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(Prepared for April 16, 2018 City Council Meeting)



2040

Comprehensive Plan Update

Table of Contents

Mission

Preface

Goals and Policies

General Information

Community Background

Location

Historical Background

Population

Employment

Natural Resources

Physical Features

Soils

Vegetation

Ground water

Energy

Natural Resources Protection

Land Use

Existing Land Use

Future Land Use

Housing

Historic Preservation

Solar Access Protection

Public Facilities

Transportation/Traffic Plan

Transit

Aviation

Freight

Water Resource Management

Individual Subsurface Sewage Treatment Systems

Surface Water Management Plan

Water Supply Plan

Flood Control Facilities

Solid Waste

Parks, Open Space and Trails

Basic Services

Economic Development

Intergovernmental Coordination

Implementation

Official Controls

Capital Improvement Program

Housing Implementation Program

Appendices

Appendix A: Survey Results

Appendix B: Historical Sites

Appendix C: Local Surface Water Management Plan

Maps

Location/Community Designation

Zoning/Land Use

Transportation

Local

Regional

Regional Bicycle Transportation Network

Metropolitan Freight System

Soils

Building Survey and Existing Land Use

Owner-Occupied Housing by Estimated Market Value

Drainage

Wetlands

Floodplain

Surface Water Resources

Surface Water and Groundwater Interaction

Groundwater Level Monitoring Wells

Municipal Public Water Supply System

MCES Sanitary Sewer Meter Service Areas

Regional wastewater System Long-Term Service Areas

Gross Solar Potential

Regional Parks System

Mission:

To protect the public health, safety, and welfare of the City of Lake St. Croix Beach, by preserving the cultural, historical and environmental qualities of this unique St. Croix Valley community.

PREFACE

Goals and Policies

The following goals are established:

1. To develop our city in accordance with a plan developed by the community and coordinated with Washington County, Metropolitan Council and adjacent governmental units.
2. To develop our city consistent with the aesthetics of the St. Croix River Valley.
3. To provide an orderly and efficient program for capital expenditures.
4. To keep the need for public expenditures at the lowest level possible consistent with providing essential services.
5. To maintain on-site sewer systems recognizing that central sewer systems will not be available for the foreseeable future.
6. To assure a strong line of communication between the citizens, governing and regulatory bodies to assure maximum cooperation and citizen effort in the development of our city.
7. To minimize the adverse impact of the city on water resources and the environment.
8. To assure safe and orderly traffic circulation on the streets and highways within the city.
9. To satisfy the recreational facility needs of our citizens and to honor the historic dedication of St. Croix River uses to residents of the city.
10. To promote conditions favorable to meet the housing needs of our citizens.
11. To cooperate with other communities in the St. Croix Valley to provide consistency, economy and uniformity in the development and maintenance of the communities of the Valley.
12. To encourage the sharing of municipal services.

The City will adopt the following policies to achieve these goals:

1. Complete and implement this plan in accordance with the standards of the County and Metropolitan Council and in cooperation with adjacent governmental units.
2. Zone for lot sizes and establish conditions for obtaining permits that assure consistency with a city in its non-sewered setting.
3. Establish a capital improvement plan.
4. Take advantage of volunteer help and monetary grants that are available from public and private sources.
5. Continue to require permits for septic systems. Establish a system of maintenance for such septic systems. Require substandard systems causing problems to be brought to code. Inspect and monitor building and maintenance of on-site sewer and improve water systems.
6. Continue to inform citizens through the use of monthly newsletters. Encourage citizen attendance at Commission, Committee and Council meetings, public hearings and City activities.
7. Encourage builders to protect and preserve existing trees and to plant new ones. Inspect and monitor building and maintenance of on-site sewer and municipal water systems.
8. Maintain roads in a safe and orderly fashion, minimize entries to County State Aid Highway (CSAH) 18 and discourage blind corners, vegetative overgrowth affecting line of sight and/or road narrowing and other dangerous conditions. Provide a uniform program of street lighting and proper signs.
9. Establish a plan for the orderly and safe development and maintenance of the parklands and recreational facilities and manage recreational boat use along the city's shoreland park.
10. Encourage and assist homeowners to upgrade houses and keep them in good repair and to monitor impact to floodplain neighborhood from high water events.
11. Maintain the present program of joint planning and joint powers agreements with other communities in the Valley, and take advantage of all opportunities for further joint efforts.

General Information

The comprehensive plan is a guide to the future for the development and management of the City of Lake St. Croix Beach. This plan was put together according to the Land Planning Act and the Metropolitan Council Planning Handbook. This plan is based on the framework plan, Metropolitan Development Guide, Washington County Comprehensive Plan, the zoning requirements for the Lower St. Croix National Scenic Riverway and Cooperative Management Plan, and a number of other state and other planning and development conditions, requirements, and restrictions.

The purpose of this document is to provide a plan for development of the City of Lake St. Croix Beach until the year 2040. The scope of the plan is limited to that which is believed adequate for a general long range plan for the maintenance and future development of the City of Lake St. Croix Beach.

Some of the salient features of the plan are:

1. Growth and development will be permitted in developed areas in accordance with present zoning ordinances.
2. Recognize the existence of a substantial percentage of substandard homes in the city that have fallen into moderate or extensive disrepair.
3. Maintenance of life cycle housing will be given consideration.
4. Commercial development will be limited to local service needs and uses which do not create large amounts of traffic or other significant adverse environmental effects or needs for added public services.
5. All new development will require some type of permit which will assure compliance with the many and varied regulations and requirements for environmental protection and community land use objectives and policy.
6. All development and improvements of existing structures must meet or exceed all building codes.
7. The development policy will include ways and means to eliminate the need for central sewer and significant increases in public facility and service costs for an indefinite period.
8. The plan includes procedures for administration and enforcement. New zoning regulations and other codes and ordinances will be developed as needed to implement the plan.

The City of Lake St. Croix Beach functions under a basic city government structure. The City structure includes the Mayor, the City Council, the Planning Commission, the City Clerk-Administrator, Deputy City Clerk, Treasurer, and other support personnel

and committees. The Planning Commission, comprised of five members, advises the City Council on zoning, planning, and other issues such as variances, conditional use permits, and certificates of compliance. The Park Board, comprised of five members, advises the City Council on the management, maintenance and capital improvements to the park system. The Environmental Advisory Commission, comprised of five members, promotes recycling and environmental programs. The City Council is the governing body elected at large.

City residents were involved in this preparation process through a public participation survey, which was sent out in the City newsletter. (See Appendix A)

COMMUNITY BACKGROUND

Location

The City of Lake St. Croix Beach is located on the eastern border of Washington County along the scenic St. Croix River. Lake St. Croix Beach is located two miles south of Interstate 94 at Exit 258. The City is bounded on the north by the City of Lakeland, the south by the City of St. Mary's Point, the west by the City of Afton, and on the east by the Minnesota/Wisconsin boundary in the St. Croix River. (*Map M1*)

Historical Background

Lake St. Croix Beach has a long history in the development of Minnesota. This area between the St. Croix and the Mississippi Rivers was opened for settlement as a result of the Treaties of 1837 between the US Government and the Sioux and Chippewa Indian tribes. The first record of settlement was in 1857 by Messrs. Cathcart and Marshall. Parties from Norristown, Pennsylvania built a sawmill and operated it for one year until it failed and the houses burned. There is little recorded information on any continuous settlement because of the sandy soil which was not good farmland. Lumber was harvested in the logging boom in the last half of the century.

In the 1870's the Hastings and Stillwater Railroad Company, later the Chicago, Milwaukee and St. Paul Railroads, operated through Lake St. Croix Beach.

There were two substantial homes built in the post-World War I era and remain as family residences. One house, at 16460 19th Street South, was built by a St. Paul political boss named Dick O'Connor. The other, at 1444 Ramada Avenue South, was built in 1917 by John Bower who was a St. Paul businessman. Both houses were built as country homes for entertainment purposes.

In 1924, Warren Smadbeck of New York City acquired the land that is now the City of Lake St. Croix Beach and platted it in small lots 20 ft. by 100 ft. Mr. Smadbeck conveyed the unsold lots to John A. Gobeil as Trustee and an employee of the St. Paul Daily News because of his outstanding advertising bill. At this point, the St. Paul Daily News undertook a promotion to sell lots in Lake St. Croix Beach. It was necessary to be

Appendices

Appendix A

Citizen Survey Results

The City of Lake St. Croix Beach sent a community wide survey in the monthly city newsletter and on its website. The City received a total of 44 responses, a 4.1% response rate. These results show the responses for the questions.

I. GENERAL INFORMATION

1. How would you rate the quality of life in LSCB (Lake St. Croix Beach)?

- 20 Excellent
- 18 Good
- 6 Fair
- 0 Poor

2. When you moved to LSCB what factors were important to you in selecting the city?

- 21 River, Boating, Parks
- 18 Friendly, Small Town, Quiet
- 8 Affordable Houses, Low Taxes
- 8 Location, Near Twin Cities, Hudson, Stillwater
- 7 Schools

3. What do you like MOST about living in LSCB?

- 24 Friendly, Small Town, Quiet
- 18 River, Boating, Parks
- 4 Location
- 2 Affordable Houses, Low Taxes

4. What do you like LEAST about living in LSCB?

- 7 Junk Yards and Junk Houses
- 6 Local Politics
- 4 Crime, Noisy Motorcycles

5. What is the most serious issue facing LSCB today?

- 9 Crime/Drugs/Enforcement
- 4 Streets/Signs/Maintenance
- 4 Improve Housing
- 3 Stormwater Erosion in Bluffland and Streets
- 2 Riverfront Park Parking and Crowd Issues
- 2 Local Politics

6. Are you aware that the City has:

An area of LSCB in the National Scenic Riverway?

40 Yes 4 No

Do you know its boundaries?

26 Yes 18 No

Requirements to protect the St. Croix River basin from storm water and groundwater run-off and contamination?

34 Yes 10 No

7. Please provide us with the following demographic information.

17 Male

23 Female

Age: 0 18-24, 2 19-34, 6 35-44, 3 45-52, 16 53-64, 18 65+

8. How would you rate these areas:

	<u>Excellent</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>#of visits/year (Average)</u>
Riverfront Park	20	15	4	1	43
Swim Beach	25	15	1		61
Pettitt Park	10	19	6		73
Bike/Walk Trail	34	7	1		66
Riviera Levee	18	16	4		72
Shoreland Park	11	15	6	1	54

9. The city has 3 parks, Riverfront Park, Shoreland Park and Pettitt Park. Should additional parks/recreational facilities be developed?

5 Yes 39 No

10. Does the city need more playground equipment at City Parks?

9 Yes 35 No

11. Would you support increased property taxes to acquire and/or develop park or recreational facilities?

10 Yes 34 No

If yes, what type? Veterans area, more playground equipment.

II. TRANSPORTATION

12. What is your opinion of the streets, roads and highways in LSCB?

4 Excellent 23 Good 13 Fair 4 Poor

13. Would you/members of your household use public transportation if it were available?

12 Yes 30 No

Type desired: 6 Light rail, 7 Bus

FUTURE OF LAKE ST. CROIX BEACH

14. What is your vision for the City of Lake St. Croix Beach in the next 10-20 years?

Eliminate garbage homes/improve housing/more small homes.

No change – maintain what we have.

Strong, well governed, peaceful and quiet.

Safer roads, reduce crime and manage vegetation that screens along the trail and Bluffland/Shoreland Park.

Better management at Riverfront Park.

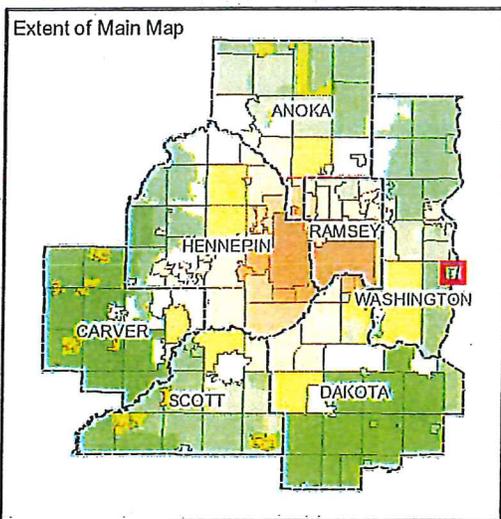
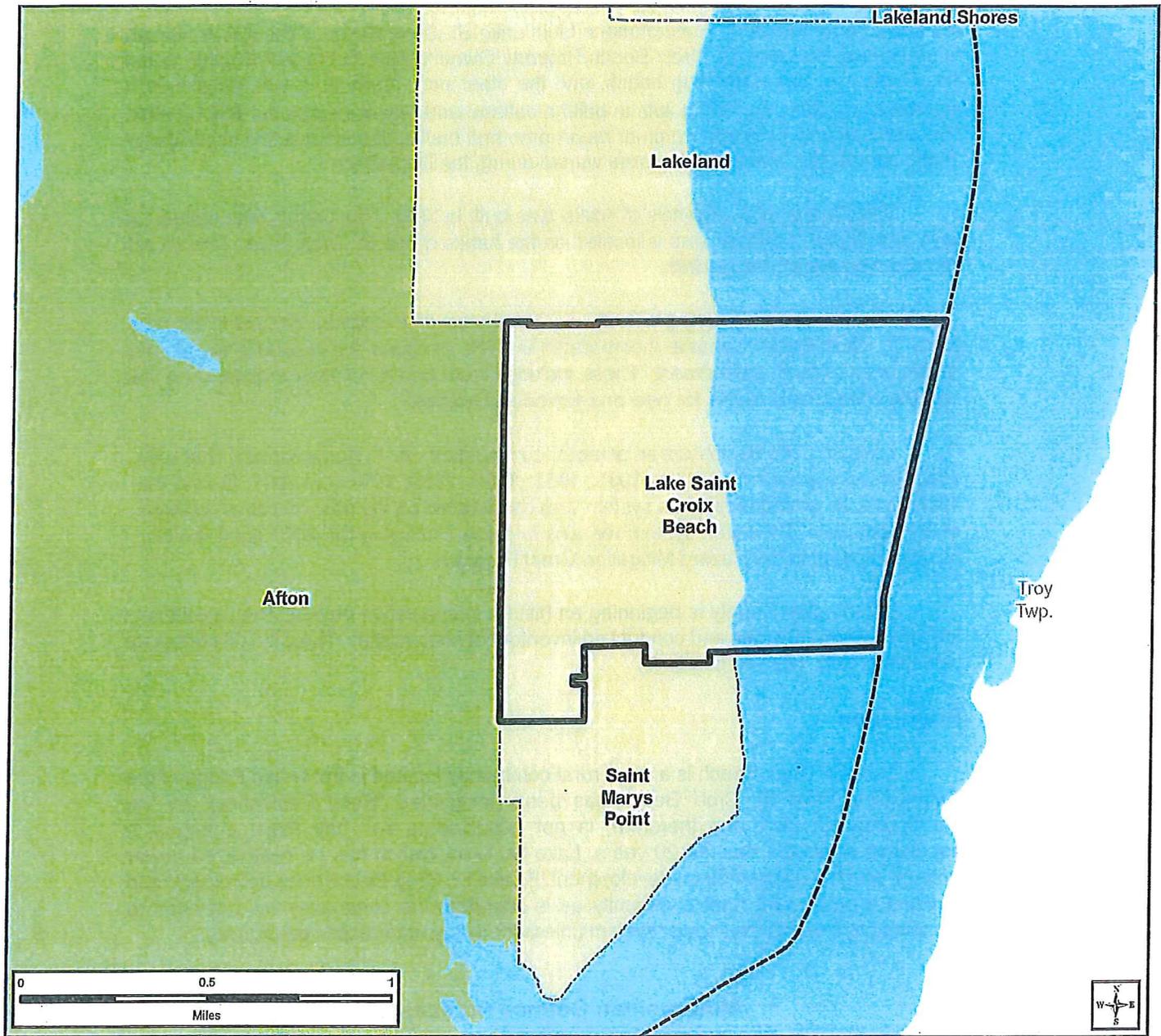
Remove junk cars.

Improve library service.

Car wash and more evergreens.

Orange flags are tacky.

Community Designation City of Lake St. Croix Beach, Washington County



Community Designation

- Urban Center - Core City
 - Urban Center
 - Urban
 - Suburban
 - Suburban Edge
 - Rural Center
 - Diversified Rural
 - Rural Residential
 - Agricultural
- Outside Council planning authority

- County Boundaries
- City and Township Boundaries
- Lakes and Major Rivers

a subscriber to the paper to purchase a lot in Lake St. Croix Beach. This also made you a member of the Lake St. Croix Beach Property Owner's Association and eligible to use the Clubhouse, the swimming beach, and the other park property. It was necessary to purchase two 20 ft. by 100 ft. lots to build a cottage and they were sold for \$62.50 each. The area became a popular summer resort area and the Clubhouse was the social center of the community. Interest in the area waned during the Depression.

The Church of St. Francis of Assisi was built in 1938. The church was built in the style of a Spanish Mission and is located on the banks of the St. Croix River. The church campus was expanded in 1988.

The demand for housing after World War II brought a renewed interest in the area. Lake St. Croix Beach became incorporated in 1951 because the residents wanted the advantages of local government. These included local control of road maintenance and building code requirements for new and remodeled homes.

Lake St. Croix Beach has an established neighborhood in the floodplain. That area experienced significant floods in 1951, 1952, 1965, 1969, 1997 and 2001. During the 1969 flood, an emergency levee system was constructed on the east and south borders of the floodplain. The levee system remains in place. Following the 2001 flood the City has participated in the Hazard Mitigation Grant Program.

Washington County is beginning an historic preservation project. The project is to identify historical themes and conduct an inventory of historic sites. The City will cooperate with this project. (See Appendix B)

Population

Lake St. Croix Beach is a small rural community located in the Urban Fringe of the Twin Cities. Lake St. Croix Beach has been designated "Rural Residential" by the Metropolitan Council, and therefore, is not expected to see any major changes in population within the next 10 to 20 years. Lake St. Croix Beach has no centralized sewer system, which is a limitation on development. If Lake St. Croix Beach does not expand and remains a permanent rural community as is intended, the community will not need to contemplate a centralized sewer system unless there is an unforeseen emergency.

Metropolitan Council Forecasts

	<u>2020</u>	<u>2030</u>	<u>2040</u>
Population	1,060	1,090	1,090
Households	480	500	500

Appendix B

HISTORICAL SITES

1. O'Connor House, 16460 19th Street South

This house is significant because of its early construction. It was built by a St. Paul political boss as a country home for entertainment purposes. It is currently a privately owned tri-plex.

2. Bower House, 1444 Ramada Avenue South

This house was built in 1917 by John Bower who was a St. Paul businessman. Similar to the O'Connor house, it was built as a country home for entertainment purposes. It is now a privately owned single family residence.

3. Lake St. Croix Beach Property Owners Association Clubhouse Site

This was the site of the clubhouse used by summer residents. The structure was damaged by ice during the 1969 flood. The site was cleared and is now a popular sandy swimming beach.

4. St. Francis of Assisi Catholic Church

This structure was built in 1938 in a Spanish Mission motif. The church campus has been expanded and still reflects the original southwestern theme.

**Age Breakdown of
Lake St. Croix Beach Population**
(2010 Census)

Age Breakdown	Total Persons	Percent Value
0-15	166	16%
16-24	115	11%
25-44	265	25%
45-64	379	36%
65+	126	12%
Total	1,051	100%

Employment

The following chart shows part-time and full-time employment opportunities in the City as of September, 2017.

Employment Statistics - 2017

	Part Time	Full Time	Total
Church of St. Francis of Assisi	7	1	8
Scenic Hills	5	4	9
Kopp Sign	0	1	1
Lakeland Auto	15	2	17
City Hall	0	2	2
City Parks (Seasonal)	2	0	2
Freedom Valu Center	2	1	3
Beach Club	4	3	7
Boat Art	3	3	6
Old Fire Hall	1	0	1
Fat Tire	2	0	2
LSCV Fire Department	29	1	30
Wood Wonders	<u>0</u>	<u>2</u>	<u>2</u>
Total	70	20	90

Employment Projections

The City estimates minimal employment growth because non-residential land uses are fully developed.

	<u>2020</u>	<u>2030</u>	<u>2040</u>
Employment Opportunities	90	95	100

NATURAL RESOURCES

Physical Features

The Lake St. Croix Beach area is a river valley with the St. Croix River on the east of a relatively flat sandy valley floor. The City has several environmentally sensitive areas. From the north end of the city, along the western shore of the St. Croix River the terrain changes from bluffland in excess of 12% slopes, tapering down to flood plain level, then gradually rises upward to bluffland at the southern border in excess of 12% slopes. The flood plain cuts diagonally across the city to the southwest, with the remaining land mostly flat and gently sloped. The St. Croix River shoreland is dedicated park.

Environmentally Sensitive Areas include:

Flood plain (24 acres) low portion, subject to flooding Riverway
(84 acres) land adjacent to St. Croix River
Levee system (6 acres) flood control structures, protect 100-year flood plain
Shoreland Park (16 acres) undeveloped, except beach area.
River (273 acres)

The floodplain area experiences flooding from seepage during high water levels of the St. Croix River. In 1997 and 2001 there was significant seepage and flood fighting activity. These high water events caused some families to temporarily move from their homes, eroded the earthen levee system, and caused severe sloughing of the slopes in the Bluffland Park.

Soils

Using soils survey information provided by the Washington County Soil Conservation District, the soils in Lake St. Croix Beach have been reviewed to determine their suitability to accommodate on-site sewage treatment systems. The suitability of the soil is determined by a number of factors such as how permeable each soil type is, and what the environmental repercussions may be of on-site sewage treatment.

Knowing the types of soil is a useful tool in determining possible problem areas as they pertain to the treatment of sewage. Although the soils maps are an indication of the soil types within each boundary, there may be pockets of differing soils within those boundaries. Also, it should be noted that the information in the soils survey is reasonably accurate only to depths of three to five feet below the surface.

The attached soil suitability map for Lake St. Croix Beach indicates the degree to which each soil type is limited in the treatment of on-site sewage. The limitations range from slight to severe. Slight limitations are those which are generally favorable for sewage treatment and the limitations are minor and easily overcome. Severe limitations are those which are very unfavorable for sewage treatment, and the limitations will require special designs and increased costs and maintenance. The following table lists the soil names and slopes corresponding to the symbols found on the soil suitability map.

MAP SYMBOL	SOILNAME	SLOPE
7B	Hubbard Loamy Sand	1-6%
7C	Hubbard Loamy Sand	6-12%
151	Burkhardt Sandy Loam	0-3%
151B	Burkhardt Sandy Loam	3-9%
329	Chaska Silt Loam	N/A
454B	Mahtomedi Loamy Sand	0-6%
454C	Mahtomedi Loamy Sand	6-12%
454D	Mahtomedi Loamy Sand	12-25%
454D	Mahtomedi Loamy Sand	12-25%
858	Chetek Urban Land Complex	0-3%
858C	Chetek Urban Land Complex	3-15%

According to the soils map, the vast majority of Lake St. Croix Beach is considered to have moderate limitations. Many of the areas with moderate limitations tend to have rapid infiltration rates. With this type of soil, there is a possibility that sewage effluent may not be properly filtered by the soil to remove contamination before it is introduced into any nearby private water wells. However, with special design and maintenance these moderate limitations for on-site sewage treatment systems can be minimized.

The steep slopes in Lake St. Croix Beach are predominately located in the central and eastern half of the city. There are severe limitations to the treatment of on-site sewage in these areas. Instead of permeating down through the soil, sewage effluent tends to flow down slope and seep laterally from the hillsides. This surfacing of effluent in steep slope areas would have negative effects on public health. For this reason, on-site sewage treatment systems are not installed in steep slope areas.

When the soils and land use maps are compared, it shows that much of the developed land in Lake St. Croix Beach has moderate limitations for using on-site sewage treatment systems. Since on-site sewage treatment systems *have* been successfully constructed and operated in these areas for many years, it shows that the suitability of on-site sewage treatment systems cannot be determined by the use of the soils maps alone. Testing may be performed to determine if the site is suitable for sewage treatment and the specific location on the site where the system should be placed. (Map M2)

Vegetation

The areas of vegetative cover are determined by studying aerial photographs. The original native prairie grassland and oak savanna have been invaded by exotic and other invader species, changing the nature of the vegetative landscape and ecology. In 1987- 1989 a remnant prairie located along County Road 18 between 13th Street and 18th Street was identified as having regional significance by plant ecologist John Almendinger. The City began restoration of this remnant prairie and completed a prescribed burn in 2006 which has allowed re-growth of several native species

The City has an active forestry management program. The city appoints a forester each year and generally has several certified tree inspectors who provide residents with answers and suggestions on forestry issues. Information on the forestry program has been provided by hydrologists, soil scientists, knowledgeable local citizens, and staff from the Washington County Soil and Water Conservation District, Minnesota Department of Natural Resources, U. S. Army Corps of Engineers, University of Minnesota, Sierra Club, and other agencies with pertinent information.

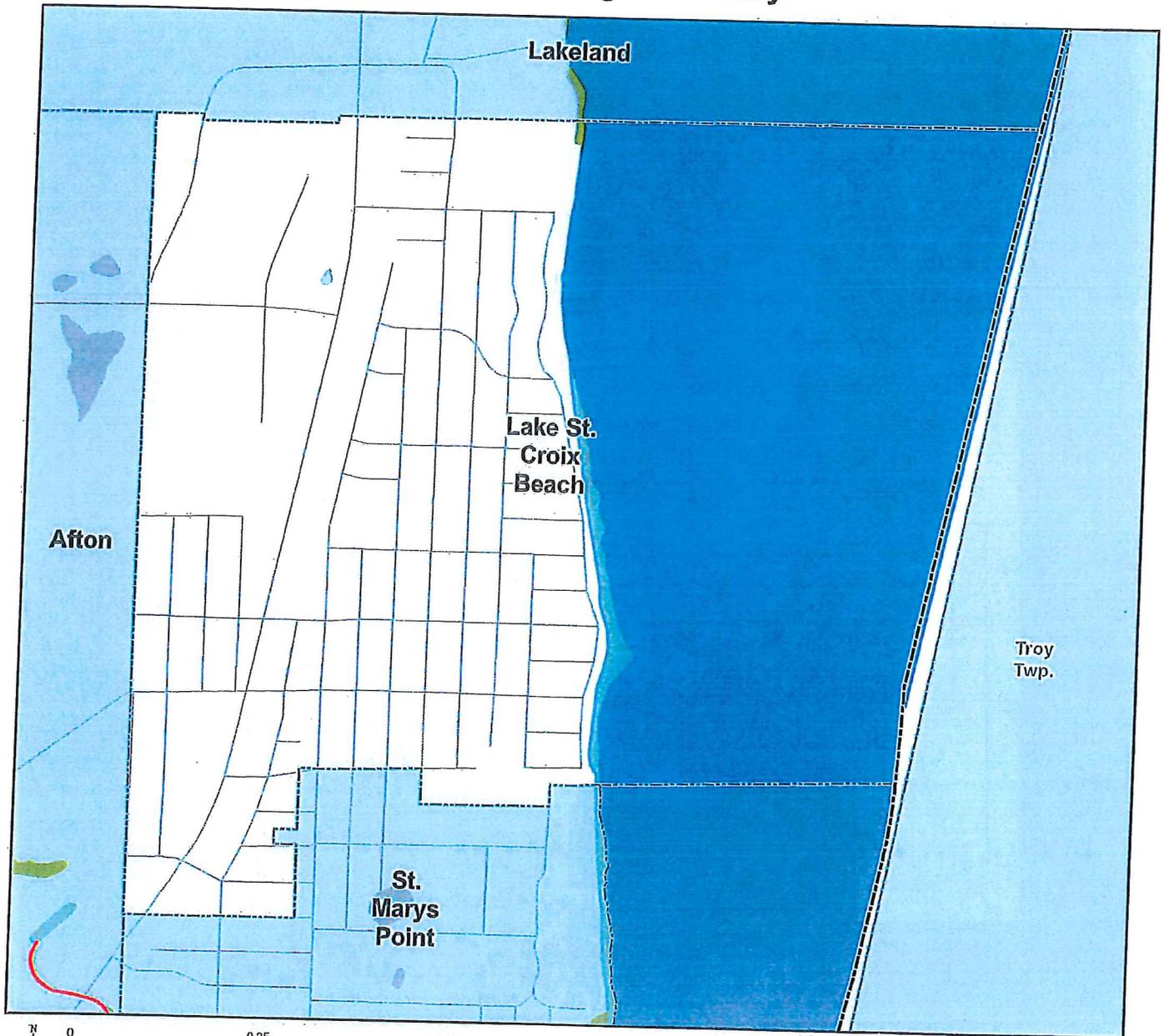
The City has an area especially sensitive to vegetation management at the Bluffland/Shoreland Park along the St. Croix River. Foot traffic is prohibited on the fragile sandy bluffland slopes and park users are instructed by signage and through educational information in the monthly City Newsletter to use stairs. These slopes experienced severe sloughing from past high water events, but the city's limited budget has prevented all necessary permanent repairs. When funds allow, the City removes dead, diseased and damaged trees, and trees that may be jeopardizing other healthier specimens as identified by a City Tree Inspector. The City removes noxious, exotic and invader species, including European buckthorn, grapevines, woodbine, and poison ivy. When practical, the trunks of removed trees remain on the slope for the purpose of providing a natural terrace. The maintenance work on the bluff is conducted when there is frost in the ground. The City evaluates any loss of canopy, prepares a plan to plant on parkland, and encourages property owners to plant trees to ensure a future canopy.

The City has removed buckthorn and other non-native invasive plants from public property in an effort to improve forest health and wildlife habitat in these wooded areas and will continue the effort.

Groundwater

The bedrock underlying the City is from the early Paleozoic era and is part of the Upper Cambrian System. The bedrock aquifers which underlie the City are the Ironton and Galesville Sandstones, the Eau Claire Formation confining layer, and the deepest layer, the Mt. Simon Sandstone Aquifer. The City is committed to protecting groundwater from degradation as the protection and conservation of groundwater is critical to safe drinking water and a healthy ecosystem. Most of the City is an important groundwater recharge area, given the granular soils. The City will continue to implement policies that prevent contamination of aquifers and promote groundwater recharge. The City supports the goals and policies in the Washington County Groundwater Action Plan 2014-2024. (*Maps M3, M4 & M5*)

Surface Water and Groundwater Interaction City of Lake St. Croix Beach, Washington County



Karst Features (DNR)

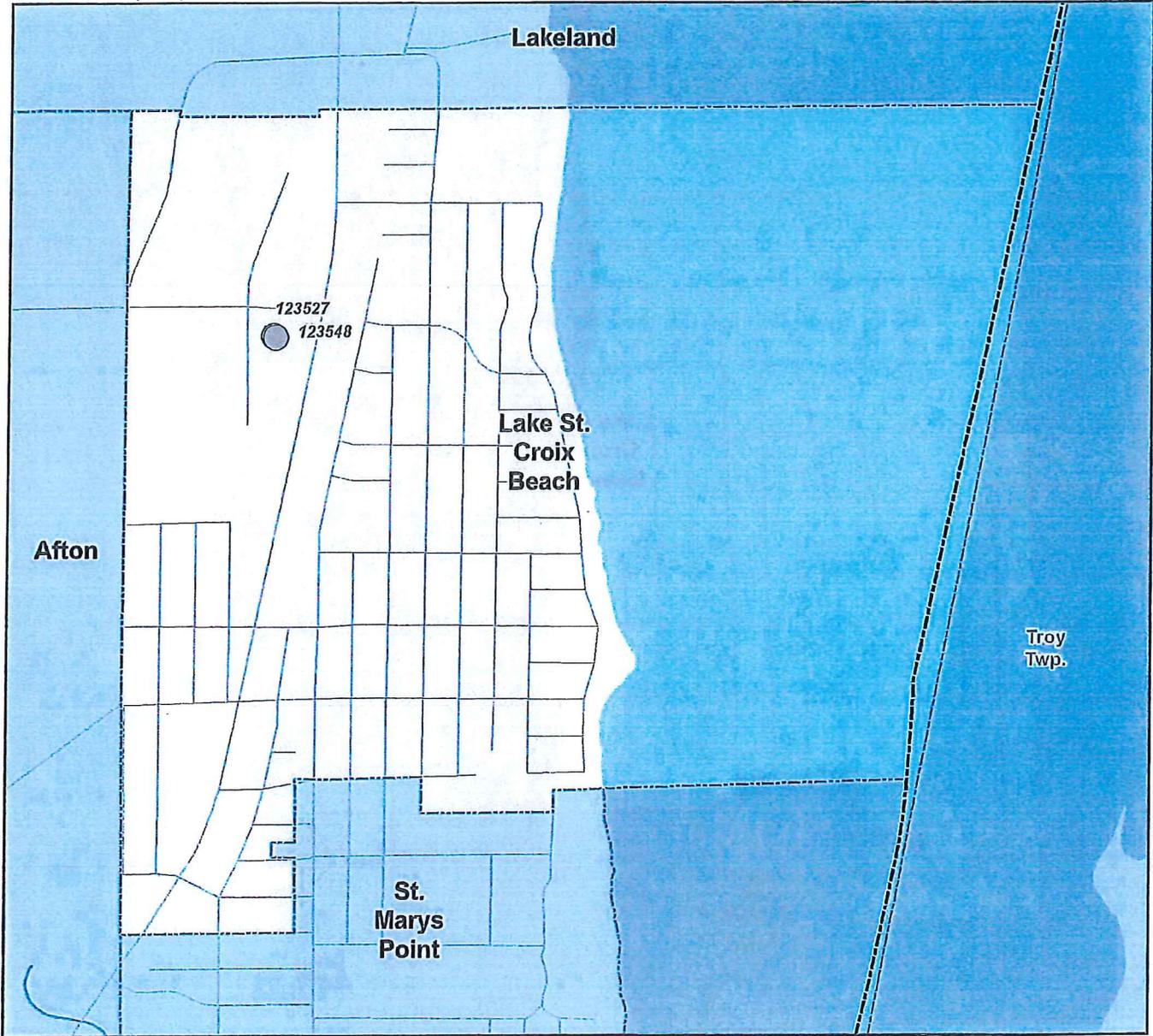
- ▲ Spring
- Sinkhole
- Calcareous Fens

Surface water type (regional screening by Met Council)

- Disconnected from the regional groundwater system
- Recharges aquifers
- Receives and discharges groundwater
- Supported by upwelling groundwater
- Trout Streams (DNR)

- County Boundaries
- City and Township Boundaries
- NCompass Street Centerlines
- Other Open Water Features

Groundwater Level Monitoring Wells Lake St. Croix Beach, Washington County



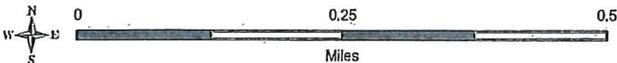
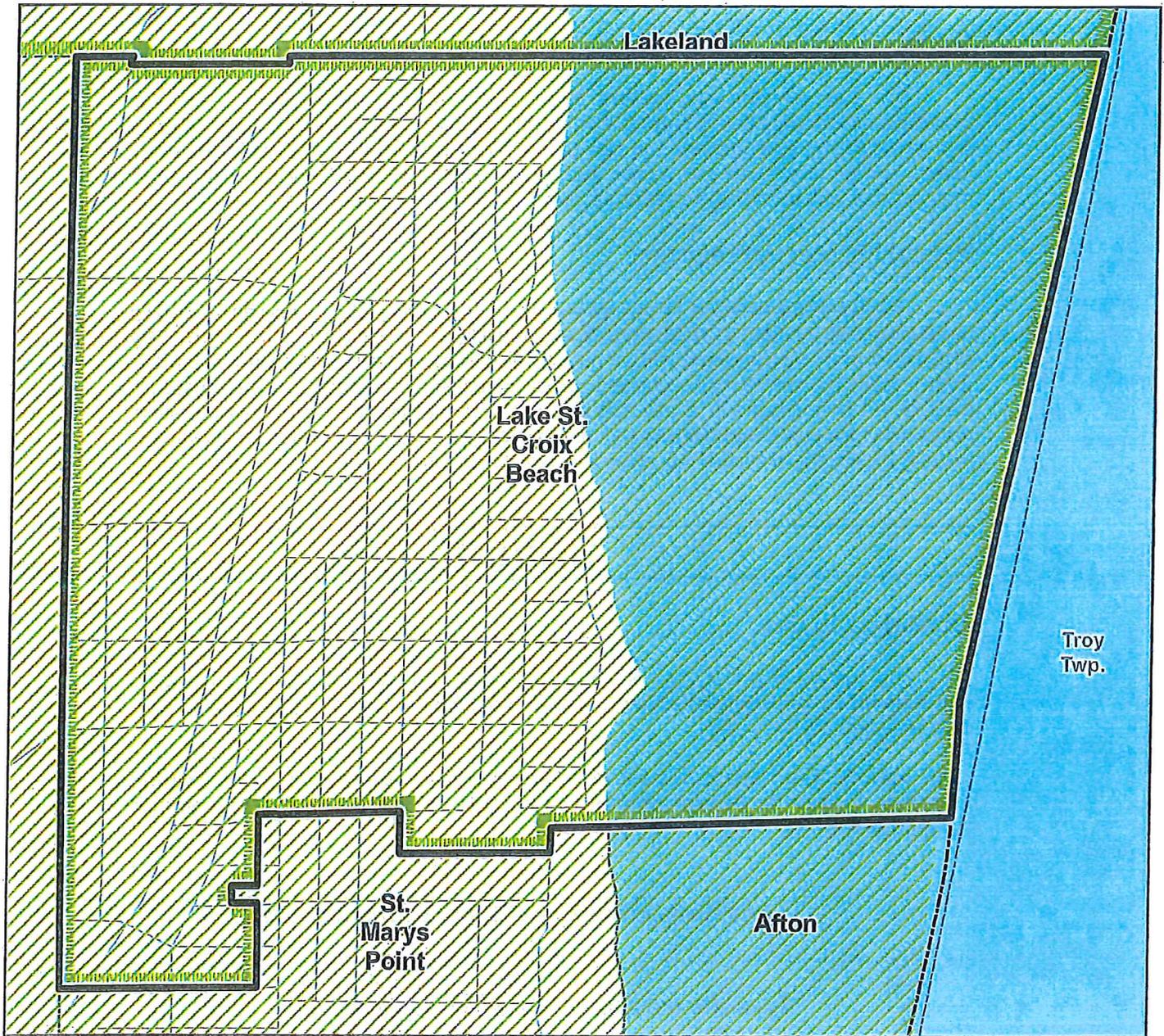
Observation Wells (DNR)

- Showing upward trend in annual minimum values
- Showing downward trend in annual minimum values
- Showing no trend in annual minimum values
- Insufficient data to evaluate a trend

- County Boundaries
- City and Township Boundaries
- NCompass Street Centerlines
- Open Water Features
- Rivers and Streams, perennial & intermittent

*Minnesota Department of Health aquifer test locations not shown for security reasons.
Please contact the MDH for more information.*

Municipal Public Water Supply System Interconnections and Management Areas City of Lake St. Croix Beach, Washington County



- | | | | |
|---|--|---|------------------------------|
|  | Special Well and Boring Construction Areas (MDH) |  | County Boundaries |
|  | The community's most recent local water supply plan reports that the public water supply system has no interconnections |  | City and Township Boundaries |
|  | The community's most recent local water supply plan reports that the public water supply system has one or more interconnections |  | Open Water Features |
|  | North and East Metro Groundwater Management Area (DNR) |  | NCompass Street Centerlines |
|  | Drinking Water Supply Management Area for Minneapolis/St. Paul | | |
|  | Moderate to Highly Vulnerable Drinking Water Supply Management Areas (MDH) | | |

Energy

The City will allow and facilitate the use of alternative energy sources within its boundaries. It will also strive to support such uses in adjoining cities where there may be more land available, for wind turbines, for example. Efficient use of wind, solar, and geothermal energy can provide positive economic and environmental benefits. The systems must be in compliance with permitting standards set by the City.

Natural Resources Protection

The City has a variety of natural features which make it attractive to residents including an upland prairie remnant, wooded areas, floodplain wetlands, wooded bluffs, shoreline and the St. Croix River. Preserving these and the natural habitats they contain are a priority for the City as they define the community's character and distinctive nature. The parks and open spaces in the City will be managed in a way that sets the best example for stewardship of natural resources in the community. Growth and development will occur in a manner that protects or restores the integrity of natural resources found within the City.

LAND USE

Existing Land Use

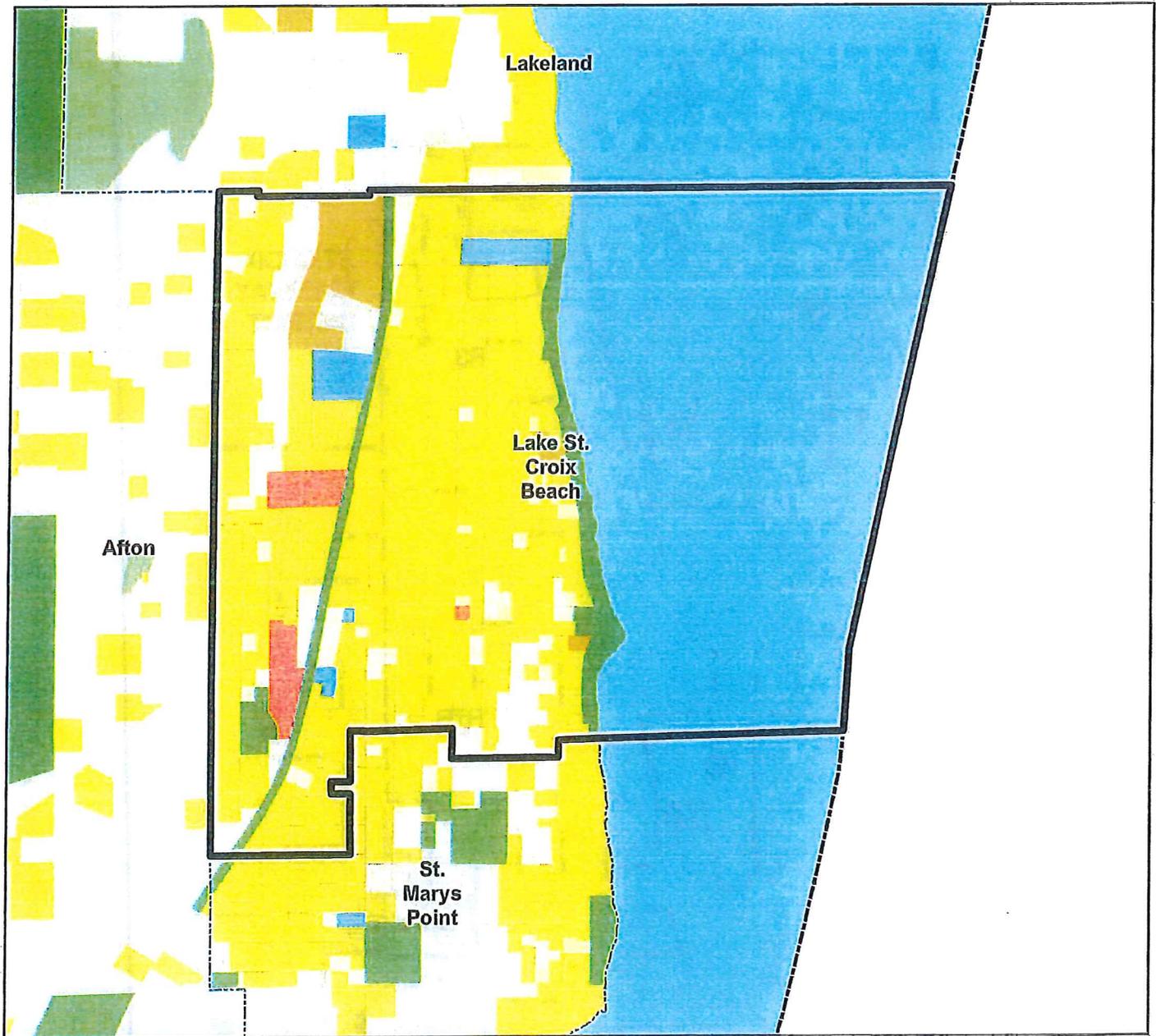
The majority of land in Lake St. Croix Beach is in residential use. The following table was prepared by the Metropolitan Council and identifies the acreage of existing land uses in the City. (*Maps M6, M7 & M8*)

Lake St. Croix Beach is close to full development due to land use and physical constraints. Some of the physical constraints are along the St. Croix River and include the bluff line and the river.

Land Uses in the City of Lake St. Croix Beach

Type of Land Use	Land Use in Acres
Residential	305
Commercial	11
Public/Semi-Public	15
Park and Recreation	26
Water (River)	<u>273</u>
TOTAL	630

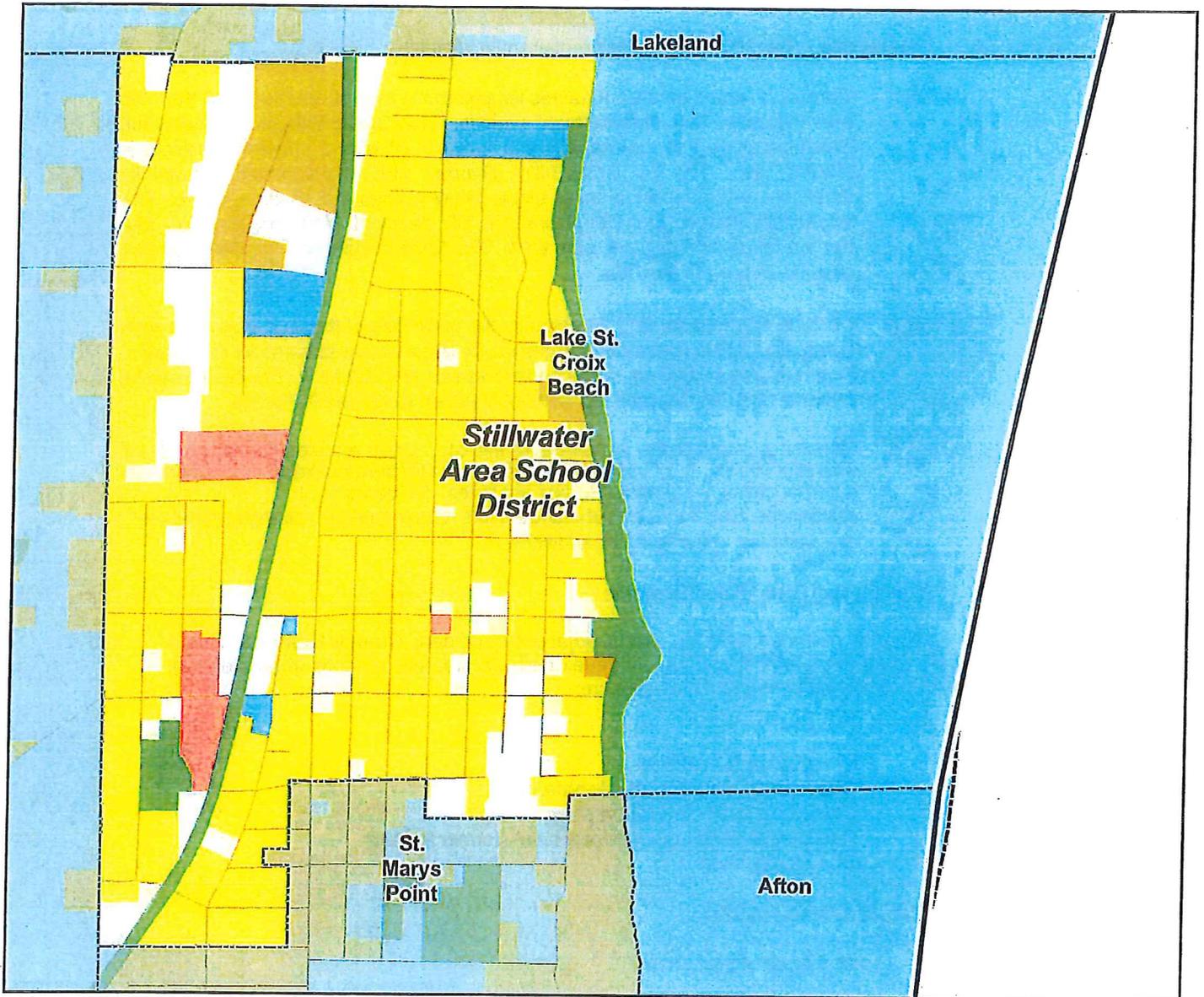
2016 Generalized Land Use City of Lake St. Croix Beach, Washington County



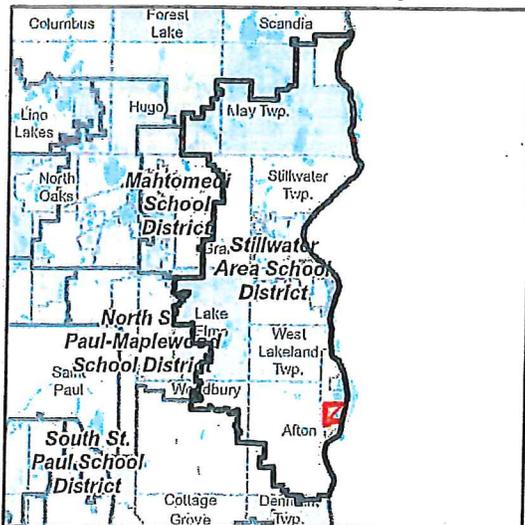
2016 Generalized Land Use

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

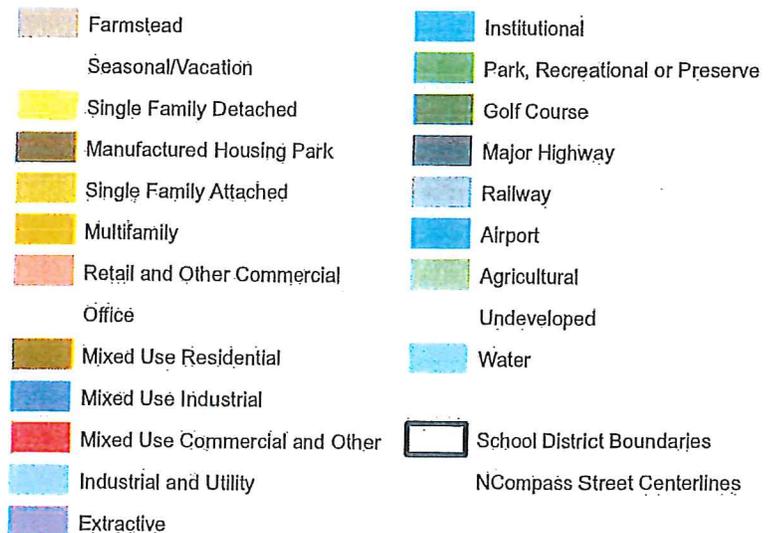
Generalized Land Use: Communities and Affected School Districts City of Lake St. Croix Beach, Washington County



School Districts in the Community



2016 Generalized Land Use



1. Residential - The City has three residential zoning districts.

R-1 Consists of approximately 80 acres located to the west of County Road 18. This area has seen four development projects. The Cedar Estates Planned Unit Development is fully developed and consists of nine 2 1/2-acre residential building sites. The St. Croix Villas Planned Unit Development is partially developed and consists of three single family homes and 16 twin homes. The Woodlands Planned Unit Development is fully developed and consists of ten lots that are approximately one acre each. The Kircher Planned Unit Development consists of two 1.5 acre lots.

R-2 Consists of approximately 31 acres on the north side of the City. This zone was created in 1989 in response to demands for larger house size and lot size needs. Code requires 20,000 sq. ft. lots and house size of 1,200 sq. ft. The Alton Estates Planned Unit Development consists of nineteen single family homes.

R-3 Consists of most of the remainder of the city. Code requires 16,000 sq. ft. lot size and 960 sq. ft. house size. Substandard structures existing in this zone as summer cabins were added to and improved to permanent residences. Structures on substandard lots require special variance permits for any updating, remodeling or additions.

2. Commercial Zone - Retail Business

A small commercial zone exists adjacent to or near County Road 18. This commercial area is almost completely developed. Commercial establishments do not exceed two stories in height. These uses are:

- One grocery/gas station
- One liquor/restaurant establishment
- One wood boat restoration shop
- One storage building/occasional sales (former fire hall)
- One bicycle shop

3. Retail Business Transition

- One wood design shop

4. General Business District

- One city hall

5. Conditional Use Permits/Certificates of Compliance

Located throughout the City are additional businesses operating with Conditional Use Permits which are reviewed annually by the City. Some of these uses pre-existed the zoning ordinance, but are presently regulated under Conditional Use Permit and Certificate of Compliance procedures.

These businesses include:

- One church
- One sign shop
- One auto sales/salvage/repair yard
- One city hall, city garage, veterans' memorial and parklands
- One fire hall
- Two duplexes
- One health care residence

6. Grandfathered"Uses

Several nonconforming uses exist throughout the City which pre-existed the zoning ordinance. Included are several rental units, primarily "mother-in-law" apartments, duplexes, and triplexes.

7. Home Occupations

Certificates of Compliance are issued for Home Occupations. Home occupations are required to have no impact on the adjacent neighborhood.

Groundwater protection is a goal when making land use decisions in the City. The City will require a groundwater monitoring plan or groundwater protection plan as part of the CUP application for businesses that store, use or transplant hazardous materials.

Future Land Use

It is not likely that Lake St. Croix Beach will have many major changes in land use in the next twenty years. A very limited amount of land remains open for development.

Future Land Uses in the City of Lake St. Croix Beach	
Type of Land Use	Land Use in Acres
Residential	305
Commercial	13
Public / Semi Public	15
Park and Recreation	26
Water (river)	<u>273</u>
TOTAL	631

City of Lake St. Croix Beach 2040 Comprehensive Plan

There are no plans for expansion in the City of Lake St. Croix Beach. Many residents who participated in the public participation process stated that they want to see Lake St. Croix Beach keep its present character.

A major factor in the future development of the City is the extension of the Metropolitan Urban Services Area. There are no plans to extend these services to Lake St. Croix Beach or the surrounding communities in the near future.

City of Lake St. Croix Beach Housing Units and Businesses (Source: City Records and Metropolitan Council)

Number of Housing Units and Businesses

	<u>2010</u>	<u>2020</u>	<u>2030</u>	<u>2040</u>
Single Family	460	460	470	470
Multi-Family (Two or more units)	33	33 (Twelve structures)	33	33
Seasonal	10	9	9	9
Commercial	<u>9</u>	<u>10</u>	<u>10</u>	<u>10</u>
Total	512	513	552	522

Housing

The City's housing supply is the single largest (developed land use in Lake St. Croix Beach. The single-family homes account for 91% of the total homes. Of the total homes in Lake St. Croix Beach, 79% of the homes are owner occupied. (Maps M9 & M10)

Owner and Renter Occupied Housing Units (2015 Census Bureau Estimate)

Owner Occupied	386
Renter Occupied	107

As of the 2010 Census, 48 of 460 homes were vacant. The conditions of homes in the City are not analyzed or surveyed, except when the census is conducted. Homes that were once summer residences, generally constructed prior to incorporation of the City in 1951, have undergone extensive remodeling and refurbishing making them more than adequate year-round homes. Those homes that need major repair or constitute a non-conforming use, including vacant structures, are being addressed by the City by an on-going program to effect renovations through enforcement of existing ordinances. The City has expanded its housing supply through the years and has diversity in the age of the homes.

Taking into consideration the age, style, and structure of homes, the City has a wide variety of homes, not only in structure, but also in value. The median value of homes in Lake St. Croix Beach was \$125,000 in 2017. The average value of homes in 2017 was \$225,000.

Value of Homes in Lake St. Croix Beach

Value	2000 2017	
	Number of Homes	
Less than \$50,000	8	0
\$50,000 to \$99,999	218	10
\$100,000 to \$149,999	137	99
\$150,000 to \$199,999	69	199
\$200,000 to \$299,999	40	128
\$300,000 or more	7	58
TOTAL	479	495

* Source: 2000 Census

** Source: Washington County Assessor September, 2017

There is also a wide range in the value of rental property. The median gross rent in the City of Lake St. Croix Beach is \$760 per month. The breakdown of all rental property is as follows.

Rental Property (2015 Census Bureau Estimates)

Rent per month	Number of Units
Less than \$500	0
\$499 - \$999	48
\$1,000 or more	46

According to 2010 Census data approximately 25% of the homes in Lake St. Croix Beach are considered affordable. When compared to other communities in the Valley, Lake St. Croix Beach has the largest percentage of affordable housing.

Affordable housing is housing which requires 30 percent or less of income for gross housing costs, including utilities.

The Metropolitan Council has determined that the City does not have a share of the region's need for low and moderate-income housing. (Source: Metropolitan Council System Statement.)

The City continues participation in the Local Housing Incentive Programs of the Livable Communities Act. This program is tailored to assist income eligible individuals with funds to maintain and upgrade owner-occupied housing. The City permits home rehabilitation loans and grants to be made to its low and moderate-income residents through the Washington County CDA, non-profit organizations and local lending institutions. One requirement of the program is to monitor the condition of the City's housing stock and encourages the maintenance and preservation of existing affordable and life-cycle housing. The program discourages expansion of low and moderate-income housing until or unless urban services exist in the community. The City's Housing Performance score for 2017 is 18 out of 100 points.

Modifications to homes located in the floodplain area are strictly regulated on an individual basis through the enforcement of existing ordinances. The City is actively cooperating with the federal government and is certified by the National Flood Insurance Program's Community Rating Service. The program provides federally-guaranteed flood insurance that encourages communities to enact and enforce floodplain regulations. In 2002 the City was approved for a FEMNDNR Hazard Mitigation Grant Program. The program has allowed for removal of five properties in the flood plain and floodproofing of six homes. The City is also working with other federal and state agencies to implement improved flood protection along its levee system and internally in the low areas of the floodplain.

There has been a recent trend toward demand for larger size houses requiring larger size lots. The larger size houses provide more room for interior storage and lessen the need for exterior storage or the necessity for small storage buildings. The City has allowed one ten lot development with lot sizes of approximately one acre. The City also recognized the need for larger lots to safely accommodate primary and alternate septic system sites and to provide the area necessary to accommodate size and storage demands of businesses locating in the area.

Following is a list of the types of building permits issued since 2009.

	<u>New Houses</u>	<u>Septic Systems</u>	<u>All Other</u>
2009	0	2	29
2010	0	3	30
2011	1	6	44
2012	0	7	35
2013	0	0	16
2014	0	0	2
2015	0	0	17
2016	<u>1</u>	<u>0</u>	<u>29</u>
Total	2	18	202

Historic Preservation

The City has taken steps to encourage awareness of its historical heritage by holding an annual Heritage Day celebration. At this time there is no specific plan for historical preservation in the City of Lake St. Croix Beach. However, residents are encouraged to maintain historical structures to preserve the historical architecture and cultural appeal.

Solar Access Protection

The City of Lake St. Croix Beach has a policy in effect to protect solar access. The main purpose is to protect access to direct sunlight for solar energy systems to help offset the projected scarcity and high costs of conventional fuels. Solar systems are allowed in all districts of Lake St. Croix Beach. However, the system must be in compliance with the permitting standards enforced by the City. Individuals or residents must apply for a building permit in order to begin construction. Through this process, the individual or resident may be required to submit a solar energy system or solar energy structure plan. (Map M11)

The following Gross and Rooftop Solar Resource Calculations estimate the total potential resource in the City (Data in Mwh/yr)

Gross Potential	444,571
Rooftop Potential	33,588
Gross Generation	44,457
Rooftop Generation	3,358

PUBLIC FACILITIES

Transportation/Traffic Plan

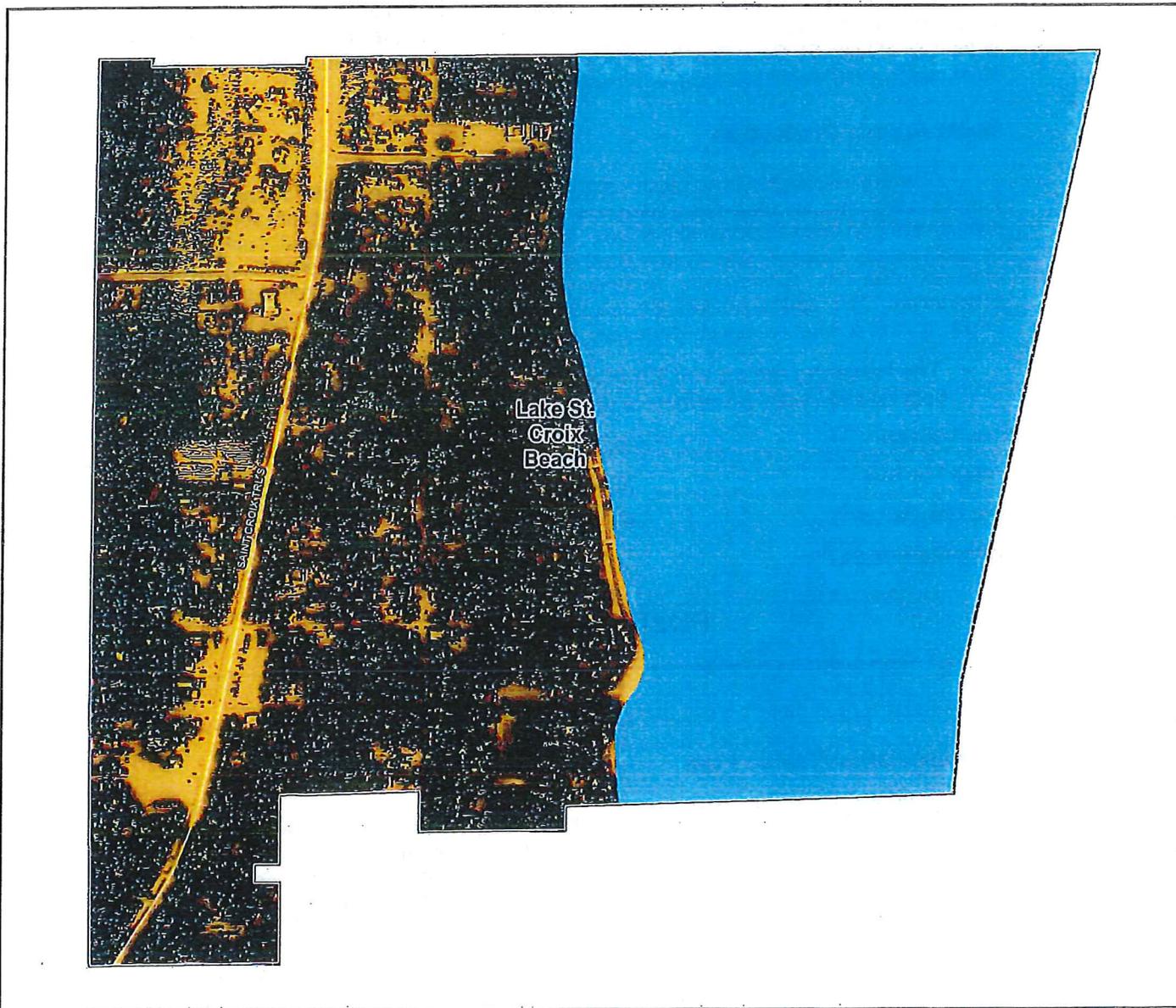
One minor arterial serves the City of Lake St. Croix Beach. County State Aid Highway 18 (CSAH 18, formerly STH 95) is the minor arterial that bisects the city. Quinlan Avenue, 13th Street, and 19th Streets are local streets that connect neighborhoods and other small districts. Most other Lake St. Croix Beach streets are local streets that provide access to homes. Most roadways within Lake St. Croix Beach are one lane in each direction. (Maps M12 & M13)

CSAH 18 serves as a connecting route for people living in the Valley who commute to the Twin Cities. Traffic on CSAH 18 in Lakeland, north of the City of Lake St. Croix Beach, has increased and is expected to increase in the future. Recent average daily traffic counts taken on CSAH 18 by Washington County in 2015 are 10,400 vehicles per day south of Interstate 94, 100 vehicles per day south of 8th Street North, and 7,700 vehicles per day south of 2nd Street North. In the City of Lake St. Croix Beach traffic counts are 5,500 at 12th Street South and 3,750 at 19th Street South.

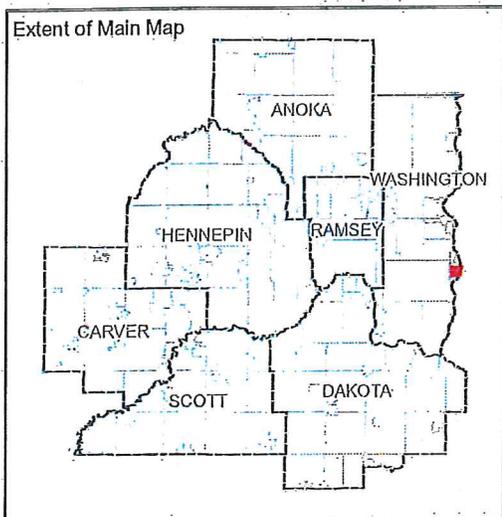
For the most part, the City is served quite well with the existing system.

Roadways in Lake St. Croix Beach	Lineal Feet
Paved Street	58,550
County Road	5,800
Private Road	600

Gross Solar Potential City of Lake St. Croix Beach, Washington County



12/20/2016



Gross Solar Potential (Watt-hours per Year)

High : 1262036

Low : 900001

 Solar Potential under 900,000 watt-hours per year

 County Boundaries

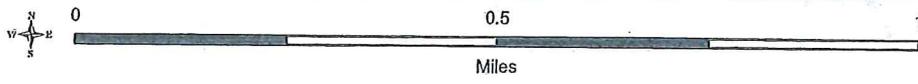
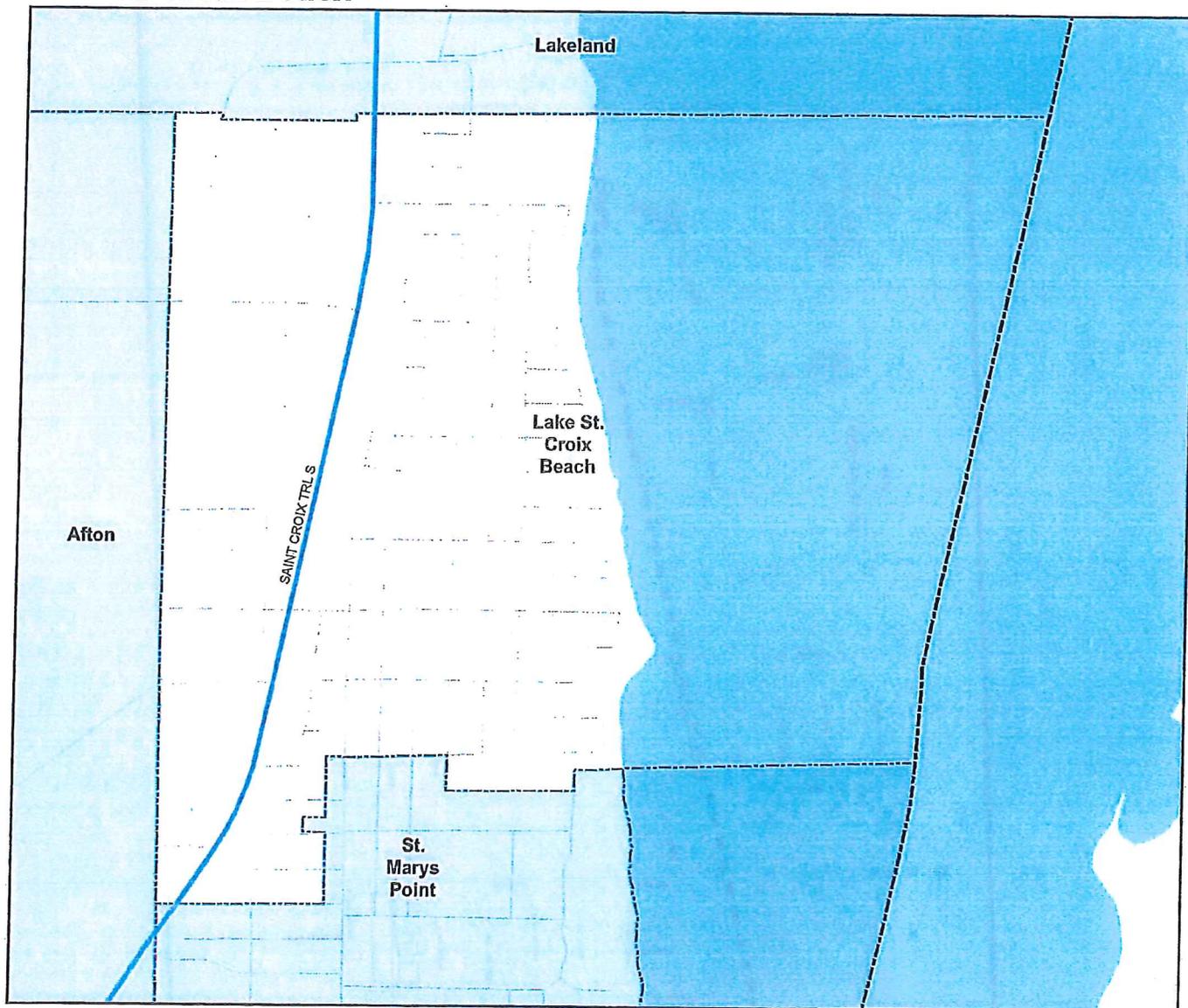
 City and Township Boundaries

 Wetlands and Open Water Features

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

Regional Transportation System - Functional Class Roads

Lake St. Croix Beach



9/2/2015

- | Existing Functional Class Roads | Planned Functional Class Roads | |
|---------------------------------|--------------------------------|------------------------------|
| Principal Arterial | Principal Arterial | County Boundaries |
| A Minor Augmentor | A Minor Augmentor | City and Township Boundaries |
| A Minor Reliever | A Minor Reliever | Lakes and Rivers |
| A Minor Expander | A Minor Expander | |
| A Minor Connector | A Minor Connector | |
| Other Arterial | Other Arterial | |
| Major Collector | Major Collector | |
| Minor Collector | Minor Collector | |

Washington County has access spacing criteria for roadways under its jurisdiction and encourages local communities to support this criterion. It is the City's policy that direct access onto minor arterials be minimized to maintain mobility for which these roadways are designed. The City's ordinance provides for limiting access points and zoning adjacent to minor arterials. The City has a policy to discourage driveway access onto CSAH 18. The ordinance regulates the type, number and location of access points and local access shall be generally provided off of local streets. The City has eliminated two roadway access points along CSAH 18 and right and left turn lanes have been added at 20th Street and CSAH 18.

The City will work closely with the County on any development (and associated access issues) located adjacent to CSAH 18. The County will be asked for input during the conceptual stage of the development review so that preliminary determinations can be made regarding the need for turn lanes and bypass lanes etc. The City supports the County's policy that any new direct access to CSAH 18 will require a turn lane and bypass lane, to be funded by the developer. If determined to be necessary by the County adequate right-of-way shall be dedicated to the County by the developer for the purpose of constructing a turn lane and bypass lane.

CSAH 18 is under Washington County's jurisdiction and the City has little ability to control speeds on the roadway. Speed limits on county roads are determined by state statute and Washington County is responsible for enforcing speed limits and speed zones. The City supports the County's effort to enforce the posted speed limit and to reduce speeds in general.

Washington County has constructed three roundabouts along CSAH 18 south of Interstate 94 north of Lake St. Croix Beach and bridge renovation has been completed just north of CSAH 21 in Afton.

Consideration is given to ongoing maintenance needs of all city streets which can help keep overall long-range street improvement and maintenance costs down. These considerations are addressed through annual review of maintenance recommendations prepared by the city engineer and a long-term Capital Improvement Plan for streets. The City maintains separate accounting for street capital improvement projects.

Transit

Lake St. Croix Beach is designated by the Metropolitan Council as Transit Market Area "V". Meaning that it has the lowest potential for transit ridership. Not well-suited for fixed-route services. Primary emphasis is on general public dial-a-ride and Metro Mobility services. Park-and-Ride facilities for commuters is located two miles north in the City of Lakeland.

The City is not within the Metropolitan Council Transit Capital Levy District.

Commuting Patterns for Lake St. Croix Beach
 (Source: U.S. Census Bureau/Metropolitan Council 2014)

Top ten workplaces of people who live in the City

St. Paul	76
Minneapolis	47
Stillwater	34
Woodbury	30
Maplewood	22
Eagan	17
Bloomington	16
Bayport	16
Oak Park Heights	16
Roseville	12
Other	214

Top ten residences of people who work in the City

Stillwater	9
Lake St. Croix Beach	8
Lakeland	7
Afton	5
Bloomington	3
Grant	2
Denmark Township	2
St. Paul	2
Scandia	2
Lakeland Shores	2
Woodbury	2
Coon Rapids	2
West Lakeland	2
Other	10

Aviation

The City of Lake St. Croix Beach does not have an airport. The closest airport is the Lake Elmo airport, which is approximately 15 miles northwest of Lake St. Croix Beach.

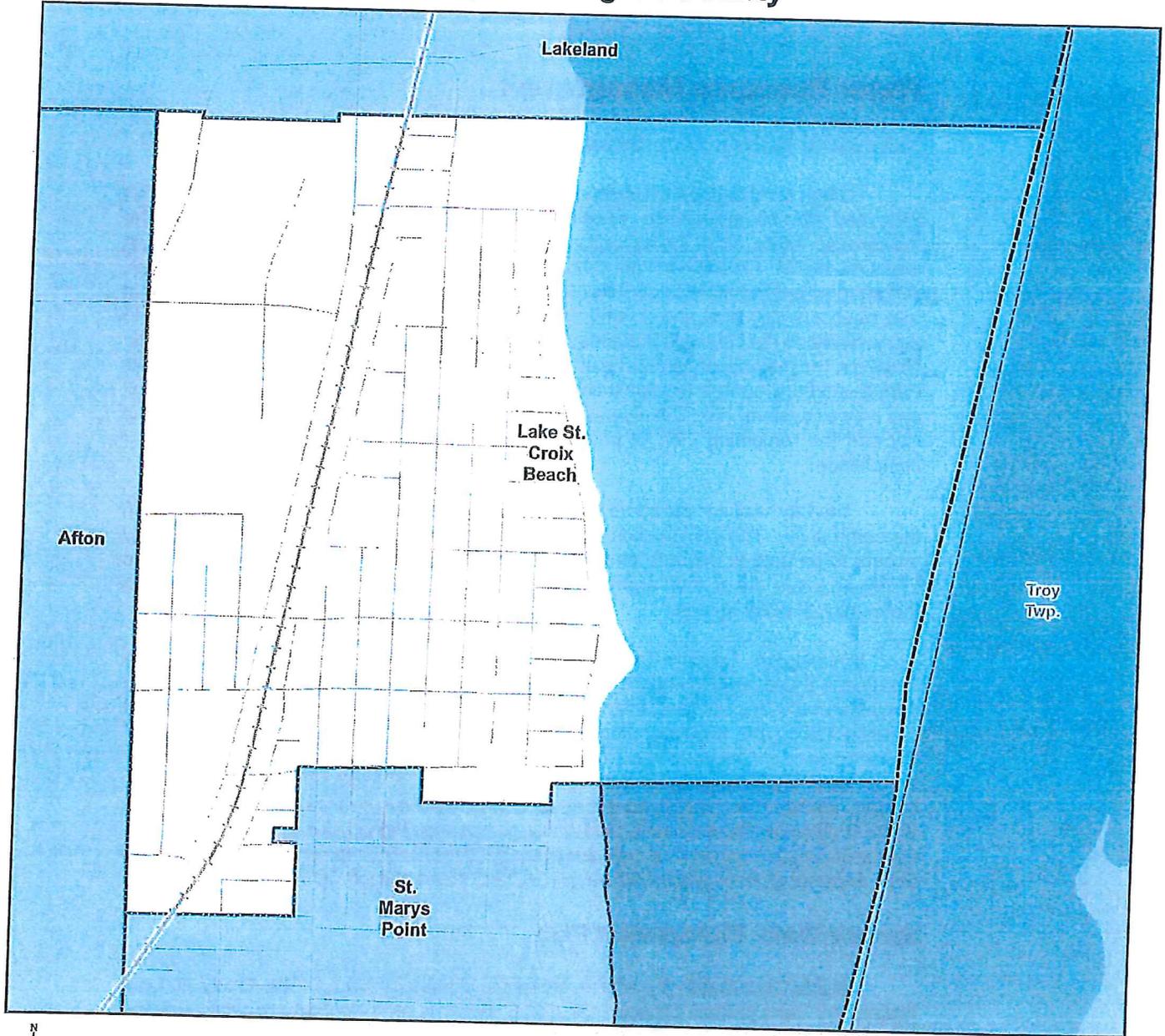
The St. Croix River is used by seaplanes for landing practice. Seaplane operations on the St. Croix River may constitute a hazard to other recreational users on the water. The Aeronautics Division of Minnesota Department of Transportation monitors seaplane operations on a periodic basis.

There are no buildings over 200 feet and the City limits the height of buildings to 35 feet. In the event that any future structure exceeds 200 feet, or if required by the Federal Aviation Administration, the City will file the required notices, including Form 7460, with the FAA and the Minnesota Department of Transportation.

Freight

There are no freight/distribution facilities, railroad tracks or yards, barge terminals or air freight services in the City. Trucks deliver goods to local businesses that are conveniently located on CSAH 18. There is little need for truck traffic on residential streets. Trucks will pass through the City on CSAH 18 in a north-south direction depending on their destination. (Map M14)

Metropolitan Freight System City of Lake St. Croix Beach, Washington County



Freight Terminals

-  Air / Truck
-  Barge / Truck
-  Rail / Truck

Railroads (Functional & Abandoned)

-  EXISTING
-  ABANDONED

Principal Arterial Highways

-  Interstate
-  US Highway
-  State Highway
-  County Road

-  Street Centerlines (NCompass)
-  Lakes and Major Rivers

Water Resource Management

Individual Subsurface Sewage Treatment Systems

Urban level support services such as public sewers, are not contemplated in this Plan and on-site subsurface sewer treatment systems will be employed for the foreseeable future. With the exception of the flood plain and steep slope areas, most areas in Lake St. Croix Beach are generally suitable for on-site sewer treatment systems. All systems must be built to present standards. There are parcels in Lake St. Croix Beach that may have a septic tank and drywell, which would be considered an imminent threat to public health in the County's Subsurface Sewage Treatment System (SSTS) Ordinance. However, the majority of parcels have systems that were installed under a County Septic Permit and the County's Septic Ordinance has never permitted the installation of a tank and drywell system. The County has issued septic permits for 71% of the parcels in the city and the remaining 29% of parcels would need to have the SSTS evaluated for compliance.

The City has been proactive in the elimination of failing and substandard systems in the community. The construction of the municipal water system has allowed property owners to be able to upgrade on-site systems when well setback requirements are no longer an issue. As of 2016 approximately 83% of the City's homes are connected to the municipal water system.

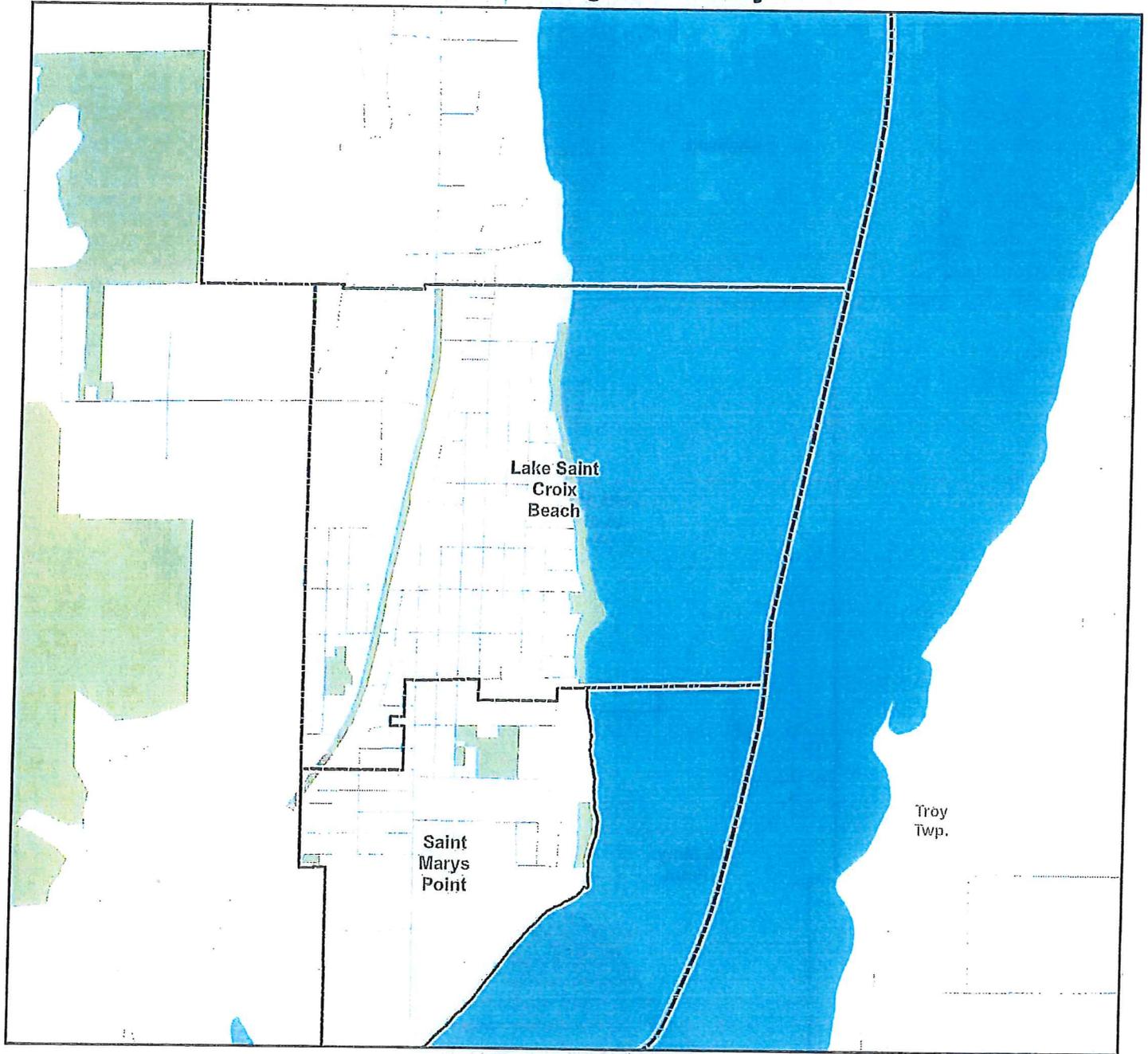
Washington County Development Code Chapter 4, Subsurface Sewage Treatment Systems Regulations, Ordinance No. 196 dated April 28, 2015 regulates design, installation, use and maintenance of individual subsurface sewage treatment systems and private treatment plants (cluster systems) so as to prevent contamination of the surface and groundwater within the city. This ordinance also protects individual water supply wells of the community from contamination by inadequate improperly designed, located, installed or maintained individual subsurface sewage treatment systems. The SSTS Ordinance also requires a time of sale compliance inspection of SSTS. If a system is deemed failing the homeowner will have to bring the system into compliance within 90 or 30 days, depending on the type of failure that is determined. (*Maps M15 & M16*)

Surface Water Management Plan

Lake St Croix Beach lies entirely within the jurisdictional area of the Middle St Croix Watershed Management Organization (MSCWMO). It is the policy of the City to carry out sound stormwater management practices that are consistent with the MSCWMO Watershed Management Plan and city codes. The City's Plan is intended to promote, preserve, and enhance natural resources. The City will embrace innovative and alternative technologies that protect water resources and will provide incentives for adoption of Best Management Practices (BMP). The City will implement its Surface Water Management Plan for new development and intends to improve the overall quality of surface water runoff as development and redevelopment occurs. (*Maps M17, M18 & M19*)

The Surface Water Management Plan for the City of Lake St Croix Beach is contained in the Appendix of this Comprehensive Plan. (See Appendix C)

MCES Sanitary Sewer Meter Service Areas City of Lake St. Croix Beach, Washington County



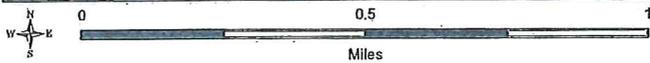
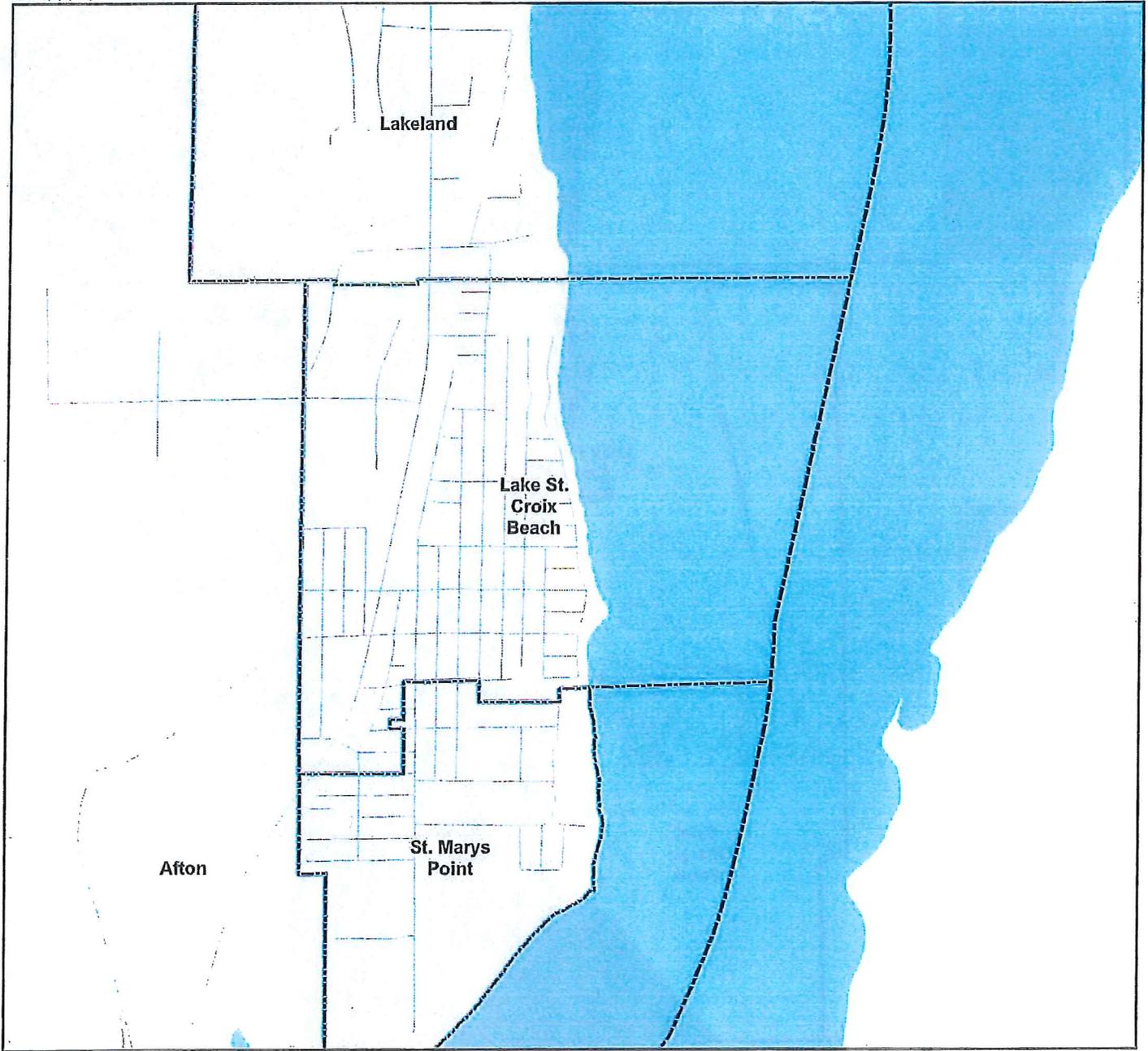
1/2/2015

- | | | |
|-----------------------------|-------------------|----------------------------------|
| Interceptors by Type | Outfall | Meters |
| Gravity | Low Head Crossing | Lift Stations |
| Forcemain | Bypass | MCES Wastewater Treatment Plants |
| Siphon | | |

Interceptor Meter Service Areas	
To Meter # 100	Areas Not Served

- | | | |
|--|------------------------------|--------------------------------|
| Areas of Unmetered Flow into the Community | County Boundaries | Park, Recreational or Preserve |
| Rural Center WWTP Service Areas | City and Township Boundaries | Golf Course |
| 2040 MUSA | Lakes and Rivers | |
| | NCompass Street Centerlines | |

Regional Wastewater System Long-Term Service Areas City of Lake St. Croix Beach, Washington County



- 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		

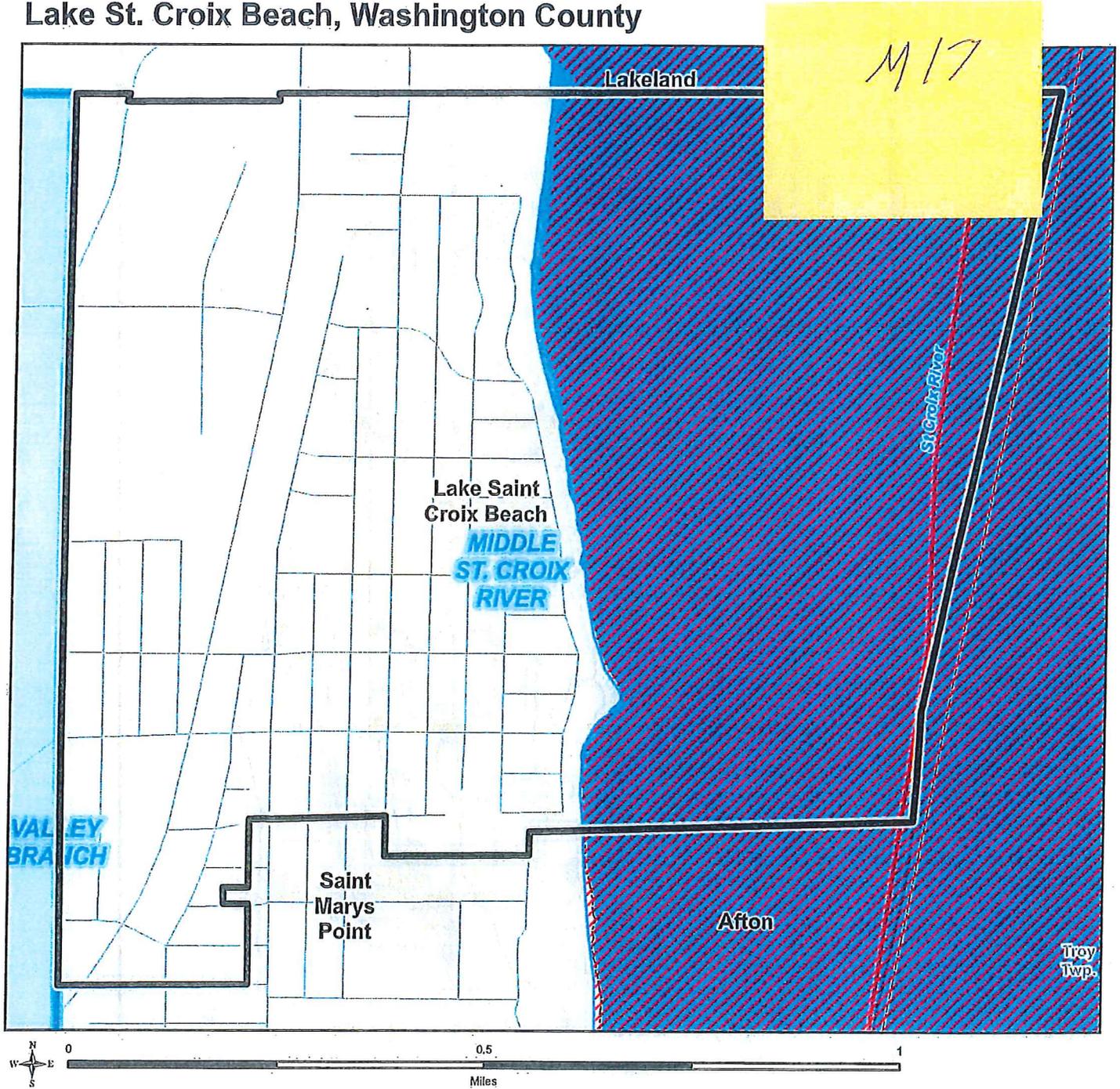
- Shakopee Mdewakanton Sioux Community
- Scott Co. Urban Expansion
- Scott Co. Rural Center Expansion
- Wildlife Mgmt. Area

Orderly Annexations

- Rural Centers Pre-2030
- Blue Lake Pre-2030
- Rural Centers Post-2030
- Blue Lake Post-2030
- Empire Post-2030

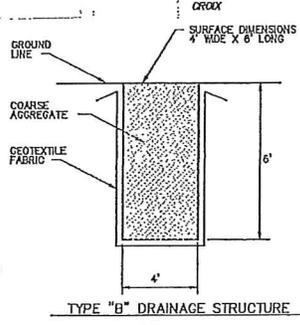
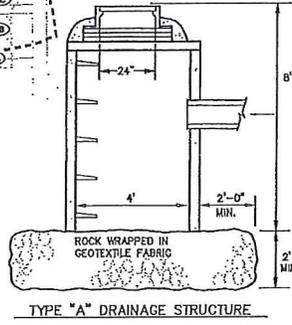
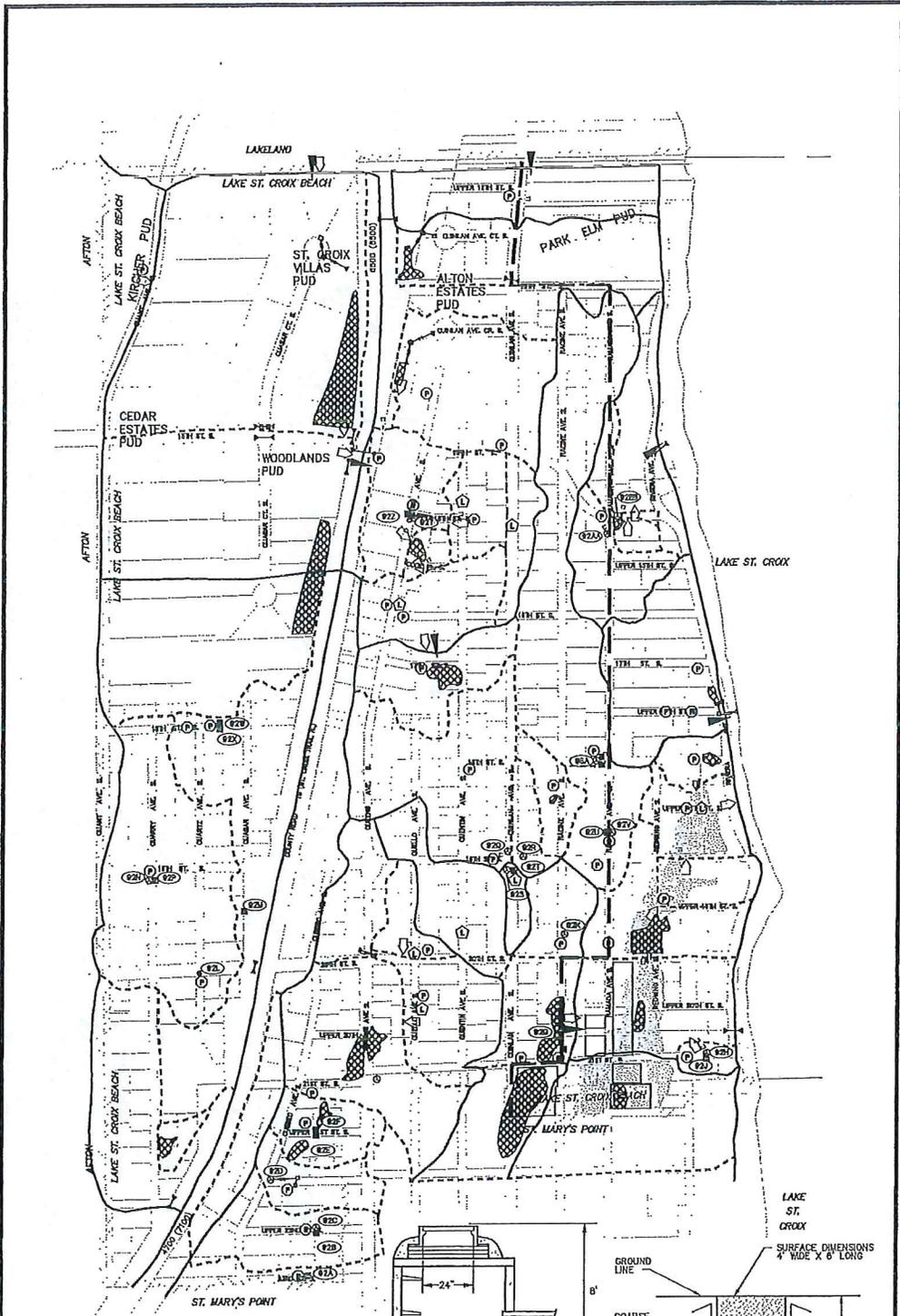
Surface Water Resources

Lake St. Croix Beach, Washington County



-  Watershed Management Organization Boundaries
- Watershed Management Organization Type**
-  County
-  Watershed District
-  Watershed Management Organization

-  Impaired Lakes (2014 Draft MPCA 303(d) List)
-  Impaired Rivers & Streams (2014 Draft MPCA 303(d) List)
-  2014 Priority Lakes
-  County Boundaries
-  City and Township Boundaries
-  Other Lakes and Major Rivers
-  Other Streams
-  NCompass Street Centerlines

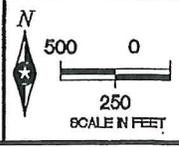


This map depicts the general layout of the community. It is not intended for use as a plot map.
 Revised April 1999
 Revised May 2009

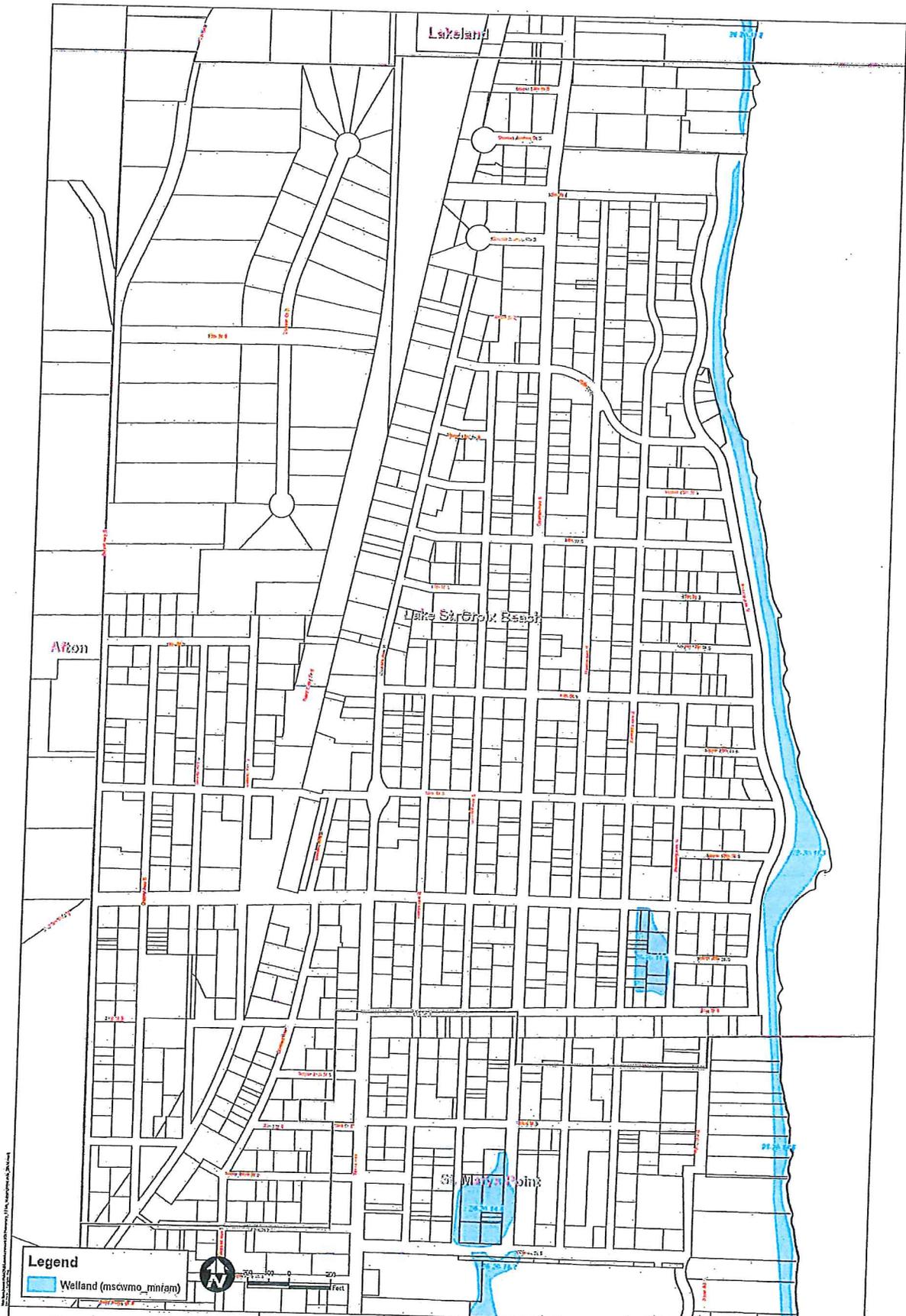
lake
 st. croix
 beach

- drainage map**
- lake st. croix beach city limits
 - major drainage boundary
 - minor drainage boundary
 - low area not identified on contour map
 - low area identified on contour map
 - 1997 flood area
 - outlet

- major drainage flow path
- minor drainage flow path
- overflow drainage path
- areas with storm water problems
- existing storm sewer
- existing "type B" flat
- existing "type A" flat
- storm structure identification



PROJECT: LAKESHORE DRIVE/ST. CROIX BEACH/ST. CROIX BEACH CITY LIMITS
 DATE: 04-17-09 TIME: 10:00 AM
 CLIENT: ST. CROIX BEACH
 DRAWN BY: J. L. HARRIS
 CHECKED BY: J. L. HARRIS



Legend

Wetland (mscvm0_mnrfm)



3635 VANDER CENTER DR.
ST. PAUL, MN 55110
PHONE: (651) 453-2000
FAX: (651) 460-2150
WATTS: 650-325-2025
www.sehinc.com

Project: XXXXX 000000
Print Date: 05/06/2009

Majby
Bjorkman
Soren

Wetlands Map

Lake St. Croix Beach, MN

Figure
X

Water Supply

The City of Lake St. Croix Beach has constructed a water distribution system to supply water to property owners. The entire city is served by the municipal water system. The City has a joint powers agreement for water service with the City of Lakeland who has operated the Lakeland Water Utility since 1991. Hook up to the water system is voluntary and 374 residential and 8 commercial properties in the City have connected as of December, 2017. The City is connected to the Lakeland Municipal Water System at three locations: Quant Avenue S, CSAH 18 and Quinlan Avenue South. The water system is designed so that it could be extended south into the City of St. Mary's Point.

Lake St. Croix Beach has verified that the Lakeland Water Utility's Local Water Supply Plan includes our City's current and projected water demand. The City estimates twenty new water connections by 2040 in addition to existing properties that will be capping their wells and connection to municipal water. The Lakeland Water Utility's Local Water Supply Plan is currently being reviewed by the Minnesota Department of Natural Resources and will be inserted into this Comprehensive Plan when completed.

The City of Lakeland has submitted a Wellhead Protection Plan (VHPP) in accordance with Minnesota Rules Chapter 4720. One Lake St. Croix Beach parcel is included in the wellhead protection area. The VHPP can be reviewed at the Lakeland Water Utility. The City will assure coordination with other local government units for ground water sensitive areas, wellhead protection areas, water use contingency and allocation plans and other groundwater plans where the plans may affect other jurisdictions.

The City has a policy to require municipal water hook up for all new construction and substantial remodeling. Pursuant to State statutes, all abandoned wells are sealed. In the early 1990's the City tested several shallow and deep wells for the types of contaminants found in the aquifer serving the City of Lakeland to the north. The tests were negative.

Flood Control Facilities

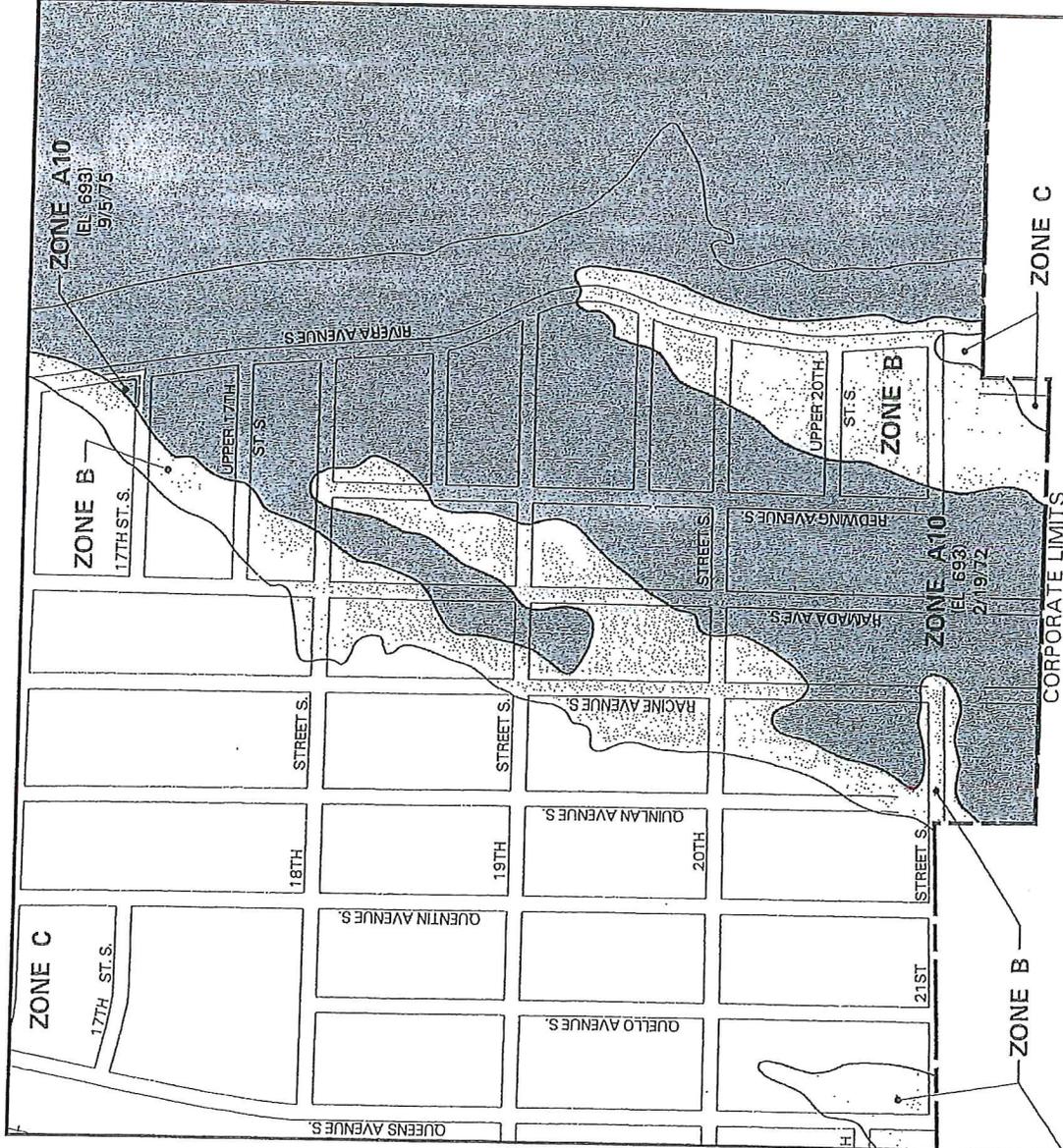
Two flood control levees were constructed in the City of Lake St. Croix Beach under emergency flood conditions in 1969. The levees are currently in use and it is anticipated that they will remain in use for the purpose of flood control. An 1,100-foot levee is located at the east border of the City along the St. Croix River. This levee is a part of the southern half of the Shoreland/Bluffland Park. A second levee is located near the south border of the City on 21st Street South between Racine Avenue South and Ramada Avenue South, the 21st Street levee is approximately 400 feet in length. (*Map M20*)

Both levees were damaged during flooding on the St. Croix River in 1997 and 2001. The damage caused by the flood was also repaired after each event. In order to improve the stability of the levees and to try to protect the levees from future damage, the City has completed a levee improvement project. A portion of the funding for the levee improvements project was provided to the City through a Minnesota Recovers Disaster Task Force Grant. The U. S. Army Corps of Engineers approved the levees in the City for participation in the Non-Federal Flood Control Works (NFFCW) inspection and rehabilitation program in December, 1997 and 2003. The City maintains these levees to U. S. Army Corps of Engineers requirements.

Flood control facilities such as pumps are not owned by the City. In past floods, pumps have been rented or borrowed from neighboring communities or businesses. Other flood control supplies such as sand bags, plastic sheeting, and geotextile fabric are purchased by the City as required during flood events.



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

CITY OF
**LAKE ST.
CROIX BEACH,
MINNESOTA**
WASHINGTON COUNTY

ONLY PANEL PRINTED

COMMUNITY - PANEL NUMBER
275240 0001 B

MAP REVISED:
APRIL 25, 1980



U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Solid Waste

The Metropolitan Council does not review or have jurisdiction over Solid Waste produced by a community. The Minnesota Pollution Control Agency oversees these issues.

Lake St. Croix Beach has no facilities for disposal of solid waste within the community. The City has an ordinance governing collection of solid waste and requiring licensing of trash haulers and standardization of fees. Fees are volume-based to encourage recycling. At present, trash is collected by private companies operating under license and supervision of the City of Lake St. Croix Beach. The City will encourage and support compliance with existing county ordinances regarding the reclamation and disposal of solid waste. Lake St. Croix Beach will continue to sponsor a spring cleanup day when citizens are encouraged to bring their refuse to a central drop off location in the City for disposal.

The City contracts with a recycling hauler to handle recycling services for curbside pickup for all residents and has adopted use of a single sort recycle stream for its residents. The City encourages waste reduction and continues to participate in the three-city recycling program.

Residents are able to take yard waste to compost sites in the Cities of Woodbury and Stillwater and brush can be taken to a local business that provides residents a disposal site for brush. Residents are also encouraged to dispose of household hazardous waste items in the Household Hazardous Waste Facility located in Oakdale and Woodbury.

Parks, Open Spaces and Trails

There are no regional parks within Lake St. Croix Beach as contained in the adopted 2040 Metropolitan Council Regional Parks Policy Plan. (*Maps M21 & M22*)

The City currently has two developed public parks, Pettitt Park and Riverfront Park, and the undeveloped Shoreland/Bluffland Park. It is important to note that the bike trail on CSAH 18 right-of-way is owned and maintained by Washington County. This trail is designated a regional bicycle transport corridor Tier 2. The parks in Lake St. Croix Beach are intended for the use of local residents, therefore parking may be limited at these facilities. Citizens responding to the survey indicated the bike trail and the Shoreland Park are the most used park facilities. Ninety-one percent of those responding to the question gave favorable ratings to the swimming beach and ninety-three percent gave favorable ratings to the bike trail.

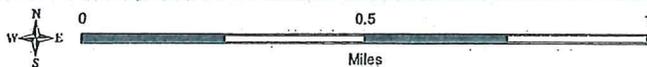
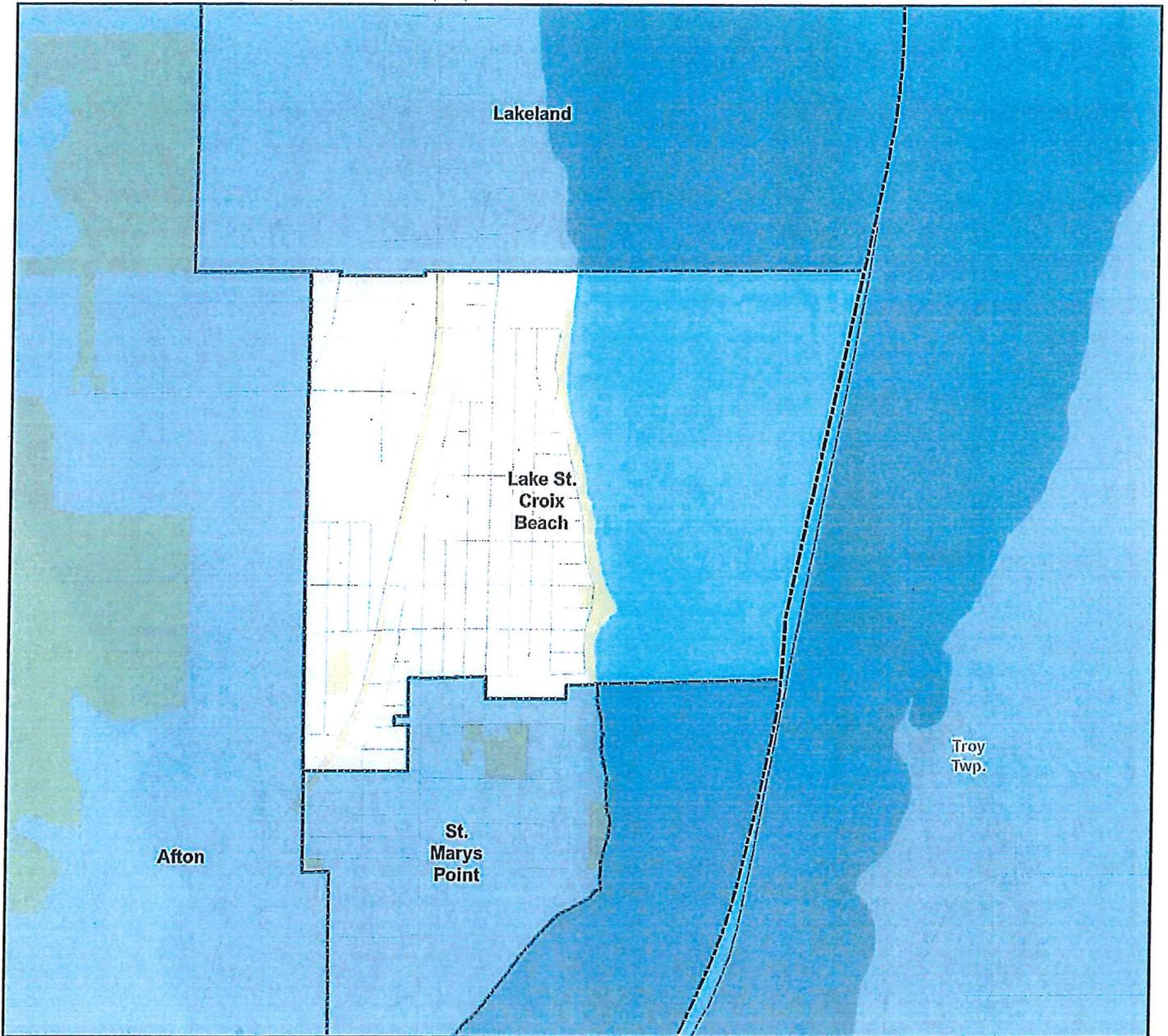
The trail passing through Lake St. Croix Beach serves as a major recreational trail for residents of the Valley. A number of city streets allow trail users to access recreational and natural resources in the community and is informally known as the Lake St. Croix Beach Loop Trail.

Pettitt Park has a ball field, as well as some playground equipment. In 2005 aging playground equipment was replaced by a local community playground group funded by donations and grants. ADA parking pads and a viewing pad were installed in 2006 through Community Development Block Grant (CDBG) funds. The park's main use is the ball field. Many park users are from outside the City as ball field scheduling is handled through various athletic associations, which serve athletics throughout the lower portion of the county.

Riverfront Park has a swimming beach, picnic facilities and playground equipment. The beach has been identified as one of the top beaches in the Twin Cities Magazine and has become a popular destination for visitors from across the Metro area.

Regional Parks System

City of Lake St. Croix Beach, Washington County



Regional Parks

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

Regional Trails

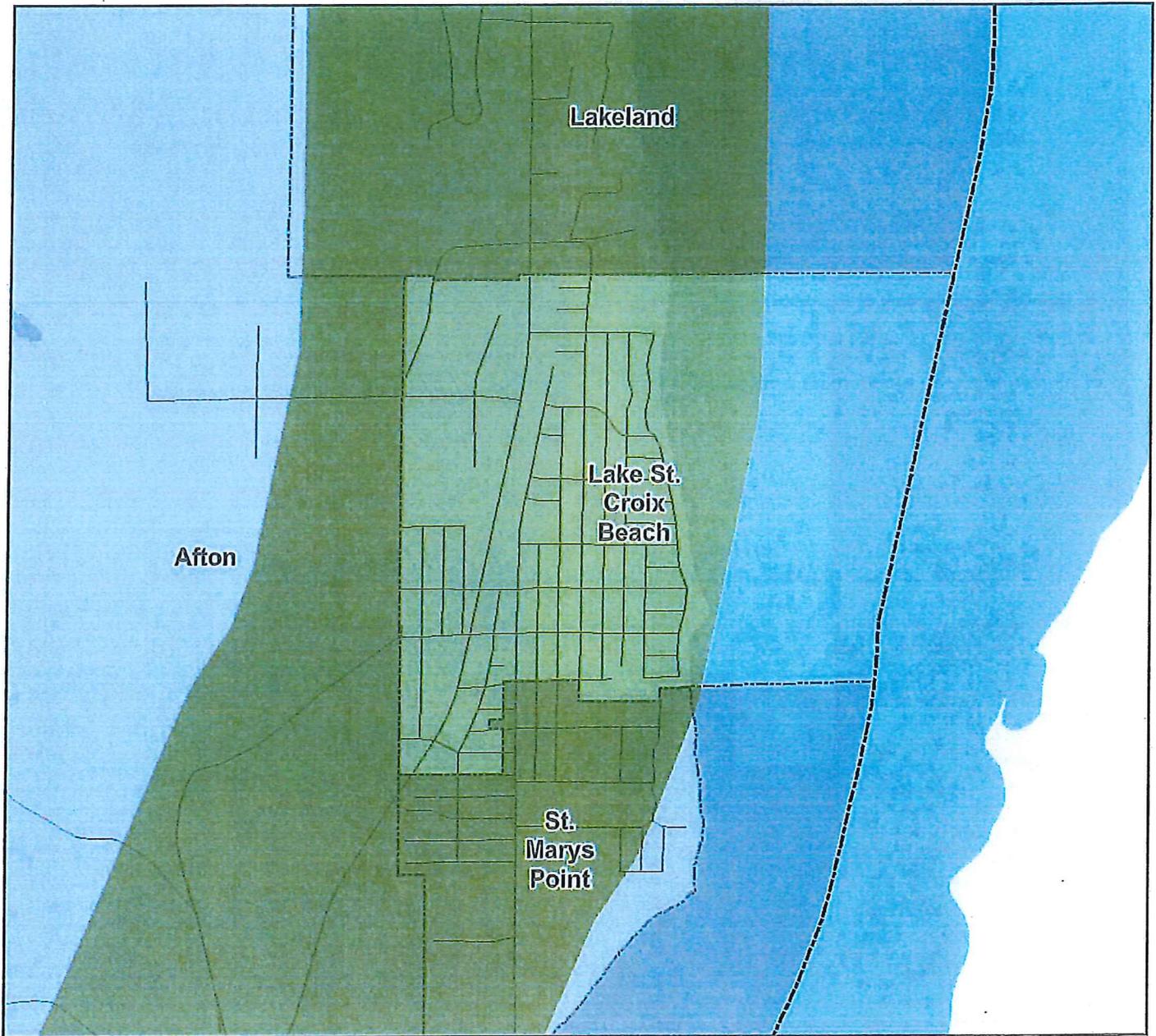
- Existing
- Planned

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

Regional Bicycle Transportation Network (RBTN) City of Lake St. Croix Beach, Washington County



RBTN Alignments

-  Tier 1 Alignment
-  Tier 2 Alignment

RBTN Corridors (Alignments Undefined)

-  Tier 1 Priority Corridor
-  Tier 2 Corridor

Regional Destinations

-  Metropolitan Job Centers
-  Regional Job Centers
-  Subregional Job Centers
-  Large High Schools
-  Colleges & Universities
-  Highly Visited Regional Parks
-  Major Sport & Entertainment Centers

Regional Trails (Parks Policy Plan)

-  Existing
-  Planned
-  County Boundaries
-  City and Township Boundaries
-  NCompass Street Centerlines
-  Open Water Features
-  Existing State Trails (DNR)
-  Mississippi River Trail

City of Lake St. Croix Beach 2040 Comprehensive Plan

The Shoreland/Bluffland Park includes .7 miles of shoreline along the St. Croix River. The north end of the park is high bluffland. The City constructed two sets of stairways in 2003 and neighbors in the area maintain additional sets of steps on city parkland to access the beach. The south half of this park is lower in elevation and contains a popular swimming beach at Riverfront Park and an earthen levee. The top portion of the 1,100 ft. earthen levee contains a bike/walk trail.

The City manages the docking and mooring of Lake St. Croix Beach residents' private watercraft along the waterfront and includes an Army Corps of Engineer permit for 35 structures. Three boat committees (Management, Design and Legal) provide recommendations on use and controls of structures and watercraft in this city park.

The Lower St. Croix Valley Veterans Memorial is located at the site of the former Lake St. Croix Beach City Hall at Quebec Avenue South and 19th Street South. This 10,000 sq. ft. parcel is conveniently located near the St. Croix Valley Trail along CSAH 18. This Memorial features trees, flowers, benches, flagpoles and a future water fountain. Veterans are recognized by their names being etched on elevated displays. The Memorial is funded through private donations and is a collaborative effort among the Cities of Afton, Lake St. Croix Beach, Lakeland, Lakeland Shores and St. Mary's Point.

The City has identified several areas along CSAH 18 that are wider than the standard 150 ft right-of-way. It is felt that these sites may have a public purpose for such uses as storm water drainage and park access. The County has been advised that the City has an interest in acquiring this land.

In an effort to continually improve the park facilities in Lake St. Croix Beach, there has been a regulation placed on newly platted developments. The platting regulation requires a payment for Park Dedication Fees for park purposes. The money received through this process should be directly aimed toward the facilities that receive the most community-wide use.

Several high-water events have caused severe sloughing of the bluffs in the Shoreland/Bluffland Park. The City is working with state and federal agencies to find the expertise and resources to protect this parkland and adjacent public facilities from further erosion damage. In 2009 the City has been awarded a grant from the MN Board of Water and Soil Resources Native Buffer Cost-Share Program and will be partnering with the MSCWMO to stabilize an area of active erosion between the beach and a roadway located in Riverfront Park. Invasive, non-native vegetation will be removed and a native buffer will be installed to protect water quality of the St. Croix River. The City also has plans to stabilize bluffland located in the Shoreland/Bluffland Park and dike system from surface water damage and flooding.

The parks and open spaces in Lake St. Croix Beach will be managed in a way that sets the best example for stewardship of natural resources in the community. Parks will be maintained in a way that minimizes impacts to natural resources, reduces water usage, utilizes appropriate native plant species to restore and enhance natural areas, incorporates safety through environmental design and improves water quality by incorporating Best Management Practices. In 2009 the City installed two working demonstration raingardens on City property adjacent to the bike/walk path and City Hall.

Basic Services

Because of the size and limited resources, the City has entered into agreements and contracts for a number of services providing for health, welfare, and safety of the residents.

Service	Contract Entity
Animal Control	Contract with Ms. Kathi Pelnar for Animal Control Services Contract with Humane Society for Companion Animals for Impounding Services
Building Inspections	Contract with Service Provider
Emergency Medical	Joint Powers Agreement: Lower St. Croix Valley Fire Protection District
Fire Protection	Joint Powers Agreement: Lower St. Croix Valley Fire Protection District
Law Enforcement	Contract with Washington County Sheriff's Department
Street Maintenance	Contracts with various Service Providers
Municipal Water	Agreement with City of Lakeland/Lakeland Water Utility
Watershed	Joint Powers Agreement with Middle St. Croix Valley Watershed Management Organization And Valley Branch
Recycle	Contract with Highland Sanitation, Inc.
Cable Franchise	Joint Powers Agreement: Lower St. Croix Valley Cable Communications Commission

The weed control, city clean-up event, monthly newsletter; etc. are provided by the City. The cost of the aforementioned services are assumed and paid for by the City through property taxes and State Local Government Aid monies when available, and are included in the annual budget. Administrative fees are charged for some of the above services.

ECONOMIC DEVELOPMENT

The City of Lake St. Croix Beach established an Economic Development Authority in 2008 to facilitate the purchase of a building to be used as a city hall. The City, however, does not have a specific economic development plan. At the current time, there are a number of small businesses located in the City.

As public service costs usually rise at a faster rate than population, it is unlikely that public costs per capita will decrease in the foreseeable future. High tax producing developments are not likely without further increase in public services such as central sewer system for the City. Average family income, lack of outside financial assistance, large lot sizes and other factors cast serious doubt on the area's ability to pay for the added public facilities and services that would be needed in the event of future development and growth. Therefore, the general economy of the area is such that new growth is not likely to improve local finances.

The City expects no significant change in the employment opportunities in the City.

INTERGOVERNMENTAL COORDINATION

Relationships with Surrounding Communities

Communities in the Valley will continue to work together on common goals and objectives. Lake St. Croix Beach will be working with other communities with respect to the sharing of public services including water system, conducting traffic studies on CSAH 18 and inter-community drainage issues. The city partners with other communities on bids for contracts such as street maintenance and repairs.

A joint comprehensive plan was not attempted with the other cities. The City participates in the Lower St. Croix Valley Alliance, a forum for elected officials and residents to discuss local issues. The City also participates in the MN/WI Lower St Croix Partnership Team - Land Use Review Committee which reviews and provides feedback for all land use decisions regulated by State and local government rules and ordinances governing land use in Lower St. Croix Riverway District.

IMPLEMENTATION

Official Controls

This plan will be implemented by the use of local controls, including city ordinances or controls that have been adopted from other entities, such as Washington County. The City will review its official controls to establish that they are consistent with 2040 Regulatory Framework and are consistent with other elements of the Comprehensive Plan.

Zoning is governed by Lake St. Croix Beach Ordinances, Section 301. This ordinance adopts and amends the Model Zoning Regulations in Washington County.

The City has adopted the Lower St. Croix River Bluffland and Shoreland Management Ordinance which protects the natural environment and aesthetics of this Wild and Scenic Riverway, Section 302.

Subdivision is governed by Lake St. Croix Beach Ordinances, Section 400. This section adopts and amends the Model Subdivision Regulation Code for communities in Washington County. This section establishes safeguards against developments without proper drainage and soil conditions and establishes administrative procedures for control of subdividing.

City of Lake St. Croix Beach 2040 Comprehensive Plan

The City has adopted the Model Floodplain Regulation which protects and limits development in the floodplain and floodways, Section 402.

On-site sewage disposal is governed by Lake St. Croix Beach Ordinance, Section 506, which adopts Chapter Four of the Washington County Development Code adopted for Communities in Washington County. This ordinance requires septic tanks and absorption fields (drainfields) whenever possible. It requires that substandard systems be brought to current standards. It specifies maintenance standards and procedures.

The City of Lake St. Croix Beach city water comes from the Lakeland Water Utility and is regulated by Lakeland Ordinances, Sections 1703, 1704, and 1705.

Housing construction is governed by Lake St. Croix Beach Ordinances, Section 500. The State Uniform Building Code has been adopted; thus permits and fees are required.

To offset the projected scarcity and high cost of conventional fuels the City encourages use of solar energy systems by permitting solar energy systems, Section 508. This ordinance will be reviewed and/or amended to include alternative energy sources.

The City has adopted by reference the Middle St. Croix Water Management Organization Watershed Management Plan Which contains performance standards that apply to development Within the MSC Watershed and focuses on stormwater management, erosion and sediment control, and wetland protection, The City will refer projects to the MSCWMO for full or staff review when deemed necessary based on certain activities.

The City also utilizes and depends on the following agencies for review of proposed development and advice on ordinance revision:

The Minnesota Department of Natural Resources for review and approval of development along the St. Croix Riverway and floodplain districts that require variances and special use permits and;

The US Army Corp of Engineers reviews and approves construction in and alterations of navigable water.

All administration responsibilities begin with the City Council which is responsible for the implementation of the Plan. The Planning Commission holds public hearings, conducts investigation of matters pertaining to planning and application of plans and makes recommendations to the City Council. The City Clerk is the Zoning Administrator. The Building Inspector grants building permits and makes inspections as appropriate. The City retains an engineer who inspects and makes recommendations on such matters as drainage, percolation, road specifications, erosion control, and other building and platting requirements. The City also retains an attorney as a legal advisor.

Capital Improvement Plan

The City plans capital investment over the next five years in these categories:

- **Parks and Open Space**

The City plans to improve its Shoreland Park over a five-year period by stabilizing the bluff and dike against erosion from surface water drainage and flooding. The primary funding source for erosion protections will be grants and matching funds from property tax revenue if required.

- **Public Buildings**

A 5,000 sq. ft. commercial building was purchased in 2008 With economic development bond proceeds, revenue interest from retired bonds and surplus cash by an Economic Development Authority established for that purpose only. It has been converted for City Hall use and is leased by the City from the EDA on a lease/purchase basis for a term of eleven years. Funding will be from remaining assessment payments of previously retired bonds until 2013, along with property tax revenue. In the meantime, building improvement costs are classified as current expense.

- **Street Resurfacing.**

Major street resurfacing and/or re-construction may be necessary during this five-year period. Accruals for resurfacing and/or re-construction will absorb a substantial portion of cash resources in the next five years and beyond. Funding will be from budgeted allocations. The City is in the process of completing street evaluations and costs of improvements are unknown.

- **Surface Water Management.**

Improvements are planned for stormwater facilities, erosion control structures, and the City's levee system. Funds will be obtained from grants, budgeted allocations and available cash.

- **Water Supply**

The City's Joint Powers Agreement with neighboring Lakeland and Lakeland Shores supports the Lakeland Water Utility. The system is adequate to accommodate the expected growth in single family residential and light commercial uses. A second water tank was constructed in 2005, funded by a Lakeland general obligation bond. The City's bond retirement portion was paid by users' fees. Watermain repairs are anticipated and the City has begun to accrue funding from budget allocations.

- **Transportation**

No additions to the road or trail system will be needed to service the expected single family residential and light commercial growth. CSAH 18 the City's main and only arterial connector road was resurfaced and improved in 2007 at Washington County's expense. No public transportation or mass transit facilities are planned.

- **Wastewater**

No expansion of the Metropolitan Area sewer system is planned within reach of the City, leaving private on-site sewage disposal as the only practicable system. No City investment is planned for consolidated one-site systems.

A detailed Capital Improvement Plan (CIP) outlining improvements to parks, streets and public facilities including estimated costs and proposed method of financing will be attached to the plan at a future date.

Housing Implementation Program

There are very few parcels left to develop in the City and the City is not required to contribute to the region's need for additional low and moderate income housing.

New construction and reconstruction in the City will conform to City Ordinances and State Building Codes and be inspected accordingly to these standards. Existing ordinances will be adhered to in order to provide environmental safeguards and preserve the character of the area.

The City will continue to monitor the condition of its housing stock and encourage maintenance and preservation of affordable and life-cycle housing.

Appendix C

Local Surface Water Management Plan

Separate Attachment

Local Surface Water Management Plan
City of Lake St. Croix Beach, Minnesota

DRAFT
May 9, 2009

Local Surface Water Management Plan

Purpose

The City of Lake St. Croix Beach has prepared this Surface Water Management Plan to consolidate information on the City's overall surface water management objectives, implementation and funding. The City has adopted the Middle St. Croix Watershed Management Organization Water Management Plan by reference along with elements of the Metropolitan Council Water Resources Management Plan. It is the City's goal to protect valuable natural resources and to have no adverse impact on the water quality of the St. Croix River as it passes through our city.

The City of Lake St. Croix Beach's Plan is intended to support the goals and policies of the Middle St. Croix Watershed Management Organization (MSCWMO). The MSCWMO is a Joint Powers Watershed Management Organization composed of ten St. Croix Valley communities that was established under State Statute 103B to cooperatively manage water resources within the watershed. The ten member communities of the MSCWMO are Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater, and West Lakeland Township. Lake St. Croix Beach appoints one manager and one alternate to serve on the ten member WMO Board. Lake St. Croix Beach represents about 3 percent of the 19.8 square mile MSCWMO Watershed area.

The purpose of the WMO and of this Plan, is to conserve natural resources through land use planning, flood control, and other conservation projects in order to ensure continued public health and welfare. The specific purposes for the Plan and the WMO Plan are:

- 1) Cooperatively manage water resources in the watershed.
- 2) Inventory and assess the resources of the watershed.
- 3) Monitor the water quality of lakes and streams in the watershed.
- 4) Provide education on water related issues in the watershed.
- 5) Review development plans for stormwater management, erosion and sediment control, and provide wetland and shoreland protection.
- 6) Plan and implement capital improvement projects that enhance the water resources of the watershed.

Table of Contents

Purpose.....	2
Land and Surface Water Features.....	3
Stormwater Management System.....	4
Surface Water Management Requirements and Standards.....	4
Groundwater Management.....	6
Water Based Recreation.....	7
Fish and Wildlife Habitat.....	7
Assessment of Problems Goals and Corrective Actions.....	7
Water Quantity.....	7
Flooding.....	7
Stormwater Runoff.....	8
Water Quality.....	8
Construction Project Management.....	9
Street Repair and Maintenance.....	9
Park and Landscape Maintenance.....	9
Residential Stewardship.....	10
Best Management Practices.....	10
Erosion.....	10
Groundwater.....	11
Public Participation/Education.....	12
Wetlands.....	12
Recreation, Fish and Wildlife.....	13
Maintenance/Inspection.....	13
Implementation Plan.....	14
Plan Amendments.....	16
List of Tables	
C-1. Special and Impaired Waters in Lake St. Croix Beach.....	3
C-2. Ordinances Relating to Surface Water Management.....	4
C-3. Implementation Program Priority Projects.....	14
List of Maps	
Wetland Map.....	18
FEMA Floodplain Map.....	19
Drainage Map.....	20

Land and Surface Water Features

The Middle St. Croix Watershed is unique when compared to other watersheds in Washington County in that it has many small, parallel sub watersheds that all flow into the St. Croix River, whereas the other watersheds generally have one major drainage with a headwaters and outlet.

Generally speaking the drainage pattern in Lake St. Croix Beach is from west to east; however there are a number of isolated low areas within the City which prevent discharge directly into the St. Croix River. Most of the City drains internally, with very little area draining directly into the River. There are two concentrated discharge sites which flow into the River.

The MSCWMO Plan includes a detailed assessment of the land and water resources found within the MSCWMO and reference is made to the WMO Plan for this information. The MPCA's online mapping tool identifies the special and impaired waters information for the waters listed in Table C -1.

Table C -1. Special and Impaired Waters in Lake St. Croix Beach

Water Body	Designation	Requirements
St. Croix River	Outstanding Resources Value Water (ORVW) Restricted Discharge	NPDES Construction Permit requires additional measures for construction activities; water quality volume and buffer zones
St. Croix River	Impaired for Mercury (Hg)	Approved TMDL. Statewide implementation. No direct local requirements.
	Impaired for PCB	TMDL not yet completed. No current local requirements. Fish consumption advisories apply to both impairments
	Phosphorus	20% phosphorus load reduction goal set

Protected waters are shown in Figure 2.11 of the MSCWMO Plan and the wetlands within the City are illustrated in Figure 2.7 of the MSCWMO Plan. The St. Croix River is the only Protected Water that is within or that borders Lake St. Croix Beach. Four wetlands are identified in the City. Three of these wetlands are located along the St. Croix River and the fourth is located near the intersection of Ramada Ave. and 20th St.

Stormwater Management System

The City has no formal storm sewer or ditch system. The City has installed drainage structures at strategic locations along roadways to address periodic street flooding. There are two concentrated discharge points from the City to the St. Croix River located at Upper 17th St. and Riviera Ave and on Riviera Ave near 16th St. Several Planned Unit Developments located in the City have stormwater facilities which include ponds. The City has a policy for inspection and maintenance on these facilities. The City also inspects mandated stormwater facilities at private residences and businesses each year as part of the CUP renewal process.

X/15TH

Surface Water Management Requirements and Standards

The City will carry out sound stormwater management practices which are consistent with the City's ordinances and the policies of the MSCWMO Plan. The City will update their current ordinances listed in Table C-2 to match the standards identified in the ~~MSCWMO Watershed Management Plan~~ for stormwater treatment and volume control, erosion and sediment control and groundwater management.

→ AND VALLEY BRANCH

The City will follow a process to review proposed development for potential wetland impacts. The City will support the administration of the Minnesota Wetland Conservation Act by the MSCWMO. The City will require treatment of stormwater runoff for new projects and encourage treatment of existing discharges prior to discharge to wetlands and the maintenance of a natural buffer around wetlands. The City shall support the restoration of disturbed wetlands within the city.

Table C-2. Ordinances Relating to Surface Water Management

Ordinance Chapter	Description
301.10	Adoption of Model Zoning Code. Land coverage and Drainage Component.
302.	Adoption of Lower St. Croix Bluffland and Shoreland Management Ordinance
402.	Adoption of Model Floodplain Regulation
403.	Soil Erosion
404.	Restrictive Soils
506.	Individual Sewage Treatment System Code
507.	Water Drainage Code
509.	Water Supply System Code

The City has adopted the State Wild and Scenic Rivers Management Program (SWSRMP) which includes special shoreland and bluffland management provisions for the St. Croix River Corridor. The City also participates in the National Flood Insurance

Program and has adopted the Washington County Model Floodplain Regulation which regulates any development or redevelopment in the floodplain. The Minnesota DNR reviews and approves all development requiring variances or special uses in the St. Croix Riverway District and floodplain.

The City will incorporate the MSCWMO performance standards into its existing practices, and will refer projects to the MSCWMO for full review when deemed necessary based on the activities listed below. Projects that require full review by MSCWMO will be subject to a \$250.00 fee, which shall be paid to the City of Lake St. Croix Beach. The MSCWMO will then invoice the City in the amount of \$250.00 for full review. Lake St. Croix Beach will adopt the MSCWMO review comments into its commentary for each project.

- 1) Any project undertaking grading, filling, or other land alteration activities which involve movement of earth or removal of vegetation on greater than 10,000 square feet of land.
- 2) All major subdivisions. Major Subdivisions are defined as subdivisions with 4 or more lots.
- 3) Any project with wetland impacts.
- 4) Any project with grading within the public waters.
- 5) Any project with grading within the wetland buffer as identified in the MSCWMO Plan.
- 6) Any project with grading within 40 feet of the bluff line.
- 7) Redevelopment on a site of 5 acres or more, where pervious surface is disturbed and final impervious surface, in aggregate, exceeds 1 acre or 5% of a site, which causes a change in runoff characteristics of removal of vegetation.
- 8) Development projects that impact 2 or more of the member communities.

Projects that do not trigger full review may still require staff level review by the MSCWMO as follows:

Performance Standards in Section 5 of the WMP will apply to development within the Middle St. Croix watershed and focus on stormwater management, erosion and sediment control, and wetland protection. The Performance Standards will apply to all projects that trigger the MSCWMO review process. In addition, whenever a project requires a building permit that adds five hundred square feet of additional impervious surface, or a project requires a variance from the current local impervious surface zoning requirements for the property, the Performance

Standards will apply. Building permits for new construction in an approved major subdivision that meets the requirements of the Performance Standards are exempt from the water quantity and quality standards as long as the individual property does not exceed the impervious surface percentage approved for the given parcel in that subdivision. All projects regardless of whether public or private can be reviewed.

The erosion and sediment goal of the MSCWMO and the City is to prevent erosion and subsequent sedimentation from surface runoff within the watershed on construction sites, agricultural lands, and along stream banks, lakeshores and roadsides. To achieve this, the City supports the MSCWMO goals and policies to:

- 1) Promote methods that prevent erosion;
- 2) Intercept eroded material before it leaves the site; and
- 3) Require sedimentation basins or other areas for sediment to be safely controlled.

Groundwater Management

2014-2024
Groundwater provides all of the drinking water and the majority of water for commercial, industrial, and irrigation needs in Washington County. The protection and conservation of groundwater is critical to safe drinking water, a healthy ecosystem and economic vigor. The City supports the goals and policies within the Washington County Groundwater Plan 2003-2013 which covers the protection and conservation of groundwater resources by coordinating with other governmental bodies, writing policies, regulation and education. Groundwater quality and quantity are the two main focuses of the plan.

Groundwater recharge in Lake St. Croix Beach occurs both vertically and horizontally. Most of the City is an important groundwater recharge area given the granular soils. With coarse soils over shallow bedrock, septic tank affluent passing through existing drywells could have a high probability to contaminate groundwater. The existence of many shallow private wells located in the City may also be a potential risk to groundwater. The entire City is served by a water system operated by the City of Lakeland. The Lakeland Water Utility has a Wellhead Protection Plan and only a small portion of Lake St. Croix Beach is located within the wellhead protection area.

In 1987 the Minnesota Department of Health issued a Well Advisory for Lakeland, Lakeland Shores, Afton and West Lakeland Township located adjacent to and north of Lake St. Croix Beach. Wells were identified with higher than average volatile organic compounds (VOCs). At least two sources of plumes were identified in the area, one with fluorocarbons and petroleum products (Ray's Truck Stop Plume) and the other with solvents. As a result of VOCs detected in nearly 200 wells, the communities of Lakeland and Lakeland Shores were connected to a municipal water system installed in 1991. Lake

St. Croix Beach connected to the system in 1991-1994 due to concerns over nitrates found in private wells. Well sampling continues to be conducted by the Minnesota Pollution Control Agency (MPCA) and well monitoring collected by the MPCA to date indicates that the plumes are fully contained.

Water Based Recreation

The beautiful St. Croix River is one of Lake St. Croix Beach's key assets. Water based recreation is plentiful on the St. Croix River. Residents and visitors enjoy the 0.7 miles of beach which makes up the City's Riverfront parks. Activities include but are not limited to swimming, fishing, sailing, and pleasure boating.

Fish and Wildlife Habitat

The St. Croix River contains many species of fish and attracts many types of waterfowl. Upland game animals such as deer are not uncommon along the River and in the wooded areas of the City. The City has wetland areas including a wooded wetland and seasonally flooded shoreland areas which attract birds and other wetland wildlife.

Assessment of Problems Goals and Corrective Actions

Water Quantity

St. Croix River Flooding. Property owners in the flood plain experience property damage, expenses and inconvenience associated with periodic flooding of the St. Croix River. Major flood events have occurred in 1965, 1969, 1993, 1997 and 2001. 8.55% of the land located in the City is within the 1% annual chance flood boundary (100 year floodplain.)

Goal: To minimize property damage and threats to public health and safety associated with flooding of the St. Croix River.

Action:

- The City maintains a levee system and participates in the Non-Federal Flood Control Works (NFFCW) inspection and rehabilitation program through the U.S Army Corps of Engineers. The levees are inspected annually by the City and biannually by the Army Corps of Engineers.
- The City has prepared a Flood Management Manual and during a flood event property owners in the flood plain, with the assistance of City Officials and other residents sandbag and pump to protect public and private properties within the floodplain.
- The City encourages property owners in the floodplain to consider elevating existing structures above the 100 year flood level, to flood proof

to an elevation above the 100 year floodplain, or to participate in federal buyouts. A number of homes have been elevated or removed since the 2001 flood.

- The City will enforce existing codes related to development and redevelopment in the floodplain. The lowest level of any new structures shall be built 2 feet above the 100 year flood elevation.

Stormwater Runoff. The volume, rate and quality of stormwater runoff is directly related to surface coverage. Increased stormwater runoff is a result of increased impervious surfaces. Impervious surfaces have a larger impact on water quality as they provide less detention storage and deliver water faster downstream. Periodic flooding is caused by large stormwater events and snowmelt. With no formal storm sewer or ditch system to drain streets periodic ponding occurs in areas along roadways and in low areas of the City.

Goal: To reduce stormwater runoff volume to prevent flooding and infiltrate stormwater to promote groundwater recharge and to protect the water quality of receiving bodies.

Action:

- The City will require that development and redevelopment include facilities to provide water quality treatment and control runoff at or below existing rates and as required by the MSCWMO. Examples include swales, detention areas, raingardens, etc.
- Sump drainage structures and raingardens will be installed to alleviate local flooding problems when identified.
- The City will explore expanding limitation of impervious surfaces to areas outside of the Riverway District.

Water Quality

Stormwater runoff is considered the leading source of water pollution in the United States. Water runoff from impervious surfaces and lawns introduces pollutants that can be transported by the runoff into receiving water bodies. Nonpoint source pollution from animal wastes, construction sites, leaves, grass clippings, failing septic systems, automobile wear, emissions, waste oils, pesticides, fertilizers and road salting cause pollution loading of local waters.

Goal: To minimize impact of current and future development on water quality of wetlands and the St. Croix River.

Action:

- Reduce nonpoint sources of pollution through the support and use of low impact development practices and Best Management Practices aimed at protecting water quality and maintaining stormwater runoff rates and volumes at or below predevelopment conditions.
- Runoff will be prevented through reduction in impervious surfaces.
- Efforts will be made to infiltrate stormwater to promote groundwater recharge and to protect the water quality of receiving bodies.

Areas of implementation will include the following:

Construction Project Management

- The City will control erosion from construction sites through enforcement of existing codes and referral of qualifying projects to MSCWMO for review.

Street Repair and Maintenance

- The City will establish a program for Best Practices for use of sand and de-icing products to balance groundwater, surface water, budget, and transportation safety and educate contractors involved in these activities. The Minnesota Snow and Ice Control Field Handbook for Snowplow Operators will be made a term of contracts and provided to contractors.
- The City will sweep the streets during the spring of each year to remove sand and salt deposited by winter street sanding. The City will also sweep the streets in late fall to remove leaves and sediment.
- New road and road improvement projects shall be completed in a manner that incorporates performance standards as set forth by the MSCWMO.

Park and Landscape Maintenance

- The city will investigate and assess existing park and landscape maintenance activities and implement pollution prevention practices. The City will educate contractors involved in these activities.

Residential Stewardship

- The City will educate and encourage residents to minimize fertilizer and pesticide use, and to implement modified lawn care practices.

- Installation of raingardens to infiltrate stormwater runoff and use of rain barrels to capture and reuse runoff will be encouraged.

Best Management Practices

- When considering applications for new construction and reconstruction the City will require onsite treatment devices such as swales, raingardens and drainage structures be used whenever possible or as required by the MSCWMO.
- The City will lead by example and manage its properties in accordance with the appropriate Best Management Practices.

Erosion

Contaminants and nutrients are generally associated with sediment runoff. High phosphorus concentrations contribute to algae growth and poor water quality. Phosphorus in stormwater runoff bonds with soil particles and limiting the movement of soil particles will benefit downstream water bodies. Soil erosion can also cause problems for drainage conveyance systems and deposition of eroded material can reduce the effectiveness of these systems. Soil erosion can create pond and detention basin performance and maintenance issues. The shoreline bluffs and levees located in the City have experienced serious sloughing and erosion caused by high water and stormwater runoff.

Goal: To prevent erosion and the movement of sediment.

Action:

- The City will prevent soil erosion through public education and enforcement of existing City and MSCWMO policies and performance standards.
- The City will continue to partner with agencies including but not limited to the MSCWMO, Washington Conservation District (WCD), the MN Board of Water and Soil Resources (BWSR) and organizations such as Great River Greening to repair and protect publicly owned shoreline and bluff land along the St. Croix River from erosion.
- The City will control erosion from construction sites through enforcement of existing codes and referral of qualifying projects to MSCWMO for review.
- Construction will be prohibited on slopes greater than 12%.

Groundwater

There is a need to prevent contamination of aquifers and to promote groundwater recharge. The City is an important groundwater recharge area given the granular soils. Private wells and individual sewage treatment systems (ISTS) within the City may be a potential risk to groundwater.

Goal: To prevent contamination of aquifers and promote groundwater recharge.

Action:

- Groundwater protection will be a goal when making land use decisions in the City.
- The City will encourage homeowners with private wells to hook up to city water system and require proper well abandonment when wells are taken out of service.
- The City will encourage the use of water conservation techniques and landscape alternatives such as the use of low maintenance native plants to reduce dependency on groundwater supplies.
- The City has adopted and will enforce the ISTS regulations of Washington County which regulates design, use and maintenance of ISTS.
- The City will continue its Memorandum of Agreement with Washington County to enforce the maintenance and inspection portion of the ISTS ordinance.
- The City will be proactive in the elimination of drywells in the community.
- The City will provide education to residents and public officials on the inter-relation of surface and groundwater quality and quantity, the value and need to protect recharge areas and wetlands and implementation of BMPs to protect groundwater resources.
- The City will require a groundwater monitoring or protection plan as part of the CUP application for businesses that store, use or transplant hazardous materials.

Public Participation/Education

There is a need to increase public participation and knowledge of water resources to gain public support for implementation of this Plan.

Goal: Increase public knowledge of the cumulative effects of individual actions and increase participation in stormwater management and protection of water resources.

Action:

- The City will increase public participation and knowledge in management of water resources of the community by providing information in City newsletters, and by offering classes, hands on training and technical assistance to residents regarding BMPs.
- The City will educate public officials about managing community water resources.
- When practical the City will use our public spaces to display BMPs.
- The City will support the efforts of the MSCWMO, the WCD and other water resource management organizations in their public information efforts.

Wetlands

There is a need to protect wetlands within the City for their valuable functions of stormwater quality treatment, groundwater recharge, open space and wildlife habitat.

Goal: To maintain and protect the quality and quantity of wetlands within the City

Action:

- The City will support the policies and performance standards of the MSCWMO regarding wetlands.
- The City will require treatment of stormwater runoff for new projects and encourage treatment of existing discharges prior to discharge to wetlands and the maintenance of a natural buffer around wetlands.
- The City will maintain buffer zones of un-mowed natural vegetation on public properties along the St. Croix River. ?

- The City shall support the restoration of disturbed wetlands within the city.

Recreation, Fish and Wildlife

Water based recreation is plentiful on the St. Croix River and these activities may be threatened by reduced water quality. Despite federal protection as a wild and scenic river Lake St. Croix was listed as impaired by the MPCA in 2008 because of high levels of phosphorus. Flooding and stormwater runoff has caused erosion on the bluffs and shore land of the St. Croix River located in the City. Non-native invasive plants such as buckthorn are found throughout the City and can reduce native plant diversity, can reduce tree seedling regeneration, degrade habitat for wildlife, and increase erosion.

Goal: To protect the natural and scenic qualities of the St. Croix River, manage water recreation activities, and improve fish and wildlife habitat.

Action:

- The City will maintain the scenic beauty of the St. Croix River by enforcing the adopted SWSRMP shoreland and bluffland management provisions.
- The parks and open spaces located on public property will be managed in a way that sets the best example for stewardship of natural resources in the community.
- The City will control sediment and nutrient loading of the St. Croix River by reducing stormwater runoff.
- The City will control erosion by stabilizing slopes and make efforts to maintain the ecological health of the bluffland ecosystems.
- The City will remove invasive plants from public property and replace them with native plants and encourage residents to remove buckthorn and other invasive species from private property.

Maintenance/Inspection

The function of water resource facilities can deteriorate without regular maintenance.

Goal: Preserve the function of surface water management facilities.

Action:

- Routine inspection and maintenance of drainage systems will be completed to assure that the facilities are functioning adequately and to maximize system performance.
- The City will develop standards to insure consistency and documentation of maintenance and inspections.
- Public drainage structures will be cleaned on an annual basis by the City. Surface water management structures on private property will be inspected regularly and the maintenance will be the responsibility of the property owner.
- The City will sweep streets in the early spring and fall to remove sediment and organic materials.

Implementation Plan

This City intends to cooperate with the MSCWMO in implementing their 2006 Watershed Management Plan. The City recognizes that the MSCWMO Plan is intended to be in effect until 2014 and this Plan will be updated within 2 years of the WMO Plan update. This implementation plan is intended to provide guidance in carrying out the Plan goals and objectives. Capital improvement projects, studies and ongoing maintenance, inspection, monitoring and other management activities are summarized. These items were developed by assessing and prioritizing the current problem areas and issues of concern in the city. The key implementation activities and projects are summarized and prioritized in Table C-3 along with planning level cost estimates.

Table C-3. Implementation Program Priority Projects and Activities

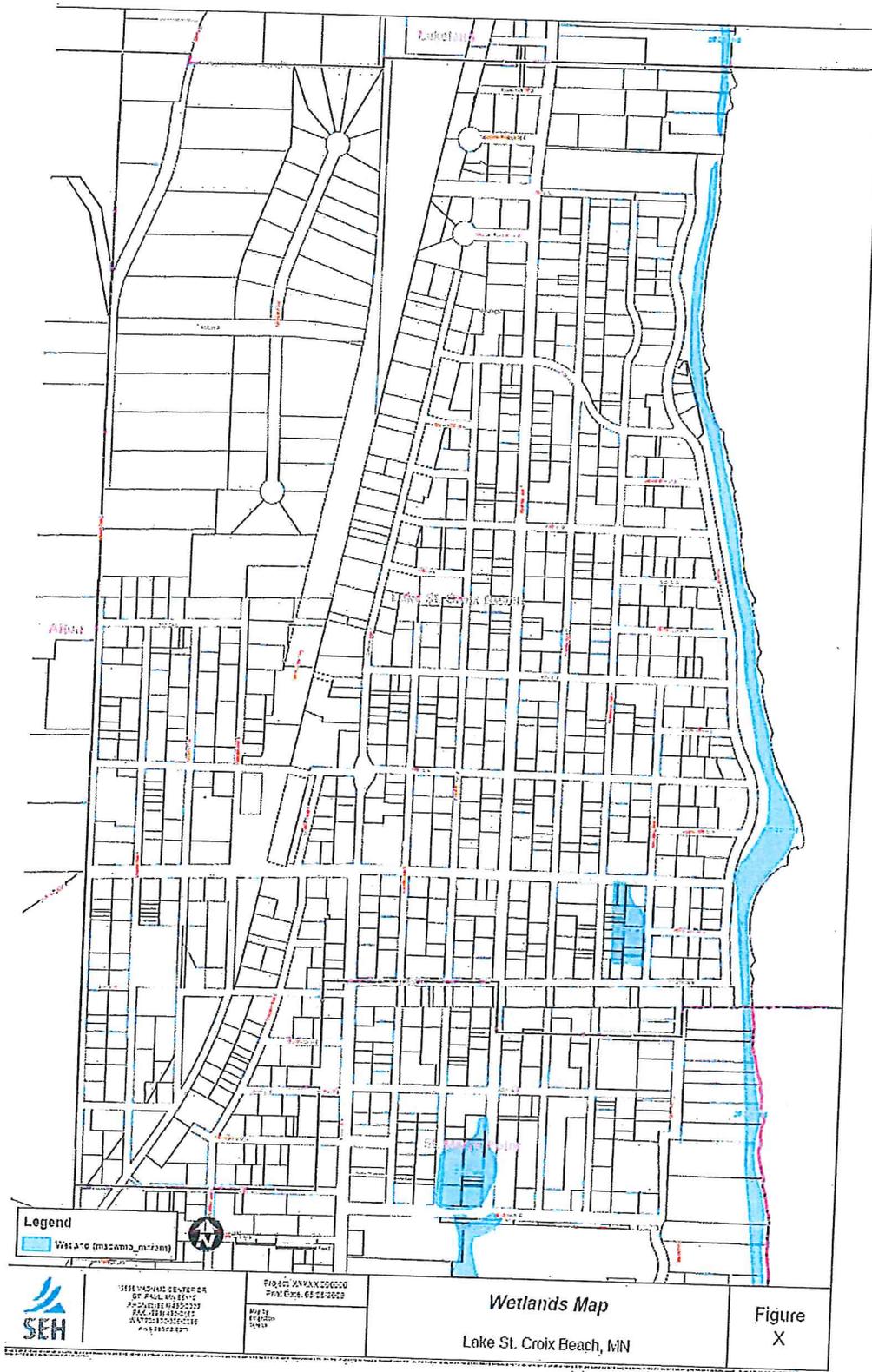
ID	Project Name	Description	Year	Cost/Funding Source
1	Update City Codes and Ordinances related to water management	Incorporate MSCWMO Standards, Washington County Groundwater Plan, NPDES Standards, and Wetland Conservation Act.	2009-2010	\$500
2	City Hall Raingardens and Native Plant Display	Installation of raingarden adjacent to City Hall including a native plant display garden and a second raingarden N of 20 th St to address street ponding.	2009	\$3000 50% MSCWMO Cost-share grant
3	Shoreline Buffer and Erosion Control Between 20 th St. and 21 st St.	Remove invasive species, stabilize area of active erosion and create native buffer to protect St. Croix River	2009-2010	\$25,000. BWSR Native Buffer Cost Share Grant: \$18,750. City share: \$6250.

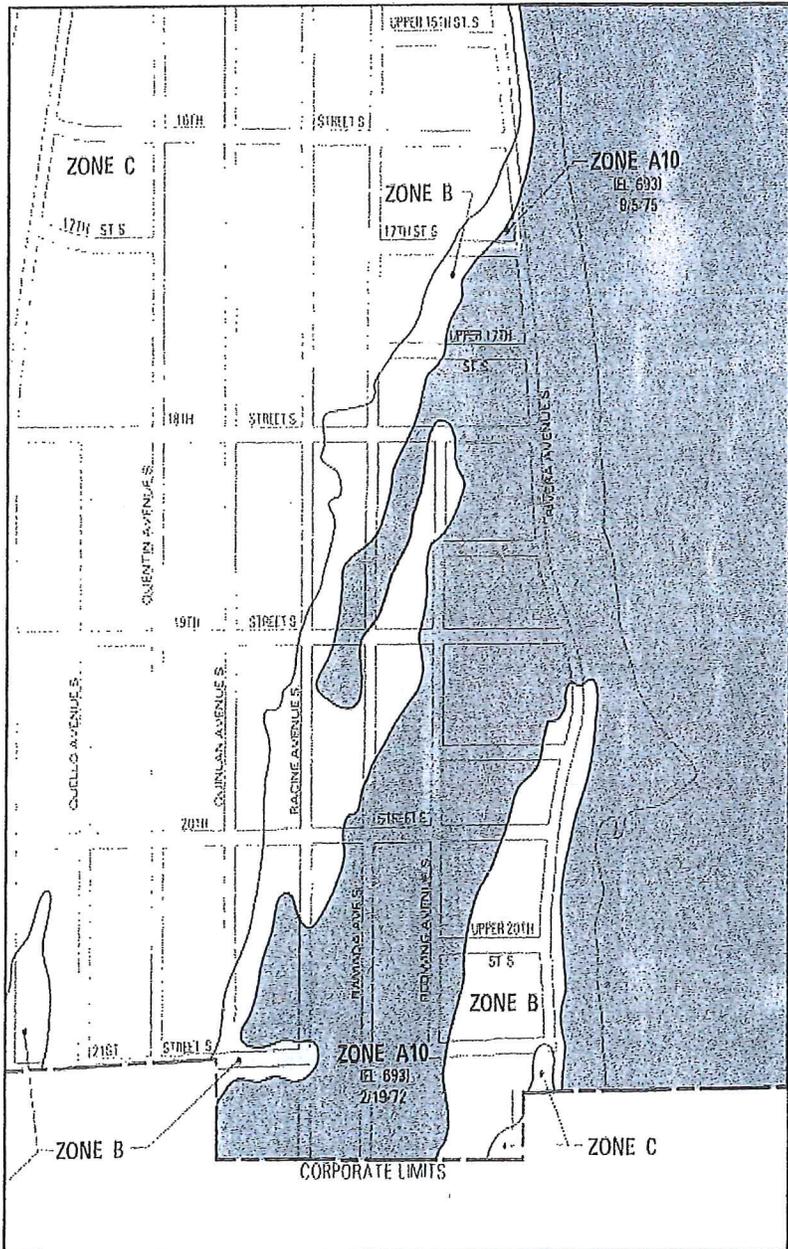
UP
DATE

4	Inspection and maintenance of stormwater facilities	Regular inspection and maintenance of stormwater facilities on public and private property.	2009-2016	Undetermined maintenance cost. Inspection by trained volunteers.
5	Street Sweeping	Sweep streets in spring and early fall.	2009-2016	\$6700 per year
6	Surface Water Management	Installation of Drainage Structures, BMPs and flood protection.	2009-2016	\$5000 annually. Pursue grants to increase installation of BMPs and reduce costs to residents
7	Levee inspection, maintenance and repair	Annual inspection of levee, removal of woody vegetation and erosion control. Repair as needed.	2009-2016	2009: \$1500 Future needs undetermined. Flood damage repair costs covered by NFFCW
8	Water Samples and Testing	Collect grab samples at 2 existing stormwater discharge sites and test for pollutants and set standards to improve quality of water discharging to River.	2009-2010	\$700
8	Public Education and Participation	Provide information in monthly City newsletters, offer classes training and technical assistance to residents regarding BMPs.	2009-2016	\$200 per year
9	Stormwater Facilities Inspection and Maintenance Policy	Review current policies and update. Create chart for use in inspections and for documentation. Train volunteers to complete inspections.	2009-2010	\$500
9	Parks/Public Space Management	Review existing practices and implement standards and policies incorporating best practices.	2009	\$100
10	Snowplowing Policy	Review and update existing policy to incorporate best practices for use of sand and salt on roadways.	2009	\$100
11	Invasive Species Removal	Remove invasive species from public properties.	2009-2016	\$500 per year
12	Bluff Erosion Control Plan	Evaluate condition and prioritize sections for erosion repair and protection.	2009	\$400
13	Bluff Erosion Protection and Repair	Repair and protect City owned bluffs from erosion.	2009-2016 as needed	Undetermined. Pursue grants to reduce residents cost burden.

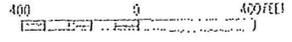
Plan Amendments

The Community is dynamic as people move in and out, businesses come and go, and neighborhoods are developed and redeveloped. This plan will be evaluated, maintained, updated and enhanced over time. Amendment proposals can be requested by persons either residing in or having business with the City. Proposed amendments are reviewed by staff and if determined to be reasonable and necessary, the need for a public hearing shall be measured, and the amendment shall be considered at a regular or special City Council meeting. The City Council and the MSCWMO will determine whether or not to approve proposed amendments.





APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
LAKE ST. CROIX BEACH,
MINNESOTA
WASHINGTON COUNTY

ONLY PANEL PRINTED

COMMUNITY - PANEL NUMBER
275240 0001 B

MAP REVISED:
APRIL 25, 1980



U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRM On Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the map sheet. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at www.fema.gov

