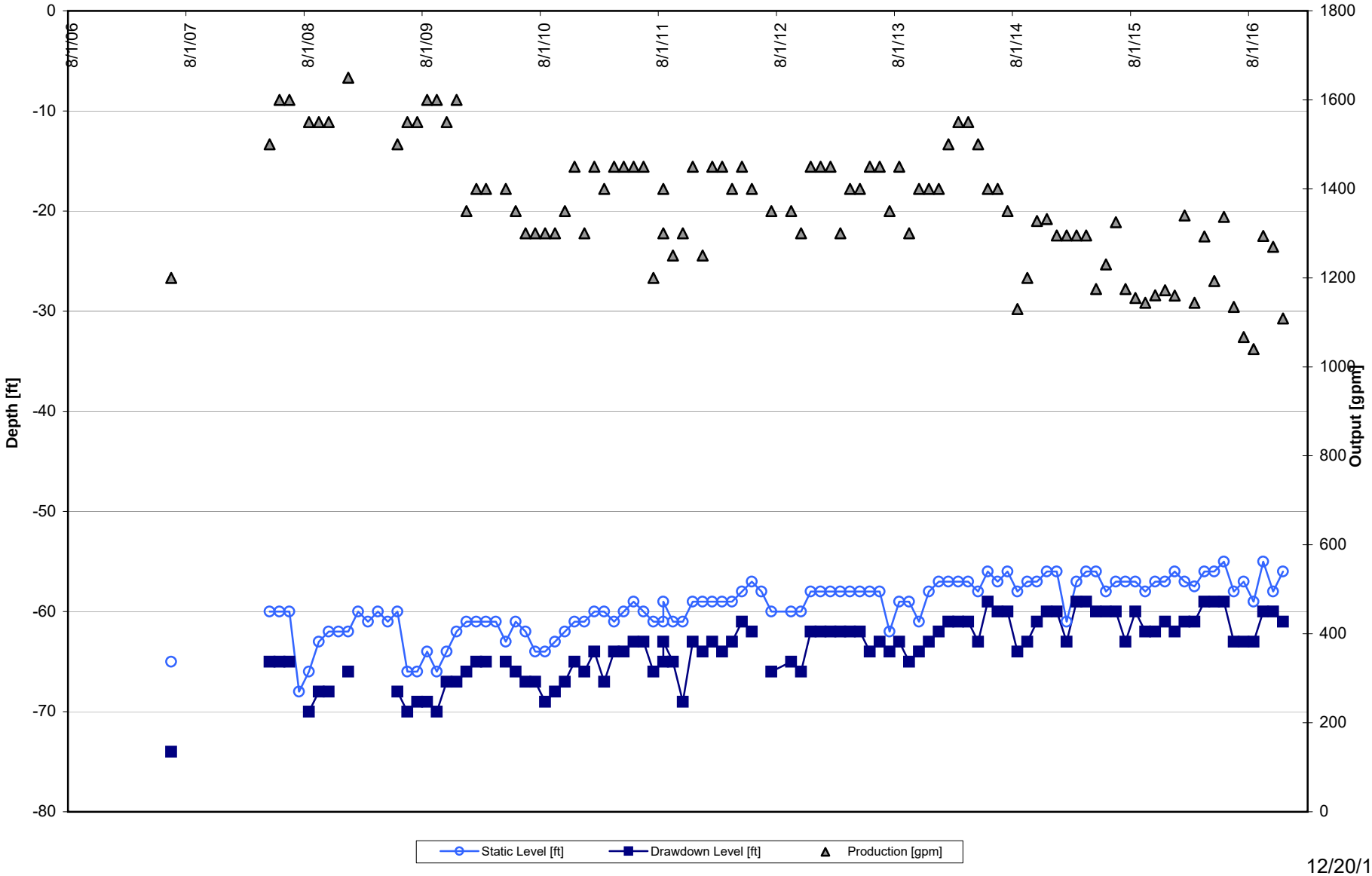

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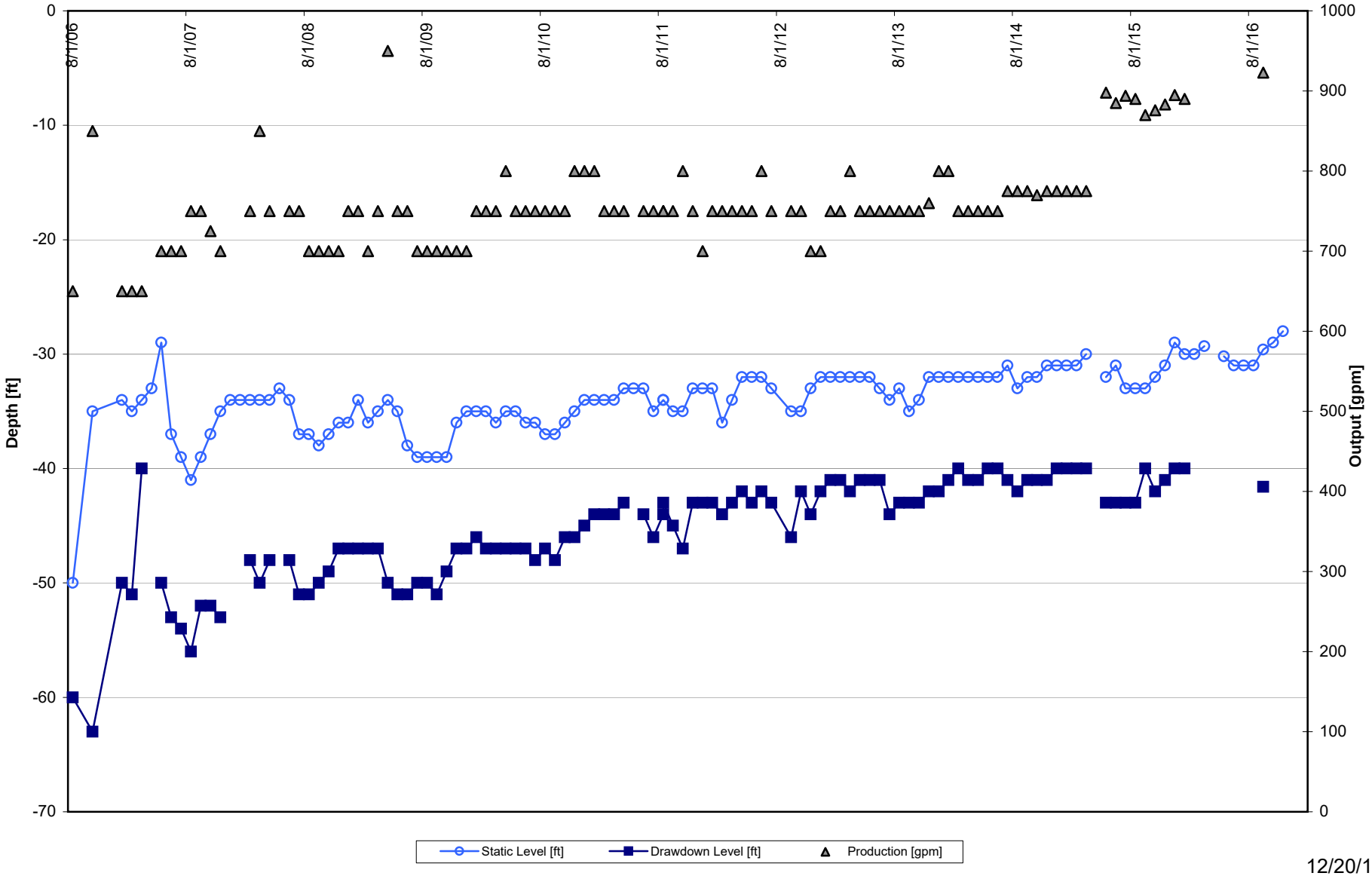

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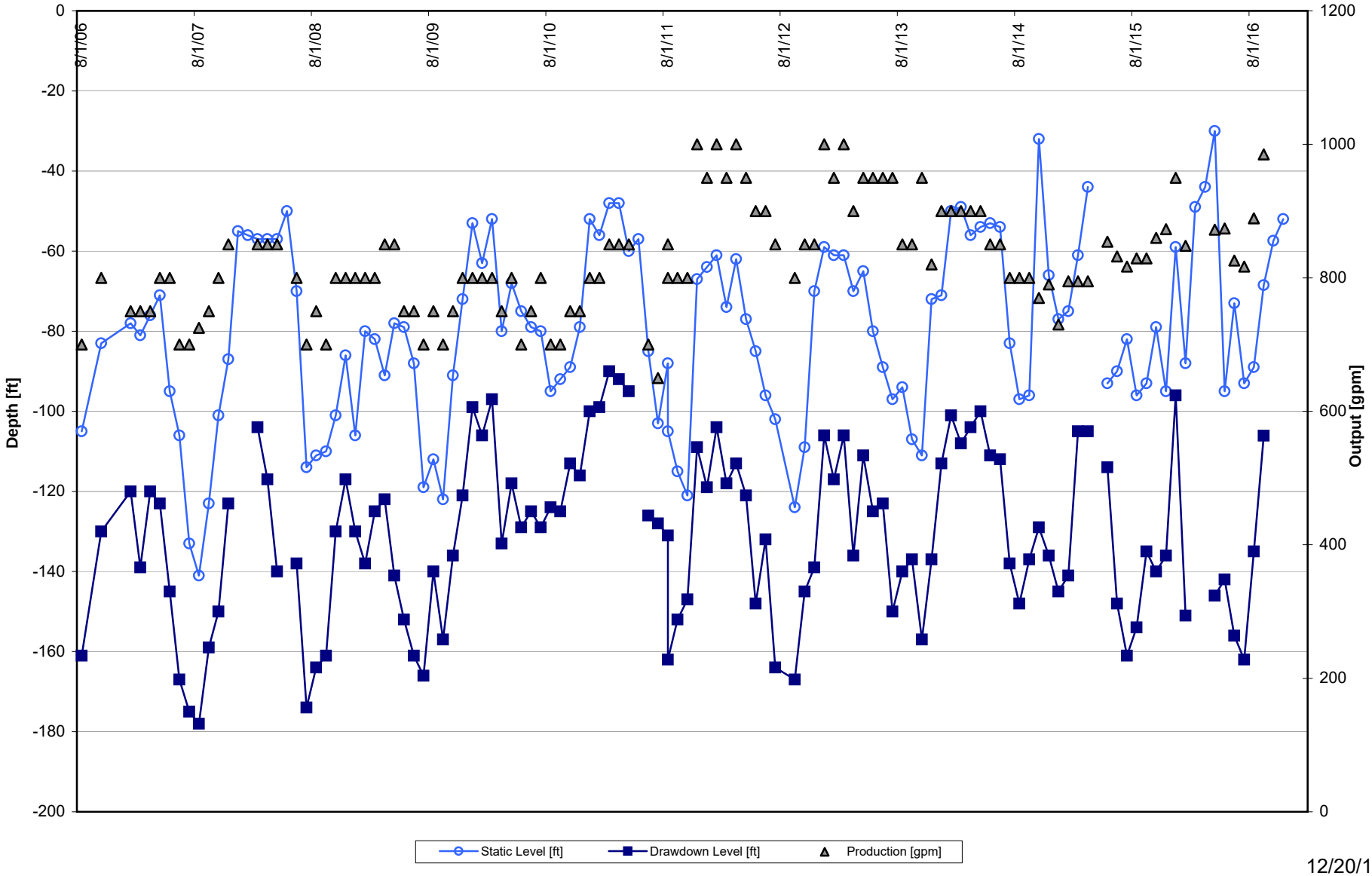

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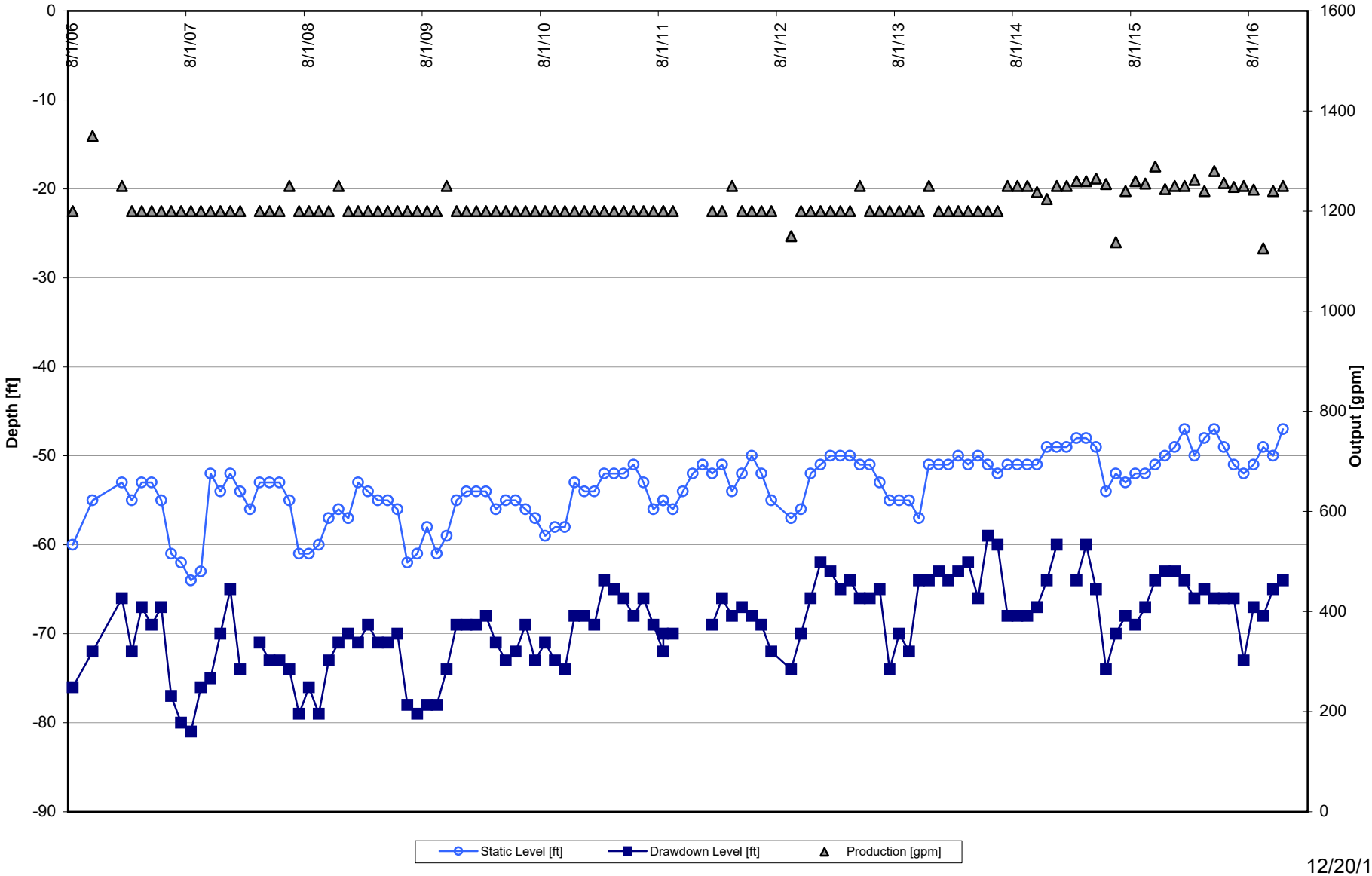

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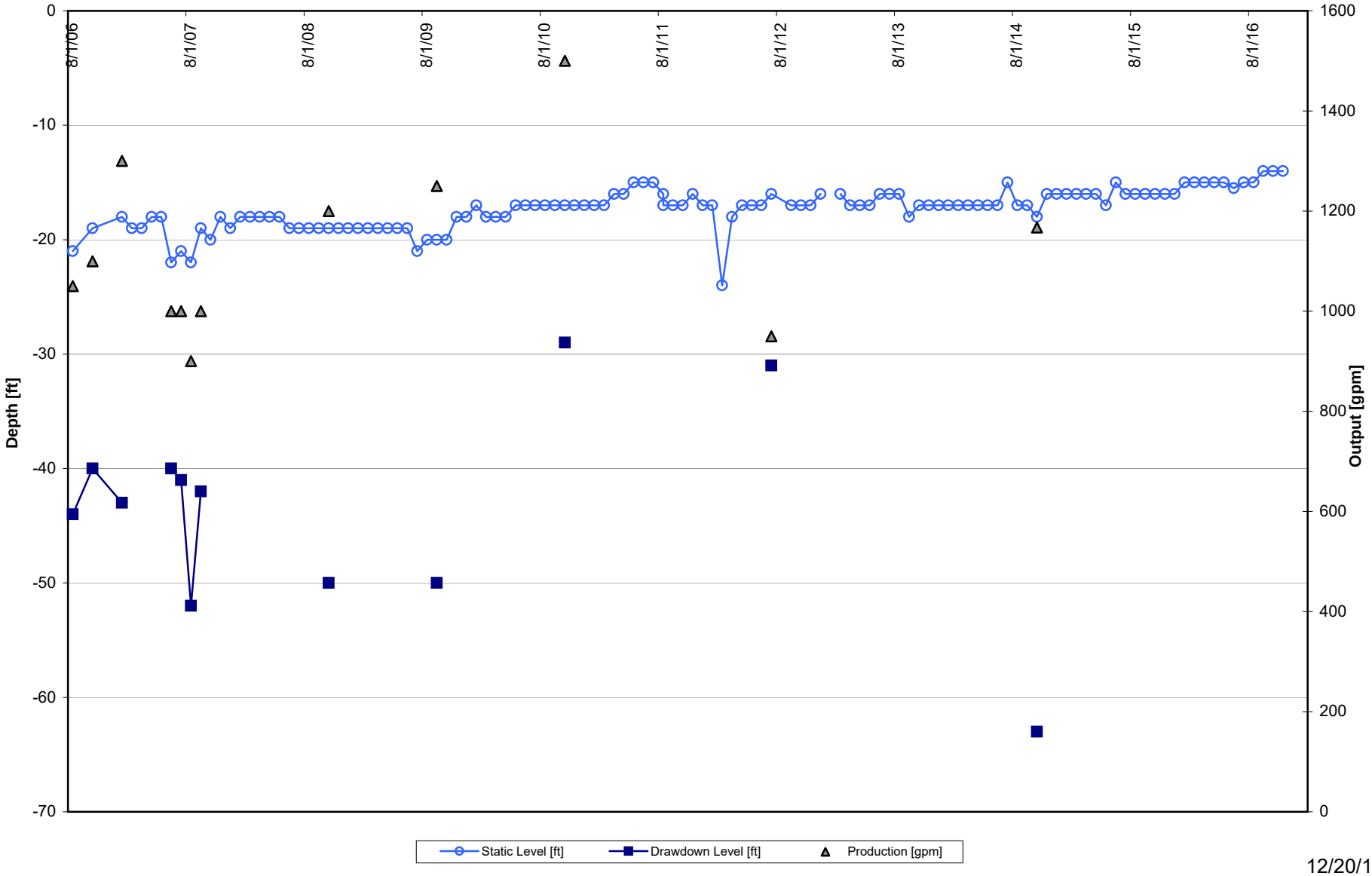

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Local Water Management

6.0 EXECUTIVE SUMMARY

This Local Water Management Plan (the Plan, the Water Plan) serves as a comprehensive planning document to guide the City of Fridley in the management of its water resources. The purposes of this plan, as stated in Minnesota Statute 103B.201, 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; and
- Secure the other benefits associated with the proper management of surface and groundwater.

This plan builds off of the previous Local Surface Water Management Plan approved in 2001 and included in Chapter 12 of the 2030 Comprehensive Plan. It is intended to meet the content requirements of Minnesota Statute 103B.205 and Minnesota Rules 8410, the Coon Creek Watershed District (CCWD), the Mississippi Watershed Management Organization (MWMO), and the Rice Creek Watershed District (RCWD). The goals and policies of this plan are also designed to meet the requirements of the City's Municipal Separate Storm Sewer System (MS4) permit and the associated Stormwater Pollution Prevention Plan (SWPPP) issued to the City of Fridley by the Minnesota Pollution Control Agency (MPCA) under the National Pollution Discharge Elimination System (NPDES) permit process.

The Plan is divided into the following sections:

Section 6.0 Executive Summary

Section 6.1 Introduction

Section 6.2 Community Setting presents detailed information about the City's physical and built environment including topography, land use, surface water, groundwater, soils, and recreational areas.

Section 6.3 Goals and Objectives outlines the City's goals and objectives for its water resources for this planning cycle.

Section 6.4 Issues and Corrective Actions presents the current water resource issues that must be addressed in order to achieve its water resource goals and objectives.

Section 6.5 Implementation Plan describes how the City will implement the corrective actions required to address its water resource issues.

Section 6.6 References lists the reports, studies, plans, etc. referenced in this document

Appendices:
Appendix A Figures
Appendix B MS4 SWPPP Application for Reauthorization
Appendix C City of Fridley Codes Related to Water Resources
Appendix D MWMO Standards
Appendix E Implementation Plan

6.0.1 Summary of Community Setting

Section 6.2 provides background information relevant to the City of Fridley's current water resource management. The City of Fridley (population 27,500) is located in Anoka County and covers approximately 10.2 square miles. Fridley is bordered by the Mississippi River to the west, the cities of Coon Rapids, Spring Lake Park, and Blaine to the north, the cities of Mounds View and New Brighton to the East, and the cities of Columbia Heights and Minneapolis to the south. The three largest land use categories in the City are Single Family Residential (29.9%), Right-of-Way (19.6%) and Industrial (19%); 1.6% of the City is currently classified as vacant.

Water Resource Management Responsibilities and Related Agreements

As a downstream community, the City receives stormwater runoff from all of its neighboring communities except for the City of Minneapolis. In general, surface water in Fridley drains westward through the City via the stormsewer system, Springbrook Creek (County Ditch #17), Oak Glen Creek, Stonybrook Creek, and Rice Creek toward the Mississippi River.

Fridley is located within three watershed organizations: Coon Creek Watershed District (CCWD), Mississippi Watershed Management Organization (MWMO), and Rice Creek Watershed District (RCWD). The City of Fridley has entered into a joint cooperation agreement for the creation of the MWMO with the City of Columbia Heights, the City of Hilltop, the City of Lauderdale, the City of Minneapolis, the City of Saint Paul, the City of St. Anthony Village, and the Minneapolis Park and Recreation Board. Refer to the MWMO for a copy of this agreement.

The City of Fridley is responsible for construction, maintenance, and operation of the City's stormwater management system (i.e., catch basins, pipes, bonds, and treatment devices). Anoka County and the Minnesota Department of Transportation (MnDOT) also operate their own stormwater management systems within the city in order to manage drainage within their right-of-ways. Springbrook Creek (County Ditch #17) is the only County Ditch in Fridley and is managed by the Coon Creek Watershed District. Additionally, the Board of Water and Soil Resources (BWSR), MnDOT, the Minnesota Department of Health (MDH), the Minnesota Pollution Control Agency (MPCA), and

the Minnesota Department of Natural Resources (MnDNR) oversee the City's water resources in varying capacities.

6.0.2 Summary of Goals and Objectives

Section 6.3 outlines the City's water resource goals and objectives for this planning cycle. The following goals have been identified by the City:

Goal #1: All of Fridley's surface waters can be enjoyed to their highest intended use.

Goal #2: Fridley properties and infrastructure are not impacted by flooding.

Goal #3: Wildlife habitat and habitat connectivity are enhanced alongside sustainable, equitable use of public water and public water accesses for recreational purposes.

Goal #4: The quantity and quality of the City of Fridley's groundwater resources are protected.

Goal #5: Fridley residents and businesses are aware of Fridley's water resources and engaged in their protection.

Goal #6: The City is resilient against the impacts of climate change, including the increased frequency of heavy rainfall events.

6.0.3 Summary of Issues Assessment

Section 6.4 identifies the issues that are currently preventing the City from reaching its stated goals and objectives. The primary issues in the City are:

- Some Fridley waterbodies are impaired for different uses
- Some Fridley waterbodies are vulnerable to chloride impairment
- Fridley is fully developed and some areas have insufficient stormwater management systems
- Stormwater management systems must be maintained to be effective
- The City does not have comprehensive monitoring data
- Certain areas of Fridley are prone to flooding
- Some shorelines in Fridley are experiencing erosion
- Certain areas of Fridley are vulnerable to groundwater contamination or are otherwise not suitable for infiltration, the preferred stormwater management practice
- A variety of educational strategies are necessary to reach Fridley residents and businesses
- Climate change is expected to disrupt normal weather patterns

6.0.4 Summary of Implementation Plan

Section 6.5 presents the implementation program for the City. Appendix E includes the City's Implementation Plan designed to address the issues described in this plan. This list will be updated annually in consultation with watershed organization partners.

6.1 Introduction

Located in Anoka County and bordered by the communities of Minneapolis, Columbia Heights, New Brighton, Mounds View, Spring Lake Park, Blaine, and Coon Rapids as well as the Mississippi River, Fridley is a 10.2 square mile, inner-ring Twin Cities Metropolitan Area suburb. The City of Fridley became fully developed following a period of rapid development between 1949 and 1963; however, much of the City was reconstructed after a devastating tornado in 1965. Since the 1970s, Fridley's population has remained fairly constant, with an estimated current population of 27,500 residents.

Fridley's desirability as a place to live and work is prompted, in part, by its location along important transit corridors such as the BNSF railroad and NorthStar Commuter Rail, Interstate 694, University Avenue, and Trunk Highway 65. Fridley's natural and recreational amenities also contribute to the City's high livability. In addition to Mississippi River frontage, Fridley contains eight public waterbodies and over 500-acres of parkland.

The City of Fridley has adopted the vision of a community that is a "safe, vibrant, friendly, and stable home for families and businesses." To achieve this vision, the City has adopted the following goals and objectives as part of its 2040 Comprehensive Plan:

Goal #1: Provide a Safe environment for residents and businesses

Goal #2: Maintain Fridley as a Vibrant community in the Twin Cities

Goal #3: Continue to be known as Friendly Fridley in the Twin Cities

Goal #4: Provide a Stable environment in which families and businesses can thrive

Sustainable local water planning is crucial to achieving these goals and maintaining the City as a desirable place to live. This Local Water Plan (the Plan, the Water Plan) serves as a guide for both the City and its partners who maintain jurisdiction over water resources in the City. The Plan contains background information on Fridley, the City's water goals and policies, an assessment of issues preventing obtainment of these goals, and the necessary implementation tasks need to address these issues in order to achieve these goals.

This Plan is intended to be in effect for 10 years until December 31st, 2027. The City may need to revise this Plan to keep it current. The City may amend this plan at any time in response to a City-identified need or a petition by a resident or business. Written petitions for plan amendments must be submitted to the Director of Public Works. The petition must state the reason for the requested amendment and provide supporting information for the City to consider the request. The City may reject the petition, delay action on the petition until the next full plan revision, or accept the petition as an urgent issue that requires immediate amendment of the plan.

Should it need to be amended, any amendments to the Plan will be provided to the Metropolitan Council and the Coon Creek Watershed District (CCWD), Mississippi Watershed Management Organization (MWMO), and Rice Creek Watershed District (RCWD) in compliance with Minnesota Rules 8410.

6.2 Community Setting

This chapter provides background information of the City of Fridley's physical and built environment.

6.2.1 Topography and Geology

Fridley's topography is varied and influenced by waterways. Higher elevations exist in the eastern and southeastern portions of the community while lower elevations are associated with the Mississippi River floodplain (See Appendix A, Figure 6.1).

The surficial deposits of the Fridley area are classified as part of the Anoka Sand Plain and were deposited primarily by glacial ice and meltwater during the most recent glaciation. However, the glacial landscape has been altered by soil formation and erosion during the postglacial periods. All of the glacial deposits were from the Grantsburg Sublobe and the overall thickness of the surficial deposits range from 50 to 100 feet. There are five surficial deposits located in Fridley. Two of the deposits are of glacial origin: lake sand and outwash deposits. The other three deposits are of postglacial origin: alluvium, eolian sand, and terrace deposits. The lake sand deposits are found along the eastern boundary of Fridley and consist of very fine to medium sand with minor silt, and include areas of fluvial sand at or near the surface. The outwash deposits located in the northern portion of the City generally consist of sand and gravel. Alluvium deposits have been identified along Rice Creek and the Mississippi River. These deposits consist of primarily silty sand overlaid in places by sandy loam or peat. Eolian deposits, dunes of very fine to medium sand, are found in the extreme southeastern corner of the City. The terrace deposits are mainly sand and gravel in nature and are found over most of the western two-thirds of the City.

6.2.2 Land Use

The City's current land use is divided into the following existing and proposed categories:

Table 6.1 Land Use Distribution

	Existing[1]		**Proposed[2]**	
Land Use	Acres	% Area	Acres	% Area
Single Family Residential	1981.9	29.9%	1952.2	29.5%
Right-of-Way	1294.7	19.6%	1300.2	19.6%
Industrial	1256.0	19.0%	1297.3	19.6%
Parks/Recreation	602.3	9.1%	583.9	8.8%
Commercial	357.2	5.4%	354.4	5.4%
Multi-Family Residential	333.7	5.0%	374.4	5.7%

Institutional	258.2	3.9%	238.1	3.6%
Open Water/Water Feature	159.9	2.4%	168.5	2.5%
Utility	149.1	2.3%	155.5	2.3%
Vacant Lands	108.6	1.6%	0.0	0.0%
Mixed Use	0.0	0.0%	85.9	1.3%
Railroad	92.8	1.4%	87.2	1.3%
Public/Semi-Public	15.0	0.2%	13.0	0.2%
Office	9.7	0.1%	10.1	0.2%
Vacated Right-of-Ways	1.6	0.0%	0.0	0.0%
Total	6620.7	100.00%	6620.7	100.0%

[1] See Appendix A, Figure 6.2

[2] See Appendix A, Figure 6.3

In general, Fridley is fully developed with the largest land use being single-family residential. According to the Minnesota Land Cover Classification System, the areas of the highest impervious surface typically correspond with the City's industrial zones (See Appendix A, Figure 6.4). While future land use within the city is not expected to deviate significantly from the existing land use patterns, several areas of the City have also been identified for redevelopment. The City is also anticipating an increased shift from single-family residential to multi-family residential to meet growing housing needs, which will result in higher density. Further information on Fridley's existing and proposed land use can be found in Land Use Chapter of the 2040 Comprehensive Plan. Several roads have also been identified for redevelopment by the City within the plan cycle (see Appendix A, Figure 6.5).

6.2.3 Natural Communities and Rare Species

The DNR produces the Minnesota County Biological Survey (MCBS) identifying natural communities and rare species. The survey shows that rare plants and animals are present in Fridley along West Moore Lake in the Sand Dunes Natural History Area. This area, along with the Springbrook Nature Center and the Mississippi River islands are regarded as areas of biological significance (see Appendix A, Figure 6.6).

6.2.4 Surface Water

Within the City of Fridley there are several lakes, watercourses and wetlands (See Appendix A, Figure 6.7). These surface water features are divided amongst three major drainage areas, each corresponding to a watershed organization with jurisdiction in Fridley: Rice Creek Watershed, Coon

Creek Watershed, and the Mississippi River Watershed (See Appendix A, Figure 6.8). These three drainage areas are further defined into 796 catchment areas (See Appendix A Figures 6.9-11), based on hydraulic and hydrologic (H&H) modeling. These catchment areas generally drain westward to the Mississippi River. Further information regarding the H&H models are available upon request. As additional hydraulic and hydrologic (H&H) modeling is performed, these catchment areas will become further defined.

Some of Fridley's surface water features have been deemed to meet the criteria of public waters set forth in Minnesota Statutes, Section 103G.005, subd. 15 by the Minnesota Department of Natural Resources and are ascribed a MnDNR number. None of the surface waters have been identified as a Priority Lake.

Table 6.2 Surface Water Features

Waterbody Name	MnDNR Number	Watershed District	Type	Description
Mississippi River	02001a		Watercourse	Fridley is located in the Middle Mississippi River Basin of the Upper Mississippi River which is characterized as a moderately flowing watercourse with sands and silts along the bottom
Oak Glen Creek	n/a	CCWD	Watercourse	Watercourse with the upstream portion piped
Springbrook Wetland	02-0688P	CCWD	Wetland	Large wetland in the Springbrook Nature Center
Springbrook Creek (County Ditch 17)	02009a	CCWD	Watercourse	Watercourse flowing out of Springbrook wetland that is surrounded by a steep ravine; flow is controlled by a manually operated weir located in the Springbrook Nature Center
Stonybrook Creek	n/a	CCWD	Watercourse	Watercourse that is intermittently piped into the Mississippi River due to erosion issues
Rice Creek	02010b	RCWD	Watercourse	Watercourse with a drainage area of approximately 200 square miles; flows to the Mississippi River through the Locke Lake impoundment
Norton Creek	n/a	RCWD	Watercourse	Watercourse that is intermittently piped to Rice Creek

East Moore Lake	02-007-01P	RCWD	Lake	Shallow lake to the east of Trunk Highway 65; a popular fishing destination that is also maintained as swimming and recreation basin on portion of the eastern shore; hydraulically connected to West Moore Lake via culverts
West Moore Lake	02-007-02P	RCWD	Lake	Shallow lake to the west of Trunk Highway 65; hydraulically connected to East Moore Lake via culverts.
Locke Lake	02-0077P	RCWD	Lake	Dredged, impounded basin on Rice Creek, upstream of the confluence with Mississippi River
Harris Pond	02-0684W	RCWD	Wetland	Excavated wetland utilized for stormwater management; undergoes treatment for algae and phosphorus reduction
Farr Lake	02-0078P	RCWD	Wetland	Deep water wetland utilized for stormwater management

Mississippi River

The portion of the Mississippi River in Fridley is part of the Mississippi River Corridor Critical Area (MRCCA) and contains the drinking water intakes for the cities of Minneapolis and St. Paul. It has a varying ordinary high water elevation that coincides with the top of the riverbank. Land use and management within the MRCCA is guided by the City's Critical Area Plan. More information on the MRCCA and the City's Critical Area Plan can be found in Critical Area Chapter of the 2040 Comprehensive Plan.

Wetlands

The City completed a Wetland Inventory in 1993, including information on location, size and type of each wetland. This inventory provides a baseline for the location, vegetation, and hydrology of the City's wetlands, but does not include a function or value assessment. The National Wetland Index, published in 2018 also includes approximate location of wetlands in the City (See Appendix A, Figure 6.12).

Floodplains and Shoreland

Floodplains provide valuable floodwater storage and habitat function. The floodplains associated with the Mississippi River, Rice Creek, Springbrook Creek, East Moore Lake, and West Moore Lake are located in Fridley and outlined in the Floodway Maps developed for the Flood Insurance Study for Anoka County in 1980. Slight modifications were made when the maps were digitized in December of 2015 (See Appendix A, Figure 6.12). Additional revisions to the maps are incorporated based on H&H modeling performed by the City's partners.

6.2.4 Recreational Areas

Fridley has a strong park and trails system consisting of 581.6 acres of parkland owned by the City and Anoka County, with additional parkland owned and managed by area school districts (See Appendix A, Figure 6.13). As the City is fully developed, the City is not actively pursuing new parkland. The City requires parkland dedication or payment of a park dedication fee as part of land subdivision in Chapter 211 of City Code. The amount of the dedication is specified by the City Council through the City's Park Dedication Policy

Surface water features are often a key attraction of these parks and trails, providing recreational and scenic amenities and uses. Additionally, some parks contain water quality treatment devices such as the large rain garden in Jay Park and the infiltration system at Summit Square Park.

City Parks

The following City Parks have been identified as having significant surface water features:

Springbrook Nature Center a 127-acre park featuring wetlands, Springbrook Creek, an interpretive center, boardwalks and trails.
Innsbruck Nature Center a 24-acre park featuring wetlands, boardwalks and trails.
Farr Lake a 6.6-acre park along Farr Lake featuring a short trail.
Moore Lake Park a 14-acre park along East Moore Lake featuring a swimming beach and fishing piers.
Riverview Heights a 7.4-acre riverfront park at the confluence of the Mississippi River and Springbrook Creek featuring trails.
River Edge Way an unimproved 1.3-acre riverfront park along the Mississippi River.
West Moore Lake Sand Dunes a 7.6-acre natural history area along West Moore Lake featuring trails.
Community Park a 21.0-acre park featuring walking and biking trails along a significant stormwater feature.

County Parks

The following County Parks have been identified as having significant surface water features:

Riverfront Park- a 60.0-acre riverfront park featuring trails and a boat landing.
Islands of Peace Park a 79.0-acre riverfront park featuring trails, a walk-in canoe landing, and an interpretative center currently used as an administrative building.
Manomin Park a 15.0-acre riverfront park including the confluence with Rice Creek that contains the Banfill-Locke Center for the Arts
Rice Creek West Regional Trail Corridor a 32.5-acre park containing a portion of the 4-mile long regional trail along Rice Creek.

Further information about Fridley's parks and trails can be found in Parks Chapter of the 2040 Comprehensive Plan.

6.2.5 Stormwater Management System

Fridley has a city-wide storm sewer system which was primarily built between the 1960s-1970s (See Appendix A, Figure 6.14). During this time period, standard engineering practices called for swift conveyance of storm and melt water to the receiving waterbody or watercourse. The City has taken advantage of opportunities as they have become available to retrofit the system to remove sediment, reduce run-off rates, and promote infiltration and other low-impact design measures. Location and spacing of catch basins, as well as pipe sizes, have generally been designed based on a five- or ten-year storm, depending on the particulars of the road and to some extent the catchment area that is the subject of the design. However, the design for many of these roads are based on lower standards for rainfall events than are seen today. The stormwater management system also includes two dams: one on Rice Creek that creates the Locke Lake impoundment and another along Springbrook Creek within the Springbrook Nature Center.

Capital Investment Projects

Upgrades to the City's stormwater management system are installed as Capital Investment Projects, particularly in conjunction with road and trail reconstruction projects. In addition to numerous retention and detention ponds, the City has installed and maintains several regional stormwater treatment facilities which offer the opportunity to efficiently treat runoff from larger areas. An underground infiltration system was installed at Summit Square Park in 2016 to treat residential stormwater runoff using grant funding from the Mississippi Watershed Management Organization. Oak Glen Creek Pond was expanded and retrofitted with an iron enhanced sand filter in 2017, in partnership with the Anoka Conservation District, to provide regional water quality treatment and flooding relief to neighboring businesses. The City, in partnership with the Rice Creek Watershed District installed an iron enhanced sand filter in 2018 as part of the stormwater management system at the City's new civic campus. Further information on future, potential Capital Investment Projects can be found in Section 6.5 Implementation Plan.

Rain Gardens

Since 2005, the City has integrated curb-cut rain gardens into neighborhood stormwater systems. The City installs rain gardens on private property and in public right-of-ways through cost shares with local property owners, Anoka Conservation District, and the corresponding watershed organizations. As of 2017, over 40 rain gardens and bioswales have been installed (See Appendix A, Figure 6.15).

Monitoring

Baseline monitoring data in Fridley is collected by partner agencies as well as citizen volunteers through the MPCA's Citizen Lake Monitoring Program. Monitoring sites include:

- A continuous base flow station near 37th Avenue operated by USGS
- A continuous base flow station that was installed on October, 2014 at a stormwater outfall near the Minneapolis Water Works facility in the Anoka County Riverfront Regional Park by MWMO

- A monitoring station along Rice Creek immediately downstream of Highway 65 operated by Rice Creek Watershed District. This station has collected water quality data non-continuously since 1977 and flow data continuously since 1996
- A water quality station along West Moore Lake that is monitored by RCWD for Total Phosphorus and Chlorophyll on five year cycles, most recently from 2011-2015
- A monitoring station at the outlet of Springbrook Creek at 79th Way that is monitored annually by CCWD
- A monitoring station at Springbrook Creek @ 85th Ave that was monitored annually by CCWD but is planned to be discontinued. 2013-2017 (planned to abandon annual monitoring due to redundancy with upstream site)
- A monitoring station at the outlet of Stonybrook creek monitored by CCWD
- A monitoring station at the outlet of Oak Glen Creek monitored by CCWD

Project specific monitoring is also completed, by the City, its watershed district partners, and the Anoka Conservation District.

Maintenance

The City began prioritizing the inspection and maintenance activities of publicly owned stormwater treatment devices using the Stormwater Asset Management Program (SWAMP) in 2016. SWAMP helps the City prioritize which best management practices need attention so that the City can plan and budget for maintenance.

The City requires maintenance agreements and easements from property owners that install stormwater BMPs on private property as part of a land alteration permit, or proof of a maintenance agreement of the BMP with the watershed district. The SWAMP program also allows the City to track these maintenance schedules in order to ensure compliance.

6.2.6 Groundwater Resources

Within the City of Fridley, there are multiple locations where groundwater and surface water interact (See Appendix A, Figure 6.16). As a result, the sensitivity rating for the water table aquifer to pollution in the Fridley area ranges from very high in the central portion and eastern half to high in the northeastern, southwestern, and extreme western portions of the City according to the Regional Hydrogeologic Assessment of the Anoka Sand Plain. Due to the heterogeneous nature of the glacial deposits, the water table aquifer is highly variable in velocity and groundwater flow direction is generally west or southwest toward the Mississippi River.

In addition to the water table aquifer, there are three bedrock aquifers present in the Fridley (the Prairie du Chien-Jordan, the Tunnel City Group (formerly the Franconia Formation)-Wonewoc Sandstone (formerly the Ironton and Galesvilles Sandstones), and the Mt. Simon-Hinckley). The Prairie du Chien-Jordan is the uppermost bedrock aquifer and is present throughout Fridley at thicknesses of up to 140 feet in some areas. The Tunnel City Group (formerly the Franconia Formation)-Wonewoc

Sandstone (formerly the Ironton and Galesvilles Sandstones), bedrock aquifer exists beneath the Prairie du Chien-Jordan aquifer and has an approximate maximum thickness of the aquifer is 330 feet. The deepest bedrock aquifer is the Mt. Simon-Hinckley.

All three aquifers are utilized in the production of the City of Fridley's drinking water. The City currently maintains thirteen wells to access this groundwater supply. Drinking Water Supply Management Areas (DWSMA) have been established around these wells and Wellhead Protection Plans have been developed to protect against groundwater contamination. Further information on Fridley's drinking water supply can be found within the City of Fridley's Wellhead Protection Plan and Water Supply Plan. In addition to the City of Fridley's DWSMA, the DWSMAs for Brooklyn Center, New Brighton, and Spring Lake Park extend into Fridley's city limits (See Appendix A, Figure 6.17). The City participates in Anoka County Municipal Wellhead protection Group which seeks to implement wellhead protection plans in a coordinated, efficient, and effective manner.

6.2.7 Jurisdictions

Fridley's surface and ground water resources fall under the jurisdiction of several local, state, and federal entities. The City recognizes the roles of these other agencies and cooperates, coordinates, and partners with the agencies when possible. While this plan does not restate all other agency rules that are applicable to resource management, a brief summary is provided:

Table 6.3 Jurisdiction of Water Resources

Jurisdictional Entity	Jurisdictional Responsibility
United States Army Corps of Engineers (USACOE)	Section 404 permit program; Mississippi River-to the top-of-bank; jurisdictional wetlands
Minnesota Pollution Control Agency	Water quality protection through administration of 401 certification program and NPDES program
Minnesota Department of Natural Resources	Public waters; ground water and water appropriation; floodplain management and flood damage reduction grant program; the shoreland management program; the wild and scenic rivers program; aquatic plant management and fisheries permitting
Board of Water and Soil Resources (BWSR)	Oversight of watershed management organization; oversight of the Wetland Conservation Act
Minnesota Department of Health	Drinking water and groundwater protection; the Well Management program, the Wellhead Protection Program, the Safe Water Drinking Act

Minnesota Department of Transportation (MnDOT)	Drainage associated with MnDOT road right-of-ways.
Metropolitan Council	Regional planning and wastewater treatment
Anoka County	Facilitates and supports local water management and protection through cooperative projects including wellhead protection and loans to repair and seal water wells and septic systems.
Municipal Wellhead Protection Group (Joint Powers Organization)	Implements common elements of municipal wellhead protection plan to prevent contamination of the source of the City's drinking water supply.
Anoka County Community Health Board	Establishes priorities in the protection of water quality and drinking water for the protection of residents.
Coon Creek Watershed District	Surface waters and administration of the Wetland Conservation Act within the CCWD portion of the City; review of Fridley's local water management plan
Mississippi Watershed Management Organization	Surface waters within the MWMO portion of the Cities; review of Fridley's local water management plan
Rice Creek Watershed District	Surface waters and administration of the Wetland Conservation Act within the RCWD portion of the City; review of Fridley's local water management plan
City of Fridley	Surface waters and construction, maintenance, and operation of the City's stormwater management systems (i.e., catch basins, pipes, ponds, and treatment devices,); administration of the Wetland Conservation Act within the MWMO portion of the City; administration of MWMO standards within the MWMO portion of the City; local shoreland, critical area, and floodplain management

Watershed Organizations

Regional jurisdiction over Fridley's surface water is shared by three watershed organizations: 1) 22% of Fridley is in the Coon Creek Watershed District, 2) 34% of Fridley is in the Mississippi Watershed Management Organization, and 3) 43.8% of Fridley is in the Rice Creek Watershed District. These watershed organizations review the City of Fridley's Local Water Management Plan and prepare their own watershed management plans based on the Metropolitan Surface Water Management Act Chapter 509, Laws of 1982, Minnesota Statute Section 103B.201 to 103B.255 as amended). The law requires these plans to focus on:

- Preserving and using natural water storage and retention systems to improve water quality
- Preventing flooding and erosion from surface flows

- Promoting groundwater recharge
- Protecting and enhance fish and wildlife habitat and water recreation facilities
- Reducing, to the greatest practical extent, the public capital expenditures necessary to control excessive volumes and rate of runoff and to improve water quality
- Securing other benefits associated with proper management of surface water

To achieve these goals, watershed organizations complete monitoring and research efforts, install capital improvement projects, and provide education and technical assistance. Rice Creek Watershed District and Coon Creek Watershed District regulate land-disturbing activities, and Mississippi Watershed Management Organization develops standards for regulation that the City of Fridley implements. Further information on these watershed organizations and their plans can be found at:

Coon Creek Watershed District
http://www.cooncreekwd.org/

Rice Creek Watershed District
http://www.ricecreek.org/

Mississippi Water Management Organization
https://www.mwmo.org/

City of Fridley

The City of Fridley is responsible for managing its water resources to protect water quality and prevent flooding. This includes the construction, maintenance, and operation of the City's stormwater management systems (i.e. catch basins, pipes, ponds, and treatment devices). Since the City operates a Municipal Separate Storm Sewer System (MS4), it is regulated under the National Pollutant and Discharge Elimination System (NPDES) and holds a MS4 general permit. As a regulated MS4, the City must develop a Stormwater Pollution Prevention Plan (SWPPP) that includes:

1. Public Education and Outreach
2. Public Participation/Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management
6. Pollution Prevention/Good Housekeeping for Municipal Operations

A copy of Fridley's SWPPP Application for Reauthorization can be found in Appendix B. To meet these NPDES Phase II requirements, the City has implemented water-resource related elements within the City of Fridley's code of ordinances including language related to stormwater management (Chapter 208), erosion control (Chapter 208), obstructions or drainage modifications of Public Waters and Waterways (Chapter 215), and illicit discharge prevention (Chapter 224), which

can be found in Appendix B. A stormwater pollution control plan that includes pre-and post-construction stormwater and erosion controls is required as part of any land alteration permit. While each property owner must submit their own post-construction stormwater management plan, property owners can utilize the stormwater management system of another owner to meet their requirements, provided that the system has sufficient capacity and appropriate easements and documentation are provided. Triggers for a land disturbing activity permit can be found in Chapter 208 of City Code. Violations of a land alteration permit or Chapter 208 is handled through formalized enforcement procedures, which are available upon request. The City often works in partnership with Rice Creek Watershed District or Coon Creek Watershed District to address violations within their jurisdiction.

The City has additional regulation related to water resources. Chapters 205.27 and 205.32 of City Code regulate land use within the floodplain and shoreline respectively. The City also regulates potential impacts to wetlands under Chapter 205.29 of City Code and requires a wetland delineation whenever development is proposed that would potentially impact a wetland identified by the City's wetland inventory or the National Wetland Index in order to determine if the Wetland Conservation Act may be triggered. Copies of these codes can be found in Appendix C. The City also requires proof of any required watershed district permit.

Land use controls included within these codes can limit a site's impervious surface area and promote stormwater management, and are therefore an important tool in water resource planning. The City of Fridley's codes encourages low impact development by:

- Setting a rate control requirement
- Specifying that redevelopment of existing parcels remove in excess of 80% of suspended solids and other pollutants from a 1.5 inch 24-hour storm event
- Requiring a maintenance agreement for stormwater best management practices installed as part of a building permit
- Allowing shared stormwater management features provided that there is sufficient capacity and appropriate documentation is provided
- Requiring water quality and quantity controls before discharge to wetlands
- Removing the curb and gutter requirement for areas draining toward rain gardens or natural drainage features
- Allowing permeable pavers and reinforced turf grass for overflow parking areas as appropriate
- Setting tree planting requirements for most land uses
- Setting maximum lot coverages for buildings
- Requiring unpaved landscape islands for parking lots containing over 100 stalls
- Allowing for the reduction of parking stalls based on the particular nature of the proposed use and/or proof of parking
- Reducing parking stall width requirements in multi-family, industrial, and manufacturing uses
- Specifying maximum driveway widths
- Allowing shared parking to meet parking stall number requirements

However, certain areas of the City of Fridley's code do not encourage low impact development such as:

- Lack of mitigation provisions for off-site treatment for those projects, including linear projects, where on-site treatment proves to be infeasible
- Lack of land use controls to limit infiltration in unsuitable areas
- Lack of buffer requirement around wetlands and streams
- Requiring parking stalls are a minimum of 10 feet in commercial land uses
- Establishing parking minimums
- Requiring the installation of irrigation systems in certain uses
- Limiting lot coverage based on building size rather than total hard surface
- Building setbacks, which encourage green space, but discourage higher density developments

Good Housekeeping

As part of its MS4 permit, the City of Fridley also conducts several good housekeeping practices:

Table 6.4 Good Housekeeping Practices

Activity	Frequency
Street Sweeping	One spring and one fall round of sweeping citywide
Inspection of Structural Pollution Control Devices	Annual inspection of all devices
Active Construction Inspection	During active construction
Inspection of outfalls, sediment basins, and ponds	Annual inspection of 20% of outfalls or more
SWPPP review	Public works and engineering personnel are certified in the design and review of SWPPPs
Inspection of exposed stockpile, storage, and material handling area	Annual inspection of all city-owned stockpile, storage, and material handling areas
Illicit discharge response	As needed, based on established protocols by the Fridley Fire Department
Record keeping	Maintain records of corrective actions and inspections per record retention policy
Corrective actions	Complete corrective actions associated with inspections
Smart Salting	Completion of Smart Salting Level 2; all plow operators obtain at least Level 1 Smart Salting training;

6.3 Goals and Objectives

The City of Fridley has established priority goals and objectives for its water resource management program. The City has also identified performance measures which can be used to indicate if goals and objectives are being achieved.

Goal #1: All of Fridley's surface waters can be enjoyed to their highest intended use.
Objectives:

1.1 The established Total Maximum Daily Loads and Watershed District goals will be met for all impaired waters.

- Performance Measure: Estimated amount of stressor (i.e. pounds of phosphorus) removed through point source and non-point source reduction methods annually

1.2 No additional waterbodies in Fridley will be added to the Impaired Waters List

- Performance Measure: Number of new waterbodies included on the Minnesota Pollution Control Agency's draft lists of Impaired Waters

1.3 Impacts of illicit discharge are reduced

- Performance Measure: Number of Minimum Control Measures of MS4 permit conditions achieved; Number of illicit discharges

1.4 All stormwater best management practices (BMPs) will be appropriately maintained to ensure functionality.

- Performance Measure: Number of BMPs inspected and maintained annually

Goal #2: Fridley properties and infrastructure are not impacted by flooding.
Objectives:

2.1 The stormwater management system has sufficient capacity to control excessive runoff rates and prevent flooding with minimal environmental impact.

- Performance Measure: Rate of stormwater discharging into the Mississippi at outlets; number and extent of damages to habitat and infrastructure resulting from flooding or drought.

2.2 To minimize public capital expenditures needed to correct flooding issues.

- Performance Measure: Capital expenditures on flooding issues

Goal #3: Wildlife habitat and habitat connectivity is enhanced alongside sustainable, equitable use of public water and public water accesses for recreational purposes.
Objectives:

3.1 Habitat corridors are planted with pollinator-friendly and deep-rooted native, vegetated species.

- Performance Measure: Acreage of significant areas of pollinator-friendly or deep-rooted, native vegetation; lineal feet of buffers along waterbodies

3.2 Fridley residents and visitors enjoy and appreciate the natural amenities of parks in Fridley

- Performance Measure: Number of visitors to Fridley's parks, particularly those parks with a surface water feature

Goal #4: The quantity and quality of the City of Fridley's groundwater resources are protected.

Objectives:

4.1 Water conservation strategies are implemented to ensure that a sufficient, sustainable groundwater supply is available for use as the City's drinking water supply without negatively impacting the water levels of hydrologically connected surface water features.

- Performance Measure: Gallons of drinking water sold

4.2 The existing level of contaminants in Fridley's drinking water is maintained or reduced.

- Performance Measure: Concentration of detected compounds in raw drinking water

Goal #5: Fridley residents and businesses are aware of Fridley's water resources and engaged in their protection.

Objectives

5.1 Fridley residents and businesses understand the fundamentals of water resource management and water conservation.

- Performance Measure: Number of residents and businesses reached

5.2 Fridley residents and businesses implement stormwater best management practices on their private property.

- Performance Measure: Number of best management practices voluntarily installed or implemented

Goal #6: The City will be resilient against the impacts of climate change, including the increased frequency of heavy rainfall events.

Objectives

6.1 City capital investment projects are designed to withstand the impacts of climate change.

- Performance Measure: Amount of damage to publicly owned infrastructure from extreme weather events

6.2 The impact of development on water resources is reduced through site planning and implementation of best management practices.

- Performance Measure: Amount of impervious surface reduced; number of stormwater best management practices installed or implemented.

6.3 The City is prepared to protect its citizens, built environment, and natural environment during emergencies.

- Performance Measure: Demonstrated preparedness and response to future emergencies

6.4 Issues Assessment

The City of Fridley has identified the following existing issues that must be addressed in order to achieve the City's water resource management goals outlined in Section 6.4. A map of the areas referenced in this section can be found in Appendix A, Figure 6.18.

6.4.1 Existing Issues:

Goal #1: All of Fridley's surface waters can be enjoyed to their highest intended use.

Issue 1.1: The following waterbodies have been listed as impaired on the Minnesota Pollution Control Agency's 2018 Draft Impaired Water's List. Total Maximum Daily Loads (TMDLs) has been developed to address some of these impairments. Additional waterbodies may be at risk for impairment from upstream sources or contaminants of emerging concern.

Table 6.5 MPCA's 2018 Draft Impaired Waters

Waterbody	Impairment (Stressor)	Approved TMDL (Yes/No)
Mississippi River	Aquatic Consumption (PCB in fish tissue)	No
	Aquatic Life (Nutrients)	No
	Aquatic Recreation (Fecal coliform)	No
	Mercury in fish tissue	Yes; statewide TMDL
Rice Creek	Aquatic Life (Aquatic Macroinvertebrate bioassessment)	No
	Aquatic Life (Fishes bioassessment)	No
	Aquatic Recreation (*E. coli*)	Yes; Upper Mississippi River Bacteria TMDL
East Moore Lake	Aquatic Recreation (Nutrients)	Yes; Southwest Urban Lakes TMDL
Springbrook Creek	Aquatic Life (Aquatic Macroinvertebrate bioassessment)	Yes; Coon Creek Watershed District WRAPS
	Aquatic Recreation (*E.coli*)	Yes; Upper Mississippi River Bacteria TMDL
Pike Lake[1]	Aquatic Recreation (Nutrients)	Yes; Southwest Urban Lakes TMDL

[1]Pike Lake is located in New Brighton, but receives runoff from Fridley

Action 1.1.A The City, in coordination with partner agencies, will install stormwater best management practices during future capital investment projects and complete standalone water quality and quantity improvement projects.

Action 1.1.B The City will implement good housekeeping practices as described in the City's SWPPP.

Action 1.1.C The City will require pre- and post-construction stormwater controls as part of land alteration permits; the City will update Chapter 208 to include MWMO regulatory standards within the MWMO (see Appendix D); the City will continue to rely on CCWD and RCWD to implement their regulatory standard within their jurisdictions. The City will rely on the Minimal Impact Design Standards.

Action 1.1.C The City will provide education to residents and businesses on how they can improve water quality.

Issue 1.2 The Twin Cities Metropolitan Area Chloride TMDL identifies Springbrook Creek as highly vulnerable to chloride impairment; other waterbodies may be vulnerable to chloride impairment due to stormwater runoff.

Action 1.2.A The City will maintain Smart Salting Level 2 certification from the MPCA.

Action 1.2.B All snow plow drivers will receive Smart Salting Level 1 certification from the MPCA.

Action 1.2.C The City will monitor salt use and adjust equipment and operations to decrease chloride application while maintaining safe winter driving conditions.

Action 1.2.D The City will work with its partners to educate residents and businesses on proper salt application.

Issue 1.3 The City of Fridley is fully developed and many properties and roads were constructed with high levels of impervious surface and insufficient stormwater management systems. Furthermore, areas with a high concentration of small properties and residential properties continue to be exempt from current stormwater management regulations.

Action 1.3.A See Corrective Action 1.1.A.

Action 1.3.B The City will evaluate opportunities to install regional treatment systems and stormwater best management practices in public spaces and right-of-ways in areas in areas identified in H&H modeling and sub-watershed assessments as suitable for providing regional treatment, dependent on availability of land and financial feasibility.

Action 1.3.C The City will integrate water quality and water quantity improvements into road reconstruction projects and evaluate the opportunity to decrease road widths, install vegetation, and implement stormwater best management practices where appropriate during road reconstruction projects. The opportunities will be incorporated into any "Complete Streets" policies.

Action 1.3.D See Corrective Action 1.1.C.

Action 1.3.E The City will evaluate incentivizing voluntary installation of stormwater best management practices and in the City through the stormwater utility fee and other measures; The City will evaluate strategies for achieving de-pavement through ordinance, the stormwater utility fee, incentives, or other measures.

Action 1.3.F The City will continue to implement the residential rain garden program.

Issue 1.4 Stormwater best management practices that are installed by public and private entities must be maintained in order to provide water quality benefits.

Action 1.4.A The City will continue to use the SWAMP program to prioritize maintenance of City-owned stormwater BMPs and inspection of private stormwater BMPs as well as evaluate sediment levels in waterbodies.

Action 1.4.B The City will remove sediment from City-owned stormwater BMPs identified by the SWAMP program.

Action 1.4.C The City will develop and implement enforcement procedures in coordination with its watershed partners to ensure that approved pre- and post-construction controls are functioning and privately held maintenance agreements are followed.

Issue 1.5 Comprehensive monitoring data is needed to establish baselines, prioritize projects, and track progress toward meeting TMDL goals

Action 1.5.A The City will support watershed partners in establishment of baseline monitoring stations and data collection.

Action 1.5.B The City will provide project-specific monitoring where needed.

Goal #2: Fridley properties and infrastructure are not impacted by flooding.

Issue 2.1 Certain areas of the City have experienced flooding or are at-risk for flooding.

Action 2.1.A See Corrective Action 1.1.A

Action 2.1.B The City will replace undersized stormwater systems as opportunities arise and funding allows.

Action 2.1.C The City will partner with watershed organizations to perform comprehensive modeling of the City's floodplains and drainage areas.

Goal #3: Wildlife habitat and habitat connectivity is enhanced alongside sustainable, equitable use of public water and public water accesses for recreational purposes.

Issue 3.1 Shorelands of waterbodies have been developed and do not provide suitable wildlife habitat.

Action 3.1.A The City will encourage property owners along shoreland properties to plant natively vegetated buffers through targeted education.

Action 3.1.B The City will analyze City parks for suitable areas for no-mow grass or native perennial plantings and install natively vegetated buffers along waterbodies in City-owned parks.

Action 3.1.C The City will partner with appropriate agencies to remove invasive species that may negatively impact water quality.

Action 3.1.D The City will update the Critical Area overlay ordinance for consistency with updated MRCCA rules and to promote establishment of native vegetation.

Issue 3.2 The City has received reports of incidents of slope shifting, also known as mass wasting, along small portions of the Mississippi River. The City has also observed instances of erosion along other waterbodies

Action 3.2.A The City will partner with Watershed Districts to monitor erosion along Mississippi River.

Action 3.2.B The City will partner with Watershed Districts to repair erosion along waterbodies.

Goal #4: The quantity and quality of the City of Fridley's groundwater resources are protected.

Issue 4.1 The majority of the City is located within a Drinking Water Surface Management Area (DWSMA), which necessitates increased land use controls to protect groundwater-based drinking supplies from contamination. Potential wells and contaminants within the DWSMA were identified in the City's Wellhead Protection Plan. While the City generally promotes infiltration as a stormwater best management practice, it should be noted that this may not be appropriate on all sites.

Action 4.1.A The City will follow the Minnesota Department of Health's guidelines for stormwater management in Drinking Water Surface Management Areas.

Action 4.1.B The City will adopt the Minnesota Stormwater Manual by reference in Chapter 208.

Action 4.1.C The City will partner with Anoka County to continue the well sealing program.

Action 4.1.D The City will continue to participate in the Anoka County Municipal Wellhead Protection Group and coordinate with neighboring communities included within Fridley's DWSMA regarding wellhead protection.

Issue 4.2 Fridley's groundwater is also its drinking water supply. Unsustainable water use could deplete groundwater supply levels.

Action 4.2.A The City will update the Fridley City Code to promote water efficient landscaping.

Action 4.2.B The City will allow for internal building water re-use as permitted in the building code.

Action 4.2.C The City will provide rebates or incentives for installing water efficient appliances and Smart Irrigation when available.

Goal #5: Fridley residents and businesses are aware of Fridley's water resources and engaged in their protection.

Issue 5.1 The City of Fridley completes its education and outreach through the City's bi-monthly newsletter, social media, Springbrook Nature Center, and at community events. Audience numbers can be found in the City's MS4 reports. Common topics include illicit discharge prevention, lawn care, and Smart Salting. A variety of educational and outreach strategies are needed to increase awareness of Fridley's water resources and support positive change behavior change.

Action 5.1.A The City will partner with watershed partners to continue existing educational activities and evaluate new outreach tactics to equitably engage all citizens.

Action 5.1.C See Corrective Action 1.3.E

Action 5.1.B See Corrective Action 3.1.A

Goal #6: The City will be resilient against the impacts of climate change, including the increased frequency of heavy rainfall events.

Issue 6.1 The increased frequency and intensity of large rain storms associated with climate change may require additional capacity to manage, store, and treat stormwater. In order to most accurately size stormwater management infrastructure for increased levels of precipitation, the City utilizes the National Oceanic and Atmospheric Administration's (NOAA) Atlas 14 precipitation data as its design standard, since Atlas 14 estimations have a higher level of confidence than previous standards. The City also encourages increased stormwater treatment capacity through the capital investment projects and public-private projects described elsewhere in this Plan.

The City must also prepare for the potential impacts of drought which could affect the City's drinking water supply. The City's water conservation and protection initiatives are described in the Wellhead Protection Plan and Water Supply Plan.

Action 6.1.A The City will adjust design standards based on evolving climate data and best practices.

Action 6.1.B The City will update and enact the City of Fridley's Emergency Operations Plan to address impacts from climate change and extreme weather events.

Action 6.1.C The City will evaluate Fridley's codes every three years to identify opportunities to increase resiliency, greening and promote low-impact development.

6.4.2 Potential Issues

In the future, the City is anticipating that the following new issues will arise and need to be addressed:

Future Issue 1.0 Legacy chloride contamination may negatively impact water quality.

Action 1.1 The City will focus on preventing chloride contamination by implementing Smart Salting Best Management Practices

Future Issue 2.0 Chemicals of Emerging Concern may impact water quality and contaminate stormwater pond sediments

Action 2.1 The City will partner with watershed districts and other appropriate agencies to monitor for Chemicals of Emerging Concern

Action 2.2 The City will utilize the SWAMP program to manage and budget for the proper disposal of stormwater pond sediments

Future Issue 3.0 Unpredicted impacts of climate change may alter weather events and cause damage to infrastructure

Action 3.1 The City will continue to utilize the most relevant modeling data when reviewing and designing stormwater infrastructure.

Action 3.2 The City will evaluate the opportunity to integrate "Smart" infrastructure into the stormsewer system where feasible.

6.4.3 Policies

The following are the City's policies when implementing the above corrective actions:

1. Work in partnership with other agencies to achieve efficiencies.
2. Streamline processes and promote consistency to minimize public and private expenditures and allow for innovation.
3. Look for opportunities to integrate GreenStep Cities Best Practices, greening, habitat improvements, stormwater reuse, and other co-benefits in both public and private development.
4. Promote low-impact design, through comprehensive site planning, shared parking facilities, and other strategies to reduce impervious surface.
5. Utilize regional treatment to address issues where on-site detention is not feasible or appropriate.
6. Encourage groundwater recharge where feasible and appropriate.
7. Utilize the Development Review Committee, comprised of staff from multiple departments, to review redevelopment projects for improvements to stormwater treatment.

6.5 IMPLEMENTATION

6.5.1 Implementation Plan

Appendix E contains the City's Priority Projects and Program List. This list will be updated on an ongoing bases based on identified needs and inputs from agency partners including RCWD, CCWD, and MWMO. Further feasibility and analysis is required before implementation of many of the programs included in the Priority Projects and Program List.

6.5.2 Code Revision Process

As part of this process, the City identified the need to revise City Code Chapter 208 in order to integrate Mississippi Watershed Management Organization standards and additional MS4 permit requirements. A Memorandum of Understanding will be developed with the MWMO to include standards that meet or exceed MWMO standards within a code revision, which will also include updated MS4 standards.

All other code updates associated with the 2040 Comprehensive Plan, including the Critical Area Overlay code, will be updated within six months of the adoption of the 2040 Comprehensive Plan. At a minimum, the City will consider if policy or ordinance revisions are needed to keep this plan current every three years.

6.5.3 Interdepartmental Coordination

Implementation of this Local Water Plan requires the integration of land use and water resource planning, which is managed in Fridley through a weekly inter-departmental coordination meeting known as the Development Review Committee. As part of the Development Review Committee, a multi-department team including representatives from the Engineering and Planning departments simultaneously review development proposals and land use changes. This forum can identify opportunities for cost-savings, innovative stormwater treatment, and regional treatment. The Environmental Planner position, which works within the both the Engineering and Planning divisions, can serve as a liaison for property owners interested in installing stormwater best management practices on their own property.

6.5.4 Financial Considerations

The City will fund the implementation of the Local Water Plan through the Stormwater Utility Fund, grant funding from agency partners, and cost-sharing with property owners. The Stormwater Utility Fee is a flat rate, quarterly fee based on property type and size. In 2015, the City implemented a 75% increase in the rates to more comprehensively cover the costs associated with the stormwater management system. Additionally, certain parts of the stormwater management system, such as curb and gutter repairs, are paid for through the road assessment. If funds from these fees do not cover costs, the City can adjust the Stormwater Utility Fee as well as use general funds to cover the costs.

The Stormwater Utility fund is allocated into programs and projects through the City's Capital Investment Program (CIP) which is updated annually based on five-year projections. The Comprehensive Plan, the Local Water Plan, identified maintenance and improvement needs, and alignment of project schedules form the basis of the CIP.

6.5.6 Plan Approval and Adoption

This plan will be submitted to the Coon Creek Watershed District, Rice Creek Watershed District, Mississippi Watershed Management Organization and the Metropolitan Council for formal review and approval, in accordance with MN Statute 103B.235, Subp. 3. Within 120 days of approval by these entities, the City of Fridley will adopt and implement this plan. Within 30 days of adoption and implementation of this plan, including adoption of official controls, the City will notify the watershed district of the actions, in accordance with MN Rules 8410.0170, Subp. 12.

6.5.7 Plan Revision and Amendments

This Plan is intended to be in effect for 10 years until December 31st, 2027. The City may need to revise this Plan to keep it current. The City may amend this plan at any time in response a City-identified need or a petition by a resident or business. Written petitions for plan amendments must be submitted to the Director of Public Works. The petition must state the reason for the requested amendment and provide supporting information for the City to consider the request. The City may reject the petition, delay action on the petition until the next full plan revision, or accept the petition as an urgent issue that requires immediate amendment of the plan.

Should it need to be amended, any amendments to the Plan will be provided to the Metropolitan Council and the Coon Creek Watershed District (CCWD), Mississippi Watershed Management Organization (MWMO), and Rice Creek Watershed District (RCWD) in compliance with Minnesota Rules 8410.

6.6 REFERENCES

Coon Creek Watershed District. 2013. Coon Creek Watershed District Watershed Management Plan 2013-2023.
Coon Creek Watershed District. 2016. Coon Creek Watershed District Watershed Restoration and Protection Strategy Report (WRAPS). 59 pp.
Mississippi Watershed Management Organization. 2011. Watershed Management Plan 2011-2021 (11-09-2016)
MWMO Watershed Bulletin 2011-3. 186 pp.
Rice Creek Watershed District. 2016. 2010 Watershed Management Plan. 256 pp.
Rice Creek Watershed District. 2014. Southwest Urban Lakes: Total Maximum Daily Load Study. 71 pp.
Rice Creek Watershed District. 2009. Southwest Urban Lakes Study. 2009. 283 pp.
Rice Creek Watershed District. 2007. Southwest Urban Lakes Study Phase 1 Report. 45 pp.

Appendix A

Figures

Figure 6.1 Elevation

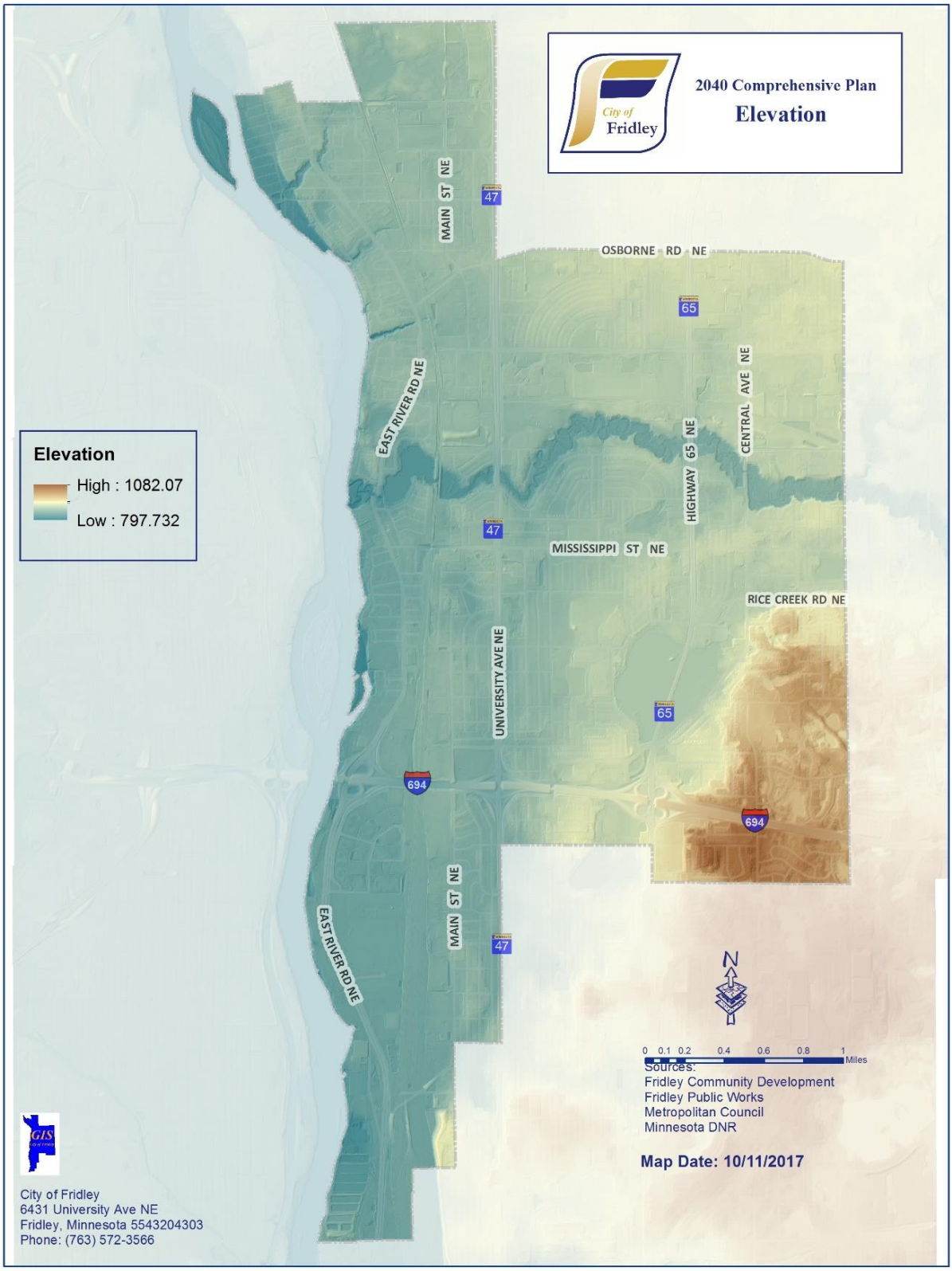

Figure 6.2 Existing Land Use

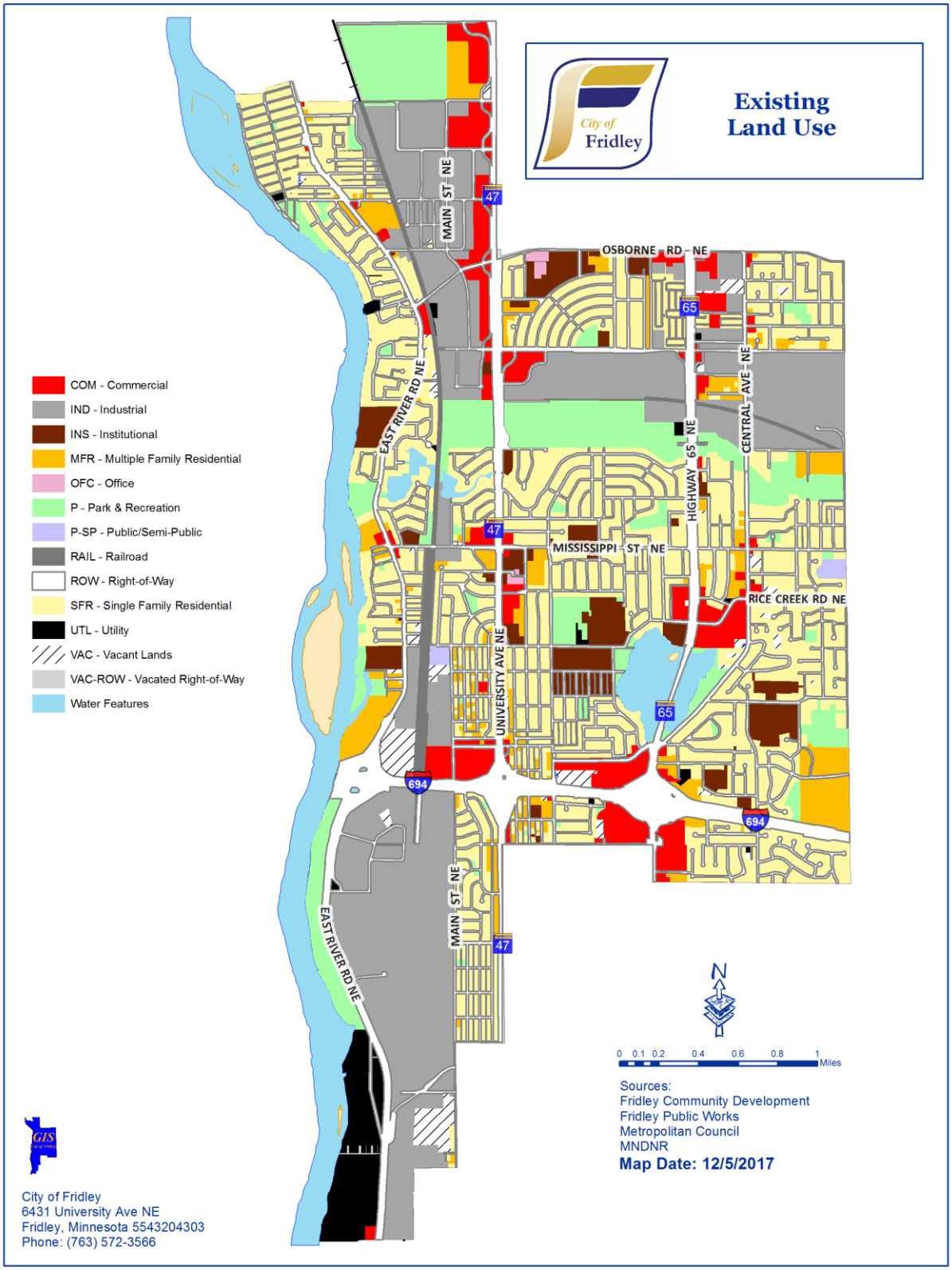

Figure 6.3 Future Land Use

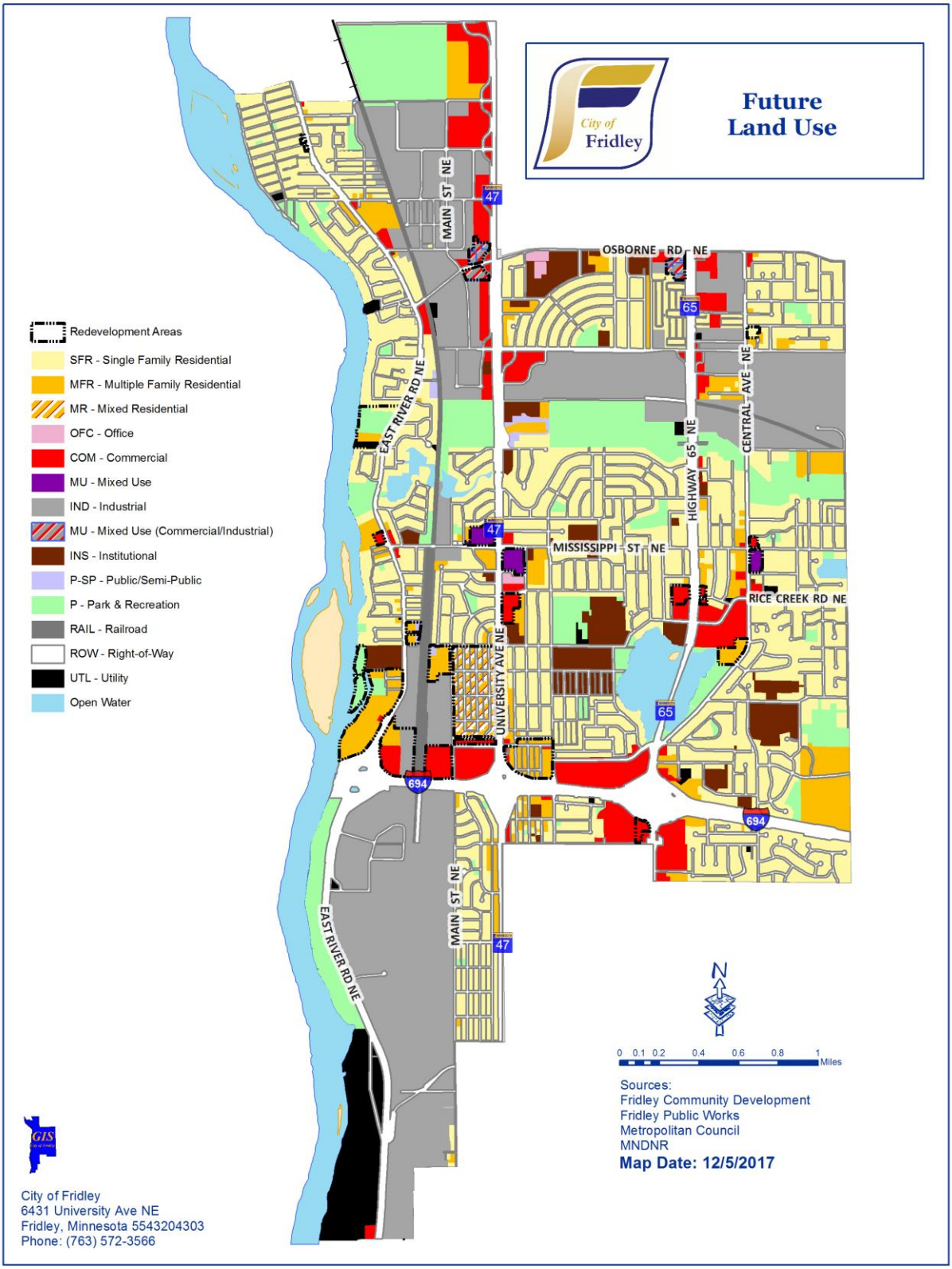

Figure 6.4 Minnesota Land Cover Classification System

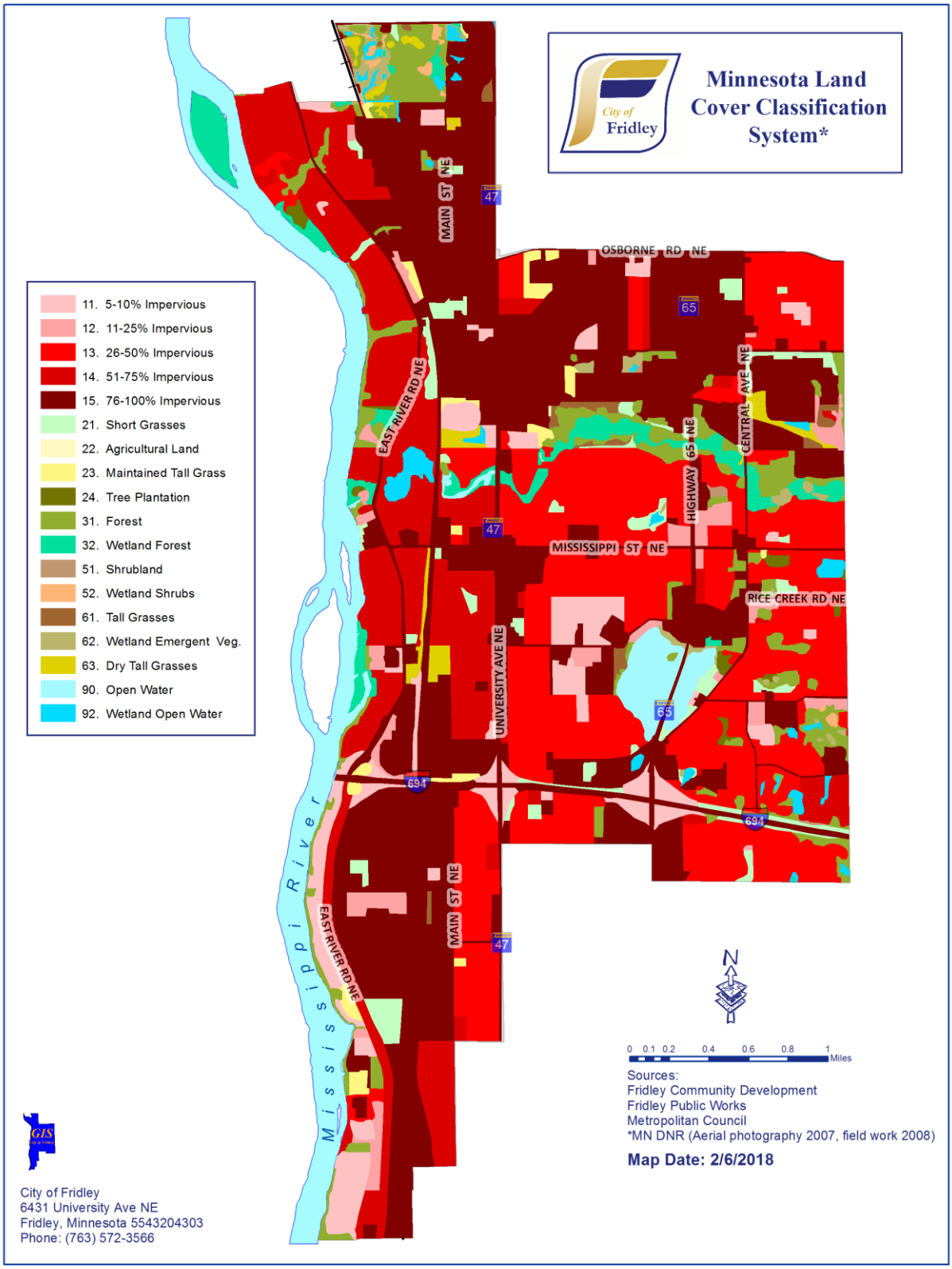

Figure 6.5 Street Resurfacing Plan 2018-2029

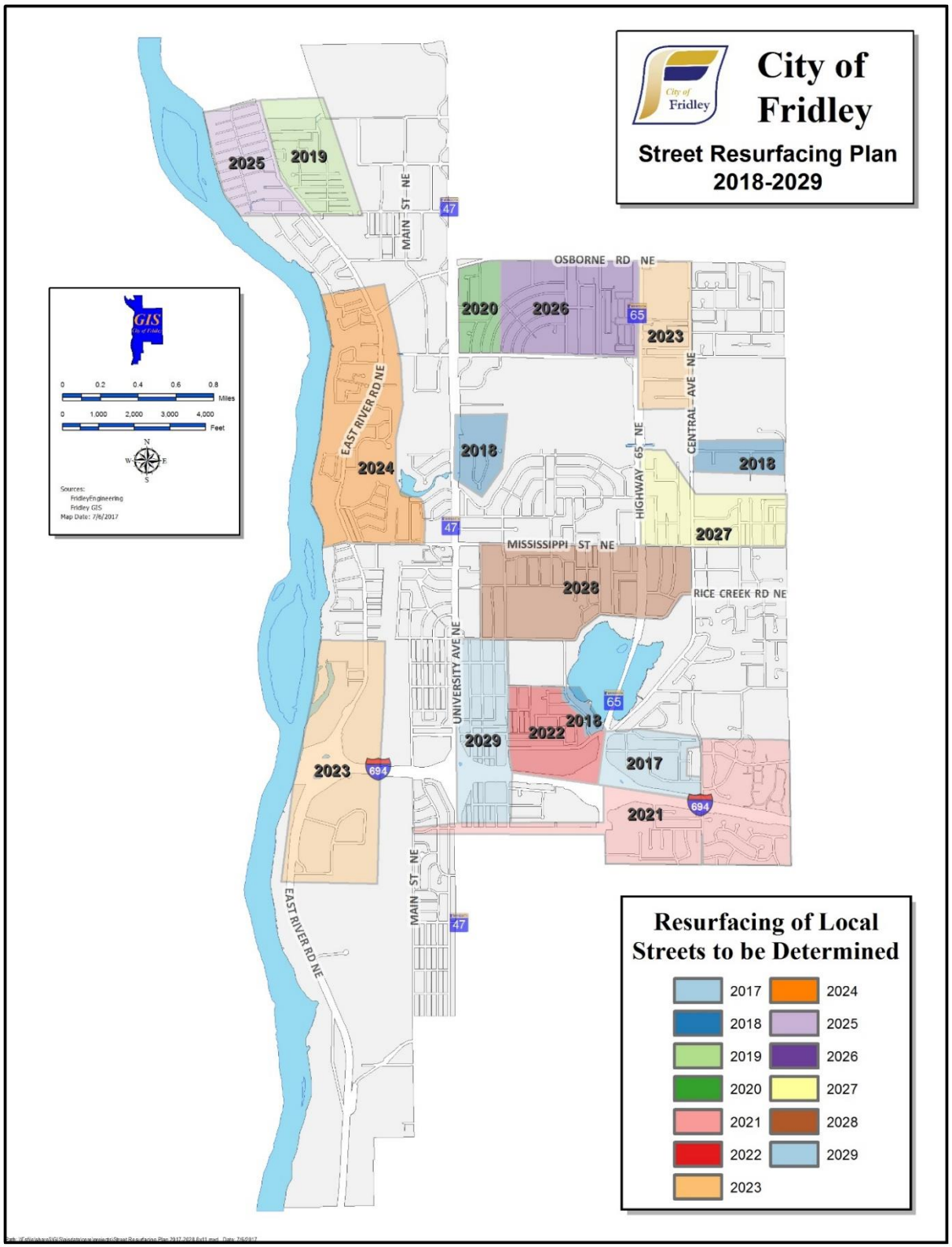

Figure 6.6 Areas of Biodiversity Significance

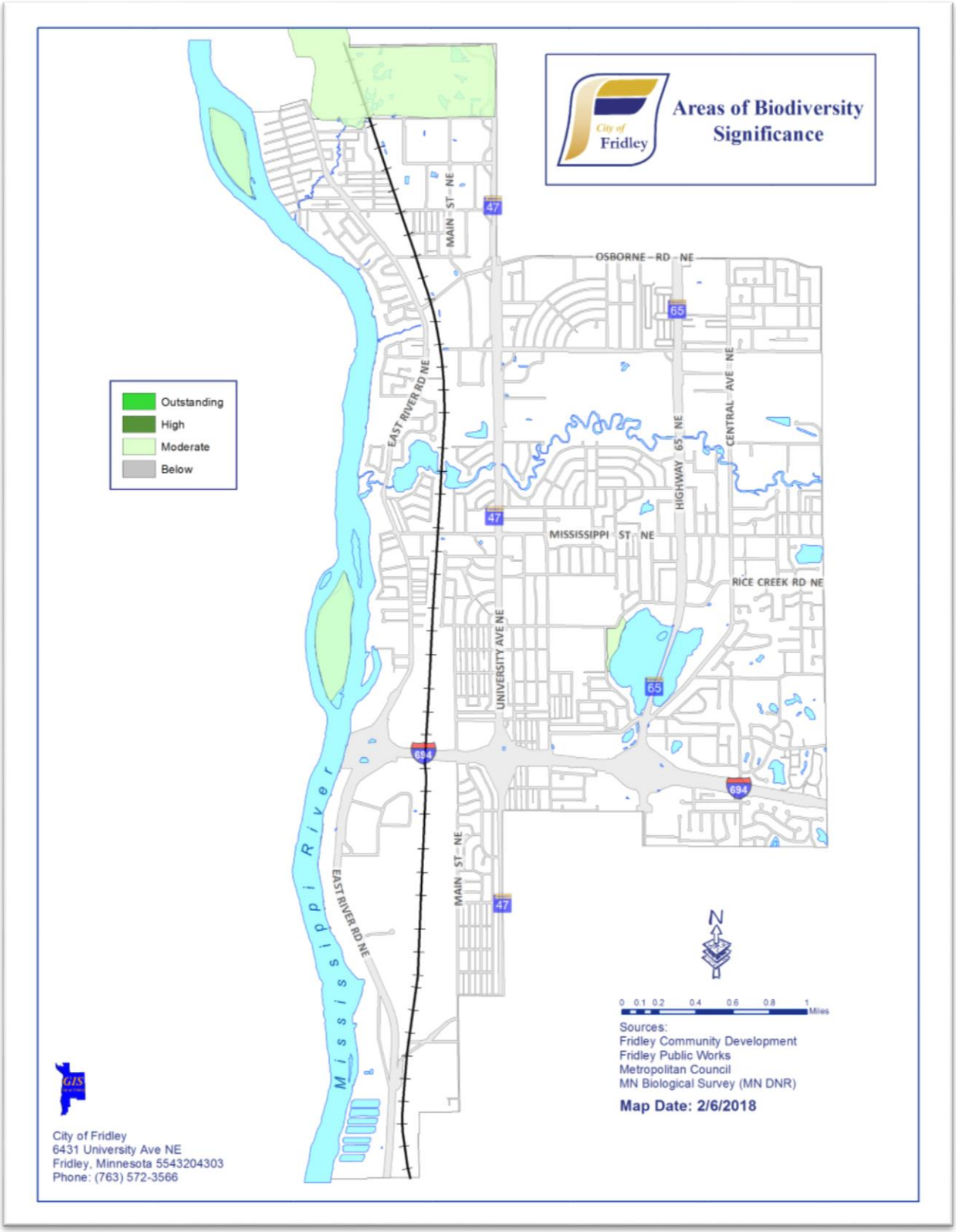

Figure 6.7 Surface Water Features

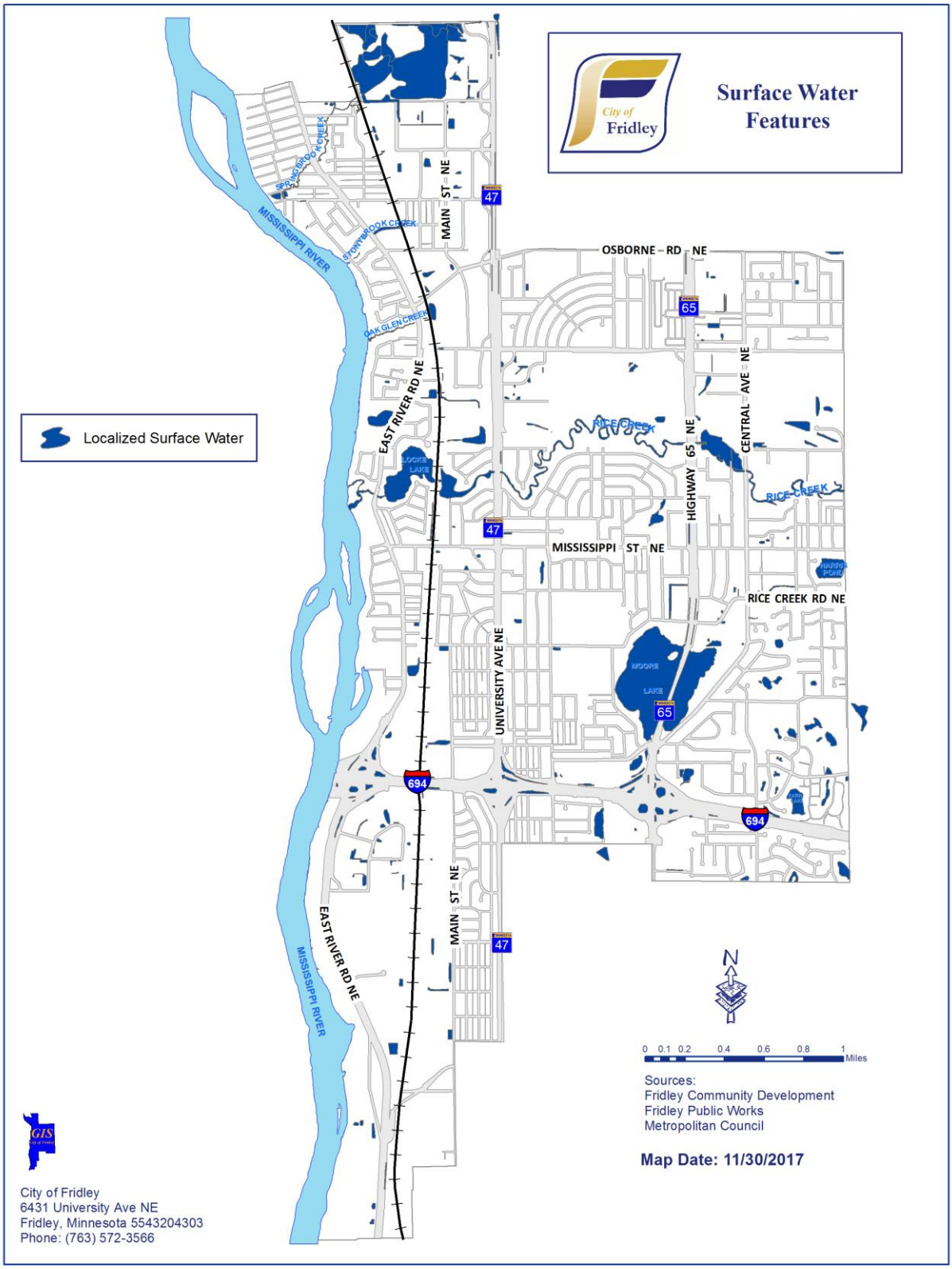

Figure 6.8
Watershed Organizations

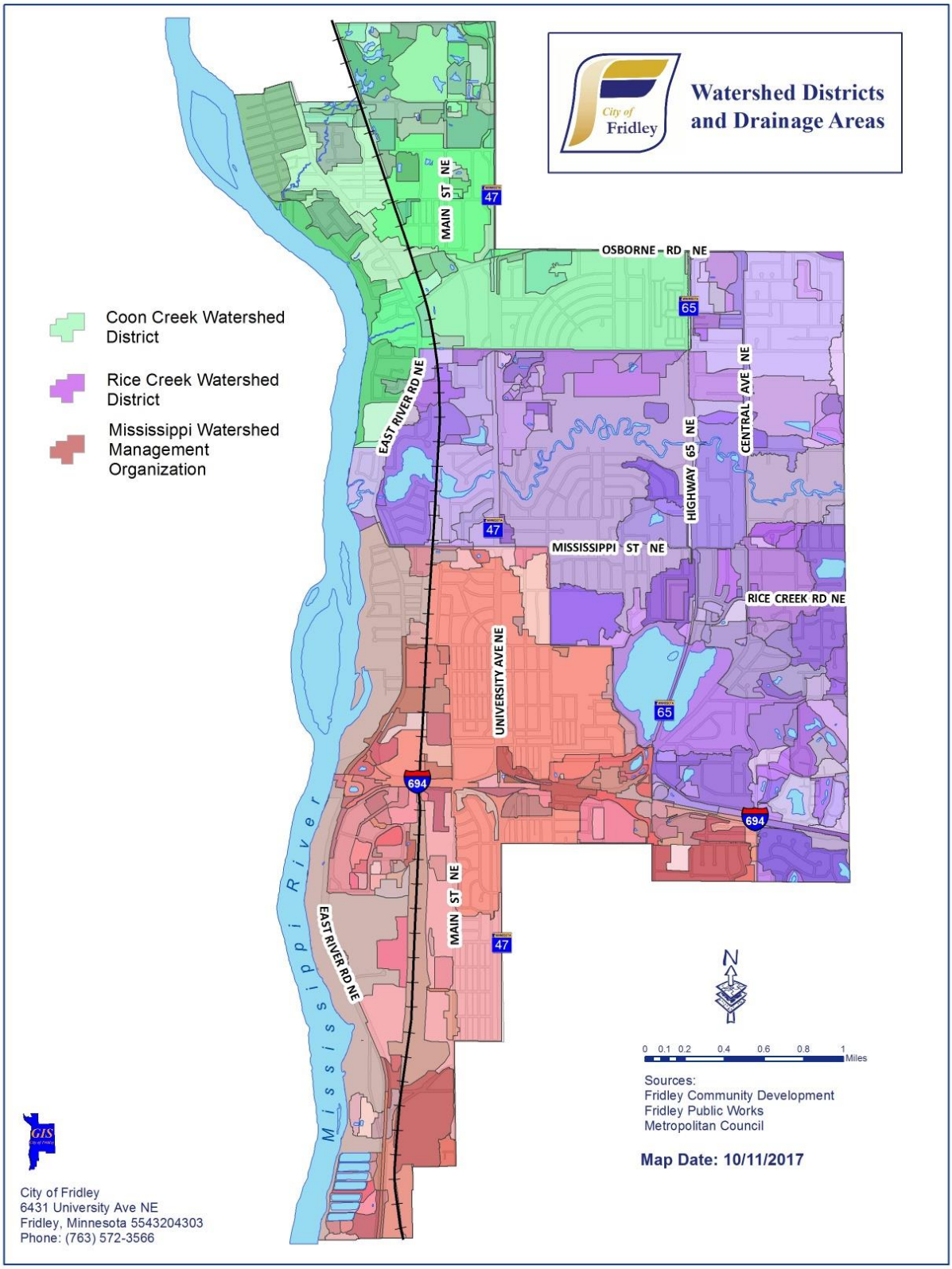

Figure 6.9 Coon Creek Watershed Drainage Areas

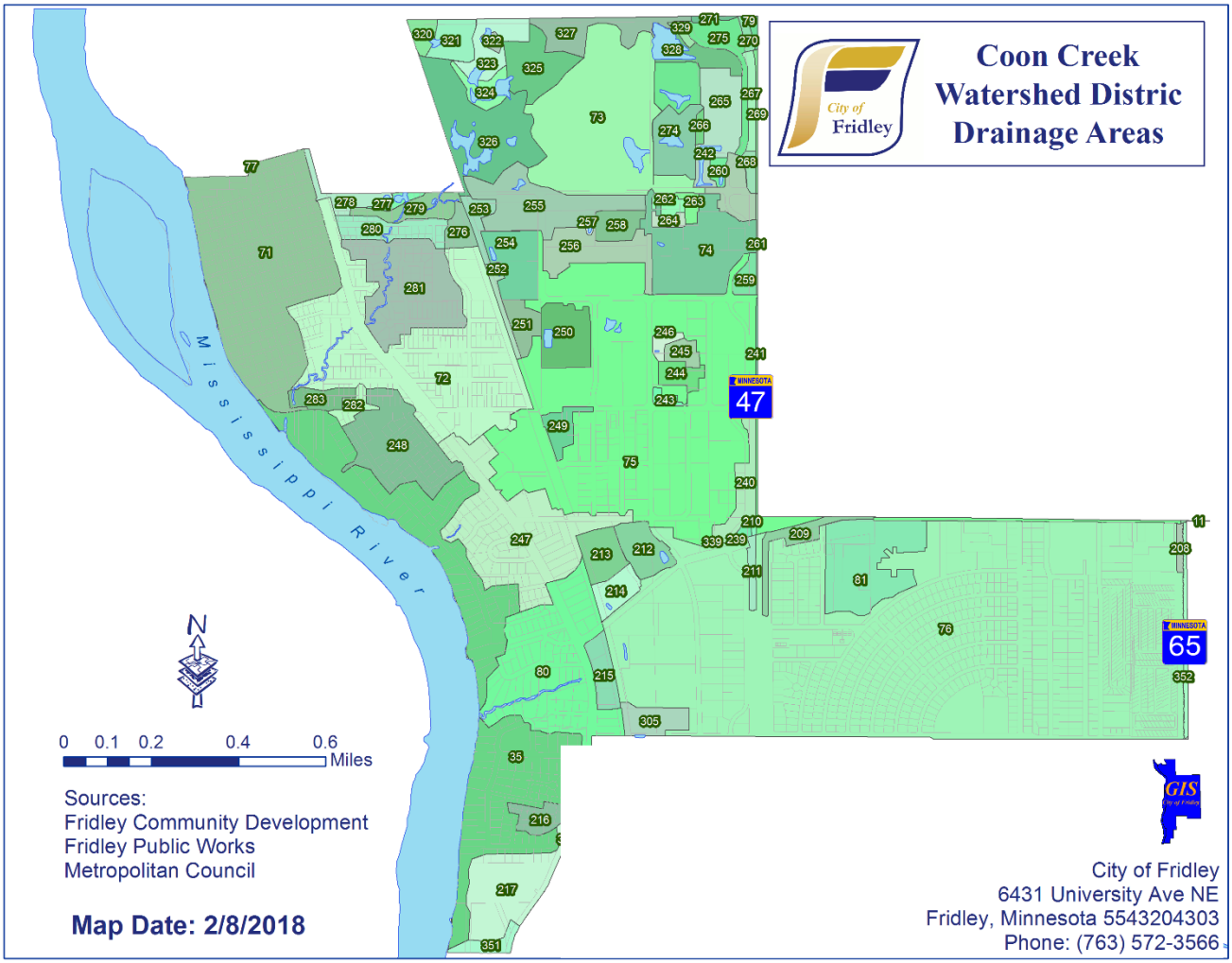

Figure 6.10 Rice Creek Watershed Drainage Areas

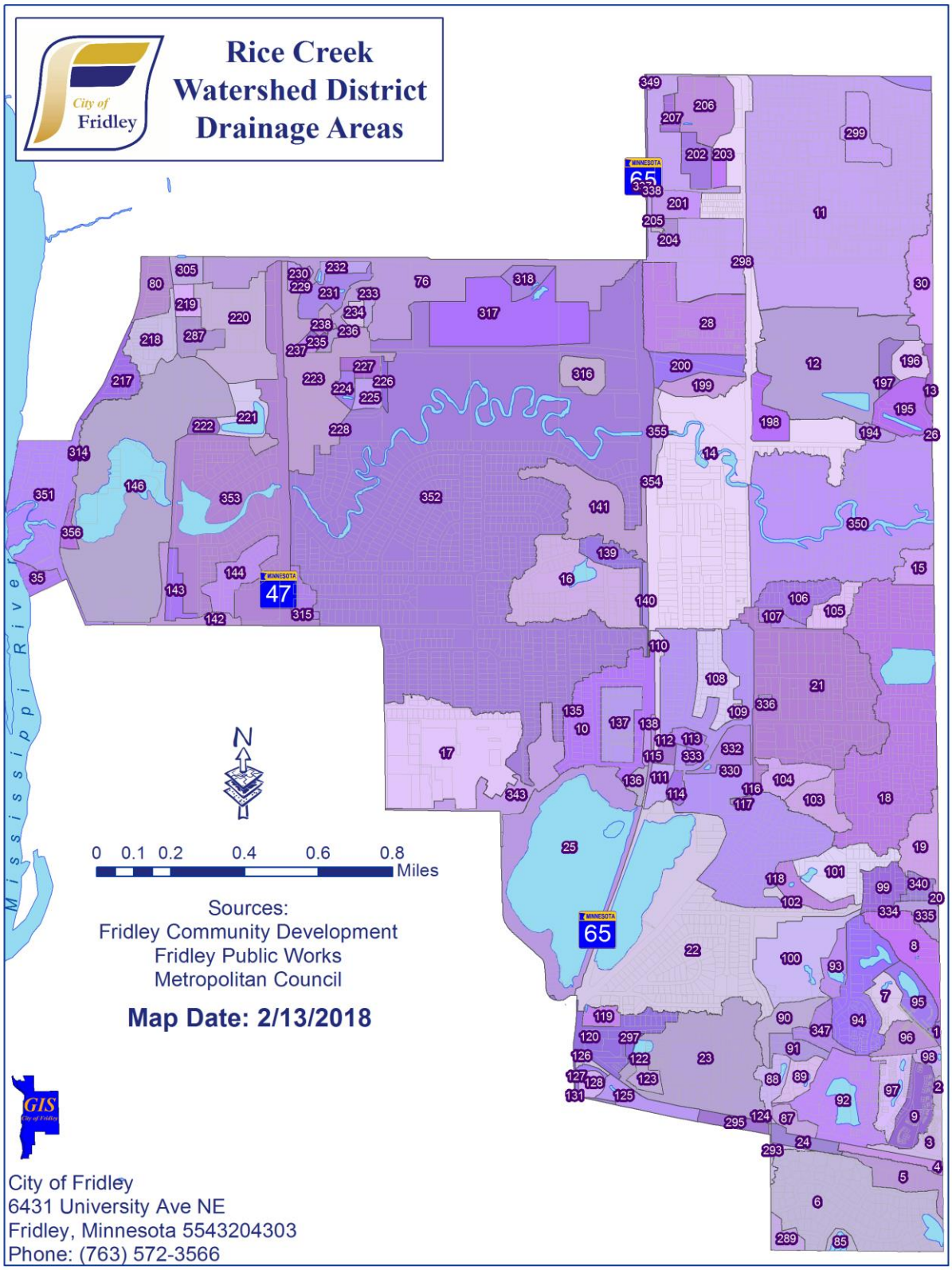

Figure 6.11 Mississippi Watershed Drainage Areas

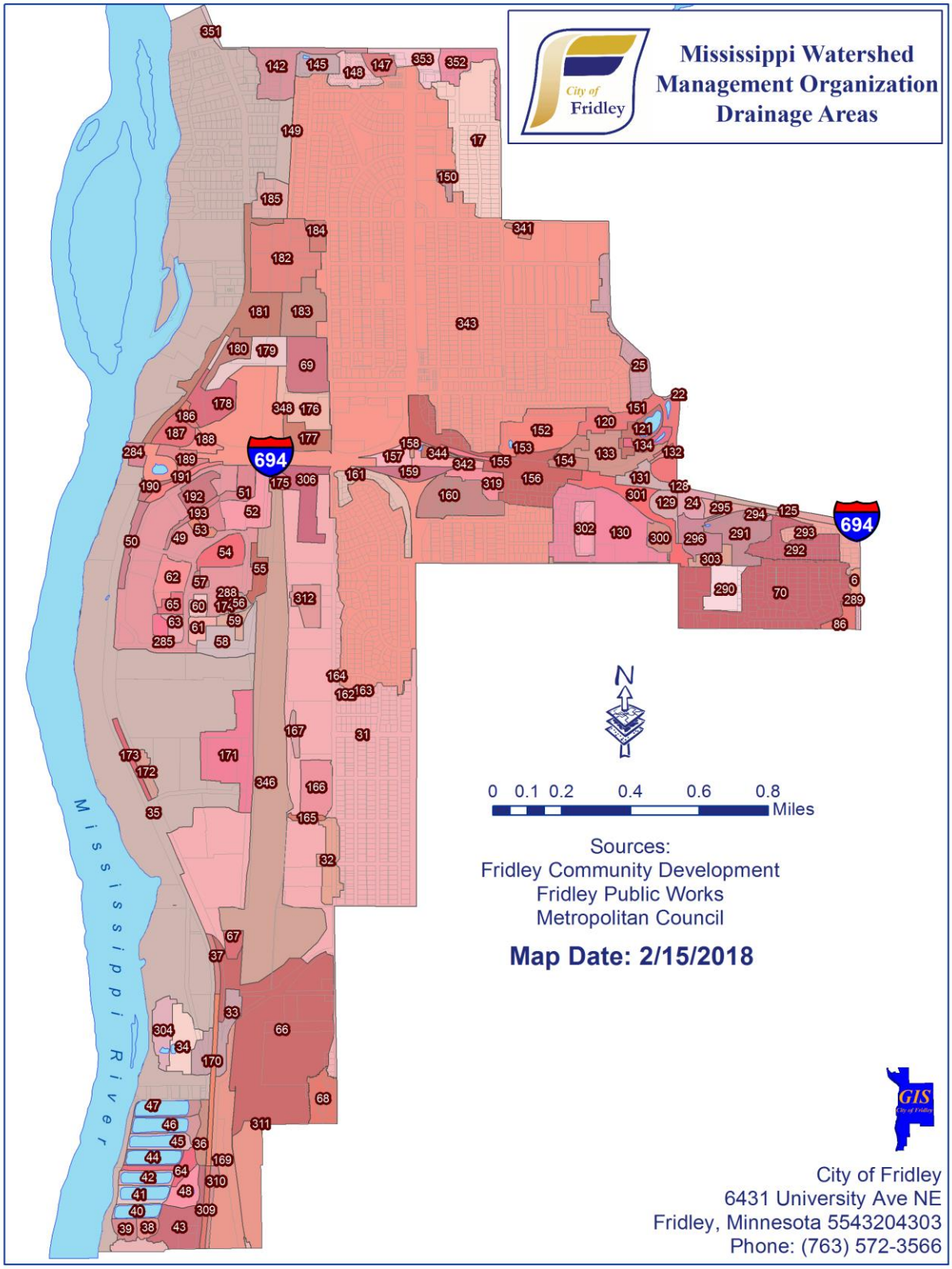

Figure 6.12 Wetlands, Floodplains, and Natural Drainage Routes

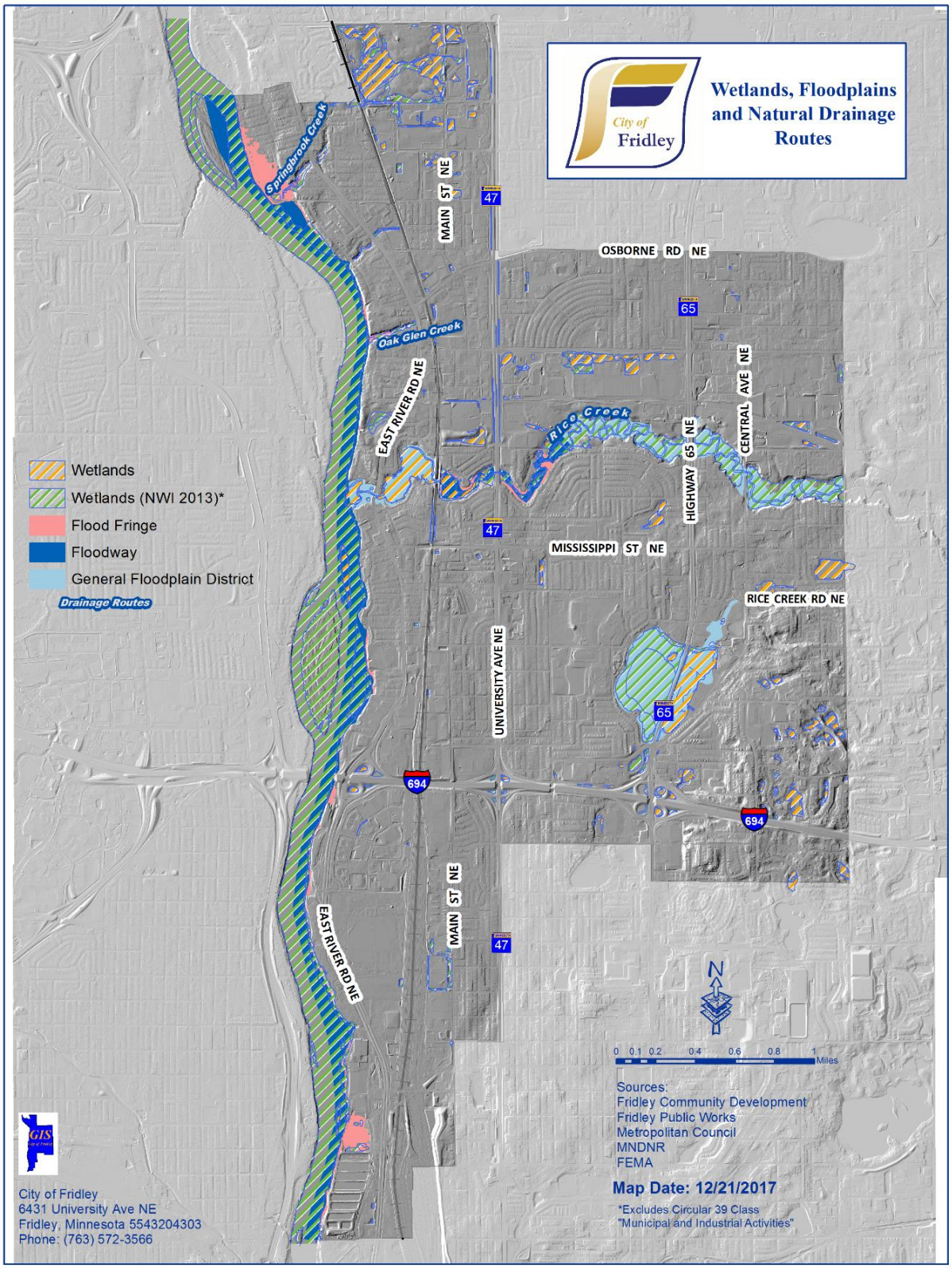

Figure 6.13 Parks

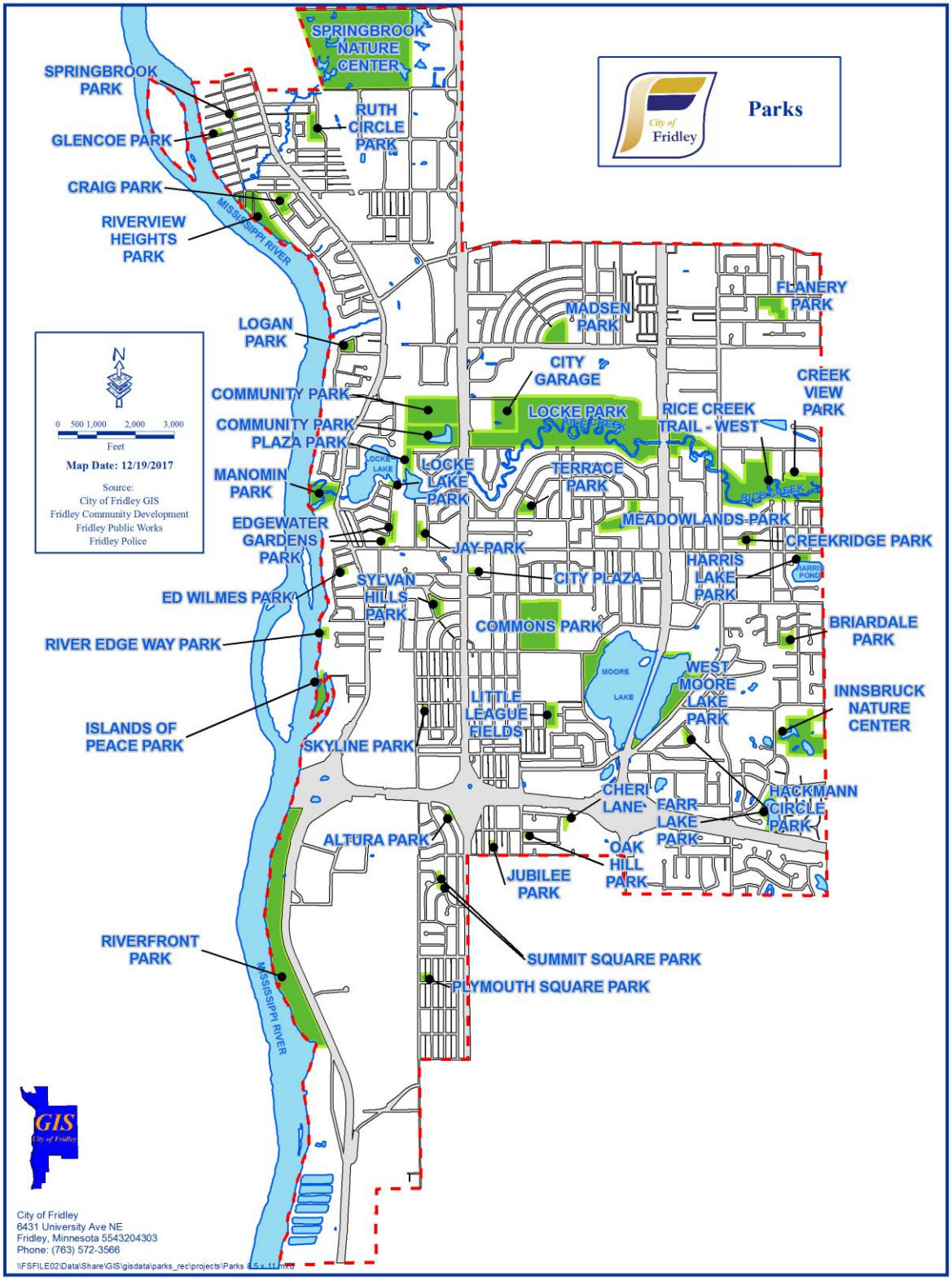

Figure 6.14 Stormwater Infrastructure

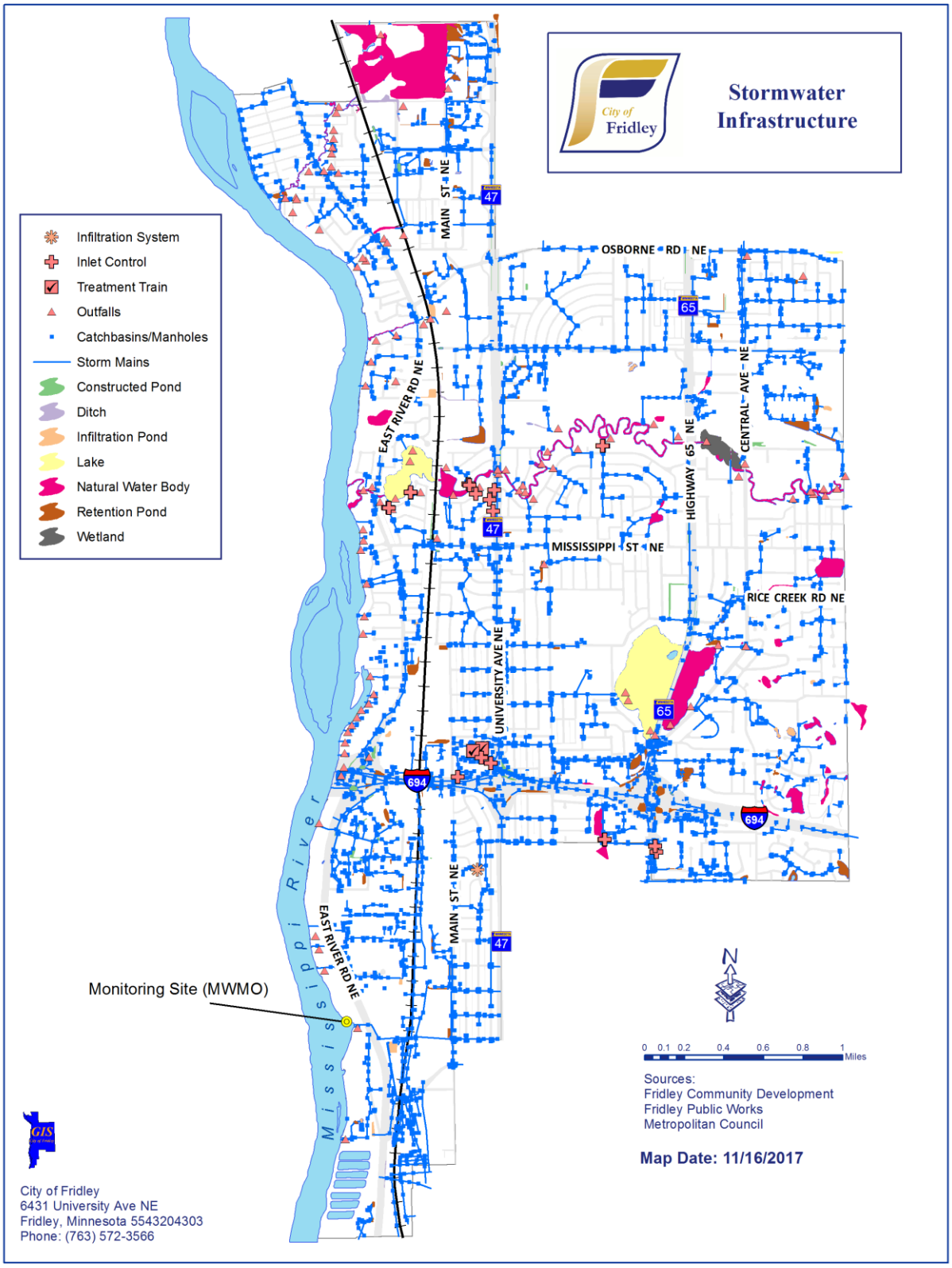

Figure 6.15 Rain Garden Locations

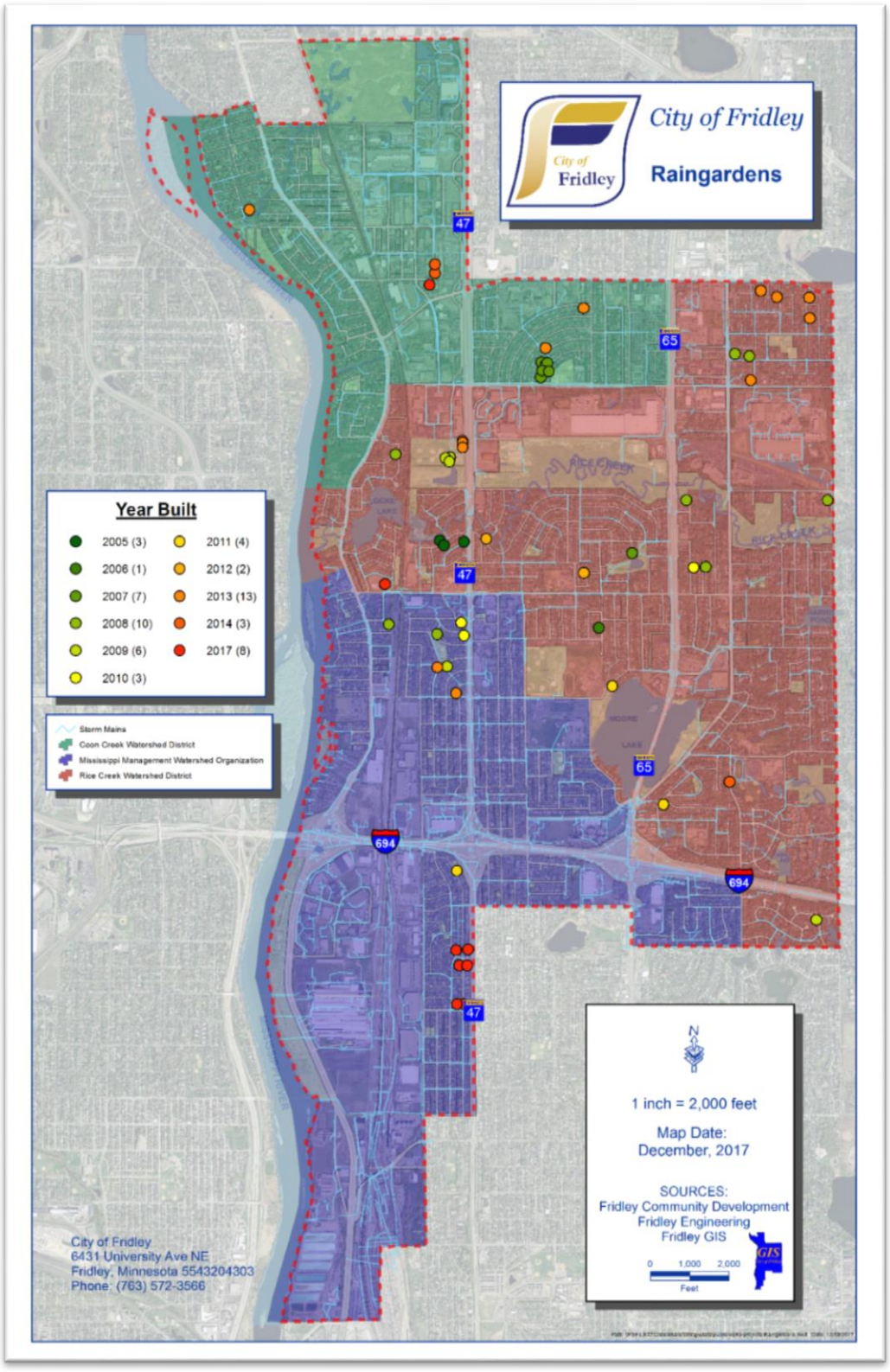

Figure 6.16 Surface Water and Groundwater Interaction

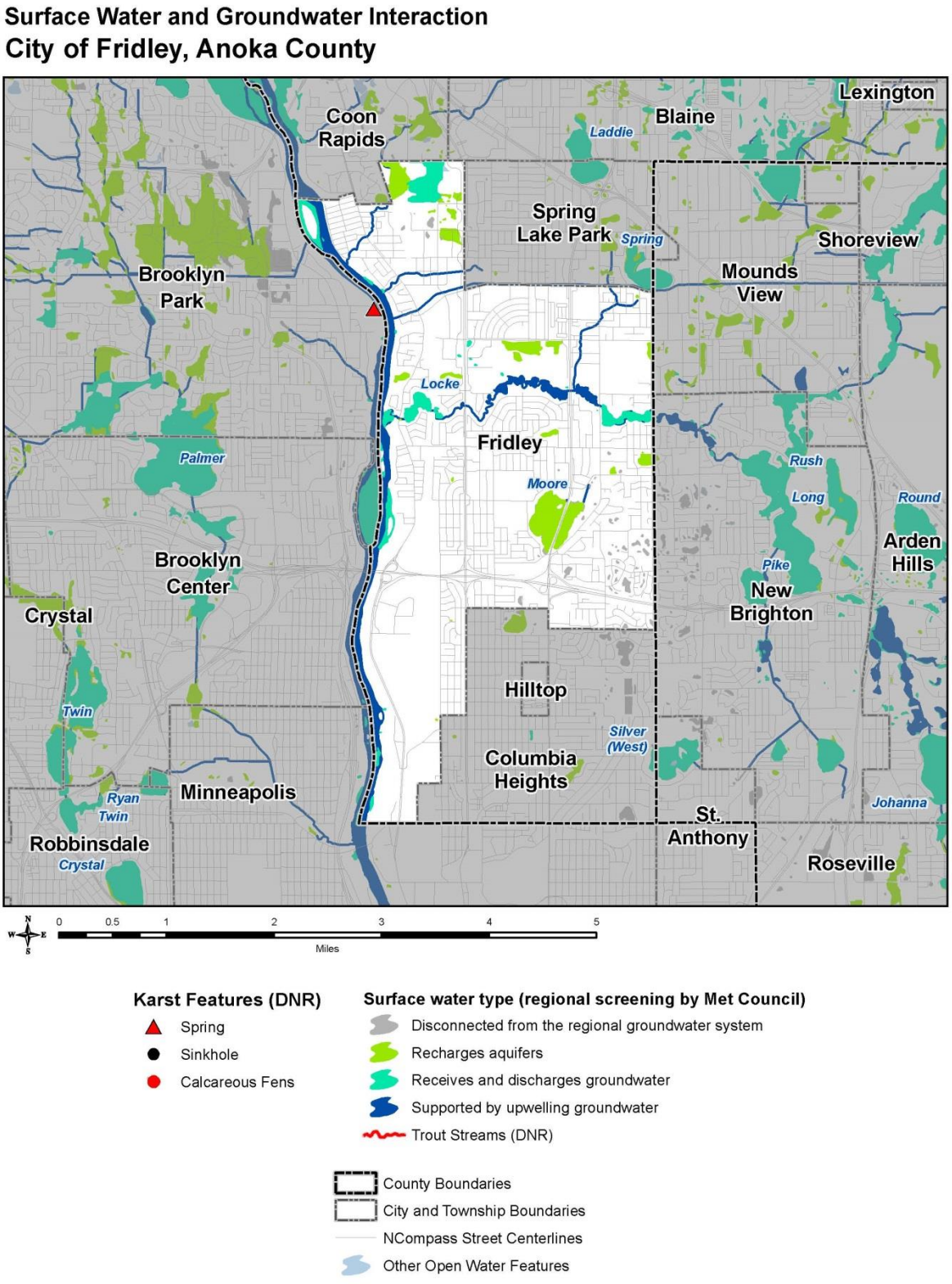

Figure 6.17 Drinking Water Supply Management Areas

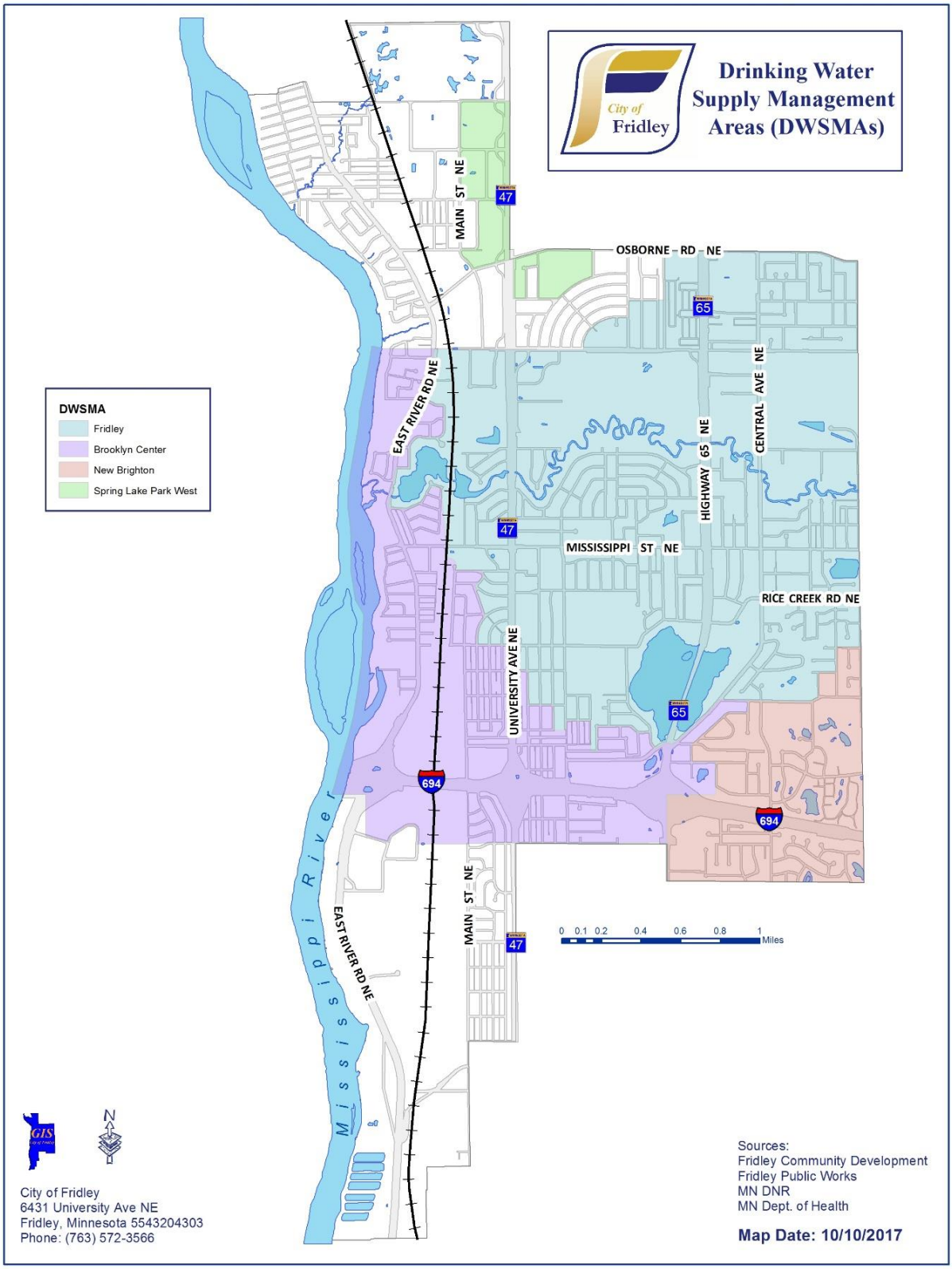

Figure 6.18 Implementation Focus Areas

Appendix B

MS4 SWPPP Application for Reauthorization *(Available Upon Request)*

Appendix C

City of Fridley Codes Related to Water Resources

(Available Upon Request)

Appendix D
MWMO Standards

3.1.3 THE MWMO'S STANDARDS LANGUAGE

1. **Stormwater Management Standards**
   a. Any project creating greater than one acre of land disturbance is subject to the standards below.
   b. The MWMO's Standards, or higher, must be adopted by local units of government and incorporated into their stormwater ordinance or other regulatory control.
   c. In order to reduce regulatory complexity, a member may request the MWMO to allow stormwater rules set forth by adjacent watershed management organizations to govern development so long as they can be shown to be substantially equal to or greater than the level of protection afforded by the MWMO Standards.
   d. Road mill and overlay project activities need only to comply with MWMO erosion and sediment control standards.
   e. See the land disturbance definition for activities that shall not be considered land disturbance for the purposes of determining permanent stormwater management requirements.

2. **Rate Control**
   Runoff rates for the proposed activity shall meet the member cities and MS4's runoff rate control requirements, using the member cities' and MS4's required critical storm events (as defined by Atlas 14 Volume 8 and/or subsequent revisions). Runoff rates for the proposed activity and pre-development shall be determined using an Atlas 14-based (nested, regional, state) rainfall distribution using NRCS-approved methodology.

   All area contributing to the practice shall be accounted for in the design of the rate control practice. This includes areas off site and beyond the public right-of-way that will be contributing to the practice.

3. **Water Quality / Volume Control**
   a. For nonlinear projects, without limitations, that disturb one or more acre of land, 1.1 inches of runoff from the new and fully reconstructed impervious surfaces shall be captured and retained on site.
   b. For linear projects on sites, without limitations, that disturb one or more acre of land, the larger of the following shall be captured and retained on site:
      i. 0.55 inches of runoff from the new and fully reconstructed impervious surfaces
      ii. 1.1 inches of runoff from the net increase in impervious area
   c. For projects on sites with limitations, the MWMO Design Sequence Flow Chart (Appendix Q) or a MWMO-approved alternative shall be used to identify a path to compliance through Flexible Treatment Options.
      i. The MWMO will develop a MOU with individual member cities and MS4's to address flexible treatment option #3 off site mitigation conditions.

4. **Volume Control Guidance (recommended procedures for volume control projects)**
   a. Infiltration volumes and facility sizes shall be calculated using the appropriate hydrologic soil group classification, ASTM Unified Soil Class Symbol, and design infiltration rate from Table B. Select the design infiltration rate from Table B based on the least permeable soil horizon within the first five feet below the bottom elevation of the proposed infiltration management practice. The information provided in Table B is intended to be used in the following manner:

i. For preliminary design purposes, refer to the NRCS soil survey to identify the hydrologic soil groups found on site. This information provides a preliminary indication of the infiltration capacity of the underlying soils.
ii. After volume control/infiltration practices have been located on the grading plans, perform soil borings in the exact location of the proposed practices and in the quantity as described in the Minnesota Stormwater Manual Wiki (Minnesota Pollution Control Agency, 2014) as amended. Soil borings should be logged using the USDA Soil Textural Classification System and the ASTM Unified Soil Class Symbol.
iii. The combination of all the aforementioned information will allow the designer to identify the appropriate design infiltration rate. As the Minnesota Stormwater Manual States, "these infiltration rates represent the long-term infiltration capacity of a constructed infiltration practice and are not meant to exhibit the capacity of the soils in the natural state". A permit applicant can submit field measurements and revised rates (using the correction factors provided in the Minnesota Stormwater Manual) if there is reason to believe the long-term infiltration rates will be other than the design infiltration rates provided in Table B.

b. A geotechnical investigation shall be performed in the location of the proposed volume control practices to confirm or determine underlying soil types, the depth to the seasonally high groundwater table, and the depth to bedrock or other impermeable layer.
c. Infiltration BMPs shall drawdown in the time specified in the Minnesota Stormwater Manual Wiki for that BMP, or less if required by another entity with jurisdiction. Drawdown time and maximum ponding depths are defined in the Minnesota Stormwater Manual Wiki.
d. Infiltration stormwater management practices must be designed to include adequate pretreatment measures before discharge of runoff to the primary infiltration area, consistent with the Minnesota Stormwater Manual Wiki.
e. Design and placement of infiltration stormwater management practices shall be done in accordance with the Minnesota Department of Health guidance called "Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas." (Final version to govern)
f. Specific site conditions may make infiltration difficult, undesirable, or impossible. Some of these conditions are listed in Table A. A more comprehensive list is provided in the MWMO Design Sequence Flow Chart in Appendix Q.

Table A: Site Conditions Considered Undesirable for Infiltration Stormwater Management Practices

Type	Specific Site Conditions	Submittal Requirements
Potential Contamination	Potential Stormwater Hotspots (PSHs)	PSH locations and flow paths, Remediation Alternatives Considered
	Contaminated Soils	State Permitted Brownfield Documentation, Soil Borings, Remediation Alternatives Considered, Site design alternatives considered
Physical Limitations	Low Permeability (Type D Soils)	Soil Borings
	High Permeability (soils infiltrating greater than	Soil Borings

	8.3 inches/hour)	
	Bedrock within 5 vertical feet of bottom of infiltration area	Soil Borings
	Potential Adverse Hydrologic Impacts (e.g., impacting perched wetland)	Documentation of Potential Adverse Hydrologic Impacts
	Seasonal High Groundwater within 5 vertical feet of bottom of infiltration area	Soil Borings
	Karst Areas	Soil Borings
	Steep Slopes	Steep Slope Determination
Land Use Limitations	Utility Locations	Site Map, Alternatives considered
	Zoning or Land Use Limitations (Parking, Density, Setbacks, etc.)	Alternatives considered, Documentation of Infeasibility
	Adjacent Wells within 200 feet or inside Wellhead Protection Area or Drinking Water Supply Management Areas (DWSMA)	Well Locations or DWSMA
	Building Foundation	Ten (10) feet

Source: Modified from Minnesota Pollution Control Agency Minimal Impact Design Standards Design Sequence Flow Chart, December 5, 2013

Note: the most recent version of the Minnesota Stormwater Manual should be used; Table A is provided as optional guidance to the cities

Table B. Design Infiltration Rates

Hydrologic Soil Group	Soil Textures[1]	ASTM Unified Soil Class Symbols	Rate
A	Gravel, sandy gravel, silty gravel	GW, GP, GM, SW	1.63 in/hr
	Sand, loamy sand, sandy loam	SP	0.80 in/hr
B	Loam, silt loam	SM	0.45 in/hr
		MH	0.30 in/hr
C	Sandy clay loam	ML	0.20 in/hr
D	Clay, clay loam, silty clay loam, sandy clay, silty clay	CL, CH, OH, OL, GC, SC	0.06 in/hr

Source: Minnesota Stormwater Manual Wiki, October 2014

Note: Design infiltration rates from the most recent version of the Minnesota Stormwater Manual should be used

1 Adapted from the U.S. Department of Agriculture, Natural Resources Conservation Services, 2005. National Soil Survey Handbook, title 430-VI.

5. **Maintenance**
   a. Practices must continue to perform as approved. Owners must follow an inspection and maintenance schedule that has been approved by the permitting entity and correct any post-construction performance issues that arise.
   b. All stormwater management structures and facilities, including volume reduction stormwater management practices, shall be maintained to assure that the structures and facilities function as originally designed. The maintenance responsibilities must be assumed by either the municipality's acceptance of the required easements dedicated to stormwater management purposes, or by the applicant executing and recording a maintenance agreement, or by another enforceable means acceptable to the LGU. If used, the recordable executed agreement must be submitted to the municipality prior to issuance of the project approval from the city." Public developments will require a maintenance agreement in the form of a Memorandum of Agreement or an approved Local Water Management Plan or in compliance with an MS4 Permit that details the methods, schedule, and responsible parties for maintenance of stormwater management facilities for permitted development. A single Memorandum of Agreement for each local government unit may be used to cover all stormwater management structures and facilities required herein, including volume reductions management practices, within the LGU's jurisdiction. This maintenance plan shall address snow management.

6. **Drainage Alterations**
   No person shall alter stormwater flows (resulting in an increase in stormwater flows or a change in existing flow route) at a property boundary by changing land contours, diverting or obstructing surface or channel flow, or creating a basin outlet, without first obtaining any necessary permits from the city..

7. **Bounce and Duration Control**
   a. The project must meet hydroperiod standards adapted from "Stormwater and Wetlands Planning and Evaluation Guidelines for Addressing Potential Impacts of Urban Stormwater and Snowmelt Runoff on Wetlands," (Minnesota Stormwater Advisory Group, June 1997), as follows:
      i. Wetland Susceptibility Class = Highly Susceptible; Permit Storm Bounce = Existing; Inundation Period for 2-Year event = Existing; Inundation Period for 10-year or Greater Event = Existing
      ii. Wetland Susceptibility Class = Moderately Susceptible; Permit Storm Bounce = Existing plus 0.5 feet; Inundation Period for 2-Year event = Existing plus 1 days; Inundation Period for 10-year or Greater Event = Existing plus 7 days
      iii. Wetland Susceptibility Class = Slightly Susceptible; Permit Storm Bounce = Existing plus 1.0 feet; Inundation Period for 2-Year event = Existing plus 2 days; Inundation Period for 10-year or Greater Event = Existing plus 14 days
      iv. Wetland Susceptibility Class = Least Susceptible; Permit Storm Bounce = No Limit; Inundation Period for 2-Year event = Existing plus 7 days; Inundation Period for 10-year or Greater Event = Existing plus 21 days

8. **Flood Control**
   Flood control for the proposed activity shall meet the member cities or MS4's flood control requirements. Member cities and MS4's flood control requirements should minimize property damage due to excess water.

9. Erosion and Sediment Control

a. Erosion and sediment control measures shall meet the standards for the General Permit Authorization to Discharge Stormwater Associated with Construction Activity Under the National Pollutant Discharge Elimination System/State Disposal System Permit Program, Permit MN R100001 (NPDES General Construction Permit), issued by the Minnesota Pollution Control Agency, except where more specific requirements are required.

b. Activity shall be phased to minimize disturbed areas subject to erosion at any one time.

c. All construction site waste—such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site—shall be properly managed and disposed of so they will not have an adverse impact on water quality.

d. If silt fence is installed it shall conform to sections 3886.1 and 3886.2, Standard Specifications for Construction, Minnesota Department of Transportation (2005 ed.), as it may be amended.

Appendix E Implementation Plan

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Wastewater

Wastewater

7.0 History

The majority of Fridley's sanitary sewer system was installed in the late 1950's and continued through the 1960s and 1970s. The sewer lines are almost completely made from vitrified clay pipe commonly used in the early decades of collection system development.

For the last four decades, the City of Fridley has found the City's sewer system to be adequate to serve the City into the future as little residential or commercial/industrial growth was predicted. With the City being fully developed, the only concern was maintaining the current, aging system. Current projections show the City's population surpassing that of the 1980's by 2040. This is the first time this has occurred, and it is due to projected higher residential housing densities in redevelopment projects. Employment is also projected to grow with some large business sites such as Northern Stacks, Medtronic, and Industrial Equities which are ready for redevelopment.

7.1 Purpose

The purpose of this chapter is to establish goals to maintain the City's sanitary sewer system to prevent backups and to extend the life of the system.

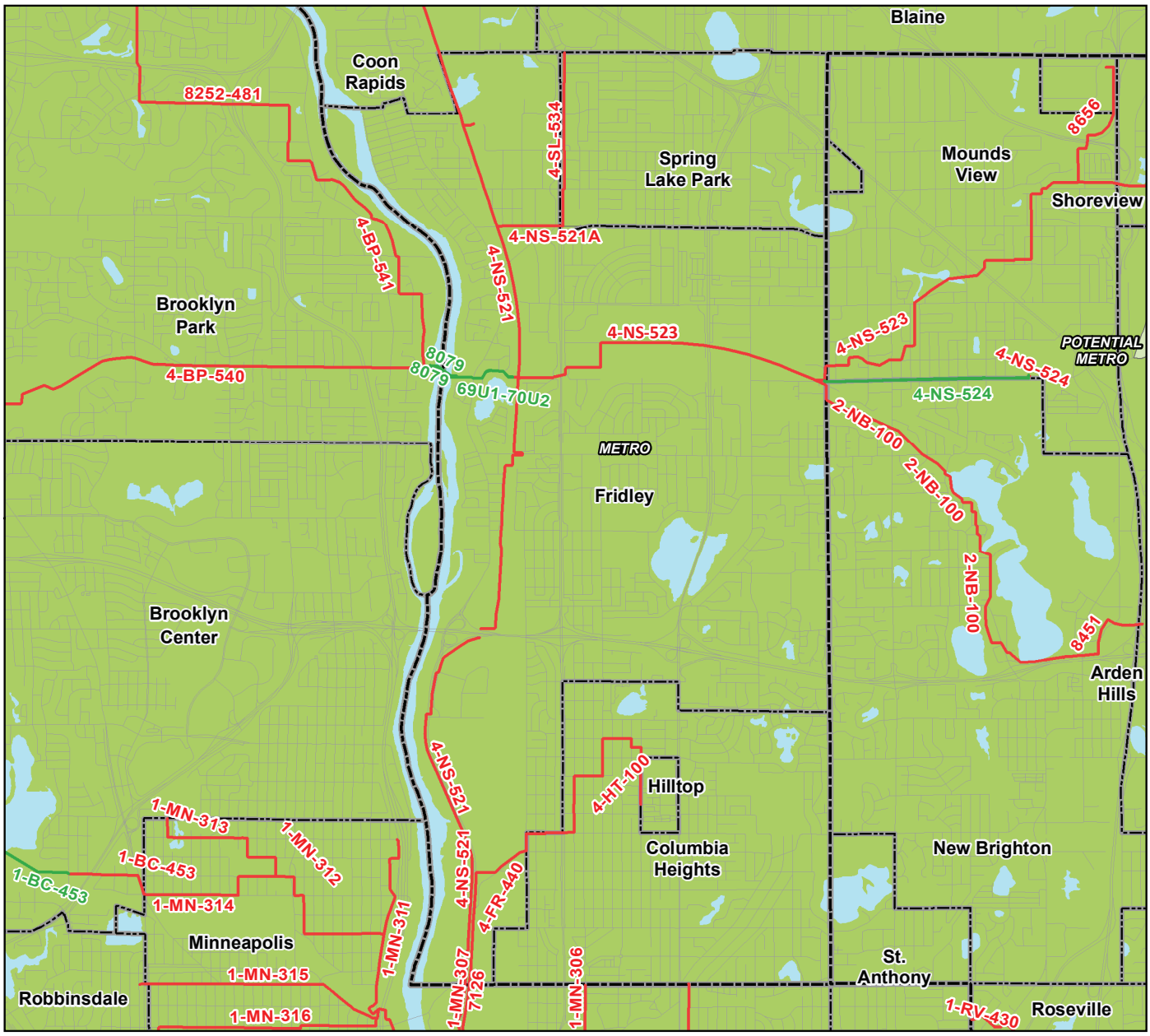
The City of Fridley has approximately 104 miles of sanitary sewer mains, 2360 sanitary manholes and 13 lift stations within its collection system. Policies identified in this chapter are intended to provide effective and efficient maintenance to the system. The City has developed and implemented policies that take into consideration public safety, budget and personnel.

7.2 Sanitary Sewer System Description

Regional System

Fridley is served by the Metropolitan Disposal System, owned and operated by the Metropolitan System, which is owned and operated by the Metropolitan Council. The wastewater flow from the City of Fridley is treated at the Metropolitan Wastewater Treatment Plant located in St. Paul. Three Metropolitan Council Environmental Services (MCES) interceptors convey wastewater generated by the City of Fridley, and passing through Fridley from the west, north and east, to interceptor 7126. These three interceptors in Fridley are referred to as the 4-FR-440, 4-NS-521, and 4-NS-523 interceptors.

Figure 7.1 Regional Wastewater System Long-Term Service Areas



Existing Interceptors

- Gravity
- Forcemains
- County Boundaries
- City and Township Boundaries
- NCompass Street Centerlines
- Lakes and Rivers

Treatment Plant Service Areas

	Current	Potential
Rural Centers		
Metro		
Blue Lake		
Seneca		
Empire		
Eagles Point		
St. Croix Valley		
Hastings		
Rogers		
East Bethel		

- Shakopee Mdewakanton Sioux Community
- Scott Co. Urban Expansion
- Scott Co. Rural Center Expansion
- Wildlife Mgmt. Area

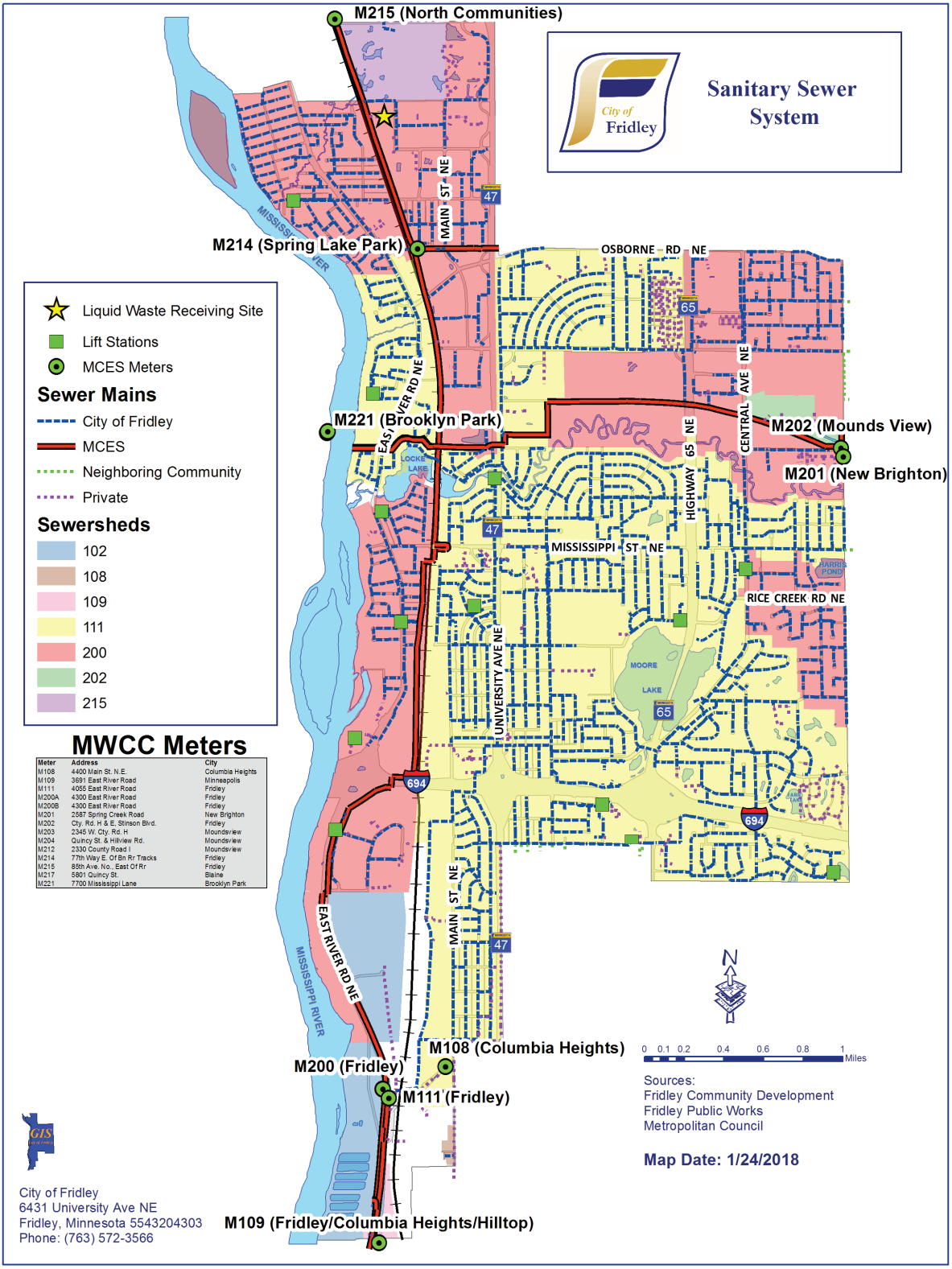
Orderly Annexations

- Rural Centers Pre-2030
- Blue Lake Pre-2030
- Rural Centers Post-2030
- Blue Lake Post-2030
- Empire Post-2030

City System

The City of Fridley owns and operates a separate sanitary sewer system that consists of approximately 542,750 linear feet of pipe varying in size from 4-inch diameter to 33-inch diameter. Mains are all essentially 8-inch diameter and larger. The system also includes approximately 2,350 manholes. The sanitary sewer system is a partially gravity flow system, which is possible due to the depth of the MCES interceptors. However, Fridley's sanitary sewer system also includes 13 sanitary lift stations that pump wastewater flows from localized areas to the gravity system. The locations of the lift stations are shown in Figure 7.2. The average wastewater flow for the City in 2016 was 4.8 million gallons per day.

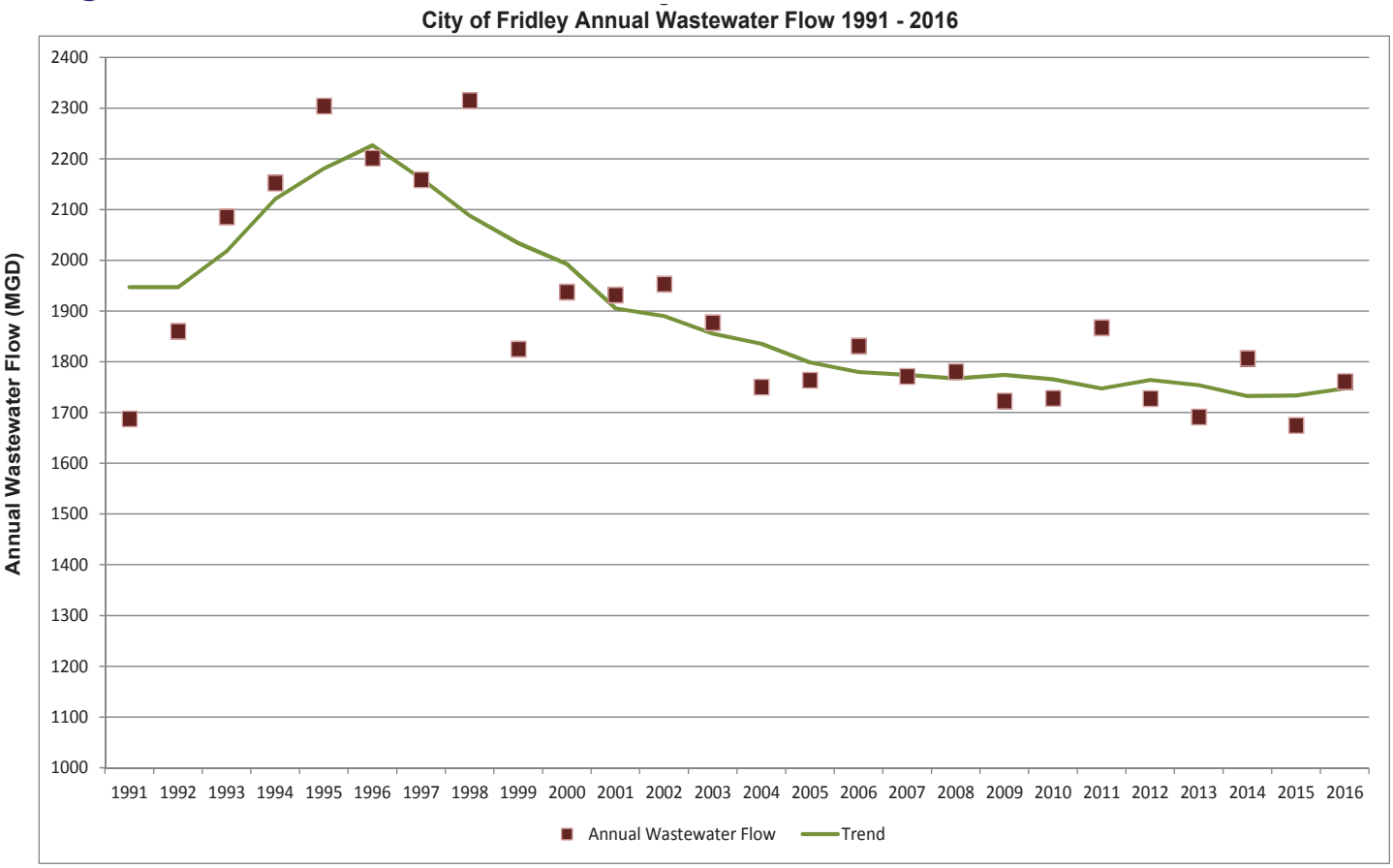
Figure 7.2



As illustrated by Figure 7. 3, overall sanitary sewer flow has peaked in the late 1990s and has had significant reductions through 2011. Sanitary sewer flows have leveled off since that time. There remains an excess amount of inflow/infiltration that the City should prioritize in addressing to reduce flows into a range allowing normal inflow/infiltration (see Figure 7.8).

Based upon the current Metropolitan Council projections for population, households and employment, the existing sanitary sewer system in Fridley is adequate to serve projected residential and commercial/industrial growth through the year 2040.

Figure 7.3



7.3 Projected Wastewater Flow Volume

The projected wastewater flows for the years 2020, 2030, and 2040 are based on the following assumptions:

Residential Wastewater Flow

Projected population multiplied by a unit wastewater generation figure of 75 gallons per capita per day (gpcd).

Figure 7.4 Projected Population Data

Year	2010	2020	2030	2040
Population	27,208	29,300	31,600	32,500
Households	11,110	12,200	13,300	13,600
Employment	21,333	23,700	24,900	26,100

Commercial/Industrial Flow

Projected developed acres multiplied by a unit wastewater generation figure of 1,350 gallons per acre per day (gpad). Commercial and industrial development is the basis of the following development projections:

Figure 7.5 Land Development Projections

Year	2017	2030	2040
Acres Developed Commercial/Industrial Land	1,623	1,645	1,645
Acres Available Vacant Land	108	36	36

In 2017, only 108 acres of vacant commercial/industrial land remained undeveloped. For purposes of projecting wastewater flow, it has been assumed that two thirds of this acreage will be developed by the year 2030. Population and household projections can be found in Figure 6 on the Demographics section of this plan on p. 20.

With the exception of water used for such outdoor purposes such as lawn sprinkling, garden watering, and car washing during the summer months, water consumed is returned to the sanitary sewer system as wastewater. Water consumption is, therefore, a predictor of wastewater generation. Wastewater flow projections should be based on the average daily water consumption unit values.

Figure 7.6

2040 Plan Wastewater Flow Projections			
	Projected Wastewater Flow In MGD		
	2020	2030	2040
Total for City of Fridley			
Residential: (population x 75 gpcd)	2.20	2.37	2.44
Commercial / Industrial: (developed acres x 1,350 gpad)	2.19	2.22	2.22
Total Flows	4.39	4.59	4.66
City of Fridley Service Area 1			
Residential: (population x 75 gpcd)	0.60	0.64	0.66
Commercial / Industrial: (developed acres x 1,350 gpad)	0.60	0.61	0.61
Total Flows	1.19	1.25	1.27
City of Fridley Service Area 2			
Residential: (population x 75 gpcd)	1.60	1.73	1.78
Commercial / Industrial: (developed acres x 1,350 gpad)	1.59	1.62	1.62
Total Flows	3.19	3.34	3.39

Note: "gpcd" refers to gallons per capita per day while "gpad" refers to gallons per acre per day.

Figure 7.6 projects wastewater flows for the years 2020, 2030, and 2040 based on the population projections, estimates of commercial and industrial land use and the unit wastewater generation values that were presented in this section.

These are additionally broken down by the two service areas shown in Figure 7.6 on the left.

Figure 7.7

Capacity and Design Flows for Existing Sewers/Lift Stations

Lift Station	Lift Station Capacity	Estimated Flows			
		Avg Flow	2020 Peak Flow	2030 Peak Flow	2040 Peak Flow
Apex	0.432	0.099	0.296	0.310	0.314
Locke	0.144	0.010	0.031	0.032	0.033
Georgetown	0.173	0.013	0.038	0.040	0.041
Innsbruck	0.158	0.011	0.034	0.036	0.037
Embers	0.288	0.049	0.146	0.153	0.155
Wickes	0.864	0.418	0.702	0.734	0.745
62nd Ave	0.612	0.159	0.318	0.333	0.338
Vets	0.173	0.015	0.044	0.046	0.047
Sylvan	0.288	0.047	0.142	0.149	0.151
64th Ave	1.008	0.575	0.966	1.010	1.026

7.4 Infiltration and Inflow

Infiltration and inflow is clear water that enters a sanitary sewer system. Because it is clear water that does not have to be treated, it should be excluded from the sanitary sewer system to reduce conveyance and treatment costs.

Infiltration is groundwater which enters the sanitary sewer system from such means as defective pipe joints, manhole walls, and broken pipes.

Inflow is stormwater which enters the sanitary sewer system from such sources such as roof leaders, cellars, yard and foundation drains, and through manhole covers.

The City has established the following strategies to identify sources of inflow/infiltration:

- Smoke Testing Program-identify opportunities for I/I mitigation on private sewers
- Lateral Service Televising- identify opportunities for I/I mitigation on private sewers
- Televising of Main Lines- identify opportunities for I/I mitigation on City mains
- Flow Metering and Monitoring- identify opportunities for I/I mitigation on City mains and private sewers

Strategies used to reduce inflow/infiltration in the City of Fridley's Sanitary Collection System currently include:

- Sanitary Sewer CIPP Main Line Lining
- Sanitary Sewer CIPP Short Liners
- Sanitary Main Line Grout Injection
- Sanitary Sewer Reconstruction/Replacement
- Sanitary Manhole Sealing
- Sanitary Manhole Structure Rehabilitation
- Sanitary Manhole Structure Reconstruction/Replacement

Strategies used to reduce inflow/infiltration in private sewers include:

- City provided lateral televising program for residents
- Smoke testing in areas indicating high flows or groundwater intrusion
- Enforcement of sump pump and foundation drain ordinance prohibiting discharge to sanitary sewer
- Televising service laterals in annual street reconstruction project and sanitary sewer project areas
- Facilitation of Met Council Grants for residential service lateral repairs/replace program to reduce I/I
- Sewer lateral repair financing program (voluntary assessment)
- Public Outreach and Education (e.g. sewer service maintenance door hangers)
- Voluntary Inspections (current) and Point of Sale Inspections (future implementation)

Figure 7.8 Inflow and Infiltration Estimate

	Flow MGD
2016 Flow:	
1747.7 million gallons	4.788
Residential Flow Estimate (includes base I/I):	
75 gpcd * 28,547	2.141
Commercial Flow Estimate (includes base I/I):	
1350 gpad * 1,623	2.191
Total Estimated Flow:	4.332
Excess Inflow/Infiltration:	0.456
	10.5%

Note: Data is from 2016

Figure 7.9

Estimated Percentages of Wastewater Volume			
Flow Type	**2020 Flow (MGD)**	**2030 Flow (MGD)**	**2040 Flow (MGD)**
Residential	45.3%	46.7%	47.4%
Commercial	45.2%	43.8%	43.1%
Excess Inflow/Infiltration			
City of Fridley	5.6%	5.6%	5.6%
MCES	3.9%	3.9%	3.9%

7.5 Septic Systems

The Fridley City Code requires that all properties be connected to the sanitary sewer system. There are no known individual sewage treatment systems (ISTS or septic systems) in the City of Fridley. When a property is discovered to not be connected to the municipal sewer system, the City ensures they are brought into compliance. If there is a financial hardship, the City can offer an emergency loan or five year assessment.

Figure 7.10 Future Connections to Sanitary Sewer

Forecast Year	Forecast Component	Population	Households	Employment
2010	MCES Sewered	27,208	11,110	21,333
2010	Unsewered	0	0	0
2020	MCES Sewered	29,300	12,200	23,700
2020	Unsewered	0	0	0
2030	MCES Sewered	31,600	13,300	24,900
2030	Unsewered	0	0	0
2040	MCES Sewered	32,500	13,600	26,100
2040	Unsewered	0	0	0

7.6 Sanitary Sewer System Maintenance

This section outlines the projects designed to improve and maintain the City's sanitary system since the 2030 Comprehensive Plan update. It also serves as a more detailed explanation of objectives listed in Section 7.8.

In 1995, the City commissioned a lift station evaluation study of the City's 13 lift stations. The study outlined corrective measures for each of the lift stations to extend their service life for an additional 15 to 20 years. Following the study, the City of Fridley began a phased program to upgrade each of the lift stations. Five lift stations have been completely retrofitted with new lift stations. Mechanical repairs consisting of new valves and check valves, new motors, motors rebuilt, have taken place in six other stations. All of Fridley's lift stations are now furnished with pressure sensitive and radar transducers. The installation of the transducers has eliminated the older style pump controls, compressors and bubbler system, essentially replacing all of the old electrical panels. All lift stations are monitored by a SCADA (system control and data acquisition) computerized system, which provides up to the minute data, as well as monitors for alarms. SCADA was updated with new software and radio upgrades in 2014. In 2017, the City of Fridley contracted to complete a lift station needs assessment for future planning, improvements, and cost analysis for budgetary purposes.

In July of 2004, the City's Sewer Department purchased a main line televising camera. This camera has been used for televising all street projects and televising in the City's general cleaning areas. The Sewer Department now has a software program that has been incorporated with the televising equipment. The software program is a valuable tool as it allows for a complete database of all televising reports. All of the data is now stored on internal and external hard drives.

In June of 2014, the City's Sewer Department purchased a new service lateral camera. The service lateral camera is used to televise private sewer laterals in street projects as well as for individual residents that have constant sewer issues. Televising service laterals also addresses infiltration issues. The service line televising has been an ongoing program since 2000.

The Sewer Department has a very aggressive sewer cleaning program implemented over the past several years. The City's sanitary sewer system is divided into five areas based on flow characteristics; it is the Sewer Division's objective to clean the five areas within a two-year period. The Sewer Department has met these goals since the year 2000 when the maintenance program changed operations and maintenance guidelines. These changes have greatly reduced the number of sanitary sewer overflows.

The Sewer Department has replaced and added many new pieces of equipment and tools that have allowed the City to be much more efficient and capable of reaching department goals.

The City purchased a new jetting machine in 2018, a new main line televising system in 2004, and new software program for televising in 2014. A new service line camera was purchased in 2014. The City purchased a combination sewer jet/vacuum cleaner and hydro excavator in 2014.

The City of Fridley contracts for rehabilitation of sanitary main lines. Since 1996, the City has utilized CIPP (cured in place lining) to address aging infrastructure. In 2018, the City of Fridley will be completing a $1.2 million lining project.

One of the City's stated policies for maintenance of the existing sanitary sewer is:

"The City should continue to systematically inspect sanitary mains and service lines in residential paving program areas."

The City recognizes the importance of maintaining its sanitary sewer system and the need to exclude infiltration/inflow, as addressed in Section 7.4. The activities outlined above are indicative of the on-going efforts of the City since 2000.

Regional Maintenance

Metropolitan Council Environmental Services (MCES), operator of the metro-area wastewater collection and treatment system, is making improvements to approximately 2.8 miles of aging and deteriorating regional sanitary sewer facilities that serve homes and businesses in Fridley. There were no direct costs or special assessments for this work on the north area interceptor project in Fridle

7.7 Policies

There are several policies that have been established to guide how Fridley's sanitary sewer collection system can help maintain the vision of keeping Fridley *safe, vibrant, friendly, and stable:*

Use available technology to ensure every property in the City is connected to the sanitary sewer system and accurately paying for the service they receive.

Continue use of advanced technology as a preventative measure for sewer maintenance of the community.

Continue to clean sanitary sewer main lines on a two-year (or less) rotation.

Televise sanitary mains and inspect structures prior to road reconstruction. Rehabilitate sanitary mains and manholes in conjunction with projects based on condition assessment.

Televise sanitary sewer laterals for residents assisting property owners with condition assessment and make suggestions for repairs and maintenance.

Utilize best available technologies to identify and reduce inflow and Infiltration (e.g. City-owned CCTV equipment, structure and main CIPP lining, etc.)

7.8 Goals and Objectives

It is the overall goal of the City to provide sanitary sewer collection services that maintain the vision of Fridley remaining a *safe, vibrant, friendly, and stable* community for families and businesses.

The objectives to accomplish that goal are:

1. Maintain an adequate sanitary sewer collection system
2. Maintain a cost effective sanitary sewer collection system
3. Balance the needs of growth, environmental protections, public safety, and health in the management of the sanitary sewer collection system

7.9 Action Steps and Summary

The following conclusions and action steps have been developed based upon the current data and system conditions.

Sewer charges are based upon water usage. The City of Fridley has converted residential water meters to automatic readers with new flow meters, which allows the City to more accurately charge sewer rates, based upon water usage levels. The remote reading capabilities are currently in commercial and industrial properties as well, however, their meters are up to several decades old and likely less accurate.

Action Step: Install new water meters with updated automatic reading capabilities in commercial and industrial properties in order to charge more accurate sewer rates, based upon usage, as the City does for residential properties.

The City recently conducted a rate study for water and sewer rates. Regular analysis of rate structure and sustainability of rates is important to provide a utility that is resilient.

Action Step: The City should conduct a water/sewer rate study every five years to review rate structure and provide rates that incorporate sustainable capital planning and promotion of conservation.

The City has established a minimum reserve funding policy for its utilities, which is directly relative to its annual operating budget and planned capital expenditures. This reserve provides for a utility that can meet its objectives without drastic rate changes.

Action Step: The City should review and meet its reserve funding policy annually using the best cost projections available.

By the year 2050, the City's sewer system will be 100 years old, which is at the expected life of this infrastructure. While ideally the entire system would be replaced at this time, rehabilitation methods can extend the life of carefully selected infrastructure elements.

Action Step: The City shall replace or rehabilitate 50% of the sanitary sewer system by the year 2050.

The City has established a goal to mitigate inflow and infiltration where practical and cost effective. This is currently done through programs such as sump pump inspections, smoke testing, flow testing, and CCTV inspections, which are authorized legislatively and through department policy.

Action Step: The City should maintain and regularly update its inflow/infiltration mitigation program to mitigate excess system flows and reduce long-term costs to ratepayers.

One way the City can help prevent failures of the sewer services and reduce inflow-infiltration is to inspect private connections.

Action Step: Investigate feasibility of point of sale inspections on private sewer connections, including providing financing options in case property owners cannot afford to make necessary improvements.

It is imperative to ensure sufficient capacity is available in its interceptors and trunk lines owned and operated by the City and Met Council.

Action Step: The City should partner with Met Council to ensure that the interceptors and trunk lines serving the City are capable of handling peak flows to avoid bypass events.

Summary

Fridley is served by the regional wastewater system that is owned and operated by the Metropolitan Council. Three Metropolitan Council Environmental Services interceptors convey wastewater generated within the City of Fridley and pass large flows from other communities through the City of Fridley. To manage Fridley's generated sanitary sewer flows, the City owns and operates a sanitary sewer collection separated system from storm sewers. The existing sanitary sewer collection system is adequate to manage the projected residential and commercial/industrial growth through the year 2040. Close coordination with the Metropolitan Council Environmental Services is recommended to ensure that interceptors passing through Fridley are adequately maintained and provide sufficient capacity to the City of Fridley through the year 2040.

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Economic Competitiveness

The City of Fridley strives to maintain a coordinated relationship with our local residents and businesses and in doing so strengthen the community by assisting industries to find workers that match their needs.

Northern Stacks at Dusk

Economic Competitiveness

8.0 Introduction

The City of Fridley is a bustling community with an abundance of employment opportunities. Fridley's proximity to Minneapolis, as a first ring suburb, and convenient transportation options make it a strong business community. The City thrives on employment sectors in manufacturing, research, and design. Looking forward, Fridley will need to focus on retaining advanced employment opportunities, continuing to build relationships with businesses, connecting educational institutions with business needs, revitalizing underused sites, and building a sustainable environment to maintain and improve Fridley's position as an economic competitor.

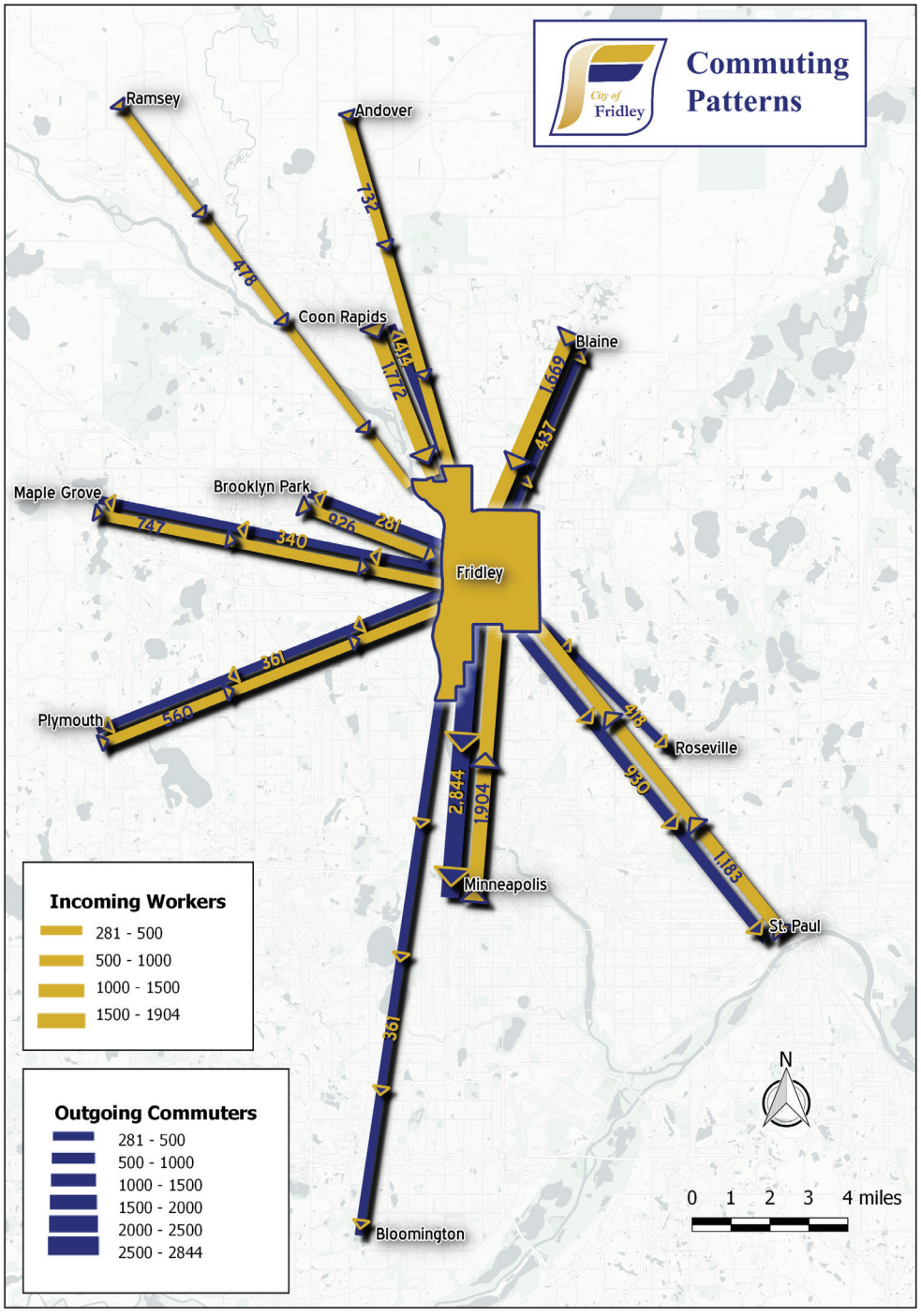
8.1 Fridley's Economic Profile

The City of Fridley has an abundance of employment opportunities; in fact jobs outpace the number of Fridley residents in the workforce by approximately 7,600.

While there are 22,709 jobs only 1,388 are held by Fridley residents. Most Fridley employees come from surrounding suburbs. Residents leaving the City to get to work travel an average of 23 minutes which is equal to the state average. The average commute time in Anoka County is 5 minutes longer.

The distance people are commuting to work and where they are commuting from has an impact on the transportation demands of the community. This also poses a challenge for public transportation which focuses on getting workers to and from central cities.

Figure 8.1



Fridley Industries

The number of jobs in Fridley is a direct result of the City's vast business footprint. Manufacturing plays a key role in Minnesota industry and especially in Fridley where 35% of the jobs in the City are in manufacturing. Currently this sector is facing a workforce shortage as many workers begin to retire. There is also a negative perception of manufacturing which inhibits the younger generation from pursuing jobs in this field. Over the next 10 years Minnesota is expected to see 6.3% growth in machinist positions.

Manufacturing Jobs

The business dynamic in Fridley is also shaped by large employers such as Medtronic, BAE Systems, Minco, and Cummins which continue to attract complementary business to the community. Businesses contribute to the day-time population of the City and increase spending at nearby retail centers. Businesses choose Fridley because of the proximity to the Twin Cities, multimodal transportation options including a robust roadway network, business friendly environment, and strong community vibe. Despite Fridley's success in attracting industry, there is a lack of retail employment. More residents are employed in retail, than there are retail jobs offered in Fridley. The City also faces outdated retail buildings and vacancies.

Figure 8.2 Fridley's Top 10 Employers

Rank	Employer	Employees
1	Medtronic	3,464
2	Cummins Power	1,210
3	Unity Medical Center	1,138
4	Target	696
5	BAE Systems	600
6	ISD#14 (Fridley Schools)	580
7	Minco Products	515
8	Walmart	312
9	Kurt Manufacturing	295
10	Treehouse Foods	206

*Source: City of Fridley 2016 CAFR *Note: This data has been modified to provide updated information.*

Medtronic Campus

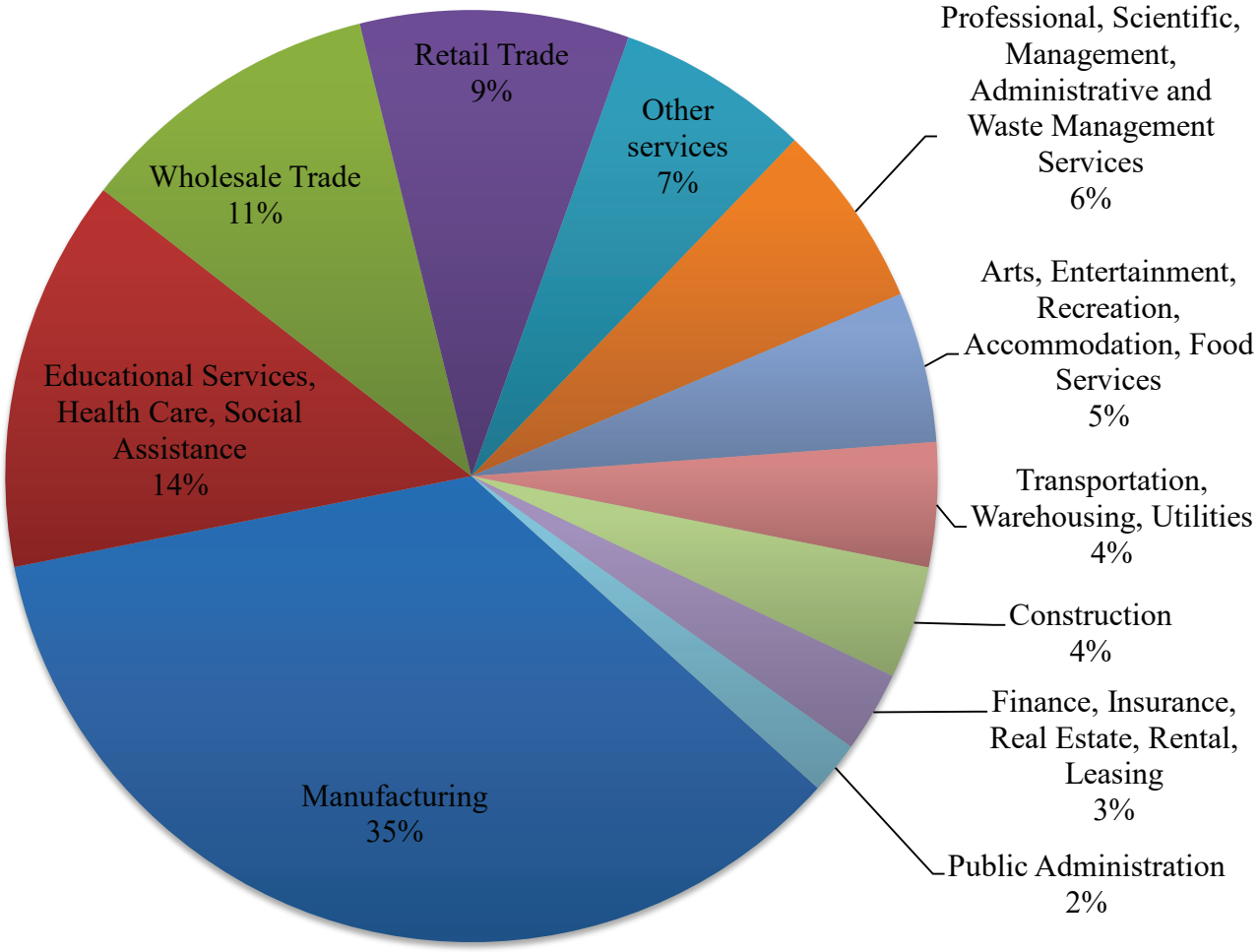
Cummins Signage

Mercy Hospital

Connecting Workplace and Homeplace

In addition to a strong manufaturing base, Fridley has a variety of other industries which serve the community. Educational services, health care, and social assistance make up a large sector of jobs and account for 14% of Fridley employers.

Figure 8.3 Fridley Business Workforce

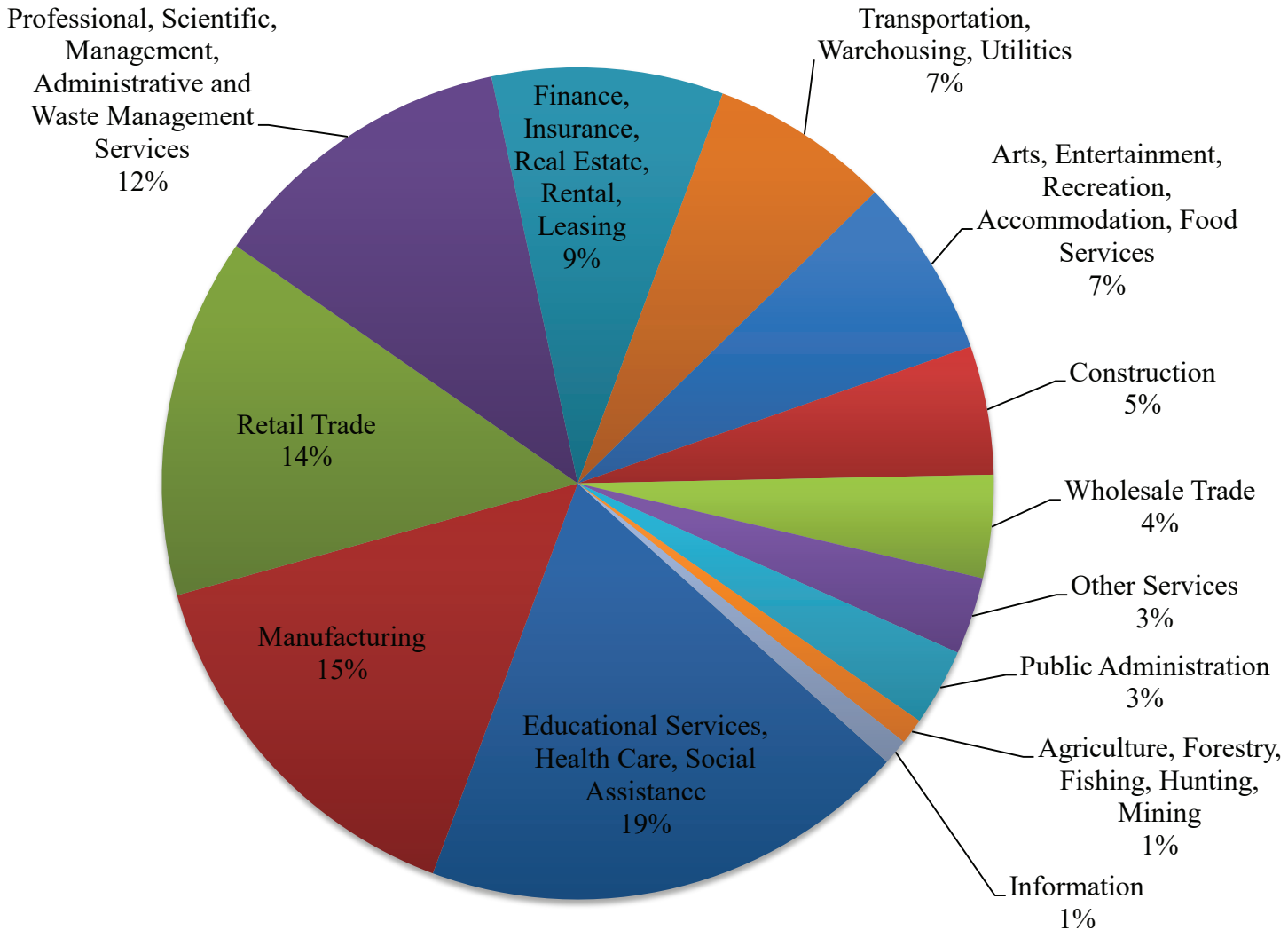


Source: ESRI Total Residential Population Forecasts for 2016

Despite a robust selection of industries in Fridley, only 1,388 residents work and live in the City. This contributes to congested streets, and impacts the sense of community between residents and businesses.

69.2% of Fridley residents age 16 and over are in the workforce. This number is higher than the national average of 63.3%. Educational attainment in Fridley is consistent with the state average. In fact, 90% of residents over age 25 have a high school diploma or higher. Also, 26.6% of residents over age 25 have a Bachelor's Degree. The jobs Fridley residents have pursued correlate with higher educational levels.

Figure 8.4 Fridley Workforce Population



Source: U.S. Census Bureau, 2011-2015 ACS 5 Year Estimates

27,476 Fridley Population

22,709 Fridley jobs

1,388 Residents working in Fridley

Opportunity in Fridley

Gateway West Neighborhood

Over 90% of Fridley's housing stock meets affordability standards; enabling more of the population to find a home that matches their budget. Fridley has a healthy mix of ownership and rental choices. In addition, Fridley has many high tech industries with higher paying jobs. Redevelopment projects like Cielo Apartments, Gateway West, and Locke Pointe have focused on addressing higher-end and lifecycle housing needs.

There are a multitude of educational opportunities in Fridley. There are four school districts in Fridley including Fridley Public Schools. Fridley School District offers open enrollment with an emphasis on college preparatory, enriched, International Baccalaureate (IB) Diploma Programme, and Project Lead the Way courses. In addition, the City has a number of reputable private schools offering an alternative educational opportunity including Al Amal School, Calvin Christian High School, Grace Lutheran School, and Totino-Grace High School.

Fridley Middle School

Springbrook Interpretive Center

There are recreational opportunities for all ages in Fridley. The Community Center has senior programming and Tiger Club Care for preschool aged children. Springbrook Nature Center offers three miles of hiking trails and an interpretive center with interactive exhibits, and a variety of native snakes, turtles and amphibians. The Anoka County, Fridley-Mississippi Library Branch is a tranquil location to find reading materials. Banfill-Locke Center for the Arts is a nonprofit organization providing inspiration, enrichment, and education through the arts. Fridley's 38 neighborhood parks, 5 county parks, and 8 public school facilities ensure there is always an open space to enjoy. The trails throughout Fridley including the Rice Creek Regional Bike Trail, and the Mississippi River Regional Trail all provide alternative transportation nodes and additional recreation opportunities.

Fridley is a GreenStep City. The Minnesota Pollution Control Agency operates the GreenStep City program, and awards ratings to Cities who fit the criteria. Fridley has been awarded Step One of the five step program, and is working towards the second step.

Minnesota GreenStep Cities

8.2 Business Retention and Expansion Program

In 2014, Fridley established a Business Retention and Expansion Program (BR&E). Fridley's BR&E Program helps local businesses stay competitive by addressing some of their key needs and concerns. Since 2014, the City has gone on over 200 business visits, and this has resulted in changes to City Code, better communication between businesses and City staff, and a stronger community connection. As a result of the BR&E program the City has made efforts to recognize small businesses, independent retailers, and manufacturers.

Small Business Saturday

The Saturday after Black Friday celebrates shopping small, and encourages consumers to consider the impact of their dollar when spent at a small business. The City advertises Small Business Saturday on the cable program, Community Connections each year.

Independent Retail Month

The month of July is celebrated as Independent Retailer Month. It is important to consider the impact all businesses have on the community and to recognize their efforts. The City sent thank you letters offering support and reminding businesses of the opportunity for a BR&E visit to all of the independently owned retail stores throughout Fridley.

Manufacturing Week

Held the first week in October, Manufacturing Week celebrates the industry and works to change the perception of manufacturing. The City of Fridley began working with Minnesota Dream it. Do it. in 2017. This organization is part of a national organization that promotes tours of industries encouraging students to consider a career in manufacturing. Manufacturing makes up 35% of the employers in Fridley, and through BR&E visits the City learned of the difficulty manufacturers face in filling open positions. In 2017, the City led a Manufacturing Week initiative to help connect local schools with local businesses to encourage partnerships.

Short-Term Objectives

To demonstrate support for local businesses
To help solve immediate business concerns

Long-Term Objectives

To increase local businesses' ability to compete in the global economy
To retain and attract new jobs
To build community capacity to sustain growth and development
To create a business friendly community that nurtures business' potential

Future BR&E Actions

Continue meeting with businesses to establish more connections
Maintain business relationships with an outreach program
Continue progress with the Fridley business e-newsletter and keep businesses in the know of any community related changes.
Continue to accurately respond to business needs.

8.3 City Tax Base

The City has a large commercial and industrial tax base making Fridley a contributor to the Fiscal Disparities Program. Fridley's contribution reduces large differences in property tax wealth between communities with a high commercial-industrial tax base and those with a smaller tax base. Tax-base sharing spreads the fiscal benefits of commercial-industrial growth across the seven county metro area. In 2015, Fridley contributed just over $4.5 Million to the Fiscal Disparities Program. With efforts to retain and attract new businesses, Fridley will likely continue to be a contributor to the Fiscal Disparities Program.

Figure 8.5 Fridley Tax Base Composition

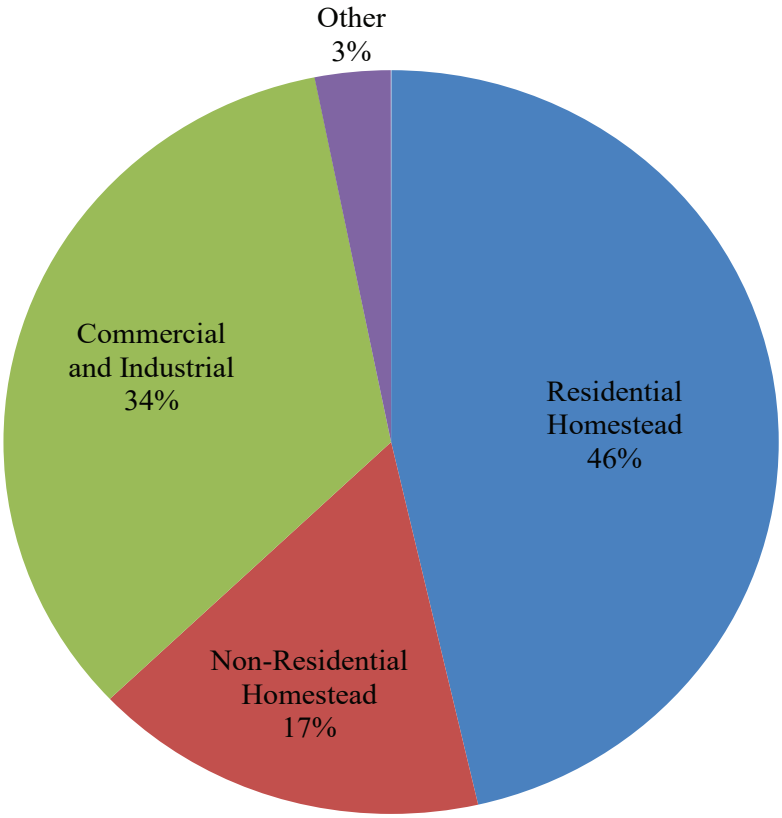
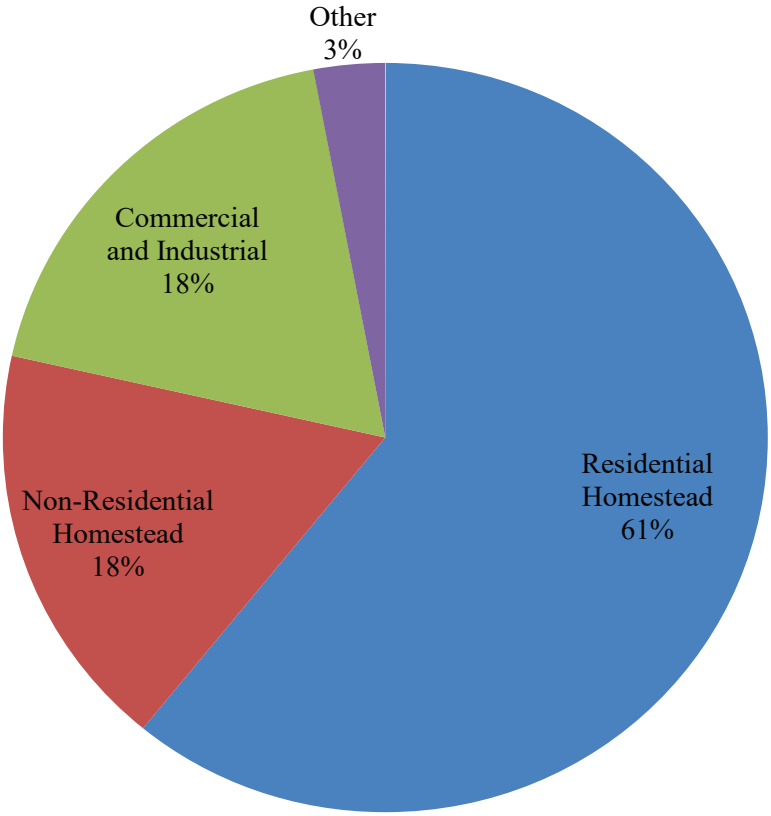


Figure 8.6 Metro Area Tax Base Composition



Source
League of Minnesota Cities
&
Metropolitan Council

8.4 Building Permit Activity

The City of Fridley is a built community experiencing redevelopment and expansion of existing facilities. Since the recession in 2008, permit activity has been increasing, and saw a jump in 2015. This influx of activity in 2015 was due to roof repairs from storm damage.

Figure 8.7 Building Permits

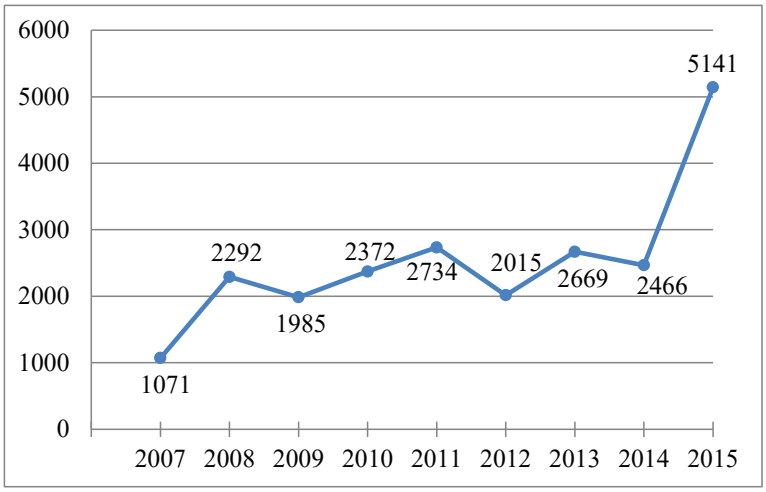
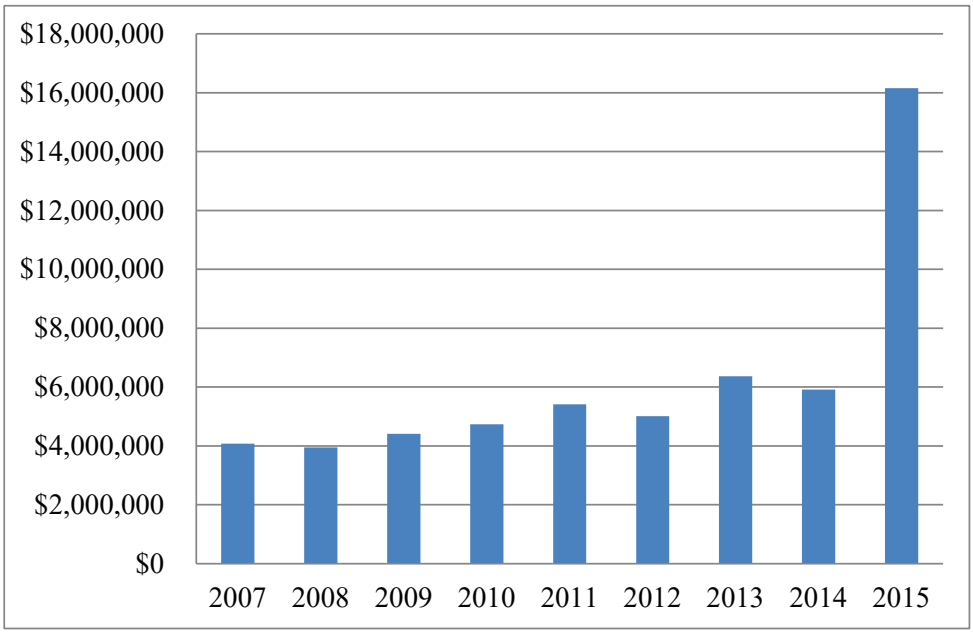


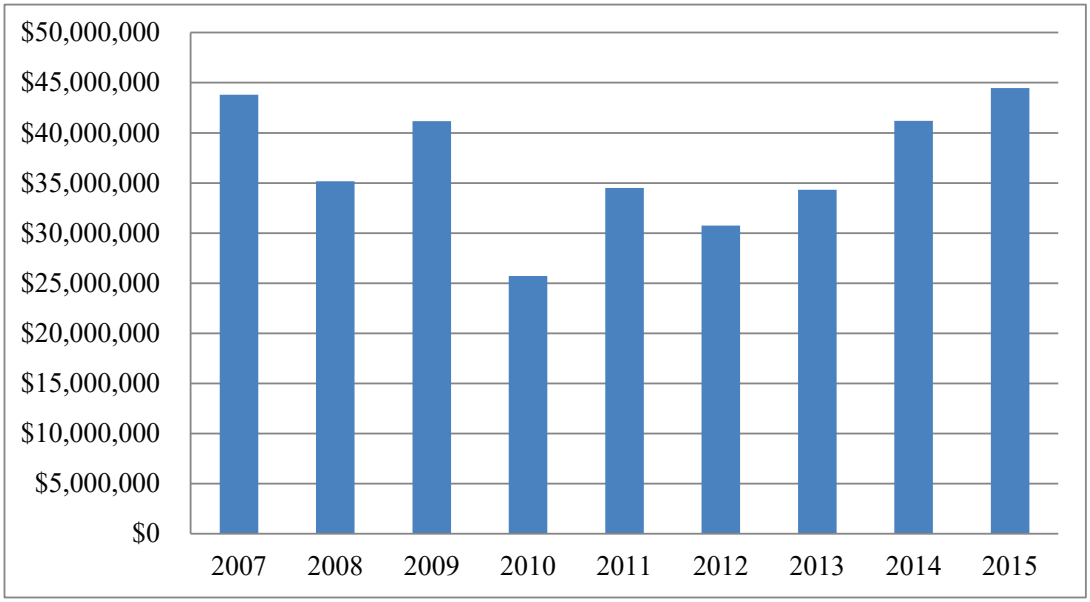
Figure 8.8 Residential Building Permit Revenue



The residential development of Cielo Apartments and storm repairs in 2015 contributed to additional residential permit revenue.

Figure 8.9 Commercial, Industrial and Other Building Permit Revenue

Commercial and industrial development is rising steadily. In 2015 the industrial development of Northern Stacks increased additional industrial permit revenue.



Source: Fridley Building Division

8.5 Economic Competitiveness Policy

Policy: The City of Fridley will continue to maintain affordable tax rates for all residents and businesses.

Policy: The City of Fridley will continue to redevelop blighted and underutilized properties. The City will also continue to offer incentives to businesses for making enhancements to their property.

Policy: The City of Fridley will continue to improve communication to and with Fridley businesses.

Policy: The City of Fridley will continue to promote business partnerships with local schools to fill the labor gap and create jobs for Fridley students.

Policy: The City of Fridley will continue to be a top provider of high tech jobs throughout the region.

Policy: The City of Fridley will continue to advocate for public transportation to businesses, especially where there are gaps.

Policy: The City of Fridley will continue to make Fridley a desirable place to live by considering opportunities that provide evening entertainment.

Policy: The City of Fridley will find ways to match residents with employment by addressing the opportunities in Fridley and the weaknesses the City faces in attracting new development.

Policy: The City of Fridley will investigate electric vehicle networks including the implementation of charging stations in retail parking lots.

Policy: The City of Fridley will identify opportunities for public art throughout the City especially along central corridors. A potential area to encourage public art may be along the Mississippi River in conjunction with future redevelopment. The City will also promote fine arts centers like Banfill-Locke Center for the Arts.

Policy: The City of Fridley will examine accessibility to the Mississippi River to encourage recreational usage. A potential opportunity to revitalize 49ers days as a Mississippi River Celebration should be investigated.

8.6 Summary and Action Steps

The City of Fridley offers not only a convenient business location, but a community of opportunities. Understanding the needs of Fridley businesses and workforce enables the City to consider ideas that maximize potential. Analyzing job sector data helps target promotional efforts and improves communication. BR&E visits help address business concerns, and align future visions. In addition to business support, Fridley offers residents a variety of housing, education, recreation, and environmental opportunity. Through the Comprehensive Plan, Fridley will strive to maintain a coordinated relationship with our local residents and businesses and in doing so strengthen the community by assisting industries in finding workers that match their needs.

Action Step: Development Review Committee Meetings (DRC) will continue to offer residents and businesses the opportunity to meet with staff and discuss plans before proceeding to Commission and Council review. This will help identify potential issues and create a more streamlined process.

Action Step: Development Review Committee (DRC) will continue to review and advance recommendations on ordinance amendments to assure City regulations are current and in step with industrial and commercial owner desires, needs, and technology advances.

Action Step: The City of Fridley will investigate gaps in public transportation. Currently 90% of residents have transportation access within a ½ mile of their home, but businesses in Fridley face larger public transportation gaps. Commercial and industrial areas including the northern and southern edge of the City should be included in this analysis.

Action Step: The City of Fridley will continue Business Retention and Expansion (BR&E) efforts to create a more business friendly environment.

Action Step: The City of Fridley will inform schools about programs for students considering a job in manufacturing and share their willingness to partner with outside companies to match students with jobs.

Action Step: Manufacturing Week will continue to be an opportunity to renew and continue efforts to connect local schools with local businesses.

Action Step: The City of Fridley will demonstrate the importance of public art through placement on the Civic Campus and throughout the City.

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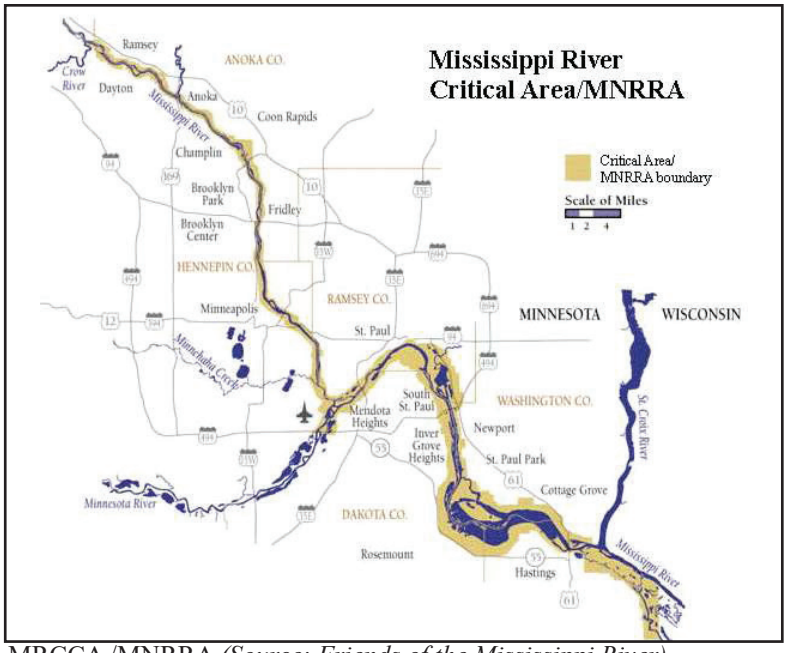
Critical Area

Critical Area

Travel and trade along the Mississippi River spurred the City of Fridley's early growth and cemented the City's river heritage. Today, access to the River's natural, recreational, and scenic amenities contributes to the vibrancy of Fridley as a place to live and work. The City of Fridley is committed to managing the River as a multi-purpose resource in order to protect the River's natural resources alongside development and recreational access.

This Critical Area plan has been developed for the portion of the Mississippi River Corridor Critical Area (MRCCA) within the City of Fridley. It is an amended version of the Critical Area Plan that was included in the City of Fridley's 2030 Comprehensive Plan. These amendments reflect new rules regulating the MRCCA published by the Minnesota Department of Resources (DNR) on December 27, 2016. The purposes of designating this portion of the River as a Critical Area are:

- To protect and preserve a unique and valuable state and regional resource for the benefit of the health, safety and welfare of the citizens for the state, region and nation;
- To prevent and mitigate irreversible damage to this state, regional and national resource;
- To preserve and enhance its natural, aesthetic, cultural, and historical value for the public use;
- To protect and preserve the river as an essential element in the nation, state and region



MRCCA /MNRRA *(Source: Friends of the Mississippi River)*

Fridley's Critical Area is primarily comprised of residential, institutional, and parkland uses, although there is a small commercial center located at the intersection of East River Road and Mississippi Way NE. The largest riverfront property owners are Anoka County, which manages more than two miles for parkland and the City of Minneapolis, which manages more than a mile for the Water Works campus. In total, there are approximately 6.25 miles of river frontage in Fridley.

The BNSF railroad yard, one of the largest rail yards in the upper Midwest, is situated directly east of the Critical Area. Although the yard and associated right-of-way are not located within the MRCCA, safety factors, noise pollution, and transit barriers associated with yard must be considered when evaluating the future of the Critical Area. In 2009, the Northstar Commuter Rail Service began on the BNSF between Minneapolis and Big Lake along the BNSF route.

Three major islands are located within Fridley's reach of the River- Banfill, Gil Hodges, and Chase's Island. Banfill and Gil Hodges Islands remain relatively undisturbed and exist in their natural vegetative states. Chase's Island is currently maintained by Anoka County as part of the Islands of Peace Park and is used as a recreational amenity for the residents of Fridley and surrounding areas.

9.1 Mississippi River Districts

The portion of the MRCCA located in Fridley is defined as the area to the west of East River Road/County Road 1. The MRCCA in Fridley is comprised of three different management districts:

CA-RN District

The portion of the MRCCA directly along the River north of 61st Avenue is defined as a CA-RN (River Neighborhoods) District. According to the specifications outlined in MR 6106.0100, this district is characterized by residential neighborhoods that are riparian, readily visible from the river or that abut riparian parkland. The district includes parks and open space, limited commercial development, marinas, and related land uses.

The CA-RN district must be managed to maintain the character of the river corridor within the context of existing residential and related neighborhood development, and to protect and enhance natural habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas. Minimizing erosion and the flow of untreated stormwater into the river and enhancing habitat and shoreline vegetation are priorities in the district.

CA-SR District

The portion of the MRCCA between the CA-RN District and East River Road north of 61st Avenue is defined as part of the CA-SR (Separated from River) District. This district is characterized by its physical and visual distance from the Mississippi River and includes land separated from the River by distance, topography, development, or a transportation corridor. The land in this district is not readily visible from the Mississippi River.

The CA-SR district provides flexibility in managing development without negatively affecting the key resources and features of the river corridor. Minimizing negative impacts to primary conservation areas and minimizing erosion and flow of untreated stormwater into the Mississippi River are priorities in this district.

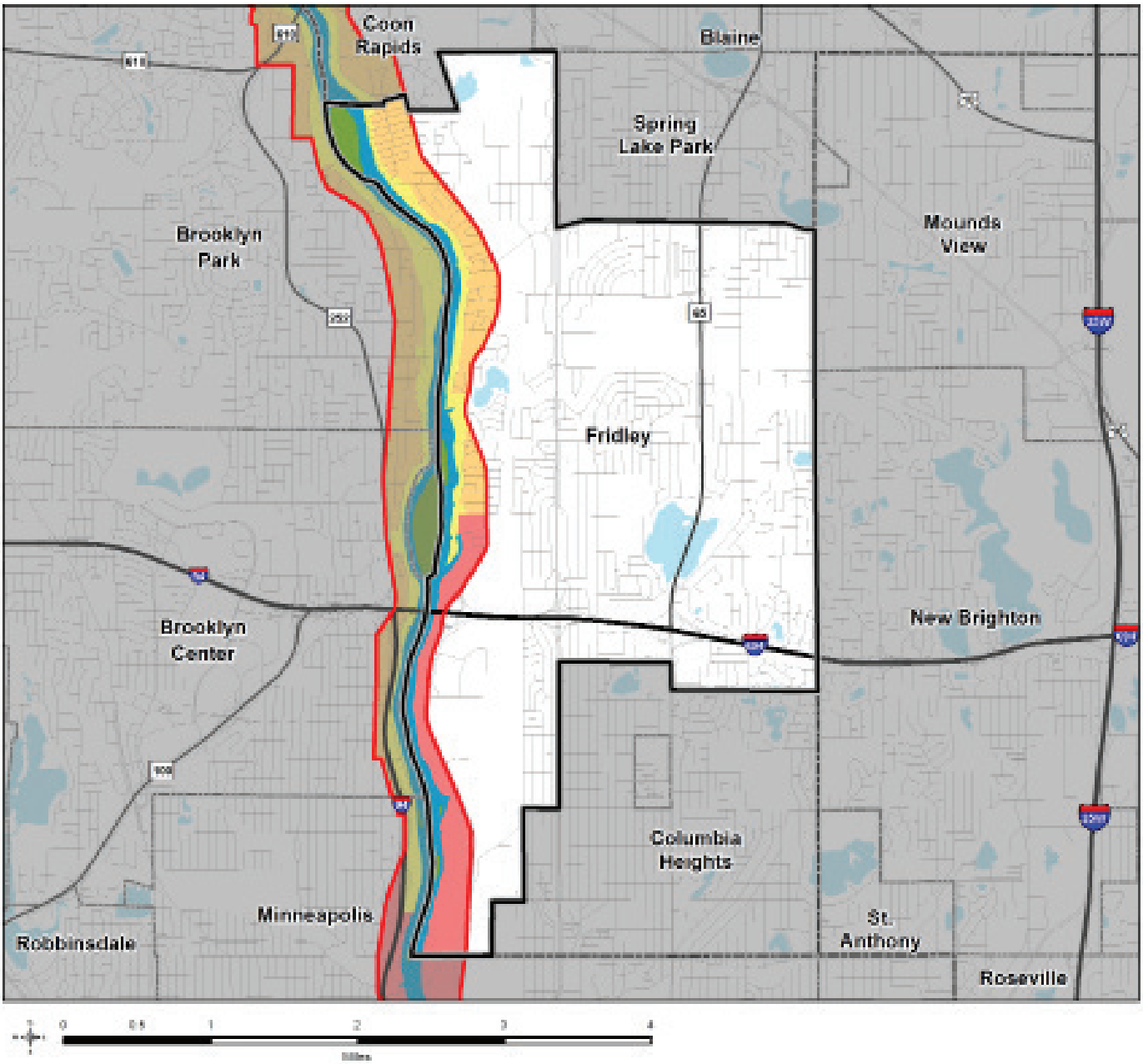
CA-UM District

The portion of the MRCCA south of 61st avenue is classified as CA-UM (Urban Mixed) District. The urban mixed district (CA-UM) includes large areas of highly urbanized mixed use that are a part of the urban fabric of the river corridor including institutional, commercial, industrial, and residential areas and parks and open space.

The CA-UM district must be managed in a manner that allows for future growth and potential transition of intensely developed areas that does not negatively affect public river corridor views and that protects bluffs and floodplains. Restoring and enhancing bluff and shoreline habitat, minimizing erosion and flow of untreated stormwater into the river, and providing public access to and public views of the River are priorities in the district.

View from Islands of Peace Park

Figure 9.1 Mississippi River Corridor Critical Area Districts



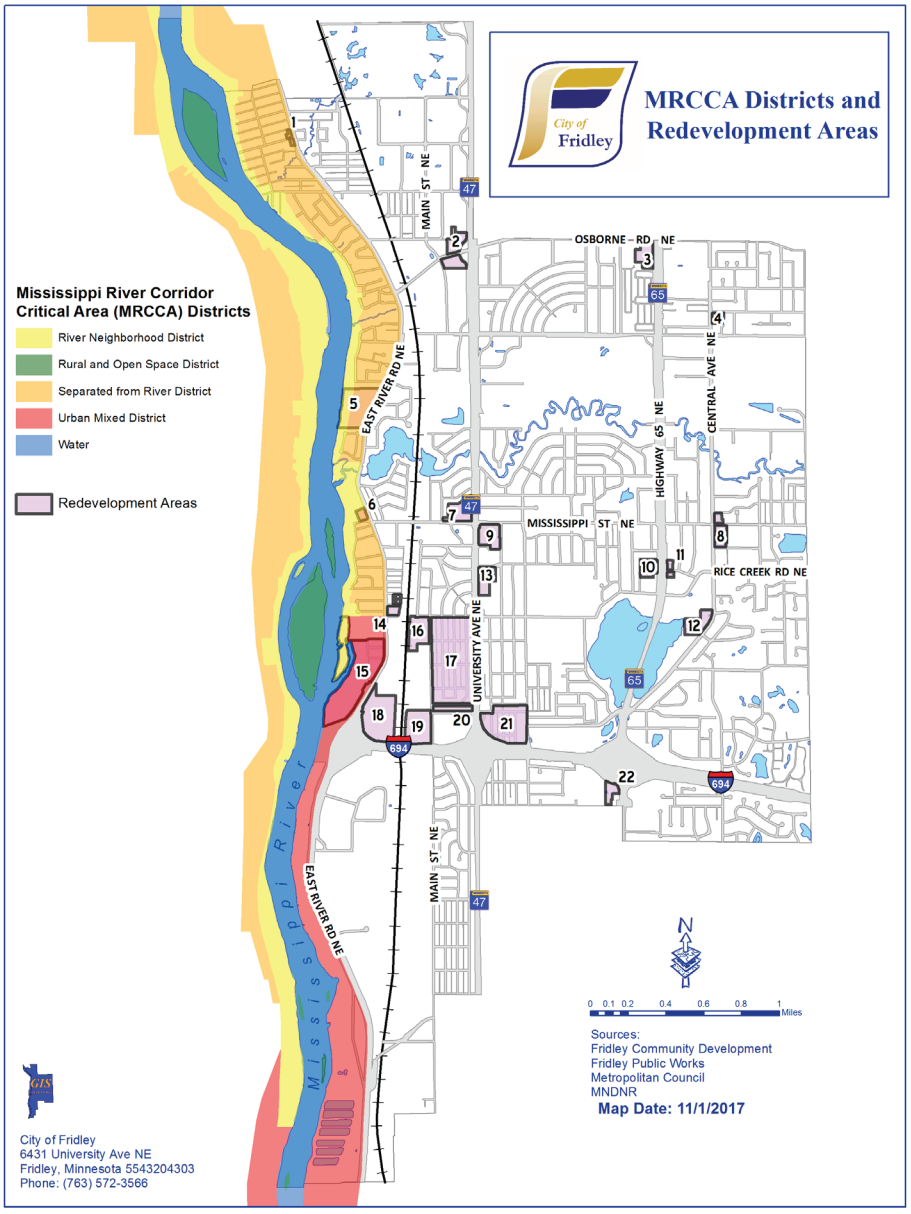
9.2 Future Redevelopments in the MRCCA

Increased connection with the River was identified as a desired change by Fridley residents in the 2020, 2030 and 2040 Comprehensive Planning processes. The following statement, which was included in the 2020 Comprehensive Plan and reaffirmed in the 2030 Plan, continues to hold true today:

"The Mississippi River is a hidden resource that has played a key role in the historical development of the community. Where appropriate, future redevelopment and improvement projects should reference the community's river heritage by providing both direct and indirect linkages."

Four areas have been identified for redevelopment in the MRCCA. More detail can be found in Chapter 1 (Land Use).

Figure 9.2 MRCCA Districts and Redevelopment Areas



Area 1 includes three properties located wholly within the CA-SR Separated from River District. The area has been identified for redevelopment due to a planned realignment of Fairmont Street, although the remaining property is still guided as commercial.

Area 5, the Girl Scout Camp, is one property located within the River Neighborhoods District and the Separated from River District. This property is guided Mixed Use Residential, although the current owner Metropolitan Council, will likely retain a portion of the land for their utility service access needs.

Area 6 is located wholly within the Separated from River District and is zoned commercial. The best use of the three existing properties is to remain commercial but combined into one property.

Area 15 is located within the Urban Mixed District. This property comprises part of the Transit Overlay District (TOD), a zoning district that was developed to encourage dense, mixed-use, pedestrian-friendly development within one-half mile of the Northstar Commuter Rail Station in Fridley.

The design of the TOD is consistent with the standards of the CA-UM district as it creates new parkland through increased building setbacks, improves visibility and public access to the Islands of Peace Park, and provides regional stormwater treatment while increasing the number and density of housing units.

A master plan for the Transit Overlay District was approved by the Fridley City Council on December 8, 2014.

Figure 9.3 Transit Oriented District Master Plan

9.3 Primary Conservation Areas

Primary Conservation Areas (PCAs) are defined in the MRCCA rules (6106.0050, Subp. 53) as key resources and features to be protected and maintained. The following PCAs have been identified in Fridley:

Shore Impact Zone

The Shore Impact Zone (SIZ) is defined as the land located between the ordinary high water level of public waters and a line parallel to it at a setback of 50 percent of the required structure setback. Reducing visual disruptions in the SIZ is important to preserving the natural and scenic value of the River.

Bluff Impact Zones

Bluff impact zones (BIZ) include steep slopes of over 12% and a surrounding twenty foot buffer. Bluffs in Fridley are characteristically found along the banks of the River and along tributary creeks such as Rice Creek, Oak Glen Creek, Stonybrook Creek, and Springbrook Creek. Due to their structural instability and vulnerability to erosion, bluffs are not suitable for development.

The City of Fridley, in collaboration with the Anoka Conservation District and the Coon Creek Watershed District, completed an extensive restoration of the bluffs along 1,400 feet of Oak Glen Creek near its confluence with the Mississippi River in 2015. This project stabilized eroding banks that threatened 21 homes and reduced annual sediment and phosphorus discharge into the River by approximately 633,600 pounds and 507 pounds respectively.

Restoration of Oak Glen Creek

Water Resources

Wetlands and floodplain within the Critical Area corridor provide valuable flood protection, water quality benefits, and wildlife habitat. Wetlands in Fridley are identified by the National Wetland Inventory as well as through the 1993 City of Fridley Wetland Inventory. Floodplains for several drainage ways (Oak Glen Creek, Springbrook Creek, Stonybrook Creek, and Rice Creek) as well as for the Mississippi River are located in Fridley. FEMA floodplain maps were developed for Anoka County in 1980 and have undergone slight revisions. As additional modeling data is released, these maps are revised. The floodway maps are incorporated by the City within the Floodway Overlay Zoning District.

Figure 9.4 Bluff Impact Zones

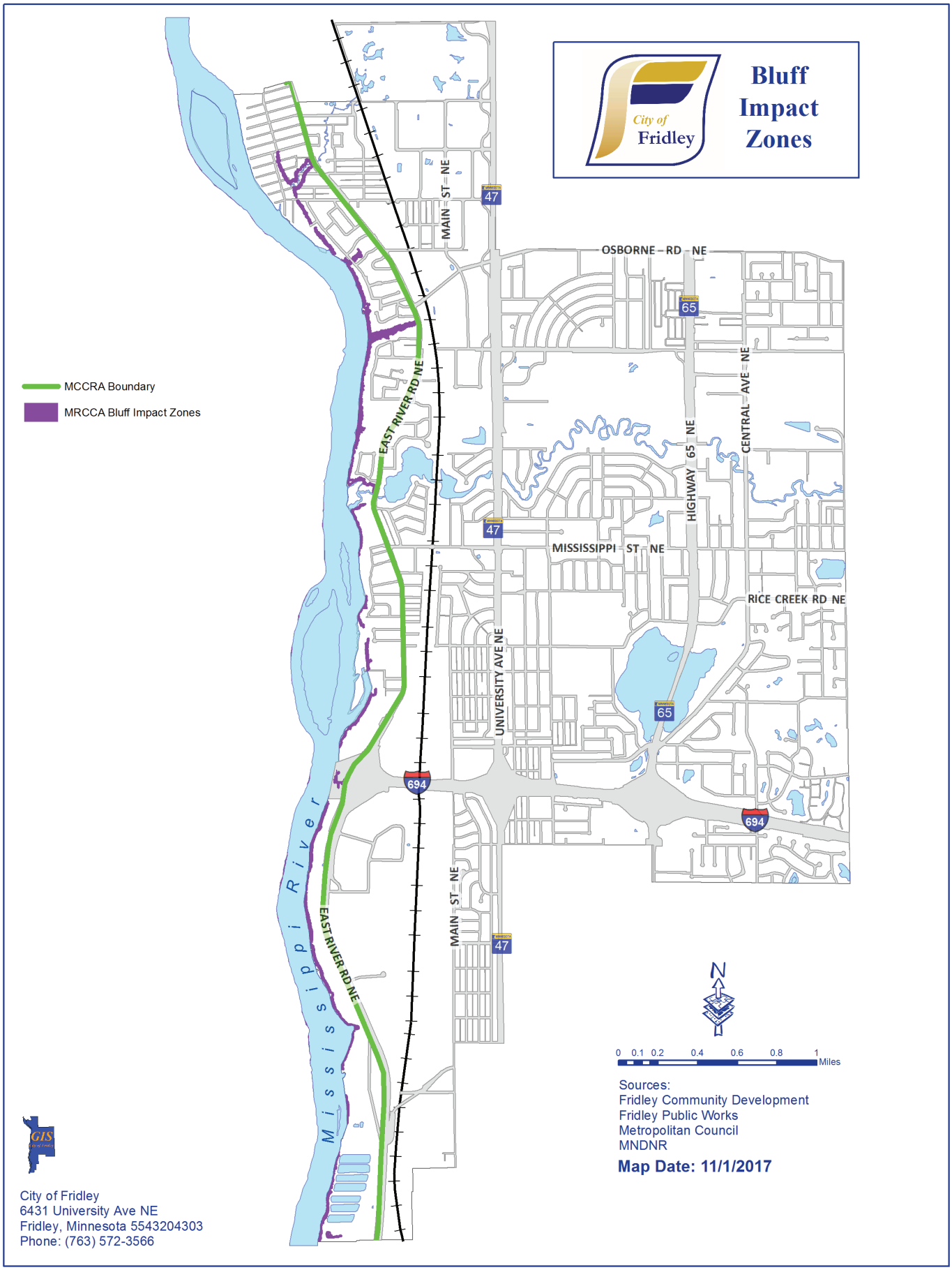
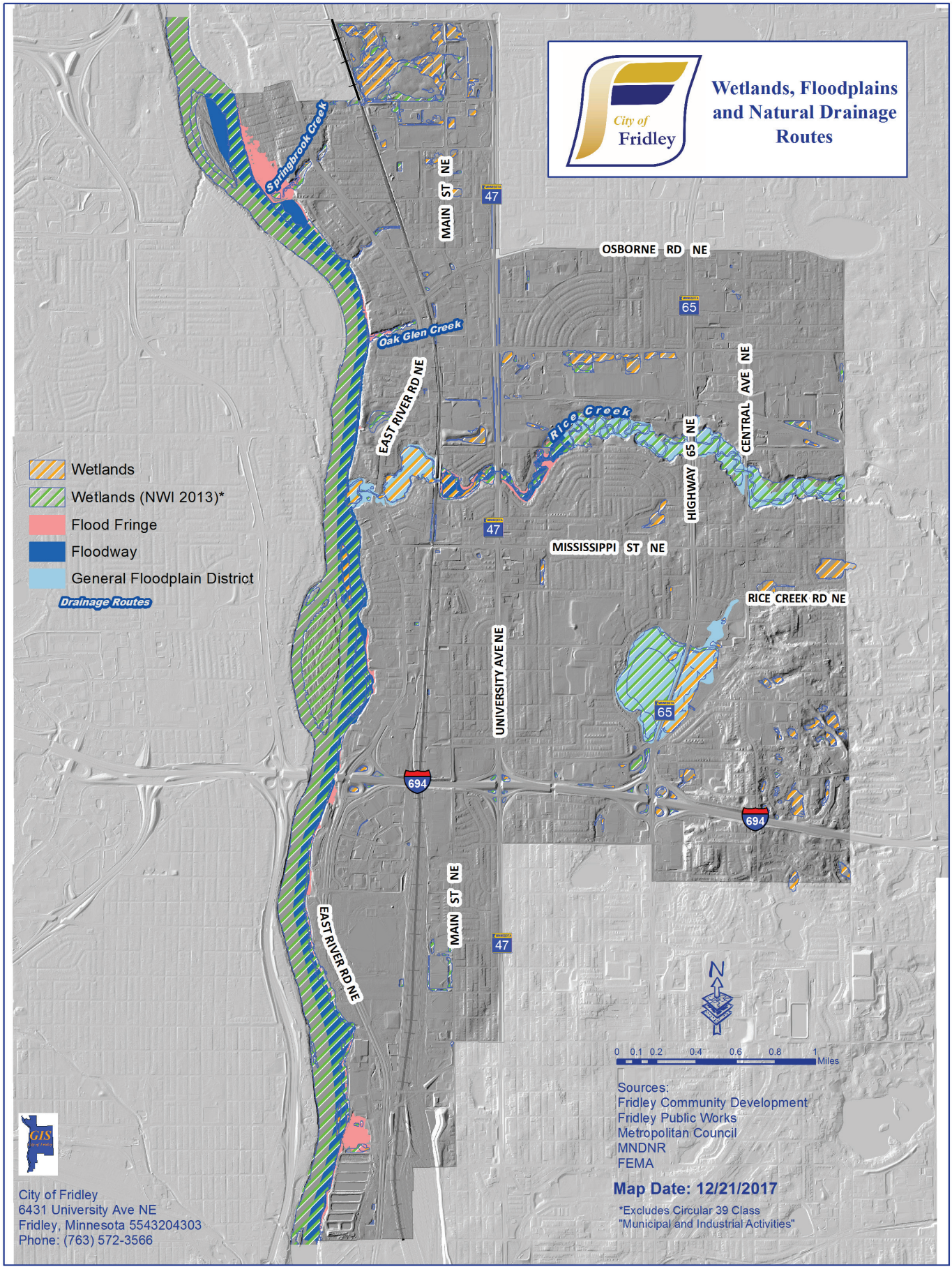


Figure 9.5 Wetlands, Floodplains, and Natural Drainage Routes



Unstable Soils and Bedrock

There are eight soil types within Fridley's reach of the Mississippi River Corridor study area: Anoka, Becker, Hayden, Hubbard, Marsh, Rifle mucky Peat, Zimmerman, and Cut and Fill. These soils types are mapped and defined in the Soil Survey for Anoka County, 1977, prepared by the USDA. The Anoka, Becker, Rifle mucky, and Marsh are alluvial soils or soils of a high water table. Characteristically, these soils are poorly drained with severe limitation for building because of occasional flooding or high water. The Hubbard and Zimmerman soils on slopes of 0-6% have slight limitations for residential, commercial, and industrial development served by public sewers. Both Hubbard and Zimmerman soils have rapid percolation rates that increase the potential for underground water contamination. The Hayden soils on slopes of 0-12% have moderate limitations for building foundations. As slopes increase, the cost of grading roads, streets, laying sewer and water mains increases. The Cut and Fill soils take on the characteristics of the neighboring soil. The Cut and Fill area in Fridley's reach of the river is bordered by Hubbard soils. Soil permeability in a Cut and Fill area is low.

Certain areas along the Mississippi River have recently been documented to experience slope shifting. Changes in precipitation or groundwater level may accelerate or exacerbate these types of events.

Vegetation

One tree species found commonly in the Critical Area is the green ash, which is vulnerable to a new invasive pest to Minnesota, the emerald ash borer (EAB). This pest can quickly cause ash tree mortality and result in drastic changes to forest composition. Presence of EAB has been confirmed in adjacent cities, and Anoka County is under quarantine by the Minnesota Department of Agriculture. The City of Fridley has developed an emerald ash borer plan to maintain tree cover and improve the resiliency of our urban forest.

In Fridley, the most significant vegetation stands are located on Banfill, Gil Hodges, and Chase's Islands, Riverview Heights Park, the Girl Scout Camp property, Manomin County Park, Islands of Peace Park, and Riverfront Park. There is also a significant natural habitat area located just outside of the Critical Area within the Springbrook Nature Center that is connected to the Critical Area via Springbrook Creek.


Mowed turf shoreline

Opportunities for vegetative restoration were identified using the Minnesota DNR's *Framework for Identifying Vegetation Restoration Priorities.* Residential portions of the City that were identified include areas within the Riverview Terrace, Hartman Circle, and River's Edge Way neighborhoods as well as the multi-family properties located directly north of Interstate 694. While the City of Fridley's Critical Area overlay district prevents clear cutting in these privately owned areas, detection of clear cutting that is screened from the right-of-way can be difficult. The location of the Riverview Terrace road directly along the River also contributes to a lack of vegetation along the River in the northern portion of the City.

Public and institutional lands were also identified for vegetative restoration including parts of Manomin Park, Riverfront Park, the City of Minneapolis' Water Works campus and the portion of the Girl Scout Camp property where the Metropolitan Council maintains an access road.

Opportunities for revegetation are often limited by existing infrastructure and development. Established vegetation often provides higher levels of erosion control and ecological benefits; therefore, vegetation removal along the River should be prevented where feasible.

Figure 9.6 Natural Vegetation

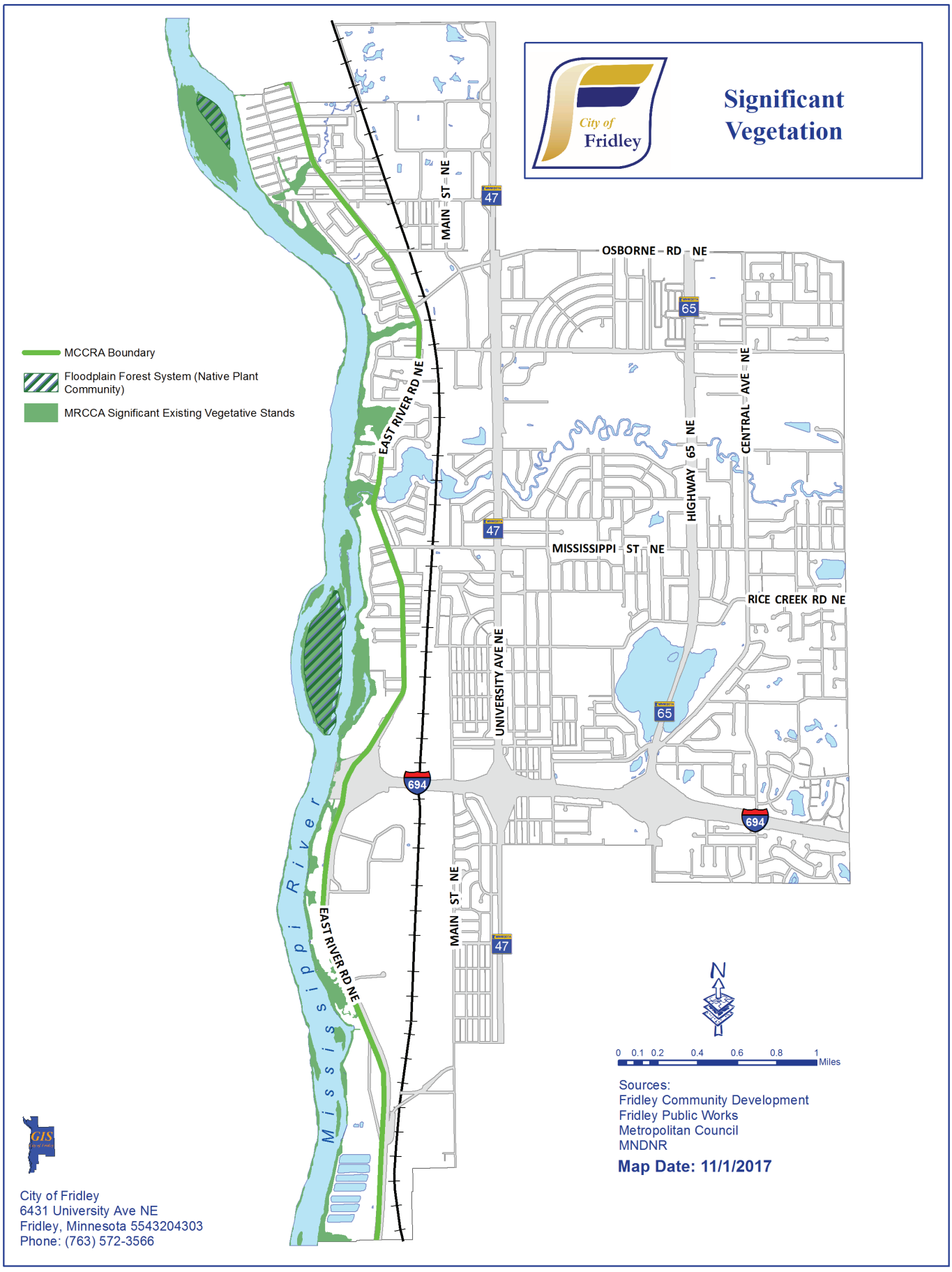


Figure 9.7 Vegetation Restoration

Cultural and Historic Properties

The most notable and identifiable cultural feature in Fridley's Critical Area is the Banfill-Locke Center for the Arts, located at 6666 East River Road. Originally built in 1847 as an office for the East St. Louis Saw Mill Firm, this building served many purposes over the years including as a tavern, overnight lodging place, homestead for a dairy farm, and a summer home and retreat for young people from the city. The building currently sits within Manomin Regional Park owned by Anoka County. In 1977, it was placed on the National Register of Historic Buildings and in 1989 it became home to the Banfill-Locke Center of the Arts.

While not on the National Register of Historic Buildings, the Riedel House in Riverfront Regional Park, is another site important to Fridley's history. This 1880's home currently serves as a special event facility.

Banfill- Locke Center for the Arts (*Source: Banfill-Locke Center for the Arts*)

Riedel House

Other Primary Conservation Areas

Gorges and Areas of Confluences with Tributaries have not been identified in Fridley.

9.4 Open Space and Recreational Facilities

The MRCCA shares a border with the Mississippi National River and Recreation Area (MNRRA), a unit of the National Park Service. There are ten parks located within the Critical Area in Fridley and approximately 2.3 miles of river frontage is managed as parkland. The Critical Area also contains a portion of the multi-state Mississippi River Trail (MRT).

Figure 9.8 Open Space and Recreation Facilities

Of the ten parks located within the Critical Area, one is a regional special-use park owned by Anoka County (Riverfront Park), two are county parks (Manomin and Islands of Peace), four are neighborhood parks (Craig, Riverview Heights, River's Edge Way, and Logan), and three are mini-parks (Springbrook, Glencoe, and Ed Wilmes). Five parks are located directly on the river (Riverview Heights, Manomin, River's Edge Way, Islands of Peace, and Riverfront).

Riverfront Regional Park contains a motorized boat launch area. Water depths are fairly shallow in this part of the River. Other access points to the River are pedestrian-oriented and allow visitors to launch canoes and kayaks. River's Edge Way is an undeveloped park that is maintained in a natural state for use as a possible trail connection and access point in the future.

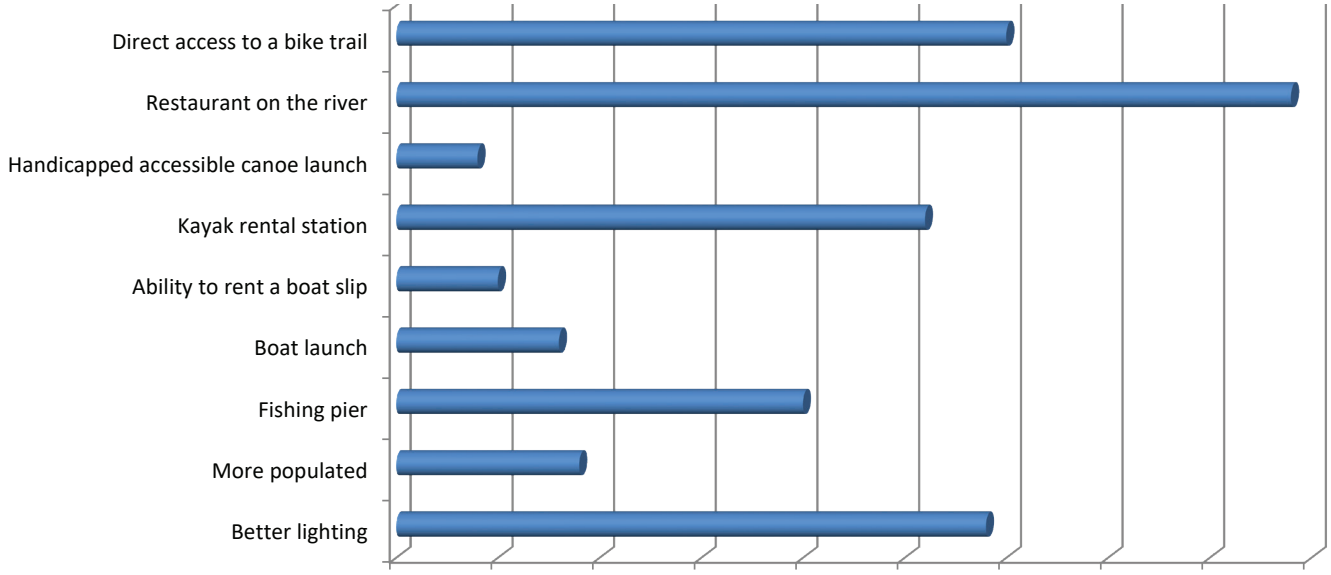
Figure 9.9 Recreational Facilities

Park	Owner	Size (Acres)	Recreational Facilities
Riverview Heights	City of Fridley	7.4	Trails; picnic area
Manomin	Anoka County	15.0	Trails; picnic area;
River Edge Way	City of Fridley	1.3	None
Islands of Peace	Anoka County/City of Fridley	79.0	Trails; picnic area; canoe launch
Riverfront Regional	Anoka County	60.0	Trails; picnic area; boat launch; playground

Despite the large amount of park space, these parks are historically under-utilized. As part of the 2017 Citizen Survey, Fridley residents were surveyed on methods to increase use of the parks. Direct access to a bike trail was the second most common recommendation which emphasizes the need for increased publicity of the existing trails as well as increased connectivity within the Fridley trail system. The City is addressing these gaps through an evolving Active Transportation Plan (ATP). In the latest version of the ATP, East River Road and portions of Riverview Terrace were designated as priority streets for trails and sidewalks (see Chapter 4 for more information). Plowing trails during the winter is also crucial to ensuring year-round recreational opportunities.

Increased canoeing and boating access was also a common theme in the survey. The City currently only contains one vehicle accessible boat ramp along the river, one formal canoe launch, and no opportunities to store or rent kayaks/canoes.

Figure 9.10 Desired Features in Riverfront Parks



9.5 Public River Corridor Views (PRCVs)

Many of the riverfront parks for Fridley and the Cities of Brooklyn Park and Brooklyn Center are located across from one of another or the River's undisturbed islands. These natural viewsheds are a scenic amenity for park visitors, providing an opportunity to connect with nature in the middle of an urban area.

View of Fridley shoreline from River Park in the City of Brooklyn Park

View of Durnham Island from Chase Island in Islands of Peace Park in Fridley

9.6 Transportation and Public Utilities

Transportation

There are three main transportation facilities located within or near the Fridley Critical Area: Interstate 694, East River Road, and the BNSF Railroad. Interstate 694 is the only vehicular transportation route across the River in Fridley and consists of two bridges- one carrying eastbound traffic and the other carrying westbound traffic. The MRT runs along the northern side of the bridge with views of the River. I-694 has been designated by the Metropolitan Council as a principal arterial carrying traffic to and from metropolitan sub-regions.

East River Road (Anoka County Road 1), is a minor arterial road that carries traffic in a north-south direction along the River. A master plan for the East River Road corridor was developed by Anoka County and the Cities of Coon Rapids and Fridley in 2012. Recommendations including addition of trails and transitioning certain connector streets to cul-de-sacs. Improvements to East River Road are expected to be implemented over time as funding permits.

East River Road Vision Statement

The Cities of Fridley and Coon Rapids, with Anoka County, will develop a safe and visually appealing corridor, one that embraces the residential feel and natural environment in the area, and provides for effective pedestrian, bicycle, and transit connections.

The BNSF railroad yard and right-of-way lies east of East River Road, outside of the critical area. However, the location of the railroad is a barrier for transportation into and out of the Critical Area as there are limited roads and trails which cross the tracks. On the other hand, the Northstar Commuter Line provides a convenient mode of public transit into Fridley, allowing regional access to the City's and County's riverfront parks.

Transmission Service/Utilities

There are transmission line crossings as well as natural gas line crossings underneath the River in the Fridley Critical Area. Since the 2030 Comprehensive Plan, two 42-inch sanitary sewer forcemains have been installed by the Metropolitan Council under the River to connect to a sanitary sewer pump house in Brooklyn Park.

Storm sewers in the City of Fridley range in size from 12-inches to 84-inches. While outfalls used to discharge surface runoff directly into the river, efforts have been made to retrofit the storm sewer system upstream to reduce velocities and improve water quality.

Water Intake Facilities

Both the Saint Paul Water Pumping Station and the Minneapolis Water Works facility exist in the Fridley Critical Area. The Saint Paul Pumping Station is located east of 75th Way NE in the CA-RN River Neighborhood District. The Minneapolis Water Works facility is located west of 43rd Avenue in the CA- UM Urban Mixed District.

9.7 Surface Water and Water Oriented Uses

The Mississippi River is a "working river" and is utilized as an important mode of transportation into and out of the Metropolitan Area. This transportation would not be possible without a channel maintained by the U.S. Army Corps of Engineers for barge traffic; however, this channel does not extend in to Fridley.

Barge Traffic

The City of Fridley's reach of the river corridor does not contain a navigation channel maintained by the Army Corps of Engineers; therefore, barge traffic is prohibited.

Sea Plane Activity

Under the division of Aeronautics Regulations, Aero 13 (seaplane operations), the surface of the Mississippi River adjacent to the western boundary of the City has been designated as a seaplane operations area. Utilizing the River for this purpose would occur strictly on an emergency basis.

Recreational Boating

Small motorized watercraft can access the River in Fridley from the Riverfront Regional Park. Additionally, some private properties maintain personal docks. During the 2017 Citizen Survey, Fridley residents indicated an interest in non-motorized boating along the River, including the ability to rent and store canoes and kayaks. Since there is no barge traffic within the portion of the River in Fridley, increased canoes and kayaks should not present a conflict in this area.

9.8 Resiliency

Communities along waterways such as the Mississippi River are particularly vulnerable to the impacts of climate change due to risks of flooding. As a river community, the City of Fridley must account for the effects of increased rain storms and higher water levels on the stability of its shorelines, the functioning of its infrastructure, and the safety of its residents. Effective shoreland management, such as planting deep-rooted native vegetation and limiting floodplain fill, can help mitigate the negative impacts of higher water and increased erosion. Ensuring that buildings and infrastructure near the River are located and designed to minimize flooding can minimize risks to life and property.

9.9 Goals and Objectives

These goals and objectives have been agreed upon related to the vision of keeping Fridley ***safe, vibrant, friendly, and stable:***

Goal # 1: Provide a Safe environment for residents and businesses.
Objectives:

- Housing and infrastructure are located and designed to reduce risks of flooding.
- Flood storage is provided to accommodate rising water.
- Shorelines are planted with deep-rooted native vegetation to reduce soil erosion and potential for bank failure.

Goal # 2: Provide a Vibrant community in the Twin Cities.
Objectives:

- Access to the River is enjoyed equitably through various modes and in balance with protection of natural resources.
- Residents on both sides of the River are able to enjoy scenic views and natural settings from public and other valued areas.
- Transportation and utilities are designed efficiently to minimize impact on the natural resources, Primary Conservation Areas, and scenic amenities of the Critical Area.

Goal # 3: Continue to be known as *Friendly Fridley* in the Twin Cities
Objectives:

- Coordinate with our partners such as Anoka County, Watershed Partners, the Department of Natural Resources, and the National Park Service,to ensure efficiency management of the MRCCA.
- Surface Water and Water Oriented Uses occur in harmony.

Goal # 4: Provide a Stable environment in which families and businesses can thrive.
Objectives:
- Minimize impacts to Shore Impact Zones, Bluff Impact Zones, wetlands, floodplains, and Primary Conservation Areas.
- Design and manage the Critical Area for resiliency against climate change.

9.10 Policies

- Ensure new development along the riverfront has a relationship to the river, a need for a river location, the potential to increase river access, and is capable of enhancing the river environment.
- Guide land use, development, and redevelopment activities in a manner consistent with the management purposes of each District, the Critical Area Plan, the Transit Oriented Development Master Plan, site development policies, and the Shoreland, Critical Area, Transit Oriented Development, and Floodplain zoning overlay districts.
- Facilitate, support and encourage the conversion of non-conforming uses to conforming uses and prohibit the reconstruction of non-conforming uses that are severely damaged within the Corridor.
- Protect Primary Conservation Areas (PCAs) including Shore Impact Zones, Bluff Impact Zones, wetlands, floodplains, natural drainage routes, native plant communities (floodplain forests), significant existing vegetation stands, unstable soils and bedrock, and significant cultural and historic properties and minimize impacts to these PCAs from public development, private development, and land use activities.
- Comply with federal, state and local requirements to regulate floodplain and wetland development and to protect endangered, threatened and rare species and their habitats.
- Support mitigation of impacts to PCAs through subdivision,variance, and other permits.
- Seek opportunities to restore vegetation and promote uninterrupted vegetated shorelines along the Mississippi and its tributary streams and ravines (such as Rice Creek, Springbrook, Stoneybrook Creek and Oak Glen Creek) to preserve a natural look of the river and the opposite shore and to provide ecological corridors to nearby natural areas (such as Springbrook Nature Center).
- Sustain and enhance ecological function during vegetative restoration.
- Evaluate proposed development sites for erosion prevention and bank stabilization issues.
- Make permanent protection measures that protect PCAs and encourage public spaces (such as overlooks, plazas, historic landscapes, or interpretive facilities) where possible in new development or redevelopment projects in the corridor.
- Require park dedication that is generated within the corridor to consist of land within the corridor or, if cash is given in lieu of land, the cash should be used towards improving open space, riverfront access, or other public service within the River Corridor.
- Support efforts to limit the discharge of point and non-point pollution sources into the River to protect and enhance water quality.
- Design transportation to minimize impacts on residential, recreational, scenic, and environmentally sensitive areas.
- Enforce complete compliance with air and noise quality standards and regulations established by state and federal agencies.
- Work with the Anoka County Historical Society (ACHS), the State Historic Preservation Office (SHPO), Native American groups, and any other interested organizations to identify, protect, and preserve historic sites, historic buildings and archaeological resources within the corridor.
- Reduce the use of salt on area roads by encouraging greater use of alternative materials for winter maintenance while considering public safety needs.

- Provide easements for future trail corridors and connections in new developments, redevelopments, and appropriate tax-forfeited parcels within the Corridor.
- Evaluate options to facilitate crossing the BNSF railroad from the eastern side of the City into the Corridor.
- Coordinate with Anoka County on the management of riverfront parks to reduce the environmental impacts of parks and promote increased environmental resilience.
- Promote Fridley's riverfront parks as destinations for users of the NorthStar Commuter Rail.
- Promote opportunities for multi-modal transportation including bicycle, kayak, canoe-sharing and pedestrian use.
- Manage islands within the corridor as open space.
- Facilitate educational activities that offer information on the natural and built environment within the Critical Area Corridor.
- Encourage the use of riverfront parks for festivals and other programming that promotes the City's natural heritage.
- Protect and minimize impacts to Public River Corridor Views from public and private development activities as well as vegetation management activities.
- Coordinate with river corridor neighborhoods to identify additional river views or corridors and link them with the City's Active Transportation Plan
- Encourage the design of redevelopment to maximize off-site views to the Mississippi River and associated natural features.
- Prohibit installation of billboards or other advertisement signs that are visible from the river or its opposite shores.
- Ensure new or modified transportation and utility facilities complement the planned land and water uses and do not stimulate incompatible development.
- In planning and designing the construction or reconstruction of all public transportation facilities which occur within the river corridor, consider provisions for scenic overlooks, alternative transportation use, and stormwater treatment
- Minimize utility crossings and encourage the location of necessary crossings along existing bridges and utility crossings. If feasible, crossings should be underground and should not negatively impact natural or cultural significant resources.
- Encourage the placement of utilities underground.
- Manage the use of River for complimentary recreational uses.
- Evaluate commercial uses of the River in Fridley as they occur.

9.11 Action Steps

The DNR recently updated the rules and regulations regarding Mississippi River Critical Corridor Area that leads to inconsistencies with the City of Fridley's zoning overlay district and zoning map. Updating the City of Fridley code will facilitate the development process for residents and reduce inefficiencies.

Action Step: Update Chapter 204.28 Critical Area overlay district, Chapter 205.32 Shoreland Overlay District, and Chapter 205.27 Flood Plain Management overlay district for compliance with the goals and policies of the MRCCA plan and with Minnesota Rules, part 6106.0070, Subp.5 - Content of Ordinances.

Action Step: Update zoning map with new MRCCA districts.

The City's riverfront is the most vulnerable area of the City to climate change. Protecting Primary Conservation Areas (PCAs) and applying appropriate shoreland best management practices can reduce the risk of erosion and flooding associated with higher water. The most efficient time to implement these best practices is

during redevelopment.

Action Step: Update Chapter 205.28 Critical Area and Chapter 205.32 Shoreland Overlay District to establish procedures and criteria for processing applications with potential impacts to PCAs for compliance with the MRCCA plan and with Minnesota Rules, part 6106.0070, Subp.5 - Content of Ordinances.

Action Step: Develop administrative procedure for integrating DNR and local permitting of riprap, walls, and other hard armoring.

Action Step: Establish a vegetation permitting process that includes permit review procedures to ensure consideration of restoration priorities identified in this plan in permit issuance, as well as standard conditions requiring vegetation restoration.

Action Step: Ensure that information on the location of PCAs is readily available to property owners as well as permitting standards for land alteration activities.

Action Step: Establish process for evaluating priorities for natural vegetation restoration, erosion prevention and bank and slope stabilization, or other restoration priorities identified in this plan in Conditional Use Permits, variances and subdivision processes.

Action Step: Establish procedures for prioritizing protection of PCAs when necessary.

Action Step: Install and utilize low-impact design, energy conservation, low maintenance turf grass, pollinator plants and other GreenStep Cities best practices during the redevelopment of riverfront parks.

The City of Fridley's riverfront parks are historically under utilized for recreation. Current barriers for park use include lack of crossings over the BNSF railroad to the Parks, trail gaps to reach the parks via multi-modal transportation, and a lack of amenities.

Action Step: Update Active Transportation Plan to include connections to all Parks within the Critical Area. Include funding for trails within the budget for Capital Investment Projects.

Action Step: Coordinate with the BNSF railroad to establish methods to safely cross the railway to access the Critical Area.

Action Step: Coordinate with partners to promote the River and riverfront parks as destinations and install infrastructure to support multi-modal transportation.

Action Step: Evaluate the feasibility of developing a visitor interpretation center at Islands of Peace Park as part of the redevelopment of the NorthStar Transit Overlay District.

Action Step: Implement the Transit Overlay District to bring restaurants and other commercial amenities closer to the Islands of Peace Park.

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Public Facilities

Fridley Civic Campus

Public Facilities

10.0 Purpose

The purpose of this chapter is to not only provide an inventory of the facilities that are City owned and operated, but also to allow the City to assess its future facility needs. Starting near its boundaries, the City's entry monument signs are an example of public facilities owned by the City. Inventory of City owned and operated facilities revealed that there are a total of 112 existing facilities with the two new buildings for the Fridley civic campus. Facilities as counted include: entry monument signs, wells, pump houses, water towers, water treatment facilities, cold storage buildings, and those buildings that you more commonly think of when you hear the word facilities such as City Hall and the Public Works Garage.

10.1 Public Facilities Inventory

New Civic Campus

A very analytical approach was used to determine whether the next fifty years would be spent in the existing City Hall/Police/Fire facility, or whether a new modern complex would be the best for continuing the delivery of high quality service to Fridley Residents and businesses.

Ultimately, a decision was made to combine the services that the City provides into one convenient location to better serve its customers. This Civic Campus Concept now will include: City Hall, Fire Station 1, Police/Public Safety complex, and a new Public Works Complex. The Public Works complex construction will be completed in June 2018 and the City Hall/Fire/Police complex will be ready to occupy in November 2018.

Much effort was taken to assure that the building is built with equipment that will maximize efficiency of the overall operation. The City worked with its architects (BKV Group) and Xcel Energy to specify a package where each device is at least a step above the standard Minnesota Energy Code requirement. In some cases, items such as controls specified were several steps above what the standard energy code requires. Other efficiencies were built into the complex as well. The interior spaces will be easy to navigate for the customer, as the layout has been done in a manner that allows a far more intuitive understanding of how to get to the various department locations.

Civic Campus Construction, December 2017, photo by Ryan Wickstrom

Police Station

The Police Station on the New Civic Campus is modern in every sense of the word. The security system has been thoughtfully designed to ensure a safe, friendly, vibrant, stable feel for campus visitors, staff and the general public. Like City Hall, the space will be intuitive for visitors who choose to visit the Police Station. Internal spaces again will be designed with a more open floor plan allowing daylight and a very positive work environment.

A squad garage below City Hall will keep the police fleet of vehicles out of the weather and will eliminate the wear and tear on the vehicles that comes with otherwise keeping them running and ready for calls.

An Emergency Operations Center (EOC) has also been designed and built into the complex and will serve as command central in the event of an incident and will also serve as a training center for public safety staff.

Public Works Garage

The garage is a new and modern paradigm of public works complexes. It will allow the City to keep its expensive, large scale (plow trucks, vacuum truck, street sweeper, sewer operations trucks, and mowers), fleet indoors.

Maintenance of all City vehicles can now occur inside in a temperature enclosed environment that is appropriate for the safety and wellness of those maintaining the fleet. Offices for the Public Works Staff will also be included in the new Public Works Building. A ground floor bathroom will be open to the public during off business hours. This will allow those using the plaza an opportunity to use that convenience when enjoying the plaza and pathways.

Outdoor Plaza

An Outdoor Plaza, pond, aerator fountains, an amphitheater, and trail system were also integrated to further the cause of health, wellness, and outdoor enjoyment for the public. Daytime and nighttime lighting will be appropriate for the safe enjoyment of the campus and an advanced security system has been specified and will be installed to assure peace of mind. A generous donor has offered to assist with the funding of a band shell for the amphitheater. Evaluation of what the band shell will include and how it will be designed is essential to assure the open-space feel and view shed to the park beyond is not negatively impacted by its construction.

Outdoor Plaza

Existing Administrative, Police, and Fire Building

The existing City Hall/Police/Fire complex will be vacated for another user or buyer to occupy. It is the City's goal to make the site available to a tax-paying entity that will help to broaden the tax base and place one more site in the private land owner category. As the site is in a redevelopment zoning district, the options are wide ranging as to what the site's re-use will be.

Fridley Civic Campus

The frontage road along University Avenue directly in front of the current Fire Station and former Cummins building at 6499 University will be removed and will be repurposed for pathway and pervious area that will be both aesthetic and environmentally sensitive.

Fire Stations

Fridley has three fire stations. Fire Station 1 is housed in the Municipal Center and was originally constructed as the Village Hall in 1949. This station houses the administration and staffing for emergency response. The five apparatus bays are designed to accommodate vehicles and supporting equipment.

Fire Station 1 will be relocated as part of the construction of a new Municipal Center. The new station will house the administration and staffing for emergency response as well as the training facility and six apparatus bays designed to accommodate vehicles and supporting equipment. A new training facility will include: a shared class room that will also serve as an emergency operations center, a second level fire simulation and building search area and a four story tower that includes confined space and rope rescue.

Fire Station 2

Fire Station 2, located at 6381 Old Central Avenue, was constructed in 1988. The living quarters are leased and furnished by Allina Transportation as a base for ambulance service.
Fire Station 3, located at 110 77th Way, was constructed in 1989. Station 2 and 3 each has about 2,000 sq. ft. of space and is only staffed when personnel are called back for emergencies. Each station is well maintained with recent replacement of interior lighting, carpeting and paint.

A feasibility study conducted in 2013 indicated "The two sub-stations, Stations 2 and 3, are in good condition and meet the current needs adequately. However, both are at maximum storage capacity and have no room for future expansion." Stations 2 and 3 were considered in the planning of the new Fire Station 1 and the recommendation was to keep these two stations in service. Future changes in staffing or consolidation of services with another department could allow the status of one or more of the stations to change.

Child dressed as a firefighter climbing into a firetruck

Liquor Stores

The City of Fridley owns and operates two municipal liquor stores. The Fridley Market location is leased space located near University and 694 and is the larger of the two stores. The secondary store, referred to as the Moore Lake store, is located at 6289 Hwy 65. In 2017, it's anticipated that Fridley's liquor operations will provide nearly $340,000 in funding to offset the City's operational and capital expenses. Over the years this funding has been an essential revenue source and has helped the City maintain low property taxes for the benefit of its residents and businesses.

The City is continually reviewing its liquor operation to ensure the business is viable and competitive. This task has become increasingly difficult as large retailers have moved into the metro and as traffic and neighborhood trends have evolved, but the City has seen its successes, the Fridley Market location is a prime example of how that work and investment have paid off. With the revitalization in that neighborhood in the past three years and with the Fridley Market liquor store remodeling project, gross profits have continued to increase. This increase in net profits does not match downward trends seen around the metro area with municipal liquor operations. Prior to renovations, gross profits were steadily declining about 3% per year. Since renovations of the store and the revitalization of the area, gross profits have increased on average 10% per year.

Fridley Marketplace Liquor Store

In 2017, the City completed a market analysis of the two existing stores along with determining if a third store would provide additional profit or just shift the current customer base. Based on the current

market environment, the study identified that a third site located on the north end of the City could generate additional profit for the City's liquor operation. That store would be dependent on the impact of a 2017 liquor license change approved by the City of Coon Rapids, the City bordering the north. Coon Rapids removed a restriction imposed on grocery and warehouse/membership type stores which limited the types of allowable liquors to be sold. In addition, the City of Spring Lake Park bordering the east side of Fridley is prepared to sell its liquor operation to a large liquor franchise. Fridley plans to monitor these recent developments and will continue to analyze the viability of expanding its liquor operation.

The Moore Lake liquor store building is owned by the City and provides 21% of the total net profit for the City's liquor operation. Sales at this store have been declining for nearly two decades as a result of changing traffic patterns and accessibility. This store is due for significant non-routine maintenance and improvements. Staff has identified and prioritized the work necessary and has incorporated those improvements in the City's Capital Investment Program. The City has suspended scheduled non-routine maintenance and improvements until a determination of a third store is made.

Fridley Liquor Store

Finally, in 2017 the state legislature amended state law allowing for Sunday Liquor sales. This is believed to be the first change in many anticipated in liquor laws with continued pressure coming from grocery and private liquor operations to modify current restrictions allowing for expanded service areas and delivery options. The City continues to identify new initiatives designed to retain and expand its customer base and educate the community on the importance of a municipally owned liquor operation.

10.2 Needs Assessment

Staff has evaluated the unused platted roadways, alleys and miscellaneous parcels throughout the City to determine what needs to be maintained and what needs to be placed back on the tax rolls by virtue of vacation, or land sale. It is the policy of the City to sell land that is not needed for planned redevelopment projects or future planned roads with the intent of getting that property back on the tax rolls.

Non-vacated, But Unused, Alleys & Streets

Early plats and planning processes generally resulted in layouts for streets and alleys. Most of those were utilized and are evident today. For those that were not utilized, a determination should be made regarding its future usefulness. In 2017, a 60' street right-of-way that existed between properties was vacated and 7,200 sq. ft. was given back to adjacent properties, not only for their enjoyment, but also as an opportunity to get property back on the tax rolls and to be maintained by private owners, rather than the City.

Like the 2017 vacation and giveback, the City has other situations identical to that example. Where those lots exist, the City needs to evaluate the best future use and either create a plan using the parcels, or like the 2017 example, vacate and allow the land to be used by private properties that pay taxes.

Entry Monuments

On each major corridor through the City there are two entry monument signs welcoming folks to Fridley, one north, and one south. A seventh sign exists at the south-west quadrant of the intersection of Mississippi Street and University Avenue. The signs are made of top grade, Clear-Heart Redwood and were sandblasted, painted and installed in honor of the City's 50th Anniversary (1999). Originally, the signs were produced by a sign Company in Osseo, MN. The City has sought to repaint the signs on a 5-year scheduled rotation. Currently, the south facing signs are ready again for a refresh and typically need to be re-painted more often due to sun. The City's Public Works Staff uses its most artistic staff member's talents in this effort to assure that the painting refresh pays homage to the original painting and techniques used on the sign and they will assure we keep the message and art around it fresh and welcoming. The expense for time and materials to complete this task has been absorbed in the Public Works Maintenance Budget.

Fridley Welcomes You

10.3 Resiliency

In order to be a stable community, Fridley needs to be able to withstand the effects of natural disasters. Disasters most likely to impact life in Fridley are flooding, drought, and wind damage. When disaster strikes, Fridley residents have come to rely on the City for help. Business owners expect the City to prevent their street from flooding and homeowners expect the City to collect tree waste for free when a wind storm passes through. Decades ago, the City had abundant financial reserves to be able to front the cost of emergency cleanup, while the City applied for a FEMA disaster declaration approval for reimbursement of costs. But, the City is not as well positioned financially now, as those reserves were used to pay daily expenses over the past 16 years due to Charter restrictions that prevented the City from increasing utility fees to cover increased rates from the Metropolitan Waste District.

The challenge now is how can the City be more resilient? How can the City be prepared for the next tornado? How can the City protect property owners from the impacts of a flood? How can the City minimize the impacts of a drought? Many action steps in this plan address ideas on how the City can become more resilient in times of crisis and what the City can do to minimize contribution to greenhouse gas emissions. One thing being considered at the new Civic Campus is installation of an electric vehicle charging station for customers.

Every few years, the City updates it Emergency Operations Plan. Anoka County has an extensive Multi-Jurisdictional Hazard Mitigation Plan and full time emergency staff. The City also monitors programs that FEMA offers to buyout properties in danger of flooding so loss of life and property can be prevented.

10.4 Summary and Action Steps

In 2018, the City will open its new Civic Campus on University Avenue between the stop light on University Avenue and 69th and 73rd Avenue. The Rice Creek Regional Bike Trail crosses University Avenue at grade near the stop light at 69th Avenue, which has a 55 mph speed limit in this location. In addition, the City plans to sell part of the property to build an estimated new 500 housing units, which will increase the number of people desiring to take transit at the existing transit stops, which are slated to become one of the Central BRT line stops.

Action Step: Study the feasibility of constructing a trail overpass at 69th and University Avenue (Hwy 47).

A generous donor has offered to assist with the funding of a band shell for the amphitheater on the new Civic Campus.

Action Step: Evaluation of what the shell would include and how it would be designed will be essential to assure the open-space feel and view shed to the park beyond is not negatively impacted by the construction of a band shell.

The frontage road along University Avenue, directly in front of the current Fire Station and the office building at 6499 University, will be removed and will be repurposed for pathway and pervious area that will be both aesthetic and environmentally sensitive.

Action Step: The City will evaluate the best reuse of the former frontage road and incorporate that design and implementation into the development agreement for the reuse of the existing City Hall/Police /Fire Complex at 6431 University Avenue.

Fire Stations 2 and 3 were considered in the planning of the new Fire Station 1 and the recommendation was to keep these two stations in service. Future changes in staffing or consolidation of services with another department could allow the status of one or more of the stations to change.

Action Step: Continue to study efficiencies and potential re-use of these satellite fire stations and make recommendation for re-use if/when a station is deemed non-essential.

The City is continually reviewing its liquor operation to ensure the business is viable and competitive.

Action Step: The City continues to identify new initiatives designed to retain and expand its customer base and educate the community on the importance of a municipally owned liquor operation.

Staff have evaluated the unused platted roadways, alleys and miscellaneous parcels throughout the City.

Action Step: The City will work to determine what needs to be maintained and what needs to be placed back on the tax rolls by virtue of vacation, or land sale.

The City's Emergency Preparedness Plan has not been updated for a few years.

Action Step: The City will update its Emergency Preparedness Plan, coordinating with Anoka County's plan.

Construction of a new Civic Campus offers new opportunities for energy reductions.

Action Step: The City will explore options for new fleet vehicles, as they are scheduled for replacement, which reduce the City's contribution to greenhouse gas emissions.

Fridley City Hall Rendering

The new public facilities in Fridley's new civic campus represent Fridley's future growth and ongoing redevelopment. Significant changes are occurring in many highly visible locations in the City, demonstrating how the community is growing and changing. These new facilities also demonstrate a new focus on connecting new office and housing development to nearby park amenities, offering workday recreation in addition to leisure recreation. Streets are being designed differently to offer safe passage for multiple modes of transportation, which has not occurred in previous developments. Attention is also being made to how storm water can be treated as an amenity rather than just piped underground. The changes incorporated into new public facilities serve as a guide for private development and will improve the City's resiliency.

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Implementation Plan

Implementation

11.0 Fiscal Plan

This Plan serves as a guide for the five-year Capital Investment Plan, which is updated and prepared annually. The 2018-2022 Capital Investment Plan can be found in Appendix 11.

11.1 Zoning Controls

State law requires that official controls be amended to conform to the Comprehensive Plan. Official controls are ordinances or established policies of record. The Zoning Code and Subdivision Ordinance are examples of official controls. The action steps within this Plan that involve a zoning text amendment have been **bolded** in the following table.

Comprehensive Plan Amendments

Amendments to the City's Comprehensive Plan must follow the process specified in State Statute. When a Comprehensive Plan Amendment is requested, the first step in the process is to notify surrounding jurisdictions and give them 60 days to comment. Then, a public hearing is advertised and set to be heard by the Fridley Planning Commission. Affected properties within 350 feet of the subject property are notified of the hearing by direct mail. Following the public hearing, the City Council hears the petition and adopts it by resolution if approved. The Amendment is not final until it is also approved by the Metropolitan Council.

11.2 Implementation Action Steps and Timeline

The action steps listed in each chapter of Fridley's 2040 Comprehensive Plan are repeated here by category with an estimated completion date noted. Some action steps repeat as they are mentioned in more than one topic area.

Figure 11.1

Action Step	Timeline
Land Use	
The City should consider amending commercial and industrial parking requirements in the Zoning Code, following further study of current parking demands.	2019
As part of the effort to master plan each designated BRT station stop along University Avenue and 53rd Avenue, the City should partner with MnDOT, Metro Transit, Anoka County, and the City of Spring Lake Park to conduct a corridor study of University Avenue from 53rd Avenue to 85th Avenue.	2019
Amend the R-1 Zoning Code to require the planting of a minimum of two trees per parcel in new home construction.	2018
The City will partner with Anoka County and Fridley Historical Society volunteers to create an annual Historic Home Tour in Fridley, where we can showcase Fridley's history.	Annually
In order to have economically competitive commercial areas along the I-694 corridor through Fridley, the City should encourage existing retailers along the corridor to install (Electric Vehicle) EV charging stations, and evaluate the potential need to amend the Zoning Code to permit EV charging stations in various zoning districts.	Ongoing
Consider Zoning Code text amendment that requires new, large commercial and multi-family housing developments to include EV charging stations	2019

Adopt and implement the City's Energy Action Plan.	Ongoing
Amend the text in the M-3, Outdoor Intensive Heavy Industrial, Zoning District to allow solar gardens as an accessory use.	2019
Support financing programs for energy efficiency and integrate green building best practices information and assistance into the building permit process.	Ongoing
Utilize public art as a creative means of communicating environmental messages and inspiring community engagement.	2019
Analyze City Code to determine if any changes need to be made to allow more community gardens or community orchards.	2020 or sooner if requested
Monitor the land use impacts of AVs closely and amend the Zoning Code as appropriate.	Ongoing
Housing	
Continue to conduct systematic code enforcement inspections throughout the City.	Ongoing
Continue to inspect all rental housing units in a three-year rotation to ensure rental housing is meeting minimum safety standards.	Ongoing
City staff will license and inspect group homes without food services as rental units when they become aware of them. Staff will also partner with the City Assessors and other agencies to identify such units in the City.	Ongoing
Guide the zoning of the Girl Scout Camp for mostly single-family housing and some owner-occupied multi-family housing.	Triggered upon redevelopment
The Police Department and Community Development Department will continue to work together on a Crime-Free Rental Housing initiative, enforcing the requirements of Chapter 220 of City Code.	2018
Transportation	
City staff needs to meet with BNSF again to pursue at-grade crossing options or pedestrian crossing options at a minimum at 57th Avenue. The City needs to acquire the 50' wide section of land Home Depot owns north of the Goodwill Store site for future rail crossing use.	2019
As part of the effort to master plan each designated BRT station stop along University Avenue and 53rd Avenue, the City should partner with MnDOT, Metro Transit, Anoka County, and the City of Spring Lake Park to conduct a corridor study of University Avenue from 53rd Avenue to 85th Avenue before 2021. This study should also analyze speed limits in combination with increased traffic projections.	2019
While there currently is no MnDOT funding for such improvements, the City should consider conducting further study of the intersection of Medtronic Parkway and Highway 65 – especially since the Medtronic campus is only halfway constructed to its approved master plan. In addition, the City, County, and MnDOT need to initiate discussions about the need to consider an east-west route through Fridley that can better serve local traffic needs and provide a safer route for pedestrians and cyclists.	2020
The City will continue to rate conditions of City streets every three years and repave approximately two miles of street per year to address maintenance needs to meet minimum road condition standards for the City.	Ongoing
To ensure that seniors and disabled individuals can safely remain in their home, the City will continue, through our Senior Center and website, to connect senior residents to available County and Metro Transit home pick-up transportation services.	Ongoing
The Police Department will be monitoring pedestrian crossing violations at University Avenue and Mississippi Street, and warning or citing violators.	2018

Work with Anoka County to analyze redesign options for Mississippi Street in a similar planning process that was completed for the redesign of Osborne Road. Redesign options should include modification to the BNSF railroad bridge drainage system which causes the south sidewalk to ice up in the winter. The County and City should also involve MnDOT in this planning process to investigate options for making the University Avenue and Mississippi Street intersection more pedestrian friendly, like considering no right turn on red.	2019
Once City offices move to the new Civic Campus, the University Avenue frontage road access at Mississippi Street should be closed off. The vacated street could be added to adjoining property for future redevelopment purposes. Removing the frontage road will also allow for design of a safer at-grade pedestrian crossing and offers an opportunity to continue the multi-use trail on the east side of University Avenue south to 61st Avenue.	2019
Work with Metro Transit to install a bus shelter that is ADA compliant at 81st Avenue and University Avenue.	2021
In order to get more transit ridership, bus stop locations need to be accessible. The City could initiate a bus bench permitting process, and the installer of the bench would be required to make access to the bench accessible in exchange for no temporary sign permit fees as long as the bench location is maintained.	2020
Update the Active Transportation Plan at least once every five years to update and prioritize current needs for sidewalk and trail connections, and incorporate newly adopted Fridley and Columbia Heights Safe Routes to Schools Plans.	2018
The city staff should meet with the appropriate staff of Al-Amal school and Totino Grace to determine safety needs for kids walking, biking, and taking transit to these private schools, and then incorporate those needs into the next Active Transportation Plan update.	2019
Monitor development of Autonomous Vehicles and their impacts on land use and road design.	Ongoing
Explore means for a train-passing alert system for emergency dispatch use when instructing first responders to a call, so that they can take alternative routes when a train is blocking their normal response route.	2019
Organized garbage collection would offer a more affordable opportunity for organics recycling, so the City should consider studying the option of organized garbage collection again**.** The City should also immediately amend Chapter 113 to limit the number of garbage hauler licenses allowed in the City.	2019
The City should collect bicycling and pedestrian data on key intersections on University Avenue and other locations with unmet trail connection needs. This data would then be used in the Active Transportation Plan to guide planned improvements.	Annually in September
The streetscape conditions on 57th Avenue, University Avenue and Mississippi Street should be analyzed and a plan developed to finance maintenance needs with an emphasis on replacing outdated streetlights with more energy efficient options.	2018
Advocate for standard transit service to the Northern Stacks Development and other large employers in the area, such as BNSF and General Mills.	Ongoing
Pursue establishment of a car sharing service like Car2Go and a bike sharing system like Nice Rides at the Fridley Northstar Station.	2023
Being in an alternative transportation node affords Fridley the eligibility for certain federal funding sources that can help pay for easements, so the City should pursue such funds when they become available to obtain the easements needed along the River to expand Islands of Peace Park Trails north to River Edge Way Park, which could lead to bringing the MRT closer to the River.	2019

Pursue funding options for the infrastructure planned in the East River Road Corridor Study.	2019
Now that the Main Street off-road multi-use trail is complete to 44th Avenue, the City needs to work with Anoka County to complete the needed connection to the MRT.	2020
The City needs to begin obtaining easements where needed to complete the future sidewalk and trail additions as specified in the East River Road Corridor Study and the Northstar TOD Master Plan.	2018
Incorporate Living Streets design elements into street redevelopments based on unique street needs and characteristics.	2019
Incorporate the adopted auto-oriented corridor design goals into the future University Avenue corridor study. Also use the design goals as a guideline when pursuing landscaping grant funds for University Avenue.	2019
Partner with the City of Columbia Heights and Metro Transit to develop a street design that supports multi-modal and future BRT needs on 53rd Avenue when the street is rebuilt.	2019
Parks and Trails	
The City should continue to maintain and implement park maintenance and upgrade plans in accordance with the capital improvements program. A Parks Master Plan will be developed in 2019 to address parks, trails and recreation amenities system wide. Parks recommended for play equipment replacement in the next 2 to 5 years are as follows: Commons Park, Locke Park, Moore Lake Park • Parks recommended for play equipment replacement within the next 10 to 12 year time span are as follows: Springbrook Park, Ruth Circle Park, Craig Park, Flanery Park, Logan Park, Plaza Park, Community Park, Creekview Park, Edgewater Gardens Park, Jay Park, Terrace Park, Meadowlands Park, Creekridge Park, Ed Wilmes Park, Sylvan Hills Park, Harris Lake Park, Briardale Park, Hackmann Park, Jubilee Park, Summit Square Park and Plymouth Square Park. • All hard surface basketball and tennis court areas in the parks should be placed on a regular resurfacing program.	2018-2023
A consistent signing policy shall be developed for all park and recreation areas and buildings, to include directional and informational signs.	Ongoing
Implement the park redesign and trail improvements and expansions identified in the Northstar TOD Master Plan and the Islands of Peace Park Plan as redevelopment of the area occurs.	Depends on when development occurs
Evaluate opportunities to add more lighting and benches to the neighborhood parks in response to these amenities being given a high priority in the 2017 Citizen Survey.	2019
The City should update a promotional map that highlights park and trails throughout the City. This map should be made available for viewing on the City's web page and printed copy available at City Hall.	2019
Work with the Springbrook Nature Center Foundation to replace the old picnic shelter with a new picnic pavilion/outdoor classroom structure with a spring 2019 target date for completion.	2019
Work with the Springbrook Nature Center Foundation to complete the green roof installation on the new Springbrook Interpretive Center addition.	2020
Improve the entrance gate and trail system at the SNC park entrance area adjacent to the Springbrook Apartments.	2021

Improve the entrance gate and trail system at the SNC park entrance area adjacent to the pedestrian entrance in the southwest corner of the park.	2021
The City should continue to expand the existing trail network to service all neighborhoods and areas of the city.	Ongoing
Publicize the local trail system through updated maps and appropriate trail signage; include identifying the Mississippi River Trail, which runs through four of the local parks located adjacent to the Mississippi River.	2019
Continue to cooperate with other governmental and non-governmental agencies in the development of trails that complement the local system.	Ongoing
Construct an off street bikeway/walkway connection linking the existing trail on Medtronic parkway, through the proposed City View area, to the University Avenue corridor when the future road development occurs.	2021
Pursue infrastructure funding for the 2017 Safe Routes to School (District 14) Plan for 7th Street and Commons Park between Mississippi Street on the north and 53rd Avenue on the south.	2018
Evaluate expanded opportunities for walking and biking along the south side of 61st Avenue from Main Street to the Fridley High School/Middle School 4-way intersection at West Moore Lake Drive.	2020
Pursue Safe Routes to School (District 13) infrastructure funding to provide walking and biking opportunities on Matterhorn Drive, south of Interstate 694 – to North Park Elementary School and Park facilities located north of the freeway.	2022
Pursue funding for the East River Road Corridor Plan of 2013 to expand trail and sidewalk connections along East River Road.	2020
Survey and rate trail conditions regularly and use the information to budget for needed improvements in the Capital Investment Program allocations.	2018 and ongoing
Move the sand volleyball court area to the south end of the Moore Lake beach area.	2018 - 2020
Reconfigure and install a new parking lot next to the existing Moore Lake beach house building.	2018 - 2020
Work with the Rice Creek Watershed District to provide shoreline restoration, infiltration basins and iron-enhanced sand filters to improve water quality at Moore Lake.	2022
Install a new 75 person picnic shelter in the former location of the Moore Lake sand volleyball courts.	2019
Replace the outdated Moore Lake Park playground equipment with new and modern play structures.	2020
Remove the Moore Lake Park tennis courts and basketball court in keeping with the park master plan developed in 2016.	2020
Remove the softball infield area and backstop, and replace with a flexible open-space multi-use field as per the master plan.	2020
Relocate the newer fishing pier at Moore Lake in the location of the original fishing pier to provide better fishing opportunities.	2021
Search for a community sponsor or sponsors to help fund the splash pad amenity identified in the Moore Lake Master Plan.	2023
Work with local watershed districts and engineering professionals to determine cost effective solutions to the water issues in Craig Park, Madsen Park and Springbrook Nature Center.	2019
Work with volunteer groups to provide annual buckthorn removal programs at Innsbruck Park, Springbrook Nature Center and West Moore Lake Sand Dunes Park.	Ongoing

Work with the USDA Department of Wildlife to provide management of the deer herd at Springbrook Nature Center.	Ongoing
Work with Canada Goose Management to control the number of Canadian Geese at Moore Lake Beach and Park.	Annually
Continue to pursue funding action opportunities to plant more trees in City parks and ensure that a wide diversity of tree species are planted to protect against massive loss due to disease.	Ongoing
Analyze the suitability of the City parks for planting alternative grass species, native perennial plantings, low maintenance grasses, and plants that provide habitat for pollinators and migrating birds. Consider planting these options in appropriate areas and including signage and other public education regarding the change.	2019
Water Supply	
Revise city ordinances/codes to encourage or require water efficient landscaping	2020
Revise city ordinance/codes to permit water reuse options, especially for non-potable purposes like irrigation, groundwater recharge, and industrial use	2022
Make water system infrastructure improvements	Ongoing
Offer free or reduced cost water use audits for residential customers	Ongoing
Provide rebates or incentives for installing water efficient appliances and/or fixtures indoors	Ongoing
Provide rebates or incentives to reduce outdoor water use	2020
Conduct audience-appropriate water conservation education and outreach	Ongoing
Conduct a facility water use audit for both indoor and outdoor use, including system components	Ongoing
Install enhanced meters capable of automated readings to detect spikes in consumption	2025
Install water conservation fixtures and appliances or change processes to conserve water	2018
Repair leaking system components	Ongoing
Investigate the reuse of reclaimed water	2018
Reduce outdoor water use (e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	Ongoing
Train employees how to conserve water	Ongoing
Implement at least one in 20 GreenStep Cities BMPs for water	Ongoing
Implement stormwater management projects from local water project priority list	2019
Adopt non-zoning wetlands ordinance	2019
Implement a water conservation outreach program	2019
Implement a rebate program for water efficient appliances, fixtures, or outdoor water management	Ongoing when funds available
Local Water	
Implement Appendix E: Implementation Plan of the Local Water Plan	2019 - 2029
Wastewater	
Install new water meters with updated automatic reading capabilities in commercial/ industrial properties	2018
The City should conduct a water/sewer rate study every five years to review rate structure and provide rates that incorporate sustainable capital planning and promotion of conservation.	2022
Review and meet City's reserve funding policy annually using the best cost projections available	Ongoing

Replace or rehabilitate 50% of the sanitary sewer system by the year 2050	2050
Maintain and regularly update City's inflow/infiltration mitigation program to mitigate excess system flows and reduce long-term costs to ratepayers	Ongoing
Investigate feasibility of point of sale inspections on private sewer connections, including providing financing options in case property owners cannot afford to make necessary improvements.	2021
Partner with Met Council to ensure that the interceptors and trunk lines serving the City are capable of handling peak flows to avoid bypass event	Ongoing
Economic Competitiveness	
Development Review Committee (DRC) meetings will continue to offer residents and businesses the opportunity to meet with staff and discuss plans before proceeding to Commission and Council review. This will help identify potential issues and create a more streamlined process.	Ongoing
Development Review Committee (DRC) will continue to review and advance recommendations on ordinance amendments to assure City regulations are current and in step with industrial and commercial owner desires, needs, and technology advances.	Ongoing
The City of Fridley will investigate gaps in public transportation. Currently 99% of residents have public transportation access within a ½ mile of their home, but businesses in Fridley face larger public transportation gaps. Commercial and industrial areas including the northern and southern edge of the City should be included in this analysis.	2018
The City of Fridley will continue Business Retention and Expansion (BR&E) efforts to create a more business friendly environment.	Ongoing
The City of Fridley will inform schools about programs for students considering a job in manufacturing and share their willingness to partner with outside companies to match students with jobs.	Ongoing
Manufacturing Week will continue to be an opportunity to renew and continue efforts to connect local schools with local businesses.	Ongoing
The City of Fridley will demonstrate the importance of public art through placement on the Civic Campus and throughout the City.	2018 and ongoing
Critical Areas	
Update Chapter 205.28 Critical Area overlay district, Chapter 205.32 Shoreland overlay district, and Chapter 205.27 Flood Plain Management overlay district for compliance with the goals and policies of the MRCCA plan and with Minnesota Rules, part 6106.0070, Subp.5 - Content of Ordinances.	2018
Update zoning map with new MRCCA districts.	2018
Update Chapter 205.28 Critical Area and Chapter 205.32 Shoreland Overlay District to establish procedures and criteria for processing applications with potential impacts to Primary Conservation Ares for compliance with the MRCCA plan and with Minnesota Rules, part 6106.0070, Subp.5 - Content of Ordinances.	2018
Develop administrative procedure for integrating DNR and local permitting of riprap, walls, and other hard armoring.	2019
Establish a vegetation permitting process that includes permit review procedures to ensure consideration of restoration priorities identified in this plan in permit issuance, as well as standard conditions requiring vegetation restoration.	2019
Ensure that information on the location of Primary Conservation Areas is readily available to property owners as well as permitting standards for land alteration activities.	

Establish process for evaluating priorities for natural vegetation restoration, erosion prevention and bank and slope stabilization, or other restoration priorities identified in this plan in Conditional Use Permits, variances and subdivision processes.	
Establish procedures for prioritizing protection of PCAs when necessary.	
Install and utilize low-impact design, energy conservation, low maintenance turf grass, pollinator plants and other GreenStep Cities best practices during the redevelopment of riverfront parks.	Ongoing
Update Active Transportation Plan to include connections to all Parks within the Critical Area.	2018
Coordinate with the BNSF railroad to establish methods to safely cross the railway to access the Critical Area.	Ongoing
Coordinate with partners to promote the River and riverfront parks as destinations and install infrastructure to support multi-modal transportation.	Ongoing
Evaluate the feasibility of developing a visitor interpretation center at Islands of Peace Park as part of the redevelopment of the Northstar Transit Overlay District.	Ongoing
Implement the Transit Overlay District to bring restaurants and other commercial amenities closer to the Islands of Peace Park.	Ongoing
Public Facilities	
Study the feasibility of constructing a trail overpass at 69th and University Ave	2022
Evaluate & design band shell at Civic Campus amphitheater	2019
Abandon & redesign University Ave frontage road at existing City Hall/Police /Fire Complex, incorporating connection to multi-use trail to the north	2020
Continue to study need for fire stations 2 & 3 and make recommendation for re-use of site if/when a station is deemed non-essential.	Ongoing
The City continues to identify new initiatives designed to retain and expand its customer base and educate the community on the importance of a municipally owned liquor operations	Ongoing
The City will work to determine what public land needs to be maintained and what needs to be placed back on the tax rolls by virtue of vacation or land sale	Ongoing
The City will update its Emergency Preparedness Plan, coordinating with Anoka County's plan.	2020
The City will explore options for new fleet vehicles, as they are scheduled for replacement, with models which could reduce the City's contribution to greenhouse gas emissions.	Ongoing

Current Zoning

The allowed principal uses in each zoning district in the City of Fridley are currently as follows:

R-1 District
Allowed principal use includes: One family dwellings or single family attached development.

R-2 District
Allowed principal use includes: Two-family and one family dwellings and single family attached development.

R-3 District
Allowed principal use includes: Multiple dwellings and multiple dwelling complexes, including rental and condominium apartments, single family attached development, two-family, and one-family dwellings.

R-4 District
Allowed principal use includes: Manufactured home park developments.

P Districts - Public Facilities
Allowed principal uses include: Public buildings and uses, public parks, playgrounds, athletic fields, golf courses, airports and parking areas, public streets, alleys, easements, highways, and thoroughfares, public drains, sewers, water lines, water storage, treatment and pumping facilities and other public utility and service facilities, temporary public housing required and designed to relieve a critical housing shortage, other public or nonprofit uses as are necessary or incidental to a public use, and telecommunications towers and wireless telecommunications facilities.

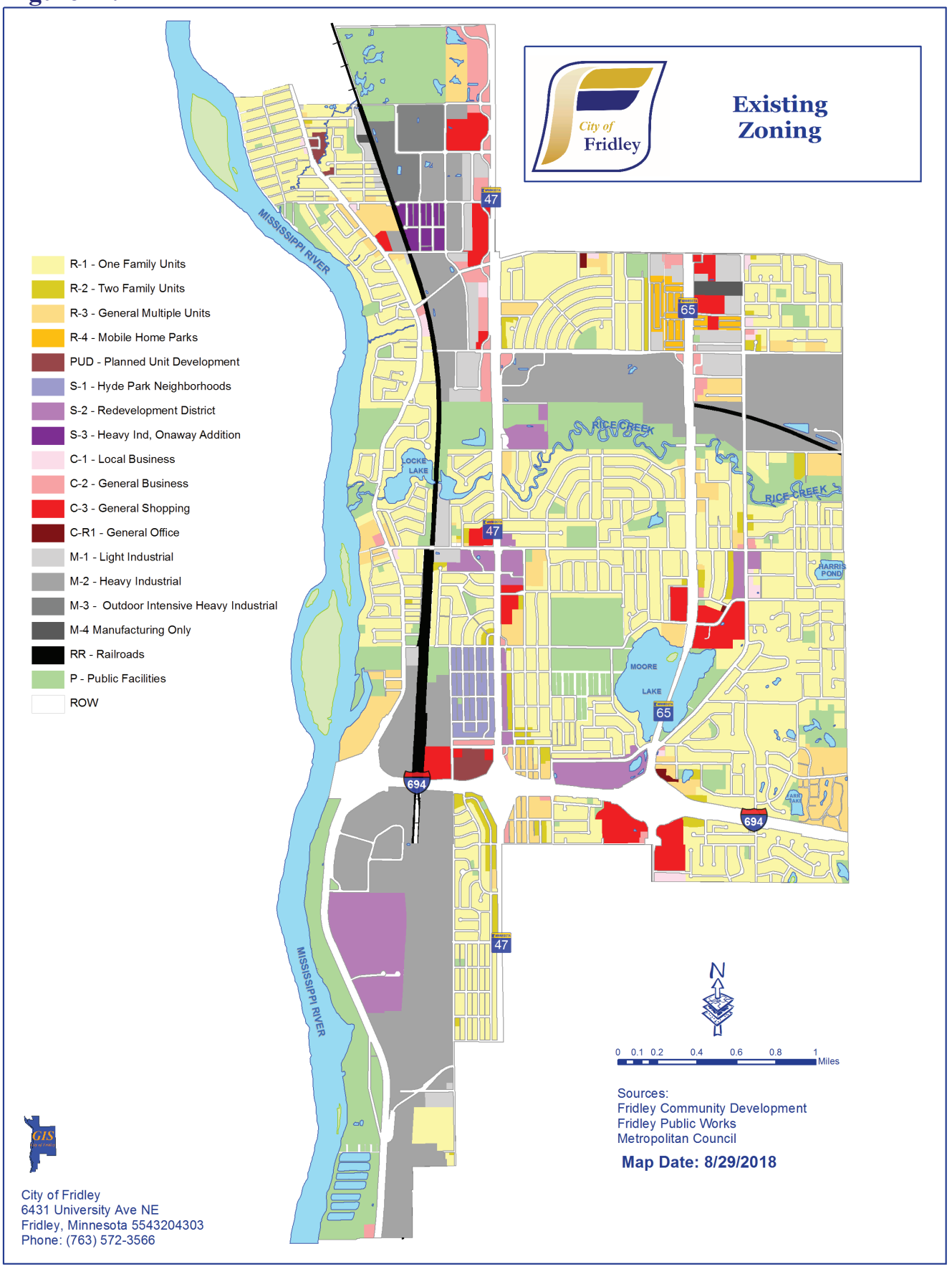
C-1 District - Local Business District
Allowed principal uses include: Art Shops, professional studios, convenience stores, grocery stores and services, including laundry, dry cleaning, barber shops, beauty shops, shoe repair, tailoring, locksmith, and other small repair shops related to retail service and catering to neighborhood patronage, retail services, including jewelry, hardware, sporting goods, records and music, variety and notions, drug, appliance and clothing shops and flower shops, professional office facilities including real estate, lawyer, architectural, engineering, financial insurance and other similar office uses, health care services including medical, dental, optometrist, chiropractic and counseling clinics, and Class I Restaurants (any restaurant or cafeteria, where food is served to, or selected by, a customer for consumption primarily on the premises, and which do not sell or serve liquor).

C-2 District - General Business District
Allowed principal uses include: All uses allowed in the C-1 and CR-1 districts, office facilities, including general business offices, corporate headquarter facilities and major employment offices, fraternal organizations, assembly facilities and theaters, commercial recreation, pool halls, bowling alleys and health & fitness centers not including massage parlors, Class 1, 11 and III Restaurants, vocational trade schools, business schools, colleges or universities, mortuaries, offices, day care centers, hotels and motels, museums and art galleries, department stores and variety stores, other retail, wholesale or service activities, hospitals, clinics, nursing homes, convalescent homes, independent living facilities, assisted living facilities, liquor stores, banks or other financial institutions, sexually oriented businesses, and pawn shops.

C-3 District - General Shopping Center District
Allowed principal uses include: All uses allowed under C-1 and C-2 zoning, provided they are located in a shopping center or require a minimum of 50 parking stalls, or are a sexually oriented business.

CR-1 District - General Office District
Allowed principal uses include: professional office facilities including real estate, lawyer, architectural, engineering, financial, insurance and other similar office uses; health care services including medical, dental, optometrist, chiropractic and counseling clinics.

Figure 11.2


City of Fridley
Existing Zoning
R-1 - One Family Units
R-2 - Two Family Units
R-3 - General Multiple Units
R-4 - Mobile Home Parks
PUD - Planned Unit Development
S-1 - Hyde Park Neighborhoods
S-2 - Redevelopment District
S-3 - Heavy Ind, Onaway Addition
C-1 - Local Business
C-2 - General Business
C-3 - General Shopping
C-R1 - General Office
M-1 - Light Industrial
M-2 - Heavy Industrial
M-3 - Outdoor Intensive Heavy Industrial
M-4 Manufacturing Only
RR - Railroads
P - Public Facilities
ROW
MISSISSIPPI RIVER
RICE CREEK
LOCKE LAKE
MOORE LAKE
HARRIS POND
47
65
694
N
0 0.1 0.2 0.4 0.6 0.8 1 Miles
Sources:
Fridley Community Development
Fridley Public Works
Metropolitan Council
Map Date: 8/29/2018
GIS
City of Fridley
6431 University Ave NE
Fridley, Minnesota 5543204303
Phone: (763) 572-3566

M-1 District - Light Industrial District
Allowed principal uses include: Wholesaling, warehousing, manufacturing, construction or service uses which will not be dangerous or otherwise detrimental to persons residing or working in the vicinity.

M-2 Districts - Heavy Industrial District
Allowed principal uses include: Wholesaling, warehousing, manufacturing, construction or service uses, equipment assembly plants, dry cleaning plants and laundries, railroad lines, spurs, passenger and freight depots, heavy duty repair garages, transformers, pumping stations and substations, repair garages, and automobile service stations.

M-3 District - Heavy Industrial, Outdoor Intensive District
Allowed principal uses include: All uses allowed under M-1 and M-2 Principal Uses, trucking terminals, uses whose principal use requires the outdoor storage of materials, motor vehicles, or equipment, including the outdoor manipulation of said materials, motor vehicles, or equipment.

M-4 District - Manufacturing Only District
Allowed principal uses include: Manufacturing uses which will not be dangerous or otherwise detrimental to persons residing or working in the vicinity.

PUD Planned Unit Development
Allowable principal uses include: Those uses specified in the approved General Development Plan for the PUD.

S-1 - Hyde Park Neighborhood District
Allowed principal use includes one-family dwellings and existing uses present on site.

S-2 - Redevelopment District
Allows for uses specified in a master plan submitted and approved for the site by the City.

S-3 - Heavy Industrial, Onaway Addition District
Allowed principal uses include: Wholesaling, warehousing, manufacturing, construction or service uses, equipment assembly plants, dry cleaning plants and laundries, railroad lines, spurs, passenger and freight depots, heavy-duty repair garages, transformers, pumping stations and substations, repair garages, or automobile service stations.

11.3 Conclusion

Fridley's 2040 Comprehensive Plan focuses on the anticipated impacts of significant household growth and increased traffic. It is the overriding goal of this plan to improve residential livability and commercial growth in Fridley. Realizing that increased traffic is going to increase interest in living near transit, dense development is planned for areas of the community redeveloping near commuter rail and proposed bus rapid transit service. The interest in providing equitable options for people traveling by a non-motorized means is driving a focus on trail connections and accessibility improvements, especially related to transit services. Climate change is having an effect on our weather and has affected City policies specified in this Plan. This is demonstrated with a new focus on solar infrastructure, better storm water management, and an emphasis on more environmentally-sound landscaping options. This Plan builds on the strengths of Fridley's park system and the strength of Fridley businesses due to Fridley's proximity to the Metropolitan core. This is a Plan that strives to keep Fridley a *safe, vibrant, friendly, and stable* home for families and businesses in the decades ahead.