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Local Surface Water Management Plan City of Marine on St. Croix

April 2018

DRAFT

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Certification

Local Surface Water Management Plan

for

City of Marine on St. Croix

March, 2018

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

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I. EXECUTIVE SUMMARY

The City of Marine on St. Croix, established in 1839 as a site for a water-powered sawmill, has not only history tied to the significant water resource of the St. Croix River but present-day culture, respect and pride for our significant natural resources. The St. Croix River, streams, wetlands, forests, prairie and bluffland topography are important to Marine residents and influence all levels of community decision-making.

Marine is required to complete a Local Surface Water Management Plan for approval by the Carnelian-Marine-St. Croix Watershed District (CMSCWD) and in conformity with MN Statutes Section 103B.235 and MN Rules 8410.0160. In order to fulfill these requirements, the City through this Plan and the Memorandum of Understanding between the CMSCWD and the City for Local Water Planning and Regulation (approved by the City Council October 10, 2013), incorporates the CMSCWD Plan, the Northern Washington County Spring Creek Study, the Wetlands Management Plan, and District Rules.

The Carnelian-Marine-St. Croix Watershed District is operated under the authority of Minnesota Statutes Chapter 103B and Chapter 103D to protect and improve the water resources, natural habitat, and personal property within its boundaries; to educate property owners and the community on the value of water resources; and to promote progressive public relationships and interagency consistency.

The City of Marine on St. Croix (Marine) is located within the Carnelian-Marine-St. Croix Watershed District (CMSCWD, District). The total area of the District encompasses portions of Grant, Hugo, Marine on St. Croix, May Township, Scandia, Stillwater, and Stillwater Township. Marine is located on the far eastern edge and central (north-south) area of the District, bordered to the east by the St. Croix River. Marine does not have any lakes, but has four streams, and Category 1 and 2 wetlands.

- This LWMP includes the following sections:
- Table of Contents
- Executive Summary
- Introduction
- Land and Water Resource Inventory
- Goals and Policies
- Implementation
- Administrative Procedures regarding Carnelian- Marine- St. Croix Watershed District Rules, adopted December 14th, 2016.
- Appendix

This LWMP updates the plan that was included in the City's 2040 Comprehensive Plan updated in 2018, and will be applicable until the City is required to update its plan for the next Comprehensive Plan Update. Periodic amendments may also be required to incorporate changes in local policies as well as changes to the Watershed Management Plans of the watersheds with jurisdiction in the City.

II. INTRODUCTION

A. Background

The City of Marine on St. Croix was founded in 1839 when it was referred to as Marine Mills. Marine on St. Croix is a community surrounded with beautiful natural areas, an attractive downtown and spirited community. Marine on St. Croix's success today is a result of active efforts through decades of community work, foresight, and planning. This Comprehensive Plan seeks to build on previous work and to enhance those qualities that make Marine on St. Croix a special place. The Local Water Plan is an extension of the Comprehensive Plan and identifies critical natural resources and the goals, policies and implementation strategies that are in place to protect them.

As Marine on St. Croix's population surpasses the all-time high of 679 people set in 1890, the sense of history and tradition continues to influence the City's current plans and actions. The City's current population is 695 (2014 census) and has been forecasted to increase from the current population to 940 in the year 2040¹. The City is engaged in a continuous planning effort that is imperative for development of a community that places value on the preservation of natural resources, construction of interconnecting park and trail systems, and general creation of an enjoyable place to live.

The City of Marine on St. Croix is located in the northeast corner of Washington County. Relative to the Twin Cities, Forest Lake is located approximately 20-30 miles north-northeast as seen in Figure SW-01. The City of Forest Lake is bounded on the north by Scandia, on the west and south by May Township and on the east by the St. Croix River.

This report provides the City of Marine on St. Croix with a local surface water management plan (LSWMP) that will serve as a guide for expansion and development of the City's surface water system. This report builds upon previous studies within the City, including the:

1. 2030 and 2040 Comprehensive Plans
2. 2013 Local Surface Water Management Plan
3. Carnelian Marine-St. Croix Watershed District, Watershed Management Plan, amended 2015
4. 2014 – 2024 Washington County Groundwater Management Plan

B. Purpose

The Local Surface Water Management Plan (LSWMP) will serve as a comprehensive planning document to guide the City in conserving, protecting, and managing its surface water resources. The LSWMP meets requirements as established in Minnesota Rules 8410, Metropolitan Council's SWMP Guidelines, and all rules and regulations of the Carnelian-Marine St. Croix Watershed District. In a three-part process, the LSWMP does the following:

1. Collect and compile the efforts of agencies and organizations including various departments of the City of Marine on St. Croix. This includes past reports and studies, management plans, monitoring studies, as well as completed and proposed improvement projects.
2. Review the current state of the City's surface water resources in the context of goals and policies, ordinances, operations and maintenance, flood mitigation, and achievement of targeted water quality levels in its surface waterbodies.
3. Establish reasonable, achievable and affordable goals, and support them by a strong regulatory and management culture. Develop an implementation plan that includes

¹ Metropolitan Council, 2015 System Statement, September 17, 2015

projects and processes that derive from a thorough assessment of current City problem areas and current City stormwater regulations and controls.

In order to arrive at a LSWMP that adequately addresses surface water needs, the emphasis has been on identifying important issues. City staff has participated in collecting data, providing feedback, and contributing knowledge of local systems to aid in developing a strategy that encompasses water quality and quantity issues. The City of Marine on St. Croix is the organizer of the final document which includes contributions from the following agencies and watershed organizations:

- Metropolitan Council
- Carnelian-Marine St. Croix Watershed District (refer to Figure SW-02)
- Washington County

Currently, the City defers the administration and establishment of stormwater management rules and standards to the watershed district. It is not the intent of the City to pursue gaining local regulatory authority at this time. However, the City reserves the right to gain local regulatory control and assume permitting authority at a future date.

C. Consistency with Marine on St. Croix 2040 Comprehensive Plan

The City's Comprehensive Plan, originated in 2007 and 2008, and updated in 2018, defines Natural Environment Goals and Policies to protect the environmental and scenic qualities of the St. Croix River Valley Corridor; preserve and restore sensitive natural resources, significant ecological areas, and habitat; and maintain the City's long, progressive focus on conservation, recycling and sustainable development. The relevant policy statements, relating to streams, derived from these goals include the following.

1. The City will improve the storm water system in the Village Center.
2. The City will encourage rain gardens in an effort to establish a City-wide storm drainage system that promotes storm water infiltration and water quality.
3. The City will continue to review ordinances to ensure the natural drainage systems within the City, including wetlands, ponds, and runoff, will be protected to manage both the quantity and quality of the City storm water. The City will require new development to manage storm water runoff in a manner that limits post development storm water flows to the same volumes and rates as the pre-development condition.
4. The City will work cooperatively with the Carnelian Marine Saint Croix Watershed District and Washington County to achieve the goals of improved stormwater management and water quality throughout the watershed.

The City will address its local surface water management plan within two years of the newly created Carnelian Marine St. Croix Watershed District watershed plan. The Watershed District will continue to have permitting authority and the City will continue to cooperate with the Watershed District through development review and the permitting process. This Local Surface Water Management Plan is consistent with and is an extension of the City of Marine on St. Croix 2040 Comprehensive Plan.

III. LAND AND WATER RESOURCE INVENTORY

A. Land Use

Refer to the Land Use section of the 2040 Comprehensive Plan for additional information on the City's current land use and zoning and the anticipated development patterns. Further, refer to Figure SW-03 for the existing land use, Figure SW-04 for the current zoning, and Figure SW-05 for the future land use. The Comprehensive Plan defines goals and policies that preserve the contiguous open spaces throughout Marine on St. Croix, create cohesive neighborhoods, and maintain the geographic size of the Village Center. Table 1 is a summary of the current zoning in Marine on St. Croix.

Table 1: Summary of zoning and area within the City.

Zoning Designation	Area (ac)	Percent of Area
Central Business District	6	0.3%
Single Family Rural	1862	78.6%
Single Family Urban	162	6.8%
St Croix Rural District	202	8.5%
St Croix Urban District	137	5.8%

B. Soils

The soils information in this section is taken from the USDA-NRCS Soil Survey of Washington County. The soils maps in that report are general and intended for broad planning purposes. The major soil associations found within the City are summarized below. Details on the soils included in each association can be found in the aforementioned report. The generalized soils located within the City have been mapped, and are shown on Figure SW-06. In general, hydrologic soils group A tend to be sandier soils with high infiltration capacity. Conversely, hydrologic soils group D tends to be more clayey soils with low infiltration rates.

Table 2 is a summary of the design infiltration rates and corresponding soil types as defined by the Minnesota Pollution Control Agency (MPCA) Minnesota Stormwater Manual (updated 2017). The infiltration rates listed in the table were updated with the most recent updates to the Manual which resulted lower design infiltration rates for B and D soils. The soils maps in that report are general and intended for broad planning purposes. Details on the soils included in each association can be found in the aforementioned report. The generalized soils located within the City have been mapped and are shown on Figure SW-06.

Table 2: Summary of Hydrologic Soils Groups, Design Infiltration Rates and Unified Soil Classifications.

Source: Minnesota Stormwater Manual (MPCA, 2017).

Hydrologic soil group	Infiltration rate (in/hr)	Infiltration rate (cm/hr)	Soil textures	Corresponding Unified Soil Classification
A	1.63	4.14	gravel	GW - well-graded gravels, sandy gravels
			sandy gravel	GP - gap-graded or uniform gravels, sandy gravels
			silty gravels	GM - silty gravels, silty sandy gravels
				SW - well-graded gravelly sands
	0.8	2.03	sand	SP - gap-graded or uniform sands, gravelly sands
			loamy sand	
			sandy loam	
B	0.45	1.14		SM - silty sands, silty gravelly sands
	0.3	0.76	loam, silt loam	MH - micaceous silts, diatomaceous silts, volcanic ash
C	0.2	0.51	Sandy clay loam	ML - silts, very fine sands, silty or clayey fine sands
D	0.06	0.15	clay loam	GC - clayey gravels, clayey sandy gravels
			silty clay loam	SC - clayey sands, clayey gravelly sands

C. St. Croix River

Refer to Figure SW-07 for the national wetlands inventory (NWI) and public waters inventory (PWI) for the City of Marine on St. Croix. The St. Croix River joins with the Mississippi River at Point Douglas, MN / Prescott, WI and then flows south to the Gulf of Mexico. The Lower St. Croix River was designated as a National Wild and Scenic Riverway by Congress in 1972. The portion of the river given the Wild and Scenic designation extends from its source in Wisconsin to its mouth at Point Douglas, MN/Prescott, WI. In 2000, a Cooperative Management Plan was developed for the Lower St. Croix by the Lower St. Croix Management Commission with the assistance of the Lower St. Croix Planning Task Force. The portion of the St. Croix River that forms the eastern boundary of the CMSCWD is listed on the MPCA Impaired Waters List per Section 303(d) of the federal Clean Water Act. This part of the River is identified as impaired for aquatic consumption by mercury and PCBs. Just downstream of the CMSCWD, the St. Croix River widens to form Lake St. Croix which extends to the confluence with the Mississippi River. Lake St. Croix is listed as impaired for aquatic recreation by excess nutrients.

The St. Croix River is currently classified by the State of Minnesota as an Outstanding Resource Value Water for its water quality, wildness and other benefits. By state statute, new or expanded discharges (changes in volume, quality, location or any other manner) to the St. Croix River must be controlled so as to prevent deterioration in the quality of the St. Croix River (MN Statute 7050.0180 Subp. 9).

D. Streams

Marine on St. Croix has four major streams identified in the CMSCWD Plan as well as numerous smaller springs and seeps but no lakes. All four streams have a good and very good overall water quality “grade” as determined by the District per the 2010 Plan. However, since that time monitoring of Dunn’s Creek has indicted some water quality impacts that are

currently under study. The City will work in partnership with the District to address key management recommendations described by the CMSCWD 2010 Watershed Management Plan. Marine is proud of the condition of our streams and strives to maintain and possibly improve their conditions.

Dunn's Creek

Most of Dunn's Creek is located on the Pine Needles Land Preserve, which was originally the property of James Dunn and today is owned by the St. Croix Watershed Research Station. The 27-acre watershed draining to Dunn's Creek is located within the northern limits of the village of Marine-on-St. Croix. The upper one-third of this watershed includes the Highway 95 right-of-way and several residential homes on large lots, set above the bluff line. The lower two-thirds of this watershed is completely forested and undeveloped, with the exception of a small cabin and access road to a rustic cabin. Dunn's Creek begins at the confluence of two large springs discharging midway between the middle and lower terraces of the St. Croix River. A third spring-fed tributary joins the creek as it flows along the base of the bluff within a mixed hardwood seepage swamp before discharging to the St. Croix River.

The lower portion of Dunn's Creek watershed encompasses the northerly portion of a large mixed hardwood seepage swamp extending, more or less, from the north boundary of the village of Marine-on-St. Croix, to the south of William O'Brien State Park. This mixed hardwood seepage swamp includes numerous, small inclusions of tamarack swamp, rich fen and spring discharge points that support, in addition to Dunn's Creek, several other spring creeks.

This diverse, groundwater-dependent wetland complex is at its highest quality in the vicinity of Dunn's Creek. An excellent quality white pine-mesic hardwood forest is also present along a narrow rock outcrop that borders the bank of the St. Croix River. Although no rare feature records are specific to this area, many of the species of birds noted elsewhere along the river are likely present here. In addition, the Blanding's turtle (*Emydoidea blandingii*) is a state-listed threatened species that may be encountered throughout the watershed. In-stream conditions would support cold water fish species; however none are documented for this stream.

Based on macroinvertebrate data from the 2003 Lower St. Croix River Spring Creek Stewardship Plan, Dunn's Creek has a water quality rating of 'B.' Hilsenhoff's biotic index (HBI) is good, and the data show a decent percent EPT (percent of pollutant intolerant mayflies, stoneflies and caddisflies in the sample) and low dominance of any single species.

Judd Street Creek

Judd Street Creek is located within the southern portion of Marine-on-St. Croix. Judd St. Creek drains from the upper St. Croix River terrace located upslope of Highway 95. From this upper terrace, flows spill down a short slope to the middle St. Croix River terrace along Highway 95. From Highway 95, Judd Street Creek flows approximately one half mile as a ditch to Judd Street.

Much of this section appears to have been routed around residential homes on the west side of Judd Street. Where the stream meets Judd Street, a concrete cistern box collects ground water and contributes additional flows to the creek. Downstream of Judd Street, the stream flows about 150 feet, where it outlets to the St. Croix River. Judd St. Creek receives runoff from a 61 acre watershed.

The upper-most portion of the watershed ends abruptly at the Wisconsin Central Rail. While the topography continues to slope upward, west of the rail (in the general vicinity of Jackson Meadows) the rail grade has interrupted this flow and diverted it towards the Mill Stream

watershed. Land use includes hayfields in the upper watershed and residential in the lower watershed.

The middle portion of the watershed, however, is forested. The Judd St. watershed receives groundwater discharges from two groundwater-dependent wetland complexes.

The wetland complex located on the upper St. Croix River terrace is a continuation of the wetland complexes that encompass the Minnow Farm site to the north. The wetland communities present within the Judd Street watershed include mixed hardwood seepage swamp and rich fen. Unfortunately, these wetland communities are dominated by smooth buckthorn (*Rhamnus frangula*) and reed canary grass (*Phalaris arundinacea*), which has substantially lowered the quality of the wetlands. Judd Street Creek flows through a mixed hardwood seepage swamp wetland complex as it crosses Highway 95. This mixed hardwood seepage swamp includes numerous, small inclusions of tamarack swamp, rich fen and spring discharge points that support, in addition to Judd Street Creek, several other spring creeks. No rare feature records are known for this area. Although some fish habitat is present, there are no records of fish for this stream. However, the Blanding's turtle (*Emydoidea blandingii*) is a state-listed threatened species that may be encountered throughout the watershed.

Based on macroinvertebrate data from the *2003 Lower St. Croix River Spring Creek Stewardship Plan*, Judd Street Creek has a very good water quality rating of 'A-.' Hilsenhoff's biotic index (HBI) is very good, and the data show a decent percent EPT (percent of pollutant intolerant mayflies, stoneflies and caddisflies in the sample) and richness. Organic enrichment is likely natural from wetlands.

Mill Stream

The Mill Stream watershed is just over 2000 acres. Much of the upper watershed includes small depressions that may only hold water on a seasonal basis. Unless very wet conditions prevail, most of the water within these depressions either infiltrates into the ground or is lost to evapotranspiration. During wet conditions, particularly frozen-ground, snowmelt-runoff periods, these depressions may fill up with enough water to outlet to Mill Stream. This relationship also holds true for the two headwaters lakes, Sand Lake and Hay Lake.

Outflow from Sand Lake through the ephemeral channel within William O'Brien State Park has occasionally occurred in the past. Downstream of the ephemeral channel that outlets from Sand Lake, the perennial portion of Mill Stream starts within a rich fen/cattail swamp located just west of the Park Headquarters. From this northerly point, Mill Stream flows south for about 1.5 miles to the village of Marine-on-St. Croix. Within this 1.5 mile reach, flows increase significantly, as groundwater discharges off the terrace slope located to the west of Mill Stream.

Within the lower-most portion of this reach, DNR Parks has restored wetland communities and approximately 1000 feet of tributary channel that historically flowed to Mill Stream from the numerous springs within this reach. This restoration site, referred to as the Minnow Farm Site, historically consisted of a series of four large ponds and several smaller ponds contained by berms and water control structures. The ponds were fed by numerous groundwater seeps along the terrace slope to the west.

Downstream of the Minnow Farm Site, Mill Stream is impounded (Upper Mill Pond) behind a concrete weir constructed across what was historically a waterfall. Below the Upper Mill Pond, Mill Stream flows as a high gradient stream over bedrock within a deep valley for several hundred feet. Approximately 200 feet upstream of Highway 95, the gradient of Mill Stream lessens considerably as it flows across the middle terrace of the St. Croix River and through the center of Marine-on-St. Croix. Just above Judd Street, Mill Stream is again impounded behind a concrete weir, forming the Lower Mill Pond. Below the concrete weir, Mill Stream flows under the Brookside Bar and outlets over a second waterfall. Below the

second waterfall, Mill Stream flows several hundred more feet through a floodplain forest where it discharges into the St. Croix River.

The watershed of Mill Stream is a diverse mixture of agricultural land, large-lot residential, forest, and woodland and grassland. The lower section of the stream flows through a relatively dense urban community with substantial direct drainage of impervious surfaces, mostly from a combination of residential streets, Highway 95 and CR 4, which all converge near the lower end of the creek and convey storm flows directly to Mill Stream.

Mill Stream is the largest spring creek in the Watershed District in terms of base flow and stream length. Brook Trout (*Salvelinus fontinalis*) are known to occur throughout the entire stream, including the recently restored tributaries on the Minnow Farm site. The best habitat, however, is within the lower sections of the creek below the Upper Mill Pond. In particular, the section directly above Highway 95 contains good habitat and contains fish as large as ten inches. The headwaters of Mill Stream within William O'Brien State Park contain a large, groundwater-dependent wetland complex. This wetland complex has probably been ditched and altered from past grazing more than other wetlands in the area. However, some portions of this wetland complex do include good quality tamarack swamp, mixed hardwood seepage swamp and rich fen. Below Highway 95, Mill Stream flows through an additional groundwater-fed wetland complex. This second wetland complex encompasses many of the same wetland types and is generally of higher quality than wetlands within the headwaters. Silting does exist in the Mill Stream and dredging may need to occur in the future to ensure the quality of water and habitat.

Based on macroinvertebrate data from the 2003 *Lower St. Croix River Spring Creek Stewardship Plan*, Mill Stream has a very good water quality rating of 'A.' Hilsenhoff's biotic index (HBI) is very good, and the data show an excellent percent EPT (percent of pollutant intolerant mayflies, stoneflies and caddisflies in the sample) with other values also indicating good stream health. In addition, the Blanding's turtle (*Emydoidea blandingii*) is a state-listed threatened species that may be encountered throughout the watershed.

Marine Landing Creek

Marine Landing Creek is located just north of Marine-on-St. Croix and outlets to the south of Marine Landing. The stream originates from a series of seeps located at the ridge line along Highway 95. The watershed area is about 36 acres in size, of which approximately 50% is residential land use.

The remaining area of the watershed is forested with some areas of open wetland/old field. Marine Landing Creek is one of the shorter streams in the study area, extending approximately 300 feet from its start, just north of the driveway into the Marina to the St. Croix River.

Marine Landing Creek outlets from a hardwood seepage swamp extending, more or less, from the north boundary of the Village of Marine-on-St. Croix to the south of William O'Brien State Park. This mixed hardwood seepage swamp includes numerous, small inclusions of tamarack swamp, rich fen and spring discharge points that support several other spring creeks.

Although no rare feature records are specific to this area, many of the species of birds noted elsewhere along the river are likely present here. The Blanding's turtle (*Emydoidea blandingii*) is a state-listed threatened species that may be encountered throughout the watershed.

Based on macroinvertebrate data from the 2003 *Lower St. Croix River Spring Creek Stewardship Plan*, Marine Landing Creek has a very good water quality rating of 'A-.' Hilsenhoff's biotic index (HBI) is good, and the data show an excellent percent EPT (percent

of pollutant intolerant mayflies, stoneflies and caddisflies in the sample) with other values also indicating good stream health.

E. Wetlands

The CMSCWD 2015 Watershed Management Plan includes a Wetland Management Plan, adopted with the District Plan in 2010 and amended in 2015. The purposes of the Wetland Management Plan is to evaluate the wetland resources of Carnelian-Marine-St. Croix Watershed District (CMSCWD), describe the approach to protecting the functions and diversity of the district's wetlands, and lay the groundwork to improve these resources. Figure SW-08 shows the CMSWD wetland boundaries identified within the City of Marine on St. Croix.

The main emphasis of the Carnelian-Marine-St. Croix Watershed District is the “protection and improvement of water quality” and according to their Second Generation Plan, CMSCWD operates “with intent to protect and improve the water resources, natural habitat and personal property within its boundaries; to educate property owners and the community on the value of water resources; and to promote progressive public relationships and interagency consistency.” These goals are consistent with the intent of state and federal rules for wetland protection. The strategy for addressing these goals is to evaluate wetland resources on an individual basin scale, and on a watershed scale. The watershed scale of analysis allows ecological functions and values to be realized that are lost at a smaller scale. The Wetland Management Plan provides a mechanism to address local wetland management and preservation of aquatic resource functions and values at an individual wetland scale and a watershed scale.

The City of Marine contains all three wetland management categories, with Category 3 the smallest total area. The CMSCWD defines the Categories as follows:

Category 1 - High Quality/Highest Priority

Wetlands classified as High Quality/Highest Priority have at least one of the following characteristics:

1. Wetlands rated with exceptional vegetative diversity/integrity, which may include wetlands with natural communities not significantly impacted by invasive species or other human-induced alterations, wetlands harboring endangered or threatened plant species, or rare wetland habitats classified as imperiled (S1) or critically imperiled (S2) by the state rankings.
2. Wetlands that are groundwater dependent plant communities and have a vegetative
3. diversity/integrity rating of medium or higher were also placed in this category. These wetlands may have suffered some degradation from human influences due to their heightened sensitivity.
4. Wetlands with a high vegetative diversity/integrity rating and a high rating for hydrologic regime. The vegetative community in these wetlands typically has been only slightly affected by humans and still maintains high functioning levels for hydrologic regime, which is critical to wetland sustainability.
5. Wetlands with a high vegetative diversity/integrity rating and a high rating for wetland water quality; OR wetlands with a high vegetative diversity/integrity rating and a high rating for downstream water quality. The vegetative community in these wetlands typically has been only slightly affected by humans and still maintains high functioning to maintain water quality, which is critical to wetland sustainability.

6. Wetlands rated as exceptional for wildlife habitat. These include wetlands known to harbor endangered or threatened animal species, rare communities, or wildlife refuges and fish and wildlife management areas whose purpose is maintaining suitable habitats for wildlife.

Category 2 - Stream Corridor and Shoreland Wetlands (that are not a Category 1)

Wetlands classified as Stream Corridor and Shoreland Wetlands have at least one of the following characteristics:

7. These wetlands include all Stream Corridor and Shoreland Wetlands not already classified as Category 1.
8. Wetlands rated as high for amphibian habitat.
9. Wetlands rated as exceptional or high for fish habitat. These wetlands include those specifically managed for fish management; designated trout streams, lakes or adjacent wetlands; and known spawning habitat for game fish.
10. Wetlands with a medium vegetative diversity/integrity rating and a high rating for hydrologic regime. The vegetative community in these wetlands has only been moderately affected by humans and still maintains high functioning levels for hydrologic regime, which is critical to wetland sustainability. These wetlands would likely benefit from active management.
11. Wetlands that are highly sensitive to stormwater impacts and have a vegetative diversity/integrity rating of medium or high were also placed in this category.
12. Wetlands with a medium vegetative diversity/integrity rating and a high rating for wetland water quality. The vegetative community in these wetlands has only been moderately affected by humans and still maintains high functioning levels for water quality, which is critical to wetland sustainability.

Category 3 - Isolated Wetlands (that are not a Category 1)

These wetlands include all other isolated wetlands not already classified as Category 1. These wetlands receive the third highest level of protection.

F. Groundwater

The County adopted the Washington County Groundwater Plan in September 2014, which is in effect at the time of adoption of the City of Marine on St. Croix Local Surface Water Management Plan. The goal of the Washington County Groundwater Plan (Plan) 2014-2024 is to:

“Manage the quality and quantity of groundwater in Washington County to protect health and ensure sufficient supplies of clean water to support human uses and natural ecosystems.”

The Plan describes a need for increased coordination and collaboration amongst water management agencies, additional groundwater research, and understanding needs of competing interests for County groundwater. Marine hereby incorporates by reference the Washington County Groundwater Plan 2014-2024 and includes relevant implementation actions from the County Ground Water Work Plan into the forthcoming Comprehensive Plan update. The City of Marine will follow the groundwater protection framework identified in the County’s plan.

G. Land Cover

Figure SW-09 displays the natural areas, open spaces and Regionally Significant Ecological Areas (RSEA) within the City of Marine on St. Croix. Also, Figure SW-10 displays land cover using the Minnesota Department of Natural Resources’ (MN DNR) Minnesota Land

Cover Classification System (MLCCS). MLCCS combines the Minnesota Natural Heritage native plant community types with a cultural classification system to distinguish among different types and amounts of land cover, vegetation and impervious surfaces. Information on the location, type, size, and quality of remaining natural areas is included in the MLCCS. Approximately 95% of the land cover in the City of Marine on St. Croix is classified as some form of natural area. Figure SW-10 shows remaining natural areas within the City and the table below summarizes the acreage of each type of natural area within the City.

Table 3: Summary of Land Cover.

Land Cover Code	Land Cover Type	Area (ac)	Percent
11	5-10% Impervious	341	2%
12	11-25% Impervious	147	1%
13	26-50% Impervious	82	1%
14	51-75% Impervious	6	0%
15	76-100% Impervious	163	1%
21	Short Grasses	7	0%
22	Agricultural Land	96	1%
23	Maintained Tall Grass	347	2%
24	Tree Plantation	105	1%
31	Forest	1146	7%
32	Wetland Forest	319	2%
51	Shrubland	0	0%
52	Wetland Shrubs	36	0%
61	Tall Grasses	164	1%
62	Wetland Emergent Veg	162	1%
63	Dry Tall Grasses	275	2%
71	Lichen Schrubland	0	0%
81	Rock Outcrop	0	0%
82	Mud Flat	2	0%
90	Open Water	12022	78%
92	Wetland Open Water	12	0%

H. Impaired Waters

As part of the federal Clean Water Act, the State of Minnesota is required to adopt water quality standards to protect lakes, streams, and wetlands from pollution. These standards identify how much bacteria, nutrients and other pollutants can be present and still have the water body meet its designated uses such as fishing and swimming. If a water body does not meet one or more of these standards it is identified as “impaired”. The Minnesota Pollution Control Agency (MPCA) administers this program in which the State of Minnesota is required to identify and restore impaired waters. To meet this requirement the MPCA has developed a three step program in which:

1. Assesses all waters of the state to determine if they meet water quality
2. Lists all waters that do not meet standards
3. Conducts studies to establish pollution reduction measures to restore the water bodies.

Once these steps are completed, each water body will have a pollutant reduction goal defined as a TMDL, or Total Maximum Daily Load, which represents the maximum amount of a pollutant a water body can receive and still meet water quality standards.

In Marine on St. Croix, the St. Croix River is impaired for Mercury and Polychlorinated Biphenyls in fish tissue (Hg-F and PCB-F) from Taylors Falls to the confluence of the Apple River in Wisconsin. There currently is not an approved TMDL for either of these impairments. Also, Lake St. Croix is impaired for excess nutrients between Stillwater, MN and Prescott, WI. A TMDL will be jointly prepared by the Minnesota Pollution Control Agency and the Wisconsin Department of Natural Resources. Impaired waters for Marine on St. Croix can be seen in Figure SW-11.

IV. GOALS AND POLICIES

A. Village Center Comprehensive Plan Addenda

In a parallel planning effort to the development of the Local Surface Water Management Plan, the City of Marine on St. Croix has prepared an addenda to the 2040 Comprehensive Plan focused on the Village Center recognizing four distinguishing factors:

1. The identity and character of the historic village (large parts of the City, including the Village Center, are a National Historic District). The Village Center also contains the Marine Mill Site, a National Historic Site based on its history as the first commercial industrial site – a sawmill - in Minnesota.
2. Proximity to the St. Croix River, which borders the Village Center. The St. Croix is protected and enjoyed as a National Wild and Scenic River; the adjoining areas, including the Village Center, are part of the associated Riverway.
3. Green space throughout the city. The City, by its topography and development patterns, retains large undeveloped or sparsely developed areas, providing a more human scale and natural appearance as well as protective features for the environment.
4. A pervasive community participation and interaction. The Village Center provides spaces for interaction among the local population and also visitors; volunteer participation provides a higher level of services than normally found in like sized communities in the metro area.

A primary goal of the Village Center Plan and Task Force work effort is to address stormwater quantity and quality within the Village Center prior to discharging to the St. Croix River. Policies of the Addenda reflect a strong commitment to improved stormwater management.

B. Marine on St. Croix Local Surface Water Management Plan Policies

1. Incorporates by reference the following:
 - a) Carnelian Marine Watershed District 2015 Watershed Management Plan, including the Wetland Management Plan, the Northern Washington County Spring Creek Study, and the District Rules.

- b) The *Washington County Groundwater Plan*, adopted 2014. And, participate with the CMSCWD in imminent update of the ten-year County Groundwater Plan process.
2. Implementation of CSMCWD Rules in the St. Croix Urban Residential, Single Family Urban and the Village Center zoning districts through a Memorandum of Understanding between the Carnelian-Marine-St. Croix Watershed District and the City of Marine on St. Croix for Local Water Planning and Regulation (see attached).
3. Support the stormwater management Policies described by the Village Center Comprehensive Plan Addenda.
4. Amend local ordinances within six months to ensure local official controls are consistent with District standards and Rules.

C. City Development Controls

1. Erosion Control

The City is committed to the goal of no adverse impact (nondegradation goal) on our water resources. In support of that goal, the City has a policy of managing new construction to minimize erosion control and to avoid large grading and reclamation projects unless the project is properly managed. The City adopted Zoning Ordinances in 2018 including erosion and sediment controls (see Appendix C). These ordinances addresses, new construction and those sites where grading or reclamation will take place.

The 2040 Comprehensive Plan highlights that the City has very few sites left for new home construction, and all commercial development is restricted to the Village Center (downtown area). The City's ability to manage and effect erosion control associated with construction will primarily be in the areas of house remodeling or renovation, lot improvements such as driveway construction, and street, county road or state highway construction.

2. Peak Runoff Control

It is City policy to recognize the impact of stormwater runoff on the sensitive wetland areas of the City and on the St. Croix River, and to manage peak runoff to minimize this impact. The topography of the Marine on St. Croix area increases the importance of stormwater runoff control.

A study entitled 'Preventing Stormwater Runoff Problems Through Watershed Land Design' (Vogel et.al, 1999, Department of Landscape Architecture, University of Minnesota) included a thorough study of the stormwater flow within the City of Marine on St. Croix. This study identified the 19th Century village characteristics that have been retained within the City, noting that development patterns were greatly influenced by the topography of the area, as buildings were sited away from ravines, natural drainageways, and wetlands since large earthmoving equipment was non-existent during the development of the City. This development pattern continues today, as many of the areas of overland drainageways, streams, natural wetlands and swales/ditches have been retained as parks or right-of-ways that act as a greenway within the City, and allow the temporary retention and filtration of stormwater. In fact, the overland flow of water has become a feature that is treated as an amenity in the City, whether it is a street side rain garden, or a bridged community ravine (Vogel, et al, 1999). To further aid in erosion control and surface water management, the massing of vegetation along ravine banks and other overland water drainageways greatly aids transpiration, infiltration and soil stabilization. Additionally, streets and structures are located and aligned in a manner that often does not disrupt the original, natural drainage patterns.

Streets have tended to follow existing topography, requiring less grading, and preserving the natural slopes, plus traditional minimal use of street curbs allows water to sheet flow into roadside swales. Here the water is more gradually carried away to the river or infiltrates into the soil below. In addition, there are several undeveloped meadows, located on the upper river terraces (Jackson Meadow is one site), that function as holding areas for stormwater, before it continues on its way to the St. Croix River (Vogel, et al, 1999).

The City has adopted ordinances which help to control and minimize peak runoff. In the St. Croix River Urban and Rural districts, ordinances require lower density (1 acre lots), and also require less than 20 % impervious surface. In all districts construction is prohibited on slopes greater than 18 %. Within the St. Croix River districts no construction is allowed on slopes greater than 12 %. In other City districts construction on slopes between 12 and 18% is carefully reviewed.

The City's subdivision ordinance requires a 50% set aside of green space for major subdivisions. The City works with the County to identify and maintain critical wetlands and no construction is allowed in these areas. The City continues to minimize the use of street curbs, and continues to use its traditional stormwater management system of ditches, swales and meadows. In addition, as the City undertakes street improvement projects it has a policy of working to improve stormwater pre-treatment.

Additional policies and ordinances which support the goal of no adverse impact on our water resources include the City's long-time policy of not vacating City right-of-way's. This policy is especially important as many east-west streets are platted to the St. Croix River, providing additional greenways as these streets are not maintained for vehicular traffic. The City's erosion control ordinance includes the requirement that new construction ensure surface water runoff from a lot is at its pre-development rate, and also requires new construction to maintain the natural drainageways of the City. The City anticipates these requirements will become part of the watershed district permitting process, once the CMSCWD completes its initial, rule development phase. The City will review its ordinances which address erosion control and stormwater runoff when the CMSCWD.

V. IMPLEMENTATION

The City supports priorities identified in the implementation section of the CMSCWD Plan, specifically under Capital Improvement Projects item B, Neighborhood Wide Small Lot Stormwater Management Incentive Program, and Non-Structural Projects and Studies item Highway 95 Wetlands in Marine Management Plan.

A. Stormwater Management Programs

The City of Marine on St. Croix has identified areas within the adopted District Rules that are problematic in implantation and inconsistent with the existing urban residential areas of our City. However, re-examining the policies derived from a) the Natural Environment Goal 2 of the city's 2008 Comprehensive Plan (above), b) the CMSWD Plan's recommendations for the four major streams in the City (as follows), and c) noting that the historical development of the City placed the greatest density of impervious surfaces adjacent to these streams, it is apparent that runoff from these impervious surfaces into the streams is and has been a factor in maintaining water quality of the streams and ultimately the St. Croix River. Problems and inconsistencies for these urban areas therefore are less in the stated policies and more in defining implementation steps, especially in coordination with the more recent CMSCWD plan.

The Neighborhood Wide Small Lot Stormwater Management Incentive Program supports projects directed towards entire neighborhoods that consist of high-density, single-family residential development. The purpose is to implement stormwater BMPs throughout an entire neighborhood as a community program.

1. The City will direct its surface water management efforts to two control zones within the City; one covering the Single Family Rural and St. Croix Rural zoning districts, and the other covering all other areas of the City which include Single Family Urban, St. Croix Urban, and Village Center zoning districts.
2. In the Single Family Rural and St. Croix Rural zoning districts the City and CMSCWD will administer the CMSCWD Plan and Rules.
3. In the Single Family Urban, St. Croix Urban, and Village Center zoning districts the City will manage surface water issues as enabled by Section 2.7.4 of CMSCWD Rules and the MOU approved by the City Council October 10, 2013.
4. In the Single Family Urban, St. Croix Urban, and Village Center zoning districts the City will place priority on limiting the effects of additional impervious areas thru the mitigation of the surface water flows from those areas, using the provisions of CMSCWD's Neighborhood Wide Small Lot Stormwater Incentive Program.
5. The City, as funds and designs become available, will install run off management structures to protect the streams designated in the CMSCWD Plan.
6. The City will continue ongoing negotiations with MNDOT to facilitate solutions to surface water issues related to or adjacent to TH 95.

Implementation costs paid for through a combination of City funds, District funds and grants. IE: A submitted grant request (October 5, 2013) for Clean Water Fund funding as administered by the Board of Water and Soil Resources. Marine on St. Croix is listed as an example area where the District's Neighborhood Wide Small Lot Stormwater Management Incentive Program may be applicable. The District budgeted funds for 2014, and 2017 for this effort.

In 2017, CMSCWD and the City revived additional funding for Phase 2 of the residential rain garden implementation project. Numerous rain gardens will be constructed in conjunction with the grant between 2017 and 2019.

B. Support for Management Recommendations of Four Streams in Marine on St. Croix

Described by the CMSCWD Northern Washington County Spring Creek, 2003 for its streams as follows:

A. CMSCWD Plan Key Management Recommendations for Dunn's Creek:

1. All existing and new development along the bluffline above Dunn's Creek should limit stormwater runoff to pre-development levels.
2. Landowners along the bluffline above the groundwater discharge areas should retain a generous buffer of native vegetation.
3. Elevated nitrate and chloride levels in Dunn's Creek suggest that local runoff (from the Marine-on-St. Croix Wastewater Treatment Facility) and impervious roadway surfaces may be impacting water quality. The Watershed (Research Station) may want to monitor water quality in this stream. Note: Since the District adopted this plan in 2010, the City has and continues to monitor the groundwater wells surrounding the City drainfield according to MPCA requirements.

C. CMSCWD Plan Key Management Recommendations for Judd Creek:

1. Install rain-water gardens in swales along Judd St. Creek. Because of their visibility, these rain gardens could serve as educational/demonstration sites.
2. Where stream-side buffers are lacking or of poor quality, create/improve buffer with plantings of native vegetation.

Within mixed hardwood seepage swamp (between Highway 95 and Judd Street), the City, Watershed and Mill Stream Association should work together to control buckthorn and, where appropriate, reestablish native tree and shrub species. In particular, these efforts should be encouraged along the stream corridors.

D. CMSCWD Plan Key Management Recommendations for Mill Stream:

1. Stabilize streambank of Mill Stream on cut bank just above footbridge in Zoller's Ravine.
2. Within Zoller's Ravine, establish shade-tolerant understory shrubs and groundcover species to stabilize stream bank and improve fish habitat.
3. Encourage landowners to retain woody debris within stream channel to improve fish habitat.
4. Within Mill Stream just upstream of Highway 95, place rock or stone deflectors within channel to reverse aggrading.
5. The Highway 95 culvert should be replaced, with the upstream and downstream culvert invert placed below the existing stream grade Alternatively, options to raise the grade of the stream (to reduce the head between the upstream and downstream end of the culvert) should be considered.
6. Work with Marine-on-St. Croix and private landowners to create a continuous vegetative buffer of native vegetation between Highway 95 and the Brookside Bar and Grill at Judd Street.
7. Work with Marine-on-St. Croix to install stormwater infiltration and rainwater gardens to intercept stormwater runoff that is currently discharging into Mill Stream from impervious surfaces.
8. Remove sediment from City Mill Pond and partially route Mill Stream around pond. Install native vegetative buffer around edges of pond.
9. Where Mill Stream crosses under Judd Street, install trench drains to intercept stormwater and discharge it to water quality treatment waterway/vegetative swale.
10. Consider taking Lower Mill Pond offline and reroute base flow only into pond.
11. City of Marine on St. Croix to take over maintenance of the Judd Street ditch.

E. CMSCWD Plan Key Management Recommendations for Marine Landing Creek:

1. For residential areas draining to Marine Landing Creek, encourage the use of residential rain gardens and vegetated swales to store and convey stormwater. The springs emanate from the middle Mazomanie Facies of the Franconia Formation. The stream also receives surface runoff from the river terraces above.
2. Establish stormwater demonstration sites to educate residents on stormwater management BMPs.
3. Work with Mn/DOT and the City to control stormwater runoff from residential area and Highway 95. Several areas to the north of Marine-on- St. Croix along Highway 95 could potentially serve as regional infiltration basins. The water is has a low

calcium/magnesium ratio, indicating that recharge of the water could be coming from a nearby lake or lakes, possibly in the area of Big Marine Lake.

4. The in-slope of Highway 95 is severely eroded in several places. Once #3 is addressed, these areas should be stabilized and restored cooperatively with Mn/DOT and the City of Marine-on-St. Croix Marine Landing Creek.

Implementation costs and technical assistance primarily provided by the CMSCWD in partnership with the City of Marine on St. Croix.

F. Implementation of Wetlands Conservation Act

The Washington Conservation District (WCD) assists the local Municipalities as the Local Government Unit (LGU) for implementing the Wetland Conservation Act (WCA), which regulates activities having the potential to drain, fill, or alter wetlands.

The City of Marine on St. Croix has identified areas within the adopted District Rules that are problematic to implement and inconsistent with the existing urban residential areas of our City. Due to this unique and historic platting and development, any land parcel occupied by a legally conforming use as defined by the Marine on St. Croix Zoning Ordinance, or having been occupied by such legally conforming use since January 1, 2000, shall be allowed to continue in that use. Existing separation from wetlands of improvements associated with that use or uses shall be allowed to continue but may not be reduced. Existing buffers around wetlands and streams shall be allowed to continue but may not be reduced. In addition, any increase in impervious surface in these areas is subject to the same guidelines for stormwater management mitigation as other uses within the same City zoning district.

Implementation primarily provided by the City of Marine on St. Croix in partnership with CMSCWD.

G. Development of a Highway 95 Wetlands Marine Management Plan

Marine on St. Croix supports, as described in the CMSCWD Plan under Capital Improvement Projects, the development of a plan to restore or enhance wetland vegetation and the historic hydrology of a wetland complex. Recognizing the plan will need to be sensitive to local homeowners currently experiencing water problems in their buildings.

Implementation costs and technical assistance primarily provided by the CMSCWD in partnership with the City of Marine on St. Croix.

Table 4: Summary of Implementations Projects.

Project	Improvement Cost Estimate	
	Low	High
Dredging of Upper & Lower Mill Ponds	\$35,000	\$100,000
Village Center Stormwater Improvements	\$50,000	\$250,000
Improve stormwater collection and pre-treatment of City streets, as part of on-going street improvement projects	\$10,000	\$35,000
Residential Rain Garden Implementation, Phase 2	\$200,000	\$250,000
Request help from CMSCWD to define scope of study on runoff sources and volumes within the City, identify partners, kickoff meeting to design and begin study, put in City budget.	TBD	
Highway 95 Runoff Collection Improvements	TBD	
Dunn's Creek Improvements	TBD	
Judd Creek Improvements	TBD	
Mill Stream Improvements	TBD	
Marine Landing Creek Improvements	TBD	
Total	\$295,000	\$635,000

H. Administrative Procedures regarding Carnelian- Marine- St. Croix Watershed District Rules, adopted December 14th, 2016.

1. Permit application or inquiry received.
2. Review to see if CMSCWD Rules will apply. If uncertain, the determination will be made in consultation with the CMSCWD.
3. If no, proceed with normal permit application process without referral to Watershed District.
4. If yes, provide applicant with appropriate information and refer to Watershed District for required permits and process.
5. Issue building permit only after valid watershed permit is received.
6. Issue final certificate of occupancy only after written notice from watershed district that final inspection has been satisfied.

Implementation costs primarily provided by the City of Marine on St. Croix, and when the Rules apply, by the CMSCWD.

VI. AMENDMENT PROCEDURES

The Marine on St. Croix LSWMP is intended to extend through the year 2028. Updates to this plan will occur every 10 years and align with the Comprehensive Plan update schedule defined by the Metropolitan Council. For the plan to remain dynamic, an avenue must be available to implement new information, ideas, methods, standards, management practices and any other changes that may affect the intent and/or results of the LSWMP. The amendment procedure for the LSWMP is presented below.

A. Request for Amendment

Written request for a plan amendment is submitted to City staff. The request shall outline the need for the amendment as well as additional materials that the City will need to consider before making its decision.

B. Staff Review of Amendment

A decision is made as to the validity of the request. Three options exist: 1) reject the amendment, 2) accept the amendment as a minor issue, with minor issues collectively added to the plan at a later date, or 3) accept the amendment as a major issue, with major issues requiring an immediate amendment. In acting on an amendment request, City staff shall recommend to the City Council whether or not a public hearing is warranted.

C. Council Consideration

The amendment and the need for a public hearing shall be considered at a regular or special Council meeting. Staff recommendations should also be considered before decisions on appropriate action(s) are made.

D. Public Hearing and Council Action

This step allows for public input based on public interest. The City Council shall determine when the public hearing should occur in the process. Based on the public hearing, the City Council could approve the amendment.

E. Watershed District Approval

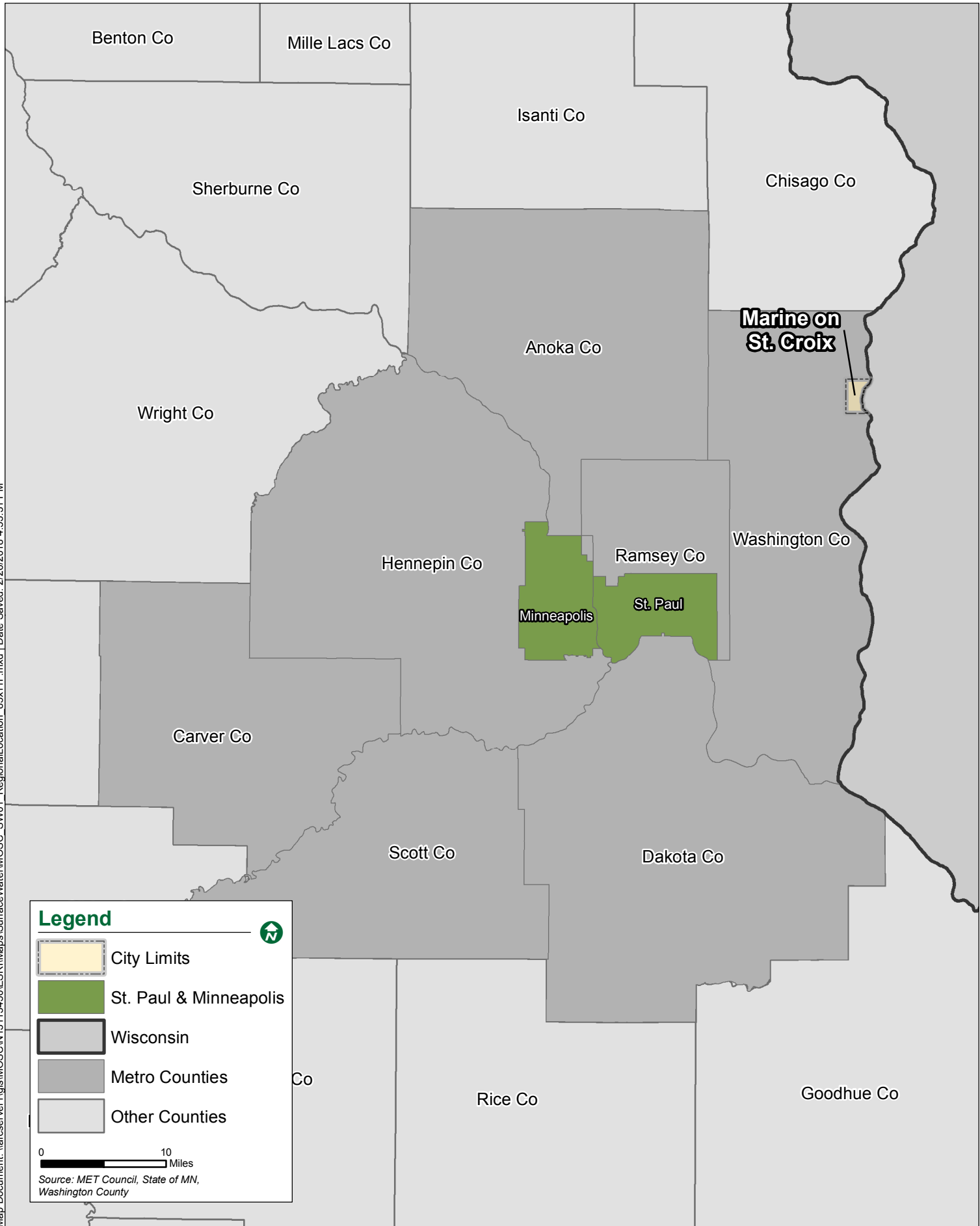
All proposed amendments must be reviewed by the Watershed Districts prior to final adoption of the amendments.

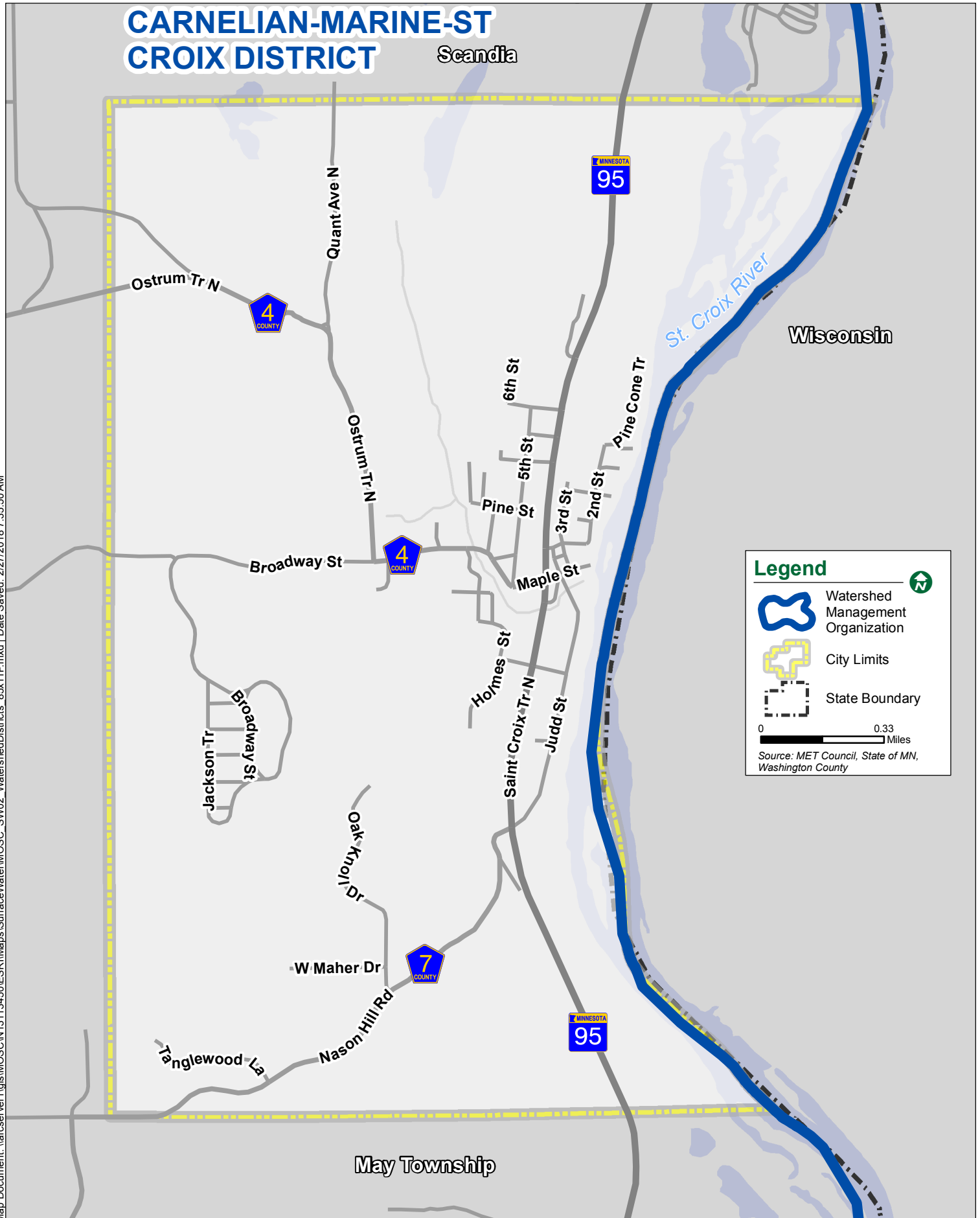
F. Council Adoption

Final action on an amendment, following approval by the Watershed Districts, is City Council adoption. However, prior to the adoption, an additional public hearing could be held to review the plan changes and notify the appropriate stakeholders.

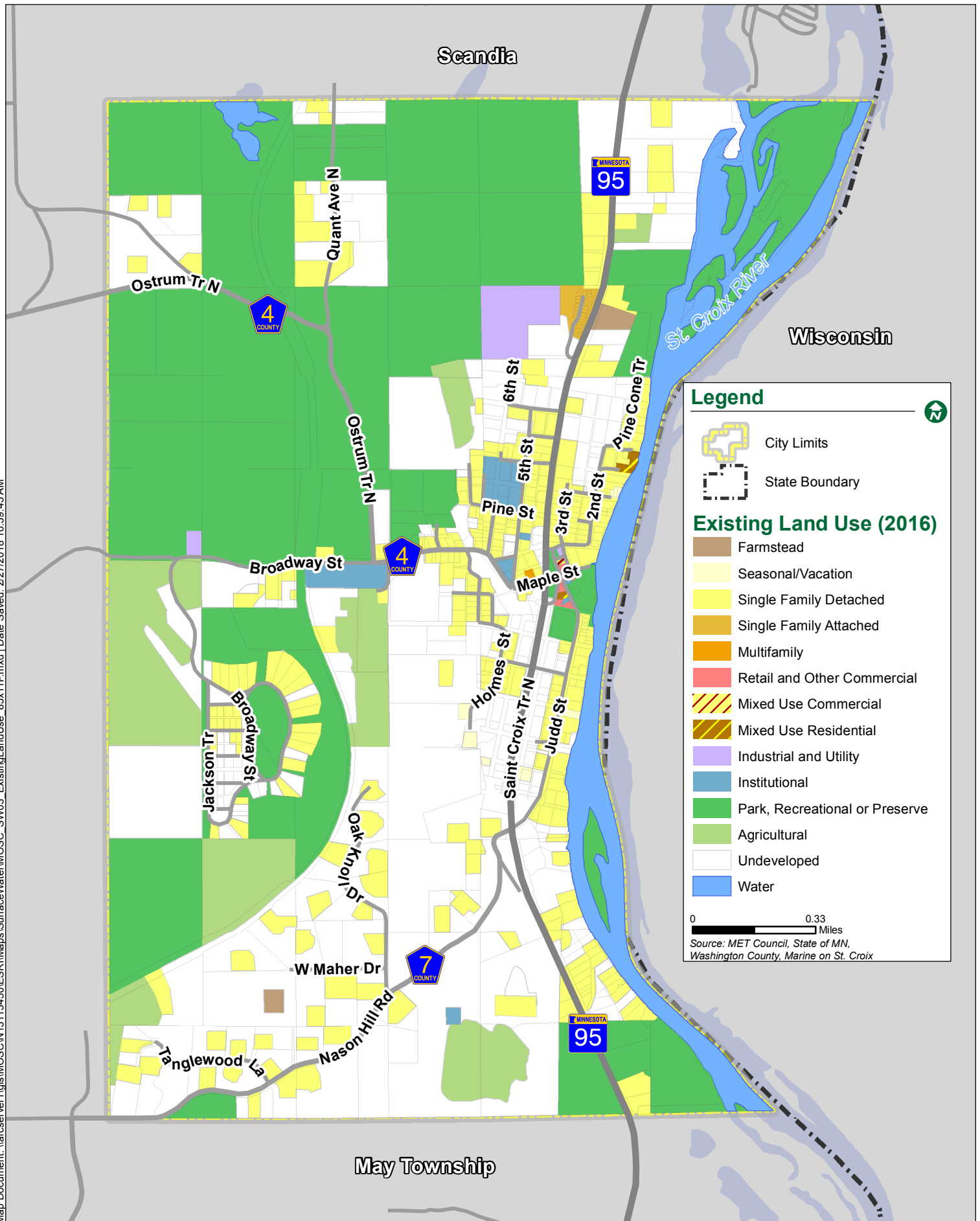
Appendix A: Figures

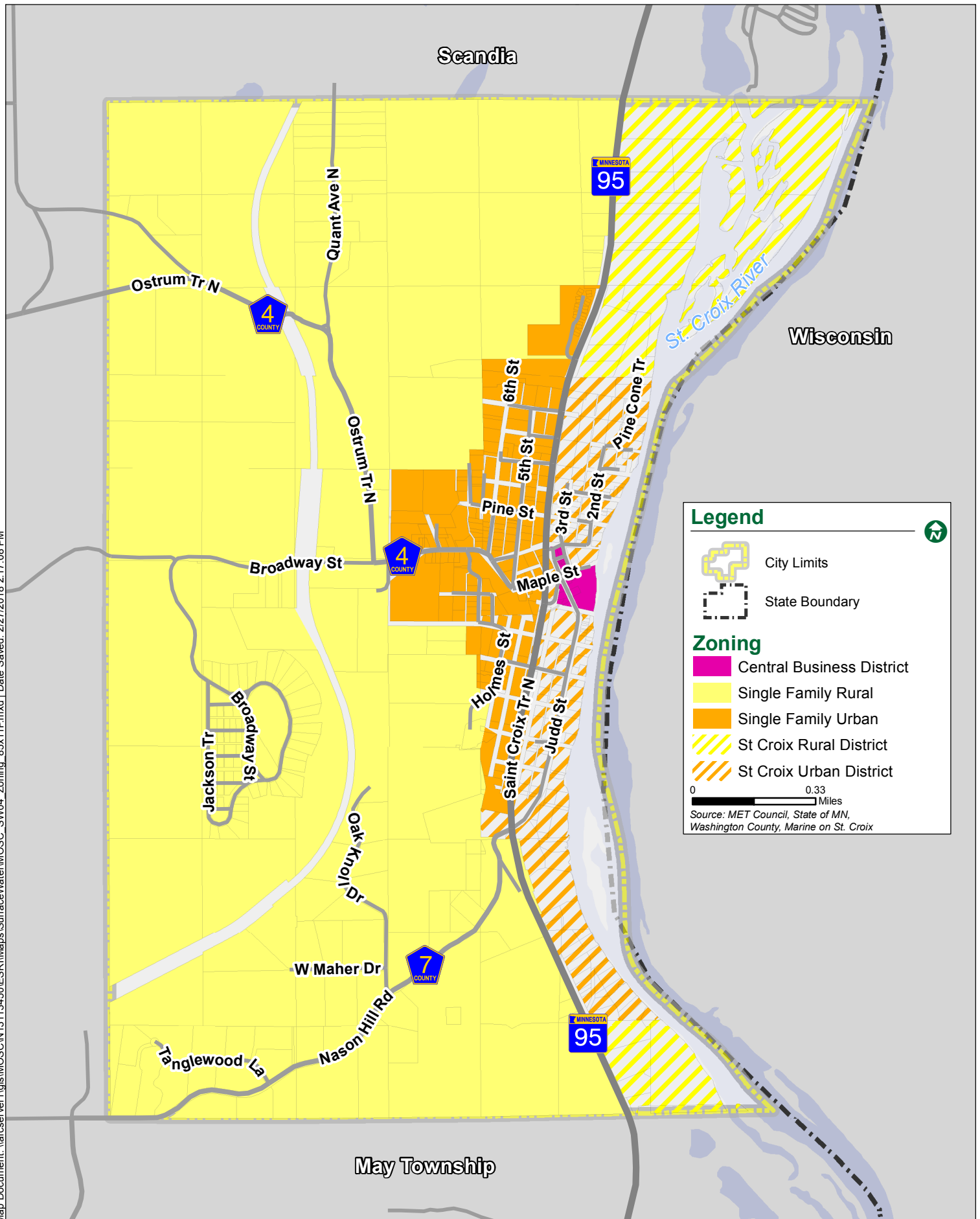
- Figure SW-01: Regional Location Map
- Figure SW-02: Watershed Districts
- Figure SW-03: Existing Land Use
- Figure SW-04: Zoning
- Figure SW-05: Future Land Use
- Figure SW-06: Hydrologic Soils
- Figure SW-07: Public Waters
- Figure SW-08: CMSCWD Wetlands
- Figure SW-09: Natural Areas, Open Space, & RSEA
- Figure SW-10: Minnesota Land Cover Classification
- Figure SW-11: Impaired Waters

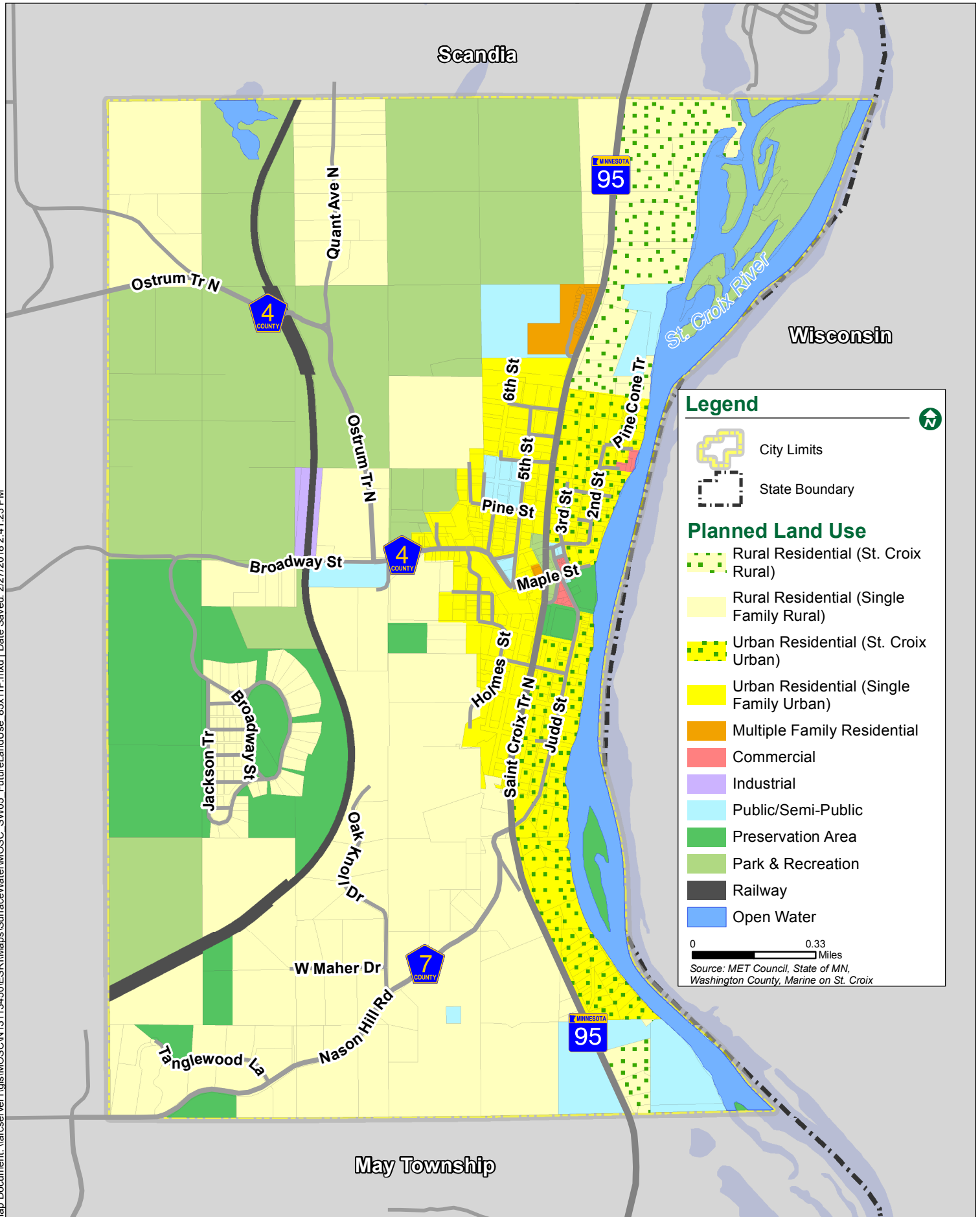


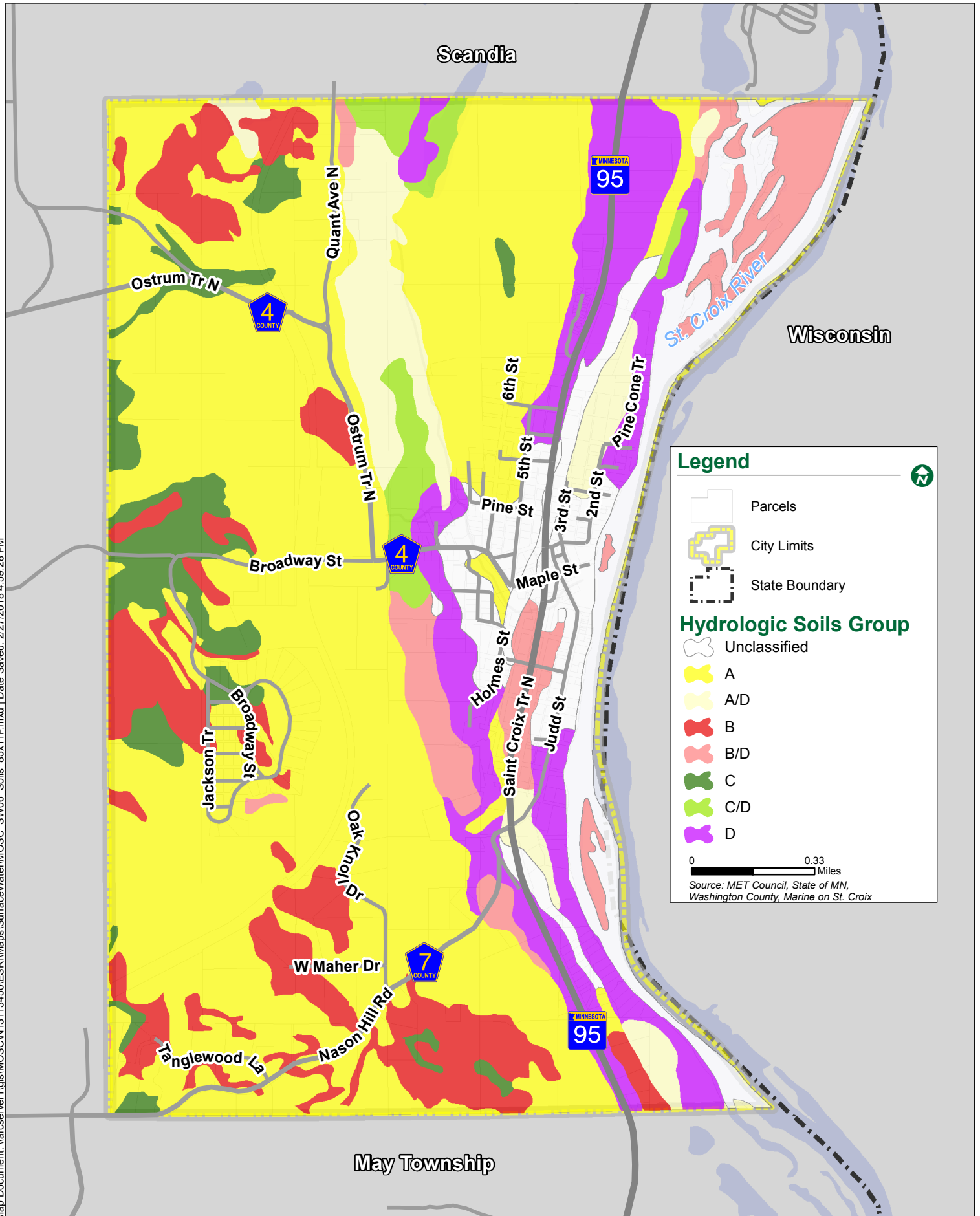


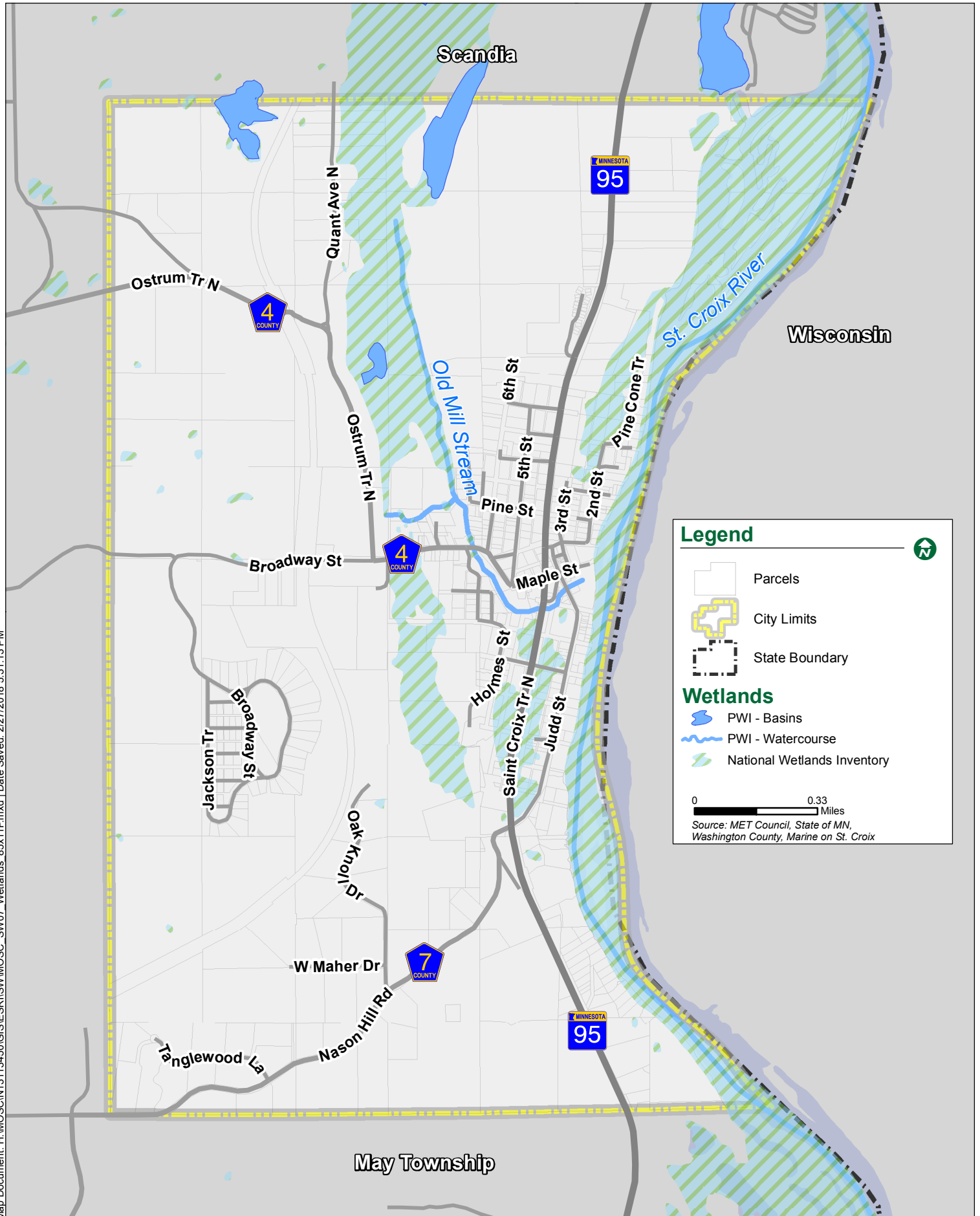
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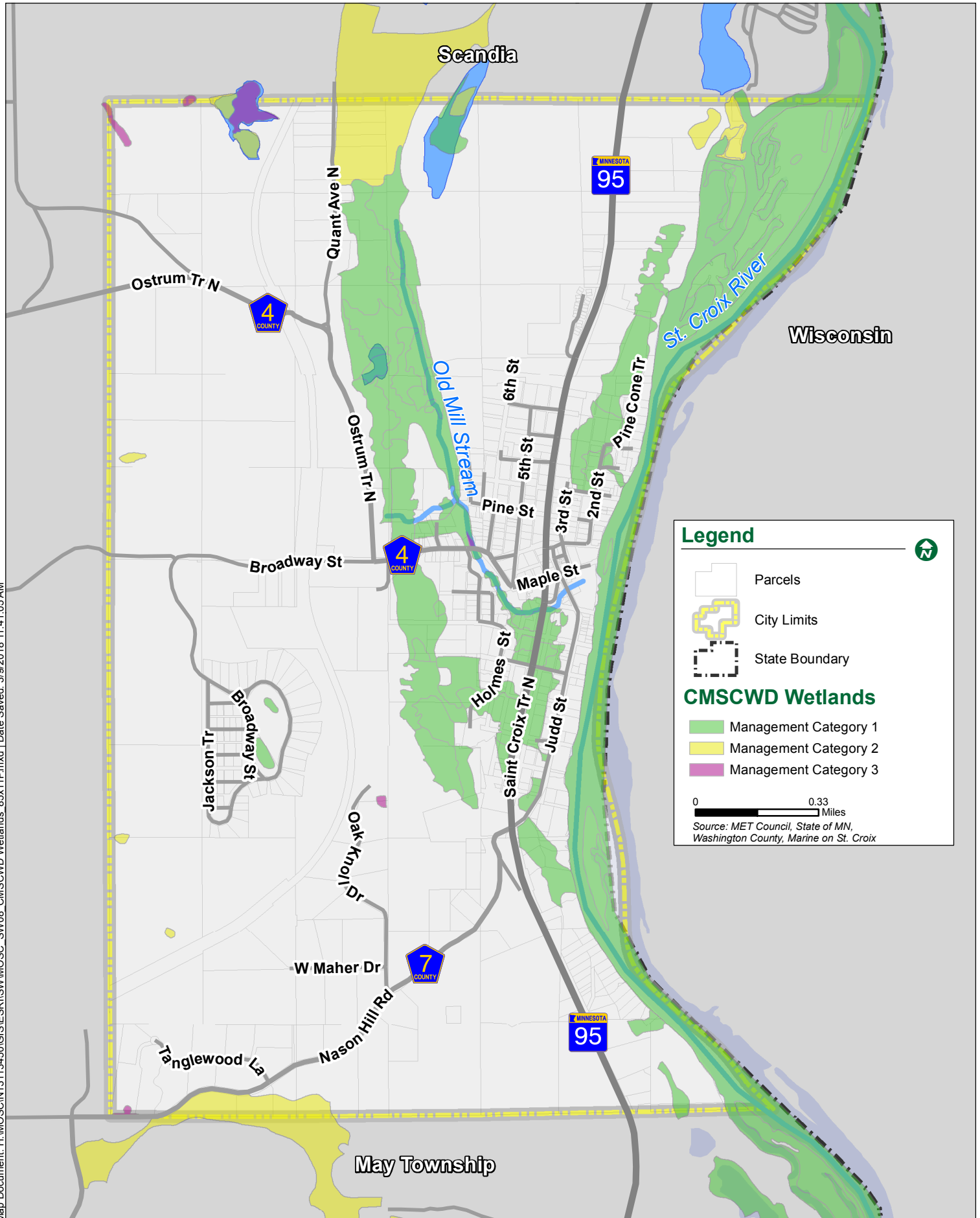


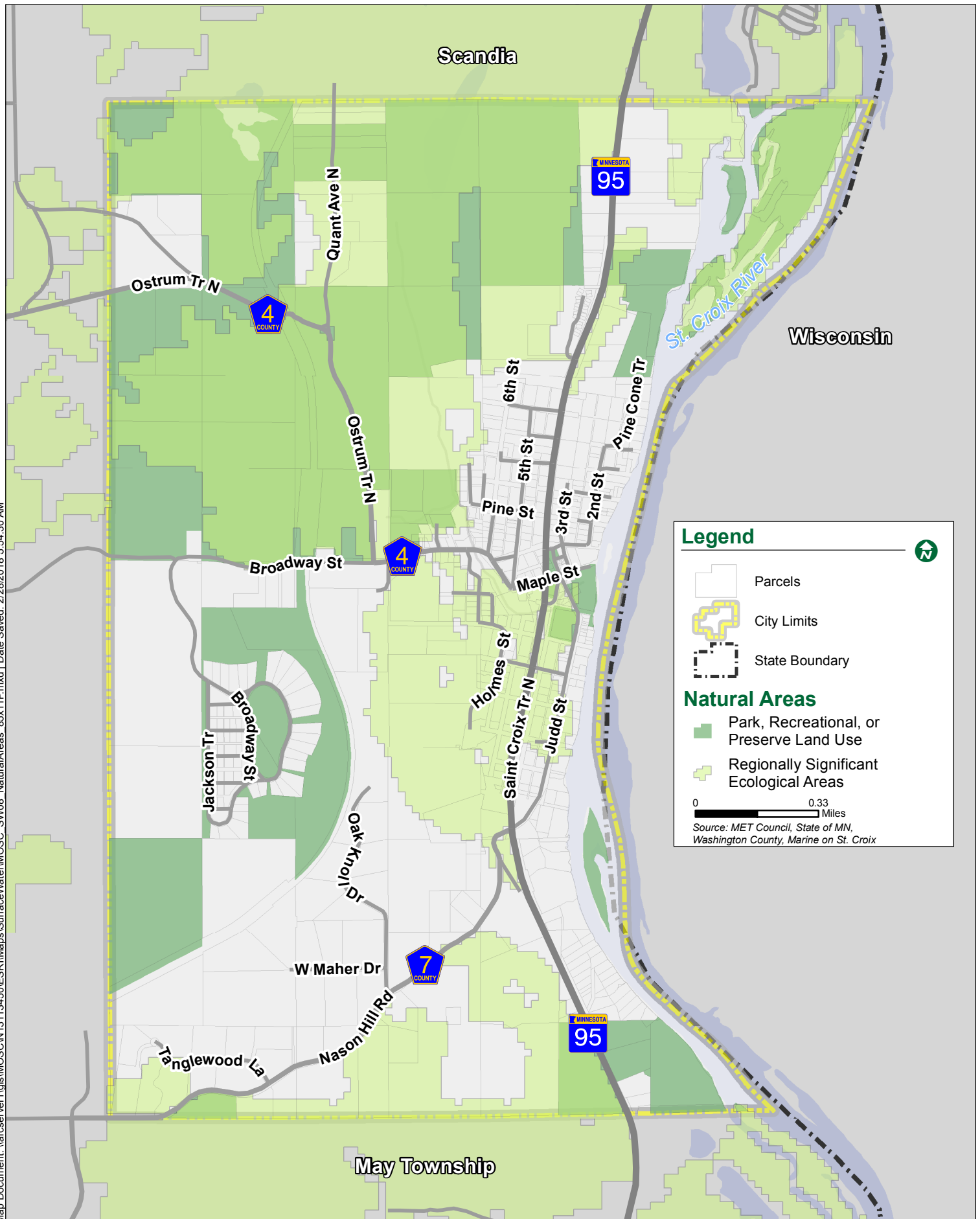


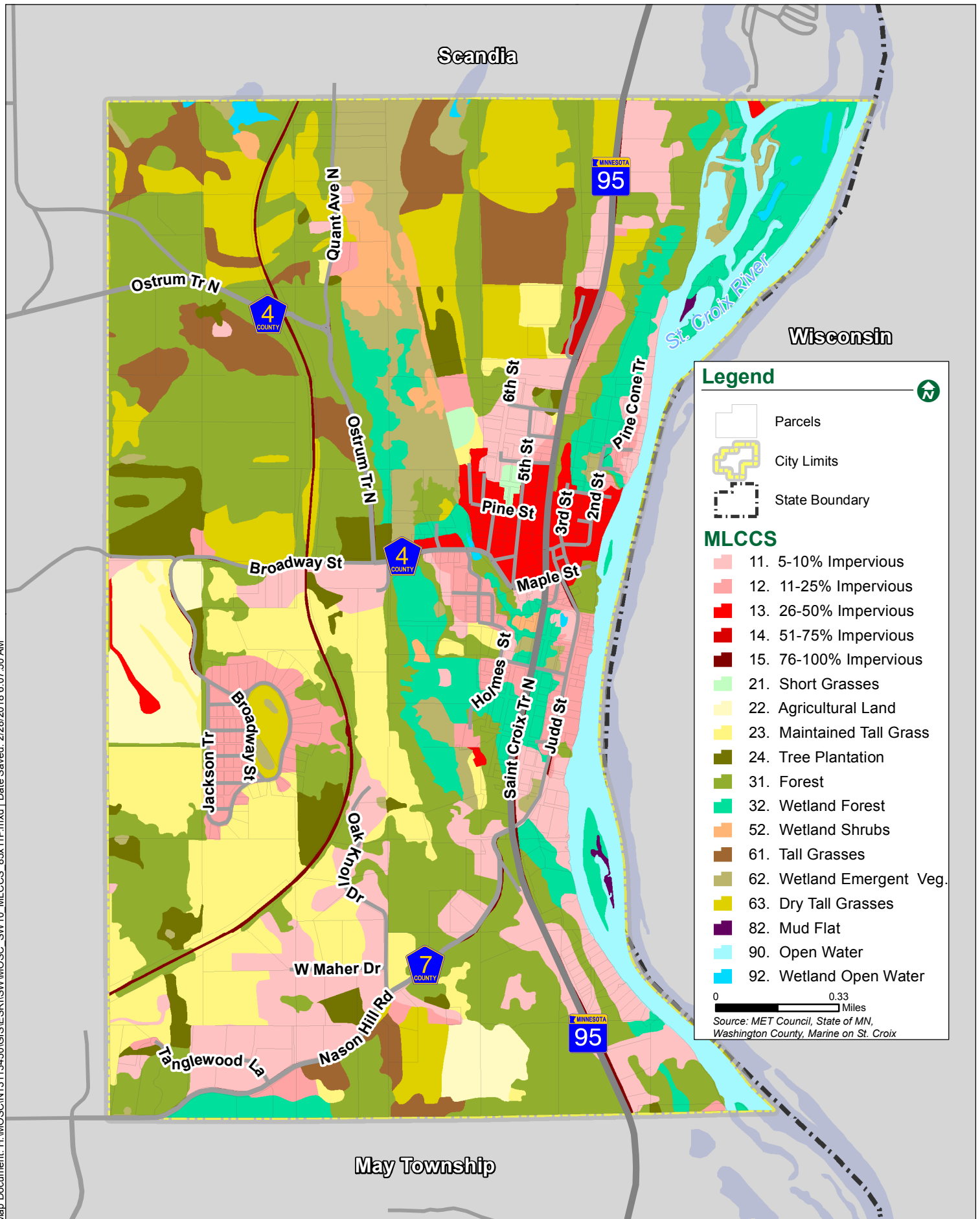


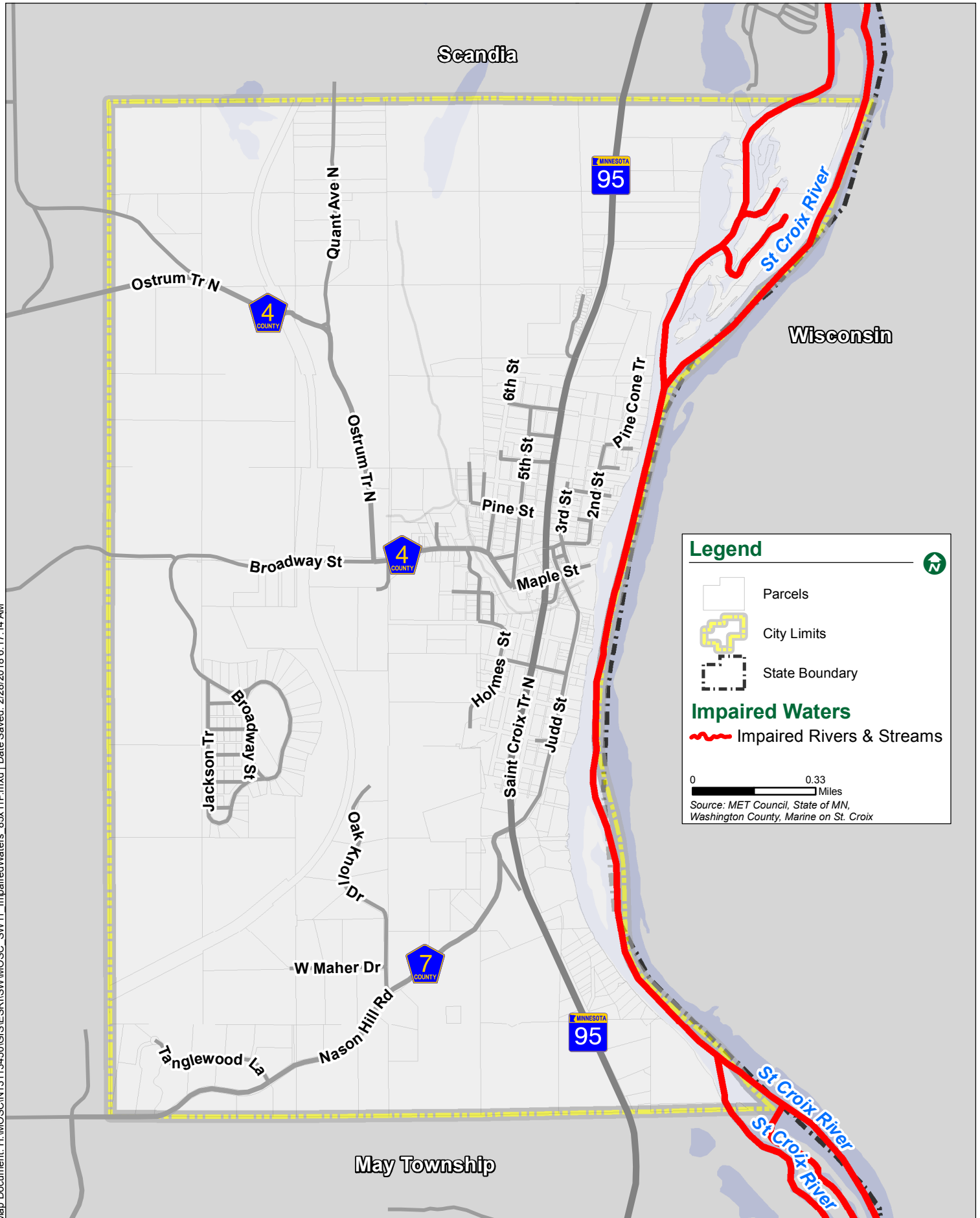












Appendix B: Agreements and Resolutions

RESOLUTION NUMBER 031215-01

A Resolution to partner with the Carnelian-Marine-St. Croix Watershed District (The District) in the Performance of BWSR Grant C15 1992: Marine on St. Croix Innovative Stormwater Management Implementation- Phase 1 (the Project)

WHEREAS, The City has adopted a Local Water Management Plan signed on November 13, 2013 which specifically lists the Project, and

WHEREAS, The City and the District entered into a MOU signed October 10th, 2013, and

WHEREAS, The District's 2010 Watershed Management Plan adopted September 12, 2010 specifically lists the Project as a Cost Share project, and

WHEREAS, the City approved a motion on September 12, 2013 to participate in and support a grant for the Project, formerly called Neighborhood Wide Small Lot Stormwater Management Program, which proposes the construction of raingardens, a biofiltration basin, and an iron enhanced sand filter basin on City owned land and right-of-way, and

WHEREAS, The Project was approved for funding by BWSR on 1/28/15 with a project total of \$98,200 and a \$24,550 (25%) local match required

THEREFORE NOW BE IT RESOLVED, that the City of Marine on St Croix agrees:

- to participate in ½ of the local match required, \$12,275, by cash contribution or a combination of approved in-kind and cash contribution totaling \$12,275
- that the grant will be administered by The District
- to actively participate in grant activities involving Outreach, Siting, Design, Construction, Operations and Maintenance of project components throughout their expected lifespans
- that the Project components will be designed to standards specified in the Minnesota Stormwater Manual by a registered engineer or equivalent qualified professional acceptable to grantor
- to enter into an agreement (or contract) with the District as needed to provide the project assurance required by the grantor regarding operations and maintenance of the project components on City property and to acquire the required assurances and easements for components sited on private property within the City. Assurances will also include potential payback of grant funds to CMSCWD (then returned to Grantor)

for installed projects that are not maintained and functioning as designed throughout the projects expected lifespans.

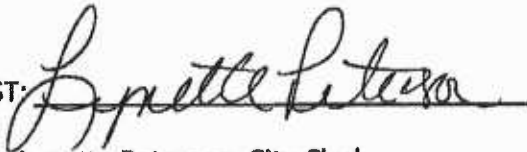
Approved by the Marine on St. Croix City Council this 12th day of March, 2015

BY:

A handwritten signature in cursive script, appearing to read "Glen Mills", written over a horizontal line.

Glen Mills, Mayor

ATTEST:

A handwritten signature in cursive script, appearing to read "Lynette Peterson", written over a horizontal line.

Lynette Peterson, City Clerk

Appendix C: Ordinances

Zoning Ordinance and Subdivision Regulations – Section 405: Environmental Standards

Zoning Ordinance and Subdivision Regulations – Section 5: Zoning Districts and District Provisions

disposal system discharging upon the surface of the ground, or dumping the contents thereof at any place except as authorized.

- (2) The pollution of any public well or cistern, stream or lake, canal or body of water by sewage, industrial waste or other substances.

405. Environmental Standards.

405.1 Land Reclamation and Land Grading.

- (1) Within this Ordinance, land reclamation is the reclaiming of land by depositing or moving material so as to alter the grade. Land reclamation shall be permitted by Grading and Filling Permit in all districts. Depositing a total of more than fifty (50) cubic yards of material per 1/2 acre or less, either by hauling in or regrading the area, shall constitute land reclamation. The permit shall be issued only after the City has received and approved a finished grading plan, pursuant to Section 306 of this Ordinance, which shows that the land reclamation will not adversely affect the adjacent land. The permit may include conditions regarding the type of material permitted, program for rodent control, plan for fire control, and general maintenance of the site controls of vehicular ingress and egress, drainage and control of material dispersed from wind or hauling of material to or from the site.
- (2) A grading and filling permit may be issued only if:
 - (a) Slopes greater than twelve (12) percent (twelve (12) feet vertical rise in one hundred (100) horizontal feet) are preserved to the greatest extent possible;
 - (b) Earth moving, erosion, vegetative cutting, drainage to adjacent properties, filling of wetlands, and the destruction of natural amenities is minimized;
 - (c) The smallest amount of ground is exposed for as short a time as possible;
 - (d) During construction, temporary ground cover such as mulch is used and permanent ground cover such as sod is planted upon completion, taking into consideration seasonal conditions;
 - (e) Methods to prevent erosion and trap sediment are employed; and
 - (f) Fill is stabilized to accepted engineering standards.
- (3) A separate grading and filling permit is not required for grading, filling, or excavating the minimum area necessary for a structure, sewage disposal system and private road and parking area undertaken pursuant to a validly issued building permit.

- (4) No water area shall be filled, partially filled, dredged, altered by grading, mining or otherwise utilized or disturbed in any manner without first securing a permit from the Minnesota Department of Natural Resources, the U.S. Army Corps of Engineers, and the affected Watershed District or Watershed Management Organization, as applicable. Such grading may be reviewed and approved by the Department of Natural Resources, the city engineer, the Watershed District, Watershed Management Organization, and the Planning Commission.
- (5) Water areas shall include all lakes, ponds, swamps, streams, drainageways, floodways, natural water courses, underground water resources and similar features involving directly or indirectly the use of water within the community

405.2 Drainage Plans.

- (1) In case of all residential subdivisions containing three (3) or more lots, and business and industrial developments, the grading and drainage plans shall be submitted to the City Engineer for review and the final grading and drainage plans shall be subject to the City Engineer's written approval. The grading and drainage plans must show compliance with all of the applicable performance standards of Section 405 of this Ordinance.
- (2) As part of a building permit application for a single family home, a site survey showing grading, drainage, and building pad (location and elevation) must be submitted. Such documents shall be consistent with the approved final grading plan of the subdivision. If a final grading plan for the subdivision does not exist, the grading plan must demonstrate site drainage that meets the standard of this section and will not result in drainage or flood that may encumber adjoining properties.
- (3) Prior to issuance of a certificate of occupancy, the holder of the building permit must submit certification that the grading and drainage was performed consistent with the approved grading and drainage plan. The City may, at the permit holder's expense, direct the City Engineer to review, inspect, and verify that the actual site grading has been completed in accordance with the approved grading and drainage plan.
- (4) Storm water drainage may be discharged into marshlands, swamps, retention basins after passing through appropriate water quality treatment facilities. Diversion of storm water to marshlands or swamps may be considered for existing or planned surface drainage. Marshlands and swamps used for storm water storage shall provide for natural or artificial water level control. Retention and water quality treatment basins scattered throughout developed areas shall be encouraged to improve storm water quality, reduce peak flow, erosion damage, and construction cost.

- (5) Storm water drainage plans for any development site or subdivision, except those sites in the Village Center Zoning District, shall manage storm water flows from the site at pre-development volumes and rates both during and at the completion of site development.

405.3 Soil Erosion and Sedimentation Control. All site grading shall meet the following soil erosion and sediment control standards:

- (1) All grading, filling and development shall conform to the natural limitations presented by the topography and soil so as to create the best potential for preventing soil erosion.
- (2) Slopes over eighteen percent in grade shall not be developed.
- (3) Development on slopes with a grade between twelve to eighteen percent shall be carefully reviewed to insure adequate measures are taken to prevent erosion, sedimentation, and structural damage.
- (4) Erosion and siltation control measures shall be coordinated with the different stages of development. Appropriate control measures shall be installed prior to development when necessary to control erosion.
- (5) Land shall be developed in increments of workable size such that adequate erosion and siltation controls can be provided as construction progresses. The smallest practical area of land shall be exposed at any one period of time.
- (6) The drainage system shall be constructed and operational as quickly as possible during construction.
- (7) Whenever possible, natural vegetation shall be retained and protected.
- (8) Where the topsoil is removed, sufficient arable soil shall be set aside for respreading over the developed area. The soil shall be restored to a depth of four (4) inches and shall be of a quality at least equal to the soil quality prior to development.
- (9) When soil is exposed, the exposure shall be for the shortest feasible period of time. No exposure shall exceed sixty (60) days. Said time period may be extended only if the Planning Commission is satisfied that adequate measures have been established and will remain in place.
- (10) The natural drainage system shall be used as far as is feasible for storage and flow of runoff.
- (11) A signed Erosion Control Agreement providing that erosion control standards and requirements will be met must be secured by the City before a building permit shall be issued.

405.4 Exposed Slopes. The following control measures shall be taken to control erosion during construction:

- (1) No exposed slope steeper in grade than five (5) feet horizontal to one (1) foot vertical is permitted.
- (2) Exposed slopes steeper in grade than ten (10) feet horizontal to one (1) foot vertical shall be contour plowed to minimize direct runoff of water.
- (3) At the foot of each exposed slope, a channel and berm shall be constructed to control runoff. The channelized water shall be diverted to a sedimentation basin (debris basin, silt basin, or silt trap) before being allowed to enter the natural drainage system.
- (4) Along the top of each exposed slope, a berm shall be constructed to prevent runoff from flowing over the edge of the slope. Where runoff collecting behind said berm cannot be diverted elsewhere and must be directed down the slope, appropriate measures shall be taken to prevent erosion. Such measures shall consist of either an asphalt paved flow apron and drop chute laid down the slope or a flexible slope drain. At the base of the slope drain or flow apron, a gravel energy dissipator shall be installed to prevent erosion at the discharge end.
- (5) Exposed slopes shall be protected by whatever means will effectively prevent erosion considering the degree of slope, soils material, and expected length of exposure. Slope protection shall consist of mulch, sheets of plastic, burlap or jute netting, sod blankets, fast growing grasses or temporary seedlings of annual grasses. Mulch consists of hay, straw, wood chips, corn stalks, bark, or other protective material. Mulch shall be anchored to slopes with liquid asphalt, stakes, and netting, or shall be worked into the soil to provide additional slope stability.
- (6) Control measures, other than those specifically stated above, may be used in place of the above measures if it can be demonstrated that they will as effectively protect exposed slopes.

405.5 Preservation of Natural Drainageways.

- (1) Waterways.
 - (a) All new development and subdivisions shall be designed to retain the natural drainage systems in the City, including existing wetlands and ponds. The natural drainage system will be maintained by the City where they exist within a public easement. Above-ground runoff disposal waterways may be constructed to augment the natural drainage system. The natural and constructed waterways may be coordinated with an open space trail system.

- (b) The widths of a constructed waterway shall be sufficiently large to adequately channel runoff from a ten (10) year storm. Adequacy shall be determined by the expected runoff when full development of the drainage area is reached.
- (c) No structures except bridges shall be constructed across ~~the~~ any waterway, tributary, stream, or wetland.
- (d) No building shall be located within twenty (20) feet of the ordinary high water level of any waterway, tributary, stream, or wetlands.
- (e) No fence or bridge shall be constructed across or over any waterway, tributary, stream, or wetland that will reduce or restrict the flow of water.
- (f) The banks of the waterway shall be protected with a permanent turf vegetation.
- (g) The banks of the waterway shall not exceed five (5) feet horizontal to one (1) foot vertical in gradient.
- (h) The gradient of the waterway bed shall not exceed a grade that will result in a velocity that will cause erosion of the banks of the waterway.
- (i) The bed of the waterway shall be protected with turf, sod, or concrete. If turf or sod will not function properly, rip rap may be used. Rip rap shall consist of queried limestone, fieldstone (if random rip rap is used) or construction materials provided said construction materials are limited to asphalt, cement and concrete. The rip rap shall be no smaller than two (2) inches square nor no larger than two (2) feet square. Construction materials shall be used only in those areas where the waterway is not used as part of a recreation trail system.
- (j) If the flow velocity in the waterway is such that erosion of the turn side-wall will occur and said velocity cannot be decreased via velocity control structures, then other materials may replace turf on the side walls. Either gravel or rip rap would be allowed to prevent erosion at these points.

(2) Waterway Velocity.

- (a) The flow velocity of runoff in waterways shall be controlled to a velocity that will not cause erosion of the waterway.
- (b) Flow velocity shall be controlled through the installation of diversions, berms, slope drains, and other similarly effective velocity control structures.

(3) Sediment Control.

- (a) To prevent sedimentation of waterways, pervious and impervious sediment traps and other sediment control structures shall be incorporated throughout the contributing watershed.
- (b) Temporary pervious sediment traps could consist of a construction of bales of hay with a low spillway embankment section of sand and gravel that permits a slow movement of water while filtering sediment. Such structures would serve as temporary sediment control features during the construction stage of development. Development of housing and other structures shall not be permitted in the area on either side of the waterway required to channel a twenty-five (25) year storm.
- (c) Permanent impervious sediment control structures consist of sediment basins (debris basins, desilting basins, or silt traps) and shall be utilized to remove sediment from runoff prior to its disposal in any permanent body of water.

(4) Maintenance of Erosion Control Systems.

- (a) The erosion and velocity control structures shall be maintained in a condition that will insure continuous functioning according to the provisions of this ordinance.
- (b) Sediment basins shall be maintained as the need occurs to insure continuous desilting action.
- (c) The areas utilized for runoff waterways and sediment basins shall not be allowed to exist in an unsightly condition. The banks of the sediment basins and waterways shall be landscaped.
- (d) Prior to the approval of any plat for development, the developer shall make provisions for continued maintenance on the erosion and sediment control system.

405.6 Wetland Preservation.

(1) General Provisions.

- (a) All wetlands in the city including marshlands and swamps shall be retained in their natural state to serve as storm water runoff basins and also as wildlife habitat. Filling or excavation of wetlands is prohibited.

(2) Vegetation. No wetland vegetation may be removed or altered except that reasonably required for the placement of structures and use of property as permitted by this Ordinance.

405.7 **Tree and Woodland Preservation.**

- (1) The following restrictions shall apply to all residential development occurring in wooded areas:
 - (a) Structures shall be located in such a manner that the maximum number of significant trees shall be preserved (see Section 202, Significant Tree).
 - (b) Prior to the granting of a building permit, it shall be the duty of the person seeking the permit to demonstrate that there are no feasible or prudent alternatives to the cutting of significant trees on the site and that if trees are cut, the applicant will restore the density of trees to that which existed before development but in no case shall he be compelled to raise the density above ten (10) trees per acre.
 - (c) Forestation, reforestation or landscaping shall utilize a variety of indigenous tree and shrub species and shall not utilize any species that is invasive or presently under disease epidemic. Species planted shall be hardy under local conditions and compatible with the local landscape.
 - (d) Development including grading and contouring shall take place in such a manner that the root zone aeration stability of existing trees shall not be affected and shall provide existing trees with a watering equal to one-half the crown area.
 - (e) Notwithstanding the above, the removal of trees seriously damaged by storms or other acts of God, or diseased trees shall not be prohibited.
- (2) Tree and Woodland Preservation Plans.
 - (a) In the case of all single family subdivisions, business, and industrial developments, a tree preservation plan shall be submitted to the Planning Commission for review and then to the City Council for approval. The tree preservation plan shall include identification of significant trees and tree masses within the construction area, tree preservation measures to be implemented during building construction, and site grading to protect identified significant trees.

405.8 **Agriculture Operations.** All farms in existence upon the effective date of this Ordinance shall be a permitted use where the operator can conduct a farming operation. However, all regulations contained in these performance standards shall apply to all changes of the farming operation which will cause all or part of the area to become more intensively used or more urban in character.

405.9 **Mining.** All mining activities, including that of gravel mining, are prohibited within the City.

SECTION 5. ZONING DISTRICTS AND DISTRICT PROVISIONS

501. **Zoning Districts.** The zoning districts are so designed as to assist in carrying out the intents and purposes of the Comprehensive Plan and are based upon the Comprehensive Plan which has the purpose of protecting the public health, safety, convenience, and general welfare. For purposes of this ordinance, Marine On St. Croix is hereby divided into the following Zoning Districts.

Symbol

SFR	Single Family Rural
SC-RR	St. Croix Rural Residential District
SFU	Single Family Urban
SC-UR	St. Croix Urban Residential District
VC	Village Center
LI	Limited Industry
LSCRO	Lower St. Croix River Overlay District
FP	Floodplain

502. **Zoning Map.** The location and boundaries of the district established by this Ordinance are set forth on the Zoning Map which is hereby incorporated as part of this ordinance and is on file at Marine On St. Croix City Hall. It shall be the responsibility of the Zoning Administration Staff to maintain and update this map and the amendments to such map shall be recorded on such map within thirty (30) days after official adoption of the zoning amendments.

Zoning updates since 1975:

- (1) Those parts of the NW Quarter of the NW Quarter and of Government Lot 5, Both in Section 6, Township 31 North, Range 19 West, Washington County, Minnesota, commonly known as "Marine Senior Housing Addition" from Single Family Rural (SFR) to Single Family Urban (SFU).
 - (2) Lots 2-12 Block 1, Roses Addition from Single Family Urban (SFU) to Single Family Rural (SFR).
503. **Vacated Streets.** Whenever any street, alley, easement, or public way is vacated by official action, the zoning district abutting the centerline of the said vacated area shall not be affected by such proceeding.

504. Single Family Rural (SFR).

504.1 Purpose

- (1) The fundamental purpose of this district is to encourage rural residential development to be clustered in a pattern which satisfies the following planning objectives:
 - (a) Preservation of contiguous common open spaces for scenic enjoyment, recreational use, and rural identity.
 - (b) Creation of cohesive neighborhoods in order to establish local identity and community interaction.
 - (c) Physical integration of neighborhoods, open spaces, and places of destination in order to establish municipal identity and community interaction.
 - (d) To implement the Comprehensive Plan objectives and policies with regard to rural area residential development, natural resource, preservation, and public service delivery.
- (2) The diagram included in this section are provided to demonstrate graphically the purpose of the SFR District, its performance standards, and strategies by which the intended development pattern described by this ordinance may be achieved.
- (3) Creative application of this Ordinance is encouraged. However, its purpose and intent must be preserved. The City of Marine on St. Croix is prepared to encourage and support new development planned in compliance with the performance standards described by this ordinance.

504.2 Permitted Uses. The following are permitted uses in the SFR District:

- (1) Single family detached residences.
- (2) Essential services – telephone, power distribution equipment, etc.
- (3) Residential care facilities serving six (6) persons or less.
- (4) Day care facilities serving twelve (12) persons or less.
- (5) Agriculture. Prior to subdivision, land may be used for agricultural purposes and be considered a permitted use in the SFR District. Any change to such a use creating a lot ten (10) acres or less shall require subdivision approval and any required conditional use permits be processed according to this Ordinance.
- (6) Permitted home occupations as defined in Section 407.2.

504.3 Accessory Uses. The following are permitted accessory uses in the SFR District. All accessory buildings are subject to the provisions of Section 402.3 of this ordinance.

- (1) Garages and accessory buildings.
- (2) Fences.
- (3) Gardening and other horticultural uses, including greenhouses
- (4) Recreation equipment, provided they are accessory to an existing principal permitted use on the same lot and which are operated for the enjoyment and convenience of the residents and their occasional guests.
- (5) Tool houses, sheds and similar buildings for storage of domestic supplies and noncommercial recreational equipment.
- (6) Private garages and off-street parking spaces and carports.
- (7) Any uses customarily associated with and incidental to the permitted uses.
- (8) "Horse Boarding of five (5) or fewer horses owned by the resident and if complaint with all other provisions of this code. This shall also apply to cattle, mules, donkeys, llamas"
- (9) "Exception for yearlings: In addition to the animals permitted under Paragraph 8, two (2) additional animals are less than one year in age and all other area and performance standards of this ordinance are met."
- (10) "Pasturing and grazing of horses for which there is no Conditional Use Permit required is permitted to occur up to the property boundaries."

504.4 Interim Uses. The following are interim uses in the SFR District and are subject to the provisions of Section 309 (Interim Use Permits) of this Ordinance:

- (1) Home occupations provided they are in compliance with Section 407.3 of this Ordinance.
- (2) Temporary classrooms.

504.5 Conditional Uses. The following are conditional uses in the SFR District:

- (1) "Agriculture, farms, hobby farms, commercial horse boarding and/or horse boarding, if not permitted under paragraphs 504.3(8), (9), provided that:"
 - (a) Only one lot may be subdivided, from a larger parcel such that the resulting two lots are each greater than five (5) acres in area, and this practice shall not be repeated.

- (b) The subdivision is processed according to the City's Subdivision ordinance.
- (c) The subdivided lots do not interfere with the subdivision of lots on adjacent parcels.
- (d) The subdivided lots are capable of accommodating a private well and septic system.
- (e) A deed restriction is placed on the lots which prohibits additional subdivision unless it conforms to SFR Zoning District requirements.
- (f) A maximum number of farm animals per acre of farmland as specified below:

	<u>Animals</u>	<u>Number/Acre</u>
(1)	Horses	1/2
(2)	Cattle, mules, donkeys, llama	1/2
(3)	Goats, sheep, swine	2/1
(4)	Turkeys, ducks, geese, chicken, rabbits	5/1
(5)	Other animals as permitted by the City Council upon evaluation of size, required habitat, and ratio per acre of animals for the specific lot.	

Farmland acreage for the purpose of this computation shall not include or encroach on slopes in excess of eighteen (18) percent, wetlands, wetland transition areas, and floodplains.

- (g) All horse stables and structures or other facilities for housing animals shall be located a minimum distance of two hundred (200) feet from any property line, and all corral areas shall be located a minimum distance of one hundred (100) feet from any property line except where used in connection with Horse Boarding allowed under S.504.3 (8, 9, 10) in which case standard setbacks requirements shall apply to fences and accessory buildings.
- (h) An applicant for a horse boarding conditional use permit shall submit for Council consideration:
 - i. A plan for the storage and removal of manure and control of odors from the operation.
 - ii. Traffic and parking plan.
 - iii. Lighting plan.
 - iv. A schedule of planned operations.

- v. Hours of operation.
- vi. A summary of noise producing activities and a plan to dissipate the noise by screening or otherwise.
- vii. Fencing and building plans showing setbacks from adjoining properties, roads and buildings on and off the site
- viii. An erosion control and storm water runoff management plan.
- ix. Such other and further information as required by the City to evaluate the affect of the use or public health, safety and welfare.
- x. These requirements are in addition to those governing the issuance of a conditional use permit.

(2) Churches and schools, provided that:

- (a) Side yards shall have a forty (40) foot setback.
- (b) Adequate screening from abutting residential uses and landscaping is provided.
- (c) Off-street parking and access is provided on the site in accordance with Section 406.3 of this Ordinance, and that such parking is adequately screened and landscaped from surrounding and abutting residential uses.
- (d) Off-street loading and service entrances are provided and regulated where applicable.

(3) Seasonal produce stand accessory to a farm, provided that:

- (a) The produce was grown on the property.
- (b) Only temporary, unenclosed display facilities are used to exhibit produce items.
- (c) Adequate off-street parking is provided and no parking related to produce sales occurs in the public right-of-way.
- (d) Signs:
 - (1) Are located only on the private property of the farm owner/operator and are no more than one hundred (100) feet from the point of sale.
 - (2) Are located no closer than fifteen (15) feet from any lot line.

- (3) Are limited to no more than two (2) signs together totaling no more than sixteen (16) square feet.
 - (4) Are removed at times when the sales operation is closed for the season.
- (4) Federal, state, and local government buildings and structures, including police and fire stations.
- (5) Public parks and playgrounds provided that:
 - (a) The site is landscaped.
 - (b) The use is available to the public.
 - (c) The site has access to a City street.
- (6) Accessory apartments, provided that they are in compliance with Section 409 of this Ordinance.
- (7) Use of an accessory structure for residential purposes where there is a sewer hook-up provided that:
 - (a) The facility is used by the occupants of the principal structure as an extension of their residential use of that structure;
 - (b) The facility does not contain both bathroom and kitchen facilities;
 - (c) The facility is located in a permanent structure; and
 - (d) The facility is not sold or rented separately from the principal structure.

504.6 District Performance Standards.

- (1) Density. The maximum permitted density within the district shall be one (1) lot per five (5) acres. In order to calculate the maximum permissible number of lots within a tract, the total gross tract acreage is multiplied by 0.20 and the result, if a fraction, is rounded down to the nearest whole number see Figure 504-A, Page 5-8. All development within SFR Zoning Districts shall be subject to planning for cluster development, as defined in Section 202.

504.7 Open Space Performance Standards.

- (1) It is the intention of this Ordinance to promote common open space development which provides a unified landscape for the use and enjoyment of the neighborhood community. Evaluation and subdivision approval by the City Council shall be subject to demonstration by the applicant that the proposed development plan provides common open spaces in a site design appropriate to the location of building lots.

(2) Area Regulations.

- (a) A minimum of fifty (50) percent of land subdivided for development shall be dedicated to open space consisting of natural habitat, neighborhood recreation, and/or pedestrian corridor open space, as defined in Section 202 see Figure 504-B Page 5-9.
- (b) All designated open space shall be platted as outlot parcels held as open space in perpetuity.
- (c) Each open space outlot shall be classified as natural habitat, neighborhood recreation, or pedestrian corridor open space, and shall conform to the type of use, location criteria, and deed restrictions of that classification.

(3) Location Criteria. Open space outlets shall be located on the development site according to the following locational criteria:

- (a) Viewsheds. The open space outlots shall preserve the maximum quantity of viewshed open space for the anticipated homesite lots on the development tracts see Figure 504-C Page 5-10.
- (b) Natural Habitat. The development shall preserve the maximum quantity of natural habitat open spaces in a contiguous, connected configuration. Natural habitat open spaces may include, but are not limited to fields, wetlands, slopes, bluffs, dense woods, lakes, ponds, streams, shorelands, and other environmentally sensitive areas or desirable viewsheds.
- (c) Pedestrian Corridors. The development shall locate pedestrian corridor open spaces in strategic places such that larger open space outlots and designated places of destination both on the development tract and adjacent tracts are connected with one another. Pedestrian corridor open spaces may include, but are not limited to established regional trails, local pathways, paved walkways, and shorelines. Pedestrian corridor outlots shall be a minimum of twenty (20) feet in width.
- (d) Neighborhood Recreation. The development shall locate neighborhood recreation open spaces such that they are an integral part of the neighborhood of surrounding homesites, at an elevation appropriate to their intended recreational use, defined by coherent boundaries, and accessible to all neighborhood residents. Neighborhood recreation open spaces may include, but are not limited to greens, commons, playgrounds, ball fields, gardens, or other recreational areas.

Figure 504-A

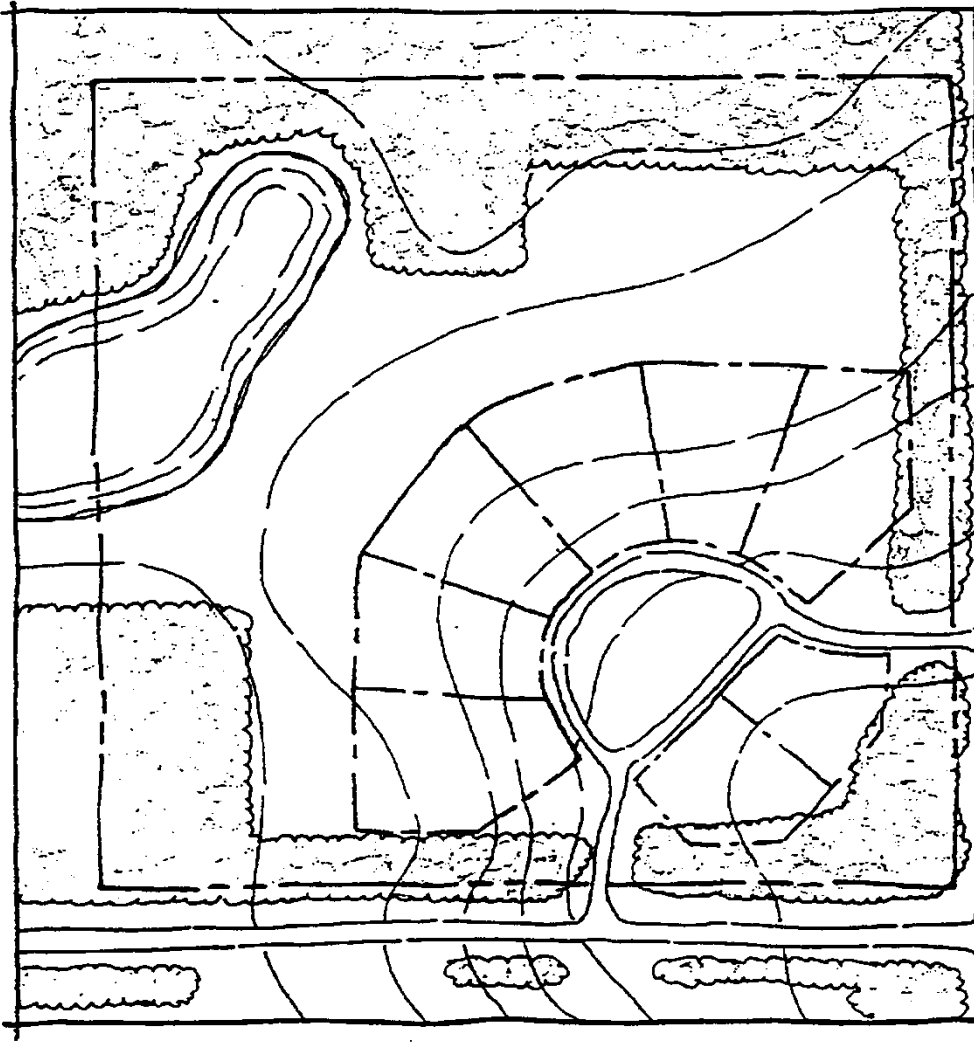


Figure 504-A The maximum permitted density for the district is one (1) unit per five (5) acres. For a forty (40) acre tract, a maximum of eight (8) lots are permissible. A Minimum of fifty (50) percent of the land being subdivided for development dedicated to open space.

Figure 504-B

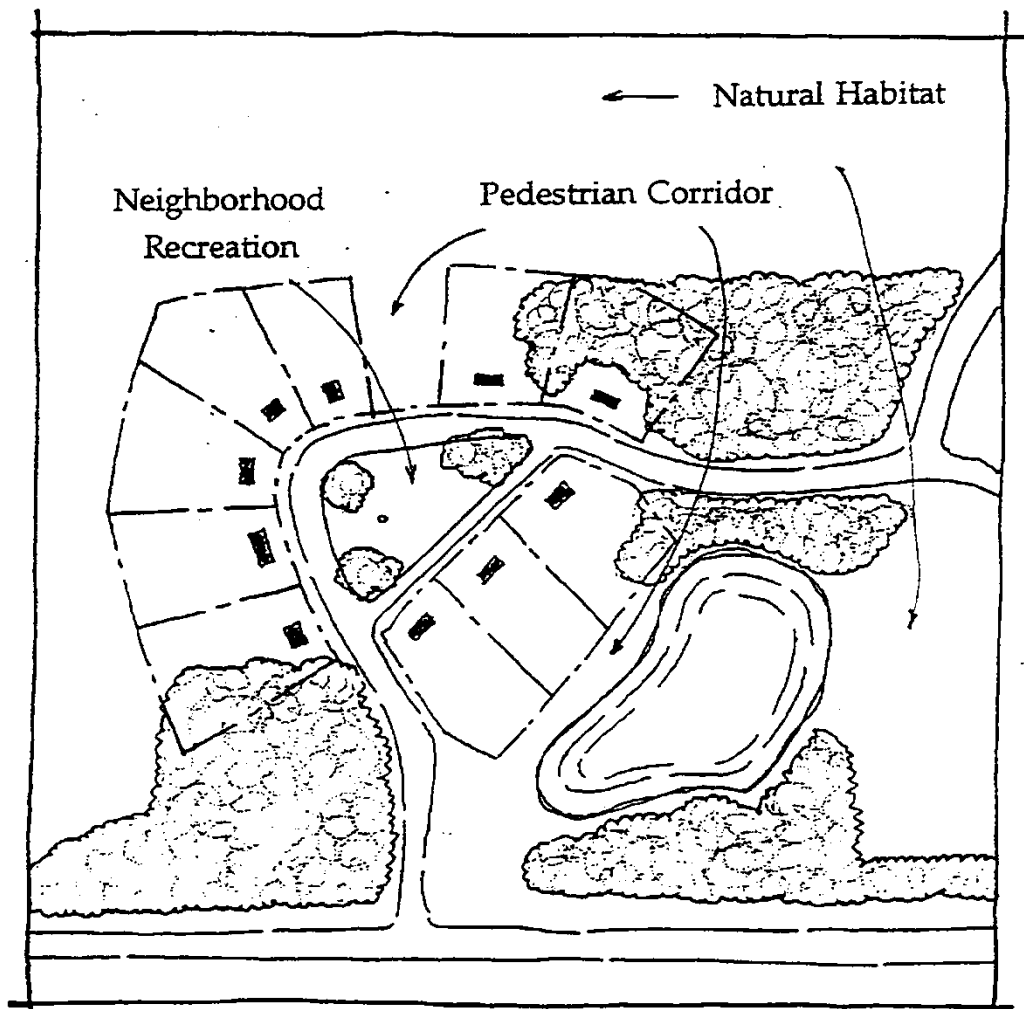


Figure 504-B Natural habitat, pedestrian corridor and neighborhood recreation open spaces are located on the development site according to their type of use.

Figure 504-C

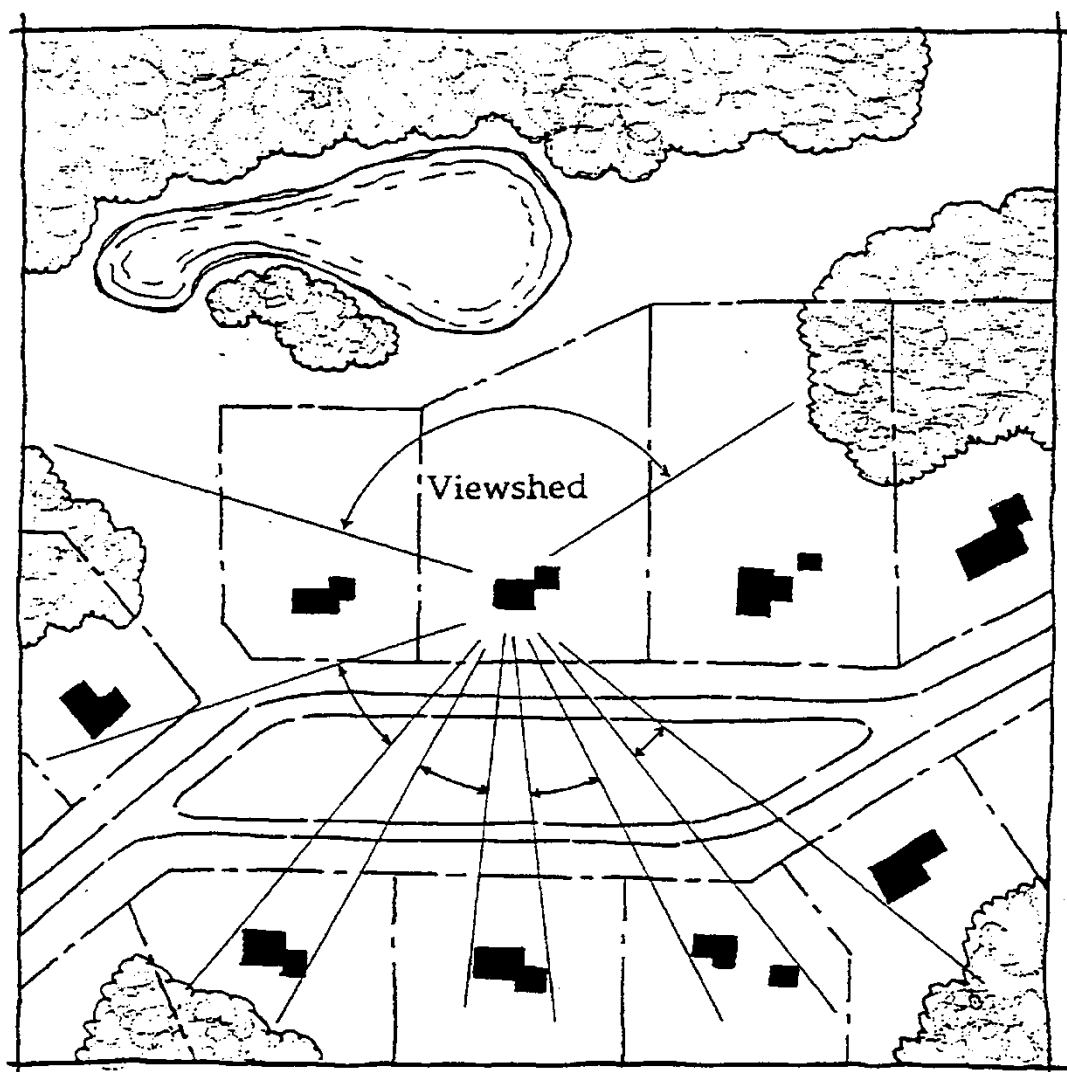


Figure 504-C Viewsheds are directional open space vistas from a homesite and between tree stands and other neighborhood buildings.

- (4) Accessibility. Open spaces shall be accessible to pedestrians at no less than one thousand two hundred (1,200) foot intervals along public roadways. Where necessary, pedestrian access corridor outlots between private lots shall be at least twenty (20) feet in width.
- (5) Deed Restrictions. Each open space outlot shall conform to the deed restrictions associated with its open space classification.
- (a) Natural habitat open spaces shall be considered conservation easements and are for the responsible use and enjoyment of adults and children. Construction in these areas shall be limited to trails (paved or unpaved), open air shelters, bridges, benches, bird houses, wood fencing, and communal drainfields.
 - (b) Neighborhood recreation open spaces shall be used for active or passive recreational purposes, including gardening. Construction in these areas shall be limited to gravel or paved walkways, open air shelters, bird houses, bridges, garden storage sheds no larger than one hundred twenty (120) square feet, wood fencing, landscape planting, play equipment, outdoor furniture, and facilities for active recreation.
 - (c) Pedestrian corridor open spaces shall be used for pedestrian, bicycle, and/or equestrian travel. Motorized vehicles shall be prohibited. Construction in these areas shall be limited to gravel or paved pathways, wood fencing, and landscape planting.
 - (d) Habitable structures shall not be permitted in any open space outlot.
- (6) Ownership and Management. Each designated open space outlot shall be owned and managed as set forth below, subject to City Council approval.
- (a) Open space may be owned in common by the property owners of the subdivision. In the case where at least one (1) outlot of open space is held in common ownership, a homeowner association shall be established for that subdivision and membership in the association by all property owners in the subdivision shall be mandatory. Management shall be the responsibility of that subdivision's homeowner association.
 - (b) Open space may be deeded to an established land trust. Management shall be the responsibility of the land trust. Maintenance may be performed by the neighborhood homeowner association, through written agreement between the association and the land trust.
 - (c) Open space may be deeded to the City of Marine on St. Croix. Management shall be the responsibility of the City.

- (d) Open Space may be protected by establishing conservation restrictions in perpetuity in favor of the City as provided in Minnesota Statutes 84.64-84.65. Unless the document establishing the restrictions specifically provides to the contrary, the City shall have no responsibility for the maintenance or management of the area subject to the restrictions. The form and content of the deed or other instrument establishing the restrictions must be approved by the City prior to the execution and delivery thereof. Notwithstanding any provision of this Ordinance to the contrary, the City may, in cases where conservation restrictions are utilized to meet open space dedication requirements of this ordinance, waive the requirement that the area subject to the restrictions be platted as a separate outlot.

504.8 Neighborhood Performance Standards.

- (1) It is the intention of this Ordinance to promote neighborhood development which offers a variety of lot sizes, configurations, topography, and affordability. Evaluation and subdivision approval by the City Council shall be subject to demonstration by the applicant that the proposed development plan provides a cohesive neighborhood(s) in a site design appropriate to the location of common open spaces.
- (2) Neighborhood Configuration.
 - (a) In order to establish a cohesive neighborhood unit, residential lots shall be located in a neighborhood cluster. A neighborhood cluster shall include a minimum of five (5) lots or twenty-five (25) percent of the allowable number of lots on the parcel to be subdivided, whichever is greater. An efficiency of land utilization and community development should be encouraged by maximizing the number of lots in any one cluster development, while adhering to the underlying density and open space requirements of this Ordinance. See Figure 504-D, Page 5-14.
 - (b) A neighborhood cluster shall be oriented toward an identifiable feature which all residential units share in common. See Figure 504-E, Page 5-15 through 5-18. Neighborhood identity may be established by one or more of the following features:
 - (1) Viewshed. The lots of a neighborhood may be arranged such that a majority of the principle structures will take visual advantage of a field, wetland, woods, lake, stream, or other open space which could be described as a viewshed.
 - (2) Physical Amenity. The lots of a neighborhood may be arranged such that a majority of the principle structures will face a green, playground, ball field, rock out cropping, stand of trees, church, school, or other physical feature unique to that particular neighborhood.

- (3) Streetscape. The lots may be arranged such that the principle structures will face a street space enhanced with landscaping, street trees, boulevards, medians, or other landscaping techniques appropriate to the City's street design standards.
 - (c) The principal and accessory structures on private lots, and the structures of neighborhood recreation open spaces are encouraged to convey a particular architectural style through use of similar building components, materials, roof pitches, landscaping, and/or other construction techniques.
- (3) Lot Area Regulations.
- (a) Lot Area. Platted lots shall be a minimum of one (1) acre and a maximum of five (5) acres in area with the exception of a conditional use permit for agricultural use, farms, hobby farms, or horse boarding.
 - (b) Lot Width. Platted lots shall be a minimum one hundred fifty (150) feet and a maximum two hundred fifty (250) feet in width measured at the required front yard setback, with the exception of a conditional use permit for agricultural use, farms, hobby farms, or horse boarding (see Figure 504-F, Page 5-19).

Figure 504-D(1) and 504-D(2)

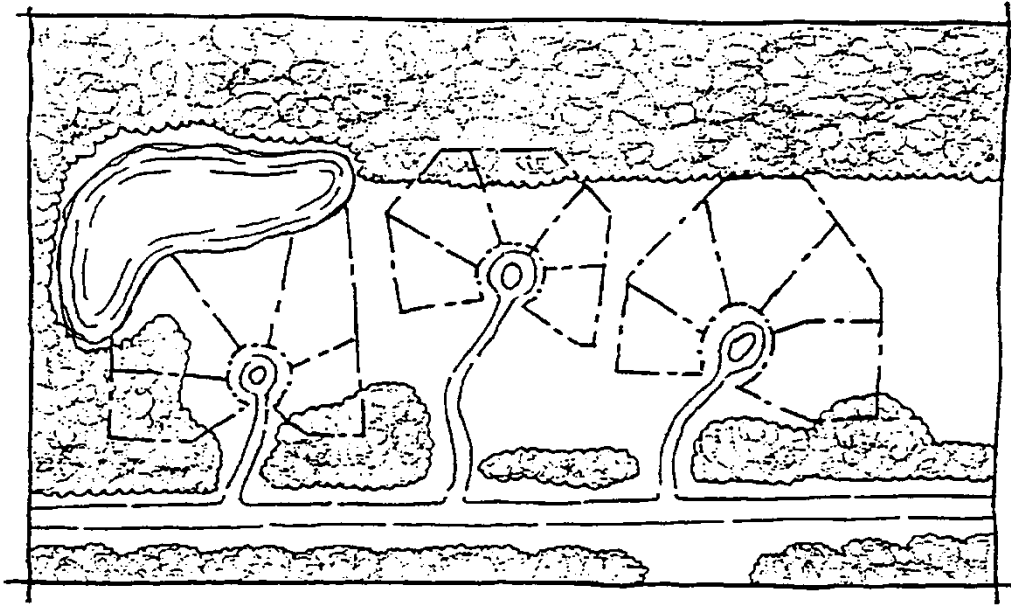


Figure 504-D(1) An example of a cul-de-sac development pattern discouraged by this Ordinance.

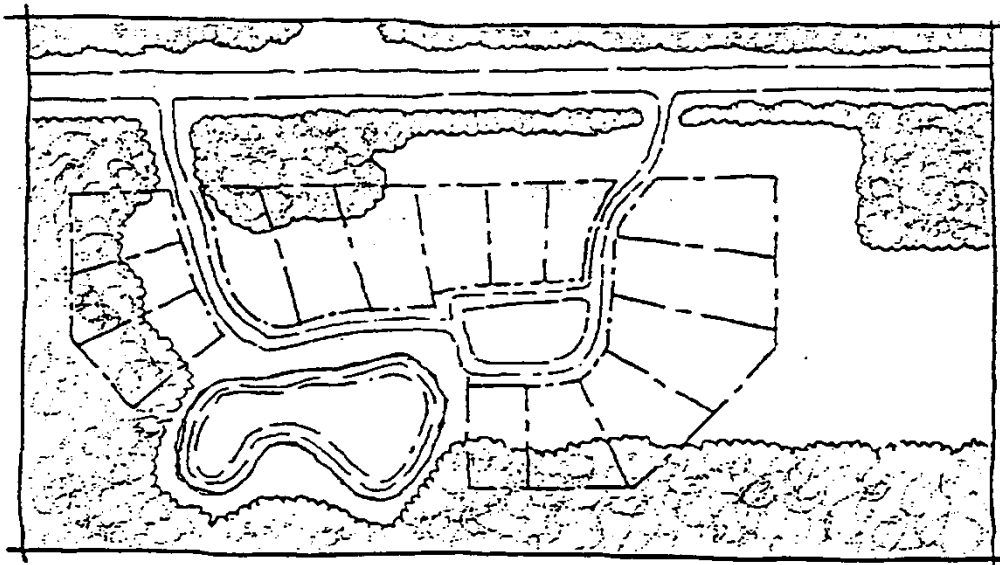


Figure 504-D(2) An example of a neighborhood cluster development pattern encouraged by this ordinance. The neighborhood cluster configuration permits an efficiency of land utilization and opportunities for community development.

Figure 504-E(1)

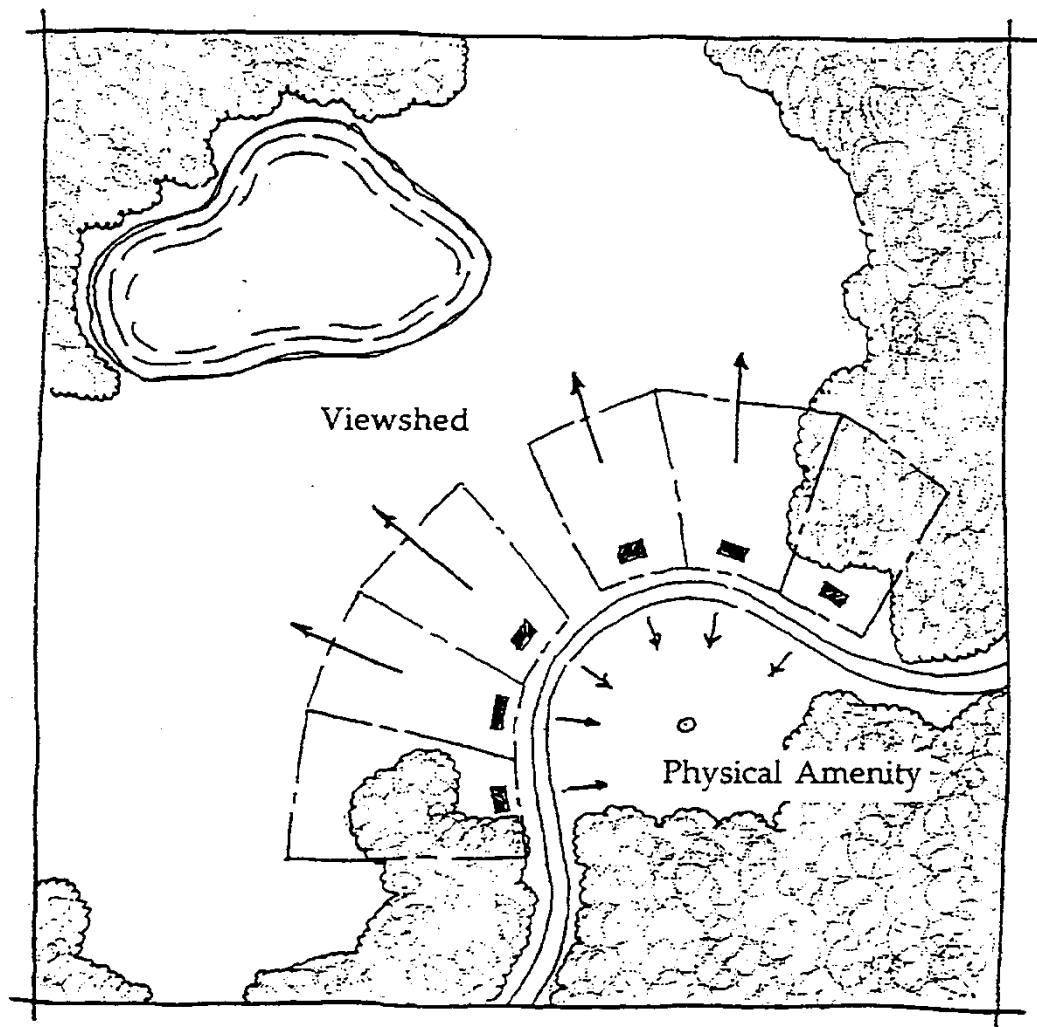


Figure 504-E(1) An example neighborhood cluster oriented toward a viewshed or a physical amenity.

Figure 504-E(2)

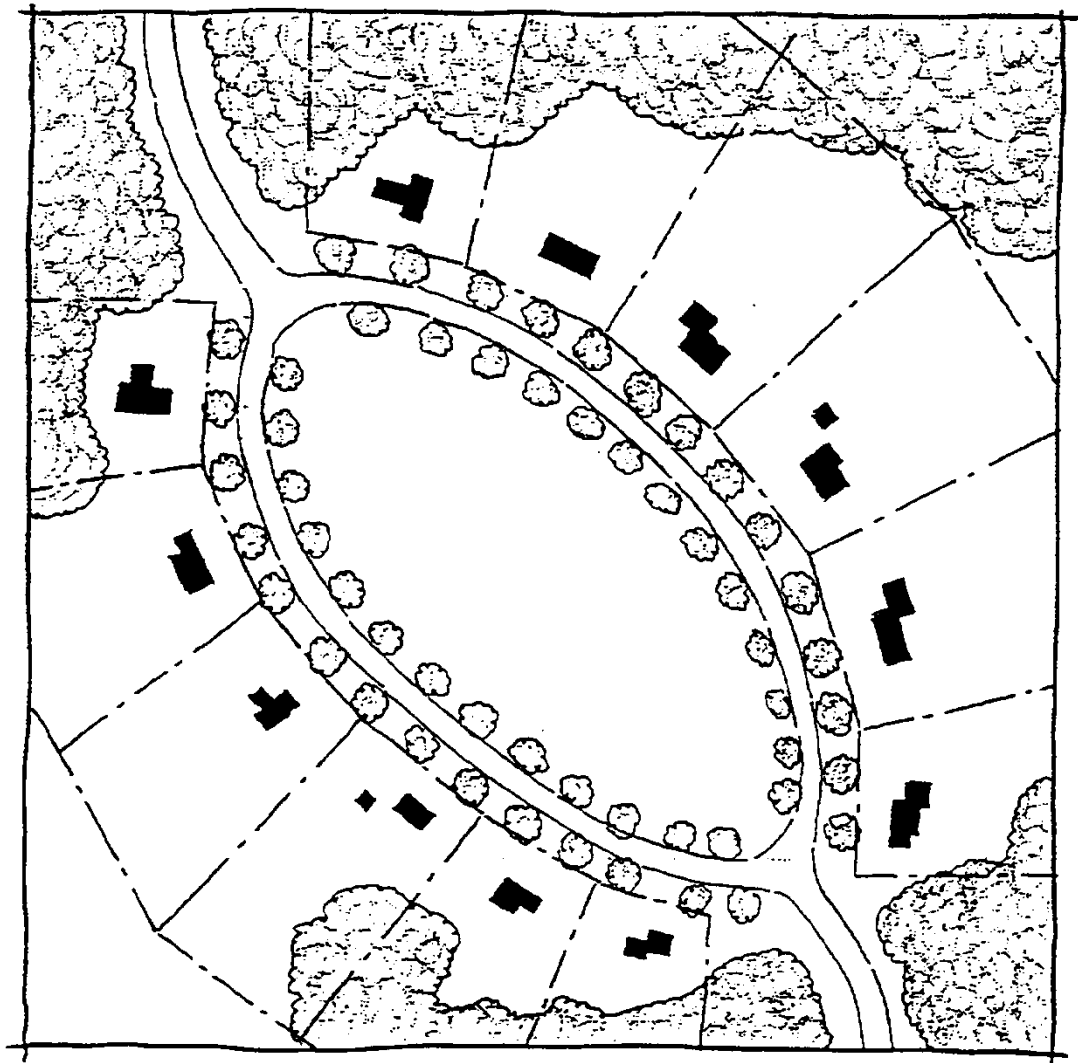


Figure 504-E(2) An example neighborhood cluster oriented toward common green and streetscape.

Figure 504-E(3)

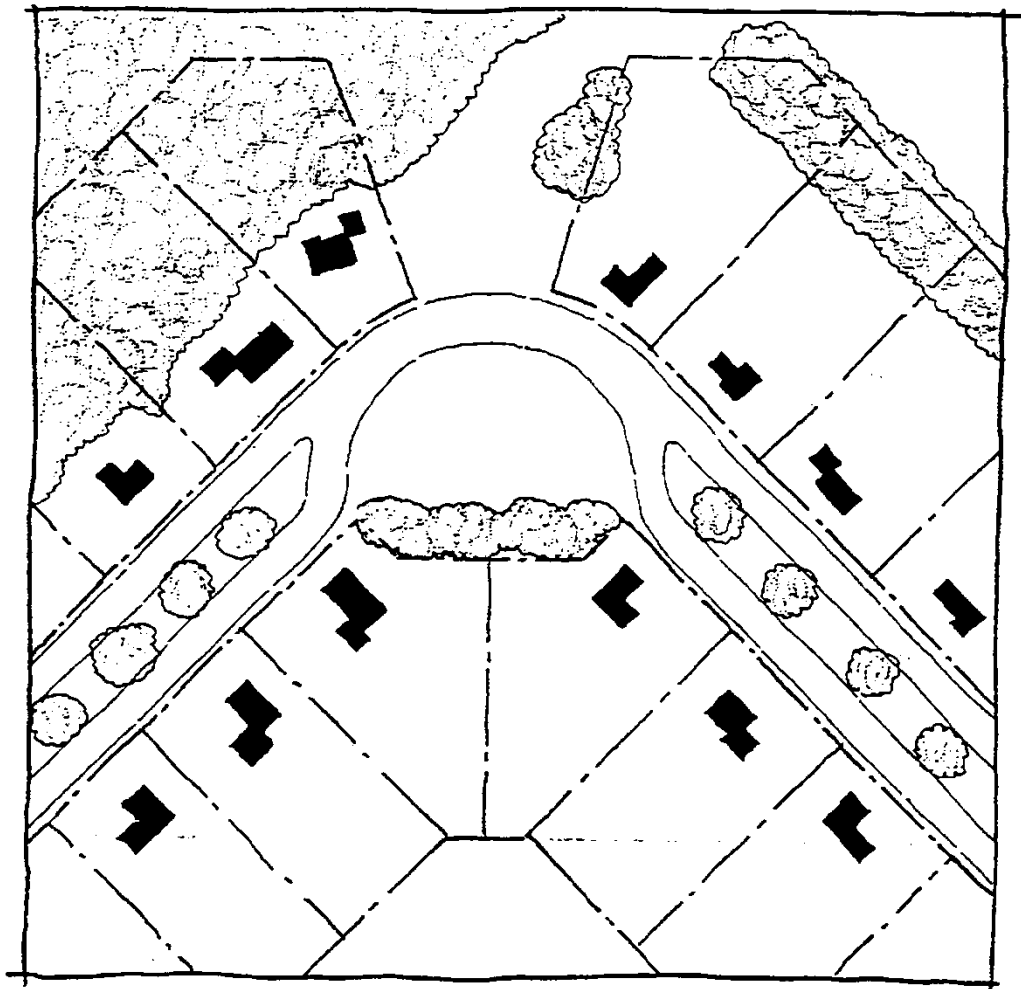


Figure 504-E(3) An example neighborhood cluster oriented toward a corner park or green streetscape.

Figure 504-E(4)

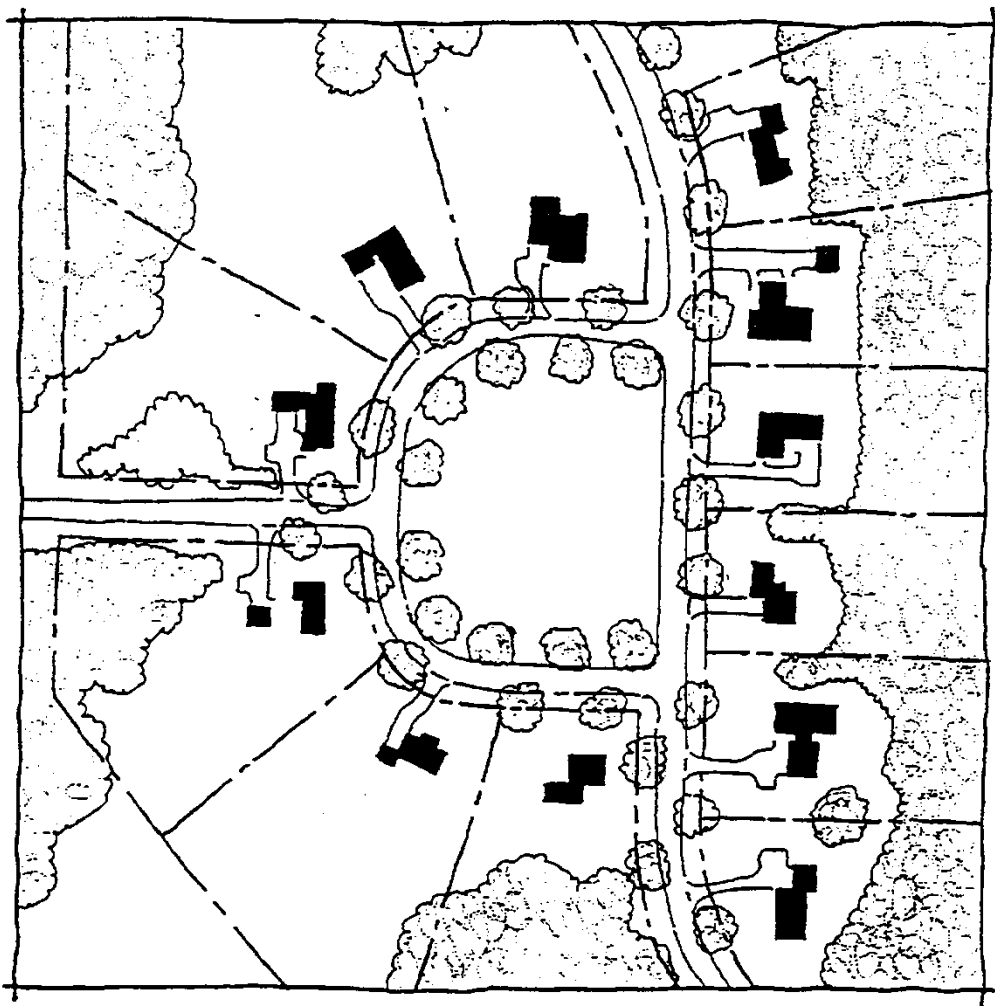


Figure 504-E(4) An example neighborhood cluster oriented toward a park or green at an intersection.

Figure 504-F

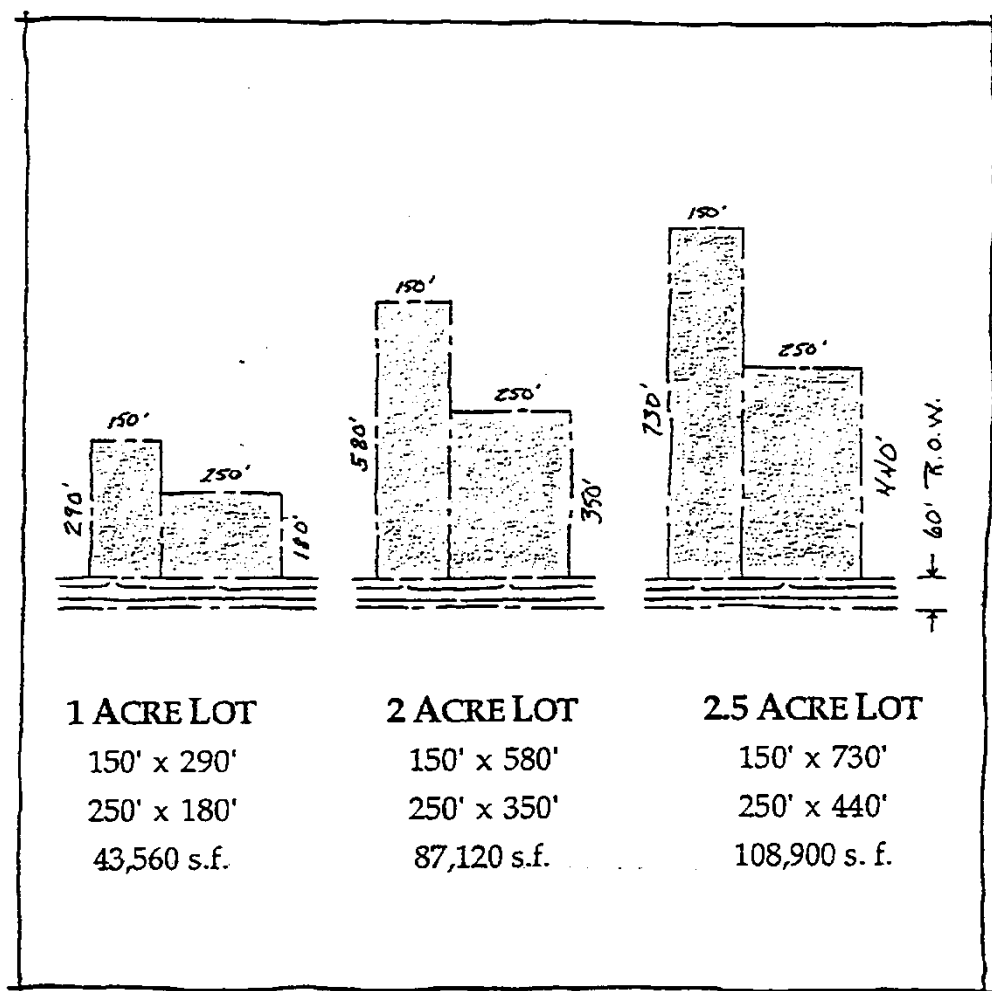


Figure 504-F Lot area to lot width comparisons for one (1) acre, two (2) acre, and two and one half (2.5) acre lots, using rectangular lot configurations.

(4) Building Envelope Regulations.

- (a) The principal structure shall dictate the area and location of the building envelope see Figure 504-G, Page 5-22. All detached accessory buildings shall be:
- (1) Located behind the rear-most building line of the principle structure.
 - (2) Within the side and rear setbacks identified in Section 504.8 (4)(d).
 - (3) Within an area one hundred fifty (150) feet from the rear-most building line of the principle structure.
 - (4) In conformance with the building area requirements of Section 402.3 of the Zoning Ordinance.
- (b) Buildings less than one hundred (100) square feet in floor area may be located outside the building envelope, within the rear yard and the required setback distances.
- (c) Development of neighborhood clusters is encouraged in locations which minimize the visual impact of the development on the landscape to the greatest extent reasonably possible.
- (d) Building envelopes shall not encroach on view sheds, ridge lines, slopes in excess of eighteen (18) percent, wetlands, wetland transition areas, and floodplains.
- (e) Setbacks. Building line setbacks shall be within the following setback distances from platted lot lines except existing lots of record are not subject to a maximum setback:
- (1) Front Yard:
Required Distance from
Road Right-of-Way

		<u>Road Class</u>
<u>Minimum</u>	<u>Maximum</u>	
50 feet	-----	State Highway
40 feet	-----	County Road
40 feet	80 feet	City Street
 - (2) Side Yard: Minimum twenty (20) feet.
 - (3) Rear Yard: Minimum fifty (50) feet.

- (4) Side yard building envelope setbacks on corner lots shall be a minimum of forty (40) feet.
- (e) Septic drainfields and water wells may be located outside the building envelope, but within the setback distances described in Section 504.8 (4)(d).

The diagram shows a property with a front boundary (solid line) and a rear boundary (dashed line). A building is shown with its front and rear walls. The front yard setback is indicated by a dashed line. The distance from the front boundary to the front yard setback is labeled "Maximum Front Yard Setback". The distance from the front boundary to the rear building line is labeled "Minimum Front Yard Setback". The distance from the front boundary to the rear building line is labeled "20'". The distance from the front boundary to the rear building line is labeled "40'". The distance from the front boundary to the rear building line is labeled "50'". The distance from the front boundary to the rear building line is labeled "150'". The distance from the front boundary to the rear building line is labeled "20'". The distance from the front boundary to the rear building line is labeled "20'". The distance from the front boundary to the rear building line is labeled "20'".

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(5) Building Height.

- (a) Principal structures shall have a maximum building height of thirty-five (35) feet.
- (b) No accessory building shall exceed the height of the principal building.
- (c) The building height limits established for the SFR District shall not apply to the following:
 - (1) Belfries.
 - (2) Chimneys or flues.
 - (3) Church spires.
 - (4) Farm buildings.
- (d) Antennas and satellite dishes accessory to the principal structure shall not be subject to the height limitations of the SFR District provided:
 - (1) Antenna structures attached to the principal structure shall not extend more than fifteen (15) feet above the roof line.
 - (2) Detached antenna structures shall be set back from property lines a distance of one (1) foot for every one (1) foot of height, and have a maximum thirty-five (35) foot height.
 - (3) Detached antenna structures shall be located within the building envelope defined in Section 504.8 (4).

(6) Driveways.

- (a) Driveways may be located outside the building envelope.
- (b) Paving shall be required in areas where the driveway grade is in excess of six (6) percent.

(7) Landscaping and Lawns.

- (a) On individual lots, existing vegetation considered indigenous and appropriate to the natural landscape shall be preserved to the extent reasonably possible.
- (b) Homesite lots shall be prepared according to the tree preservation measures described in Section 405.7 of the Zoning Ordinance.

- (c) The use of indigenous species shall be encouraged where landscaping enhancement is proposed.

504.9 General Development Standards.

(1) Roadways.

- (a) All new roadways shall be constructed and maintained in compliance with Section 705 of the Subdivision Ordinance for the City of Marine on St. Croix.
- (b) Local streets should be so planned as to discourage their use for regional traffic. Streets shall connect with one another or be terminated by other streets. Dead-end streets are prohibited, and cul-de-sacs shall be permitted only where topography or other physical conditions justify their use.

(2) Storm Water Management. Storm water management techniques shall be consistent with Sections 405.1 through 405.6 of the Zoning Ordinance with the following additions:

- (a) All retention basins shall resemble natural ponds to the maximum extent possible.
- (b) Basin landscaping shall include indigenous plants and landscaping materials.

(3) Utilities.

- (a) All new subdivisions may be platted to accommodate homesite lots with either individual or communal septic systems.
- (b) All septic systems shall conform to the performance standards of the Marine on St. Croix Sewer Use Ordinance No. 72.
- (c) A certified inspector designated by the City shall review all subdivision proposals for suitability of platted lots to accommodate individual and/or communal septic systems that include back-up drain fields.
- (d) Communal domestic sewage treatment systems may be used as an alternative to individual sewage treatment systems. See Figure 504-H.
- (e) Communal drainfields shall be installed at two (2) times capacities of all homes sharing the system and sufficient area for a back-up drain field shall be reserved.
- (f) Communal septic systems may have all or a portion of their required drainfields in natural habitat open spaces provided:

- (1) The ground cover is restored to its natural condition after installation.
 - (2) Recreational uses are prohibited above or within fifty (50) feet of their installation.
- (g) All homesite lots shall accommodate an on-site or an approved communal water well.
- (h) All utility, power, and cable service lines shall be installed below grade unless permitted otherwise by the City Council upon evaluation of demonstrated hardship.
- (4) Signs.
 - (a) Neighborhood or development identification signs shall not be permitted.
 - (b) Temporary real estate or development sales signs shall conform to the provisions of the City Zoning Ordinance pertaining to signs.
- (5) Homeowners Association. A homeowners association shall be established with bylaws and deed restrictions which include, but are not limited to, the following:
 - (a) To provide maintenance for open spaces owned in common.
 - (b) To provide maintenance for shared private facilities.
 - (c) To establish and maintain architectural guidelines for principle structures, accessory structures, and structures built on open space outlots.

Figure 504-H

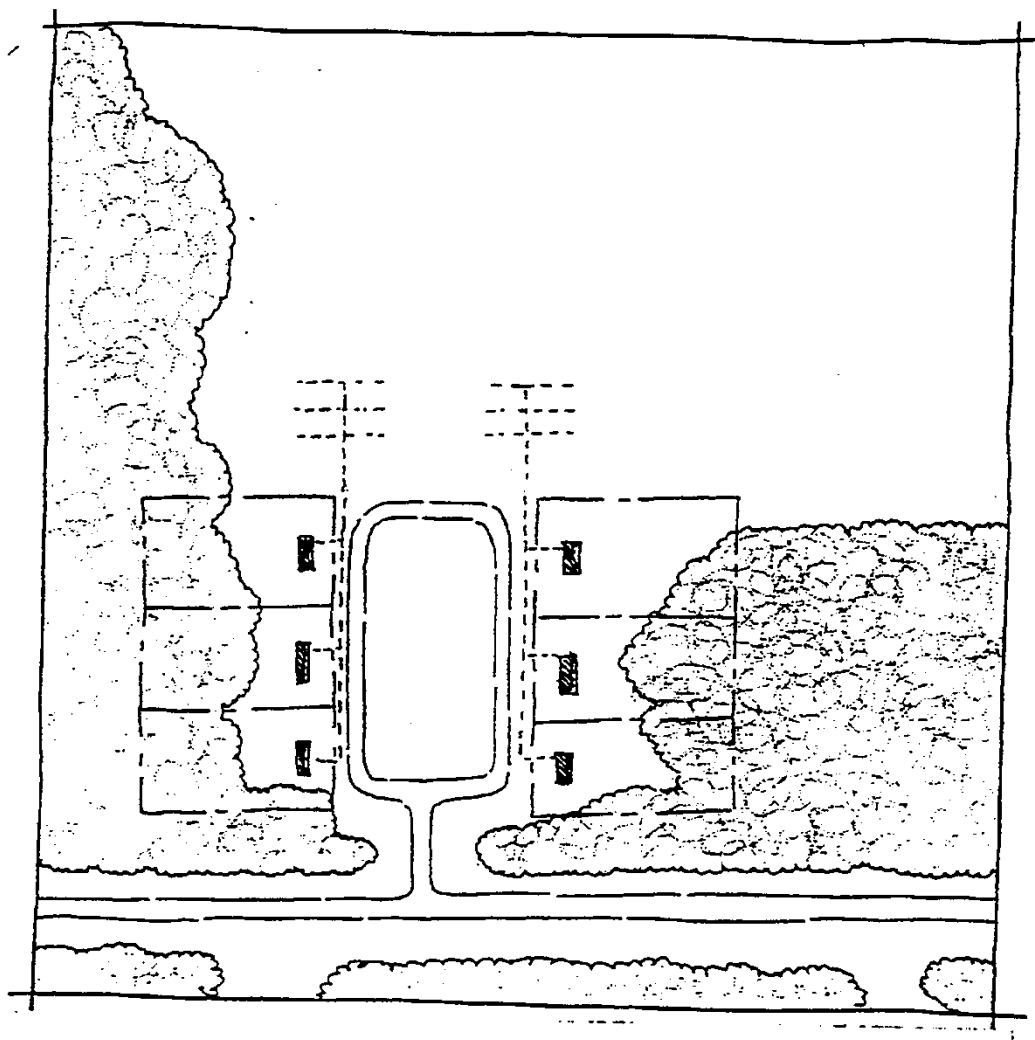


Figure 504-H Communal septic systems may have all or a portion of their required drainfields in natural habitat open spaces.

505. St. Croix – Rural Residential District (SC-RR).

505.1 Purpose. The purpose of this district is to set forth standards for rural residential development consistent with the purpose and intent of the Lower St. Croix River Overlay District described in Section 510 of this Ordinance.

505.2 Permitted Uses.

- (1) Conservancy.
- (2) Agriculture.
- (3) Single Family Residential.
- (4) Essential services – telephone, telegraph, and power distribution poles and lines and necessary appurtenant equipment and structures such as transformers, unit substations, and equipment houses.
- (5) Residential care facilities serving six (6) or fewer persons or less.
- (6) Day care facilities serving twelve (12) or fewer persons or less.
- (7) Home occupations described in Section 407.2 of this Ordinance.

505.3 Accessory Uses.

- (1) Garages and accessory buildings.
- (2) Fences.
- (3) Gardening and other horticultural uses, including greenhouses.
- (4) Recreational equipment, provided they are accessory to an existing principal permitted use on the same lot and which are operated for the enjoyment and convenience of the residents and their occasional guests.
- (5) Tool houses, sheds and similar buildings for storage of domestic supplies and noncommercial recreational equipment.
- (6) Private garages, off-street parking, and carports
- (7) Seasonal docks and boat lifts necessary for the launching and mooring of watercraft.
- (8) Any use customarily associated with and incidental to the permitted uses.
- (9) Horse Boarding of five (5) or fewer horses owned by the resident and if compliant with all other provisions of this code. This shall also apply to cattle, mules, donkeys, llamas.
- (10) Exception for yearlings: In addition to the animals permitted under Paragraph 9, two (2) additional animals owned by the resident shall be permitted provided that the animals are less than one year in age and all other area and performance standards of this ordinance are met.

505.4 **Interim Uses.** The following are interim uses in the SC-RR District and are subject to the provisions of Section 309 (Interim Uses) of this Ordinance.

- (1) Home occupations provided they are in compliance with Section 407.3 of this Ordinance.
- (2) Temporary classrooms.

505.5 **Conditional Uses.**

- (1) Churches and schools, provided that:
 - (a) Side yards shall have a forty (40) foot setback.
 - (b) Adequate screening from abutting residential uses and landscaping is provided.
 - (c) Adequate off-street parking and access is provided on the site and that such parking is adequately screened and landscaped from surrounding and abutting residential uses.
 - (d) Adequate off-street loading and service entrances are provided and regulated where applicable.
- (2) Seasonal produce stand accessory to farms, provided that:
 - (a) Only members of the family occupying the residence on the farmstead are engaged in such seasonal sale of produce.
 - (b) Only temporary, unenclosed display facilities are used to exhibit produce items.
 - (c) Adequate off-street parking is provided and no parking related to produce sales occurs in the public right-of-way.
 - (d) Signs:
 - 1. Are located only on the private property of the farm owner/operator and are no more than one hundred (100) feet from the point of sale.
 - 2. Are located no closer than fifteen (15) feet from any lot line.
 - 3. Are limited to no more than two (2) signs totaling no more than sixteen (16) square feet.
 - 4. Are removed at times when the sales operation is closed for the season.

- (3) Federal, state, and local government buildings and structures, including police and fire stations.
- (4) Public parks and playgrounds provided that:
 - (a) The site is landscaped.
 - (b) The use is available to the public.
 - (c) The site has access to a City street.
- (5) Accessory apartments provided they are in compliance with Section 409 of this Ordinance.
- (6) Use of an accessory structure for residential purposes where there is a sewer hook-up provided that:
 - (a) The facility is used by the occupants of the principal structure as an extension of their residential use of that structure;
 - (b) The facility does not contain both bathroom and kitchen facilities;
 - (c) The facility is located in a permanent structure; and
 - (d) The facility is not sold or rented separately from the principal structure.

505.6 Prohibited Uses. The following uses are not permitted in the SC-RR District.

- (1) New or expanded marinas.

505.7 District Performance Standards.

- (1) Lot Standards.
 - (a) Minimum lot size above ordinary high water mark: Two and one-half (2.5) acres.
 - (b) Lot width at building setback line: Two hundred (200) feet.
 - (c) Lot width at waterline: Two hundred (200) feet.
 - (d) The site shall be capable of supporting a standard septic treatment system as required in the Marine on St. Croix Sewer Use Ordinance No. 72.

- (2) Setbacks. Building line setbacks shall be within the following setback distances from platted lot lines:

- (a) Front Yard:

Road Right-of-Way

Road Classification	Required Setbacks from Road Right-of- Way
State Highway	50 feet
County Road	40 feet
City Street	40 feet

- (b) Side Yard: Minimum twenty (20) feet.
- (c) Side yard building setbacks on corner lots shall be a minimum of forty (40) feet.
- (d) Rear Yard: Minimum fifty (50) feet.
- (e) Setbacks from Ordinary High Water Level.(OHWL) measured horizontally, not following any slope:
1. Building and deck setback: Two hundred (200) feet.
 2. On-site sewage treatment system: Two hundred (200) feet.
 3. Controlled vegetative cutting pursuant to Section 510.6(1)(a) of this Ordinance setback (on slopes less than twelve (12) percent): Two hundred (200) feet.
- (f) Setbacks from Bluffline:
1. Building and deck setback: One hundred (100) feet.
 2. On-site sewage treatment system: Forty (40) feet.
 3. Controlled vegetative cutting pursuant to Section 510.6(1)(a) of this Ordinance setback (on slopes less than 12 %): Forty (40) feet.

- (3) Exceptions to the minimum dimensional requirements:

- (a) On shoreline lots where adjoining lots contain principal buildings within two hundred (200) feet of the OHWL, any new principal building may be set back the average setback of said adjacent structures or fifty (50) feet, whichever is greater.

- (b) On bluffline lots where adjoining lots contain principal buildings within one hundred (100) feet of the bluffline, any new principal building may be set back the average setback of said adjacent structures or fifty (50) feet, whichever is greater.
- (c) Except as described in Section 505.7(3)(a) or (b), structures setback from the bluffline may be located within the 40-100 foot range from the bluffline only by the granting of a variance in accordance with the procedures of this Ordinance. In the event that such a variance is necessary, the following items shall be conditions of the variance.
 - 1. The existing drainage patterns shall not be disturbed.
 - 2. All construction and grading excavations or disruption of the natural ground cover due to the on-site construction shall be re-sodded or seeded within 180 days of the date of issuance of the building permit.
- (4) Height Regulations. The maximum height of all structures shall not exceed thirty-five (35) feet.
- (5) Impervious Surface. Maximum total lot area covered by impervious surface: Twenty (20) percent of lot area or one-half (1/2) acre, whichever is less.
- (6) Slopes. No structures shall be placed or grading done on any slopes greater than twelve (12) percent a vertical rise of (twelve (12) feet in one hundred (100) feet horizontal distance).
- (7) Floodway. No structures shall be placed in any floodway.
- (8) Shoreland Visibility.
 - (a) Color of Structures. The exterior color of new structures, including roofs, shall be of earth or summer vegetation tones, unless completely screened from the river during all seasons of the year.
 - (b) The structure shall be visually inconspicuous as viewed from the river during summer months.
 - (c) Stairways and lifts enabling access to the river from steep slopes shall be visually inconspicuous as viewed from the river during summer months.
 - (d) Only signs which are necessary for public health and safety or which designate areas available or not available for public use shall be allowed within the required OHWL setback.

- (9) Tree Preservation. The location and siting of a principal accessory building shall be done in accordance with Section 405.7 of this Ordinance.

505.8 **Additional Requirements.** Refer to Section 510, Lower St. Croix River Overlay District for additional requirements.

506. **Single Family Urban (SFU).**

506.1 **Purpose.** The purpose of this district is to allow continued urban residential development and to fill in older, platted areas of the city, but at densities which will minimize demands for urban services.

506.2 **Permitted Uses.**

- (1) Single-family detached residences.
- (2) Churches.
- (3) Schools.
- (4) Essential services - telephone, telegraph, and power distribution poles and lines and necessary appurtenant equipment and structures such as transformers, unit substations, and equipment houses.
- (5) Home occupations as defined in Section 407.2.

506.3 **Accessory Uses.**

- (1) Garages.
- (2) Fences.
- (3) Gardening and other horticultural uses.
- (4) Recreational equipment.
- (5) Any uses customarily associated with and incidental to the permitted uses.

506.4 **Interim Uses.** The following are interim uses in the SFU District and are subject to the provisions of Section 309 (Interim Use Permits) of this Ordinance:

- (1) Home occupations provided they are in compliance with Section 407.3 of this Ordinance.
- (2) Temporary classrooms.
- (3) Maintenance, facility and storage buildings owned and operated by property associations on lots without a principle structure.

506.5 Conditional Uses.

- (1) Public Parks and Playgrounds provided that:
 - (a) The site is landscaped.
 - (b) The use is available to the public.
 - (c) The site has access to a City street.
- (2) Federal, State and Local Government buildings and structures, including police and fire stations.
- (3) Cemeteries.
- (4) Accessory apartments provided they are in compliance with Section 409 of this Ordinance.
- (5) Use of an accessory structure for residential purposes where there is a sewer hook-up provided that:
 - (a) The facility is used by the occupants of the principal structure as an extension of their residential use of that structure.
 - (b) The facility does not contain both bathroom and kitchen facilities.
 - (c) The facility is located in a permanent structure.
 - (d) The facility is not sold or rented separately from the principal structure.

506.6 District Performance Standards.

- (1) Lot Standards.
 - (a) Lot Area. The minimum lot size shall be thirty thousand (30,000) square feet unless it is determine that a larger lot size is required to safely install a private sewer system.
 - (b) Lot Width. The minimum lot width is one hundred (100) feet.
 - (c) Lot Depth. The minimum lot depth is one hundred fifty (150) feet.
- (2) Front Yard Regulations.
 - (a) There shall be a front yard having a depth of not less than thirty (30) feet, except in a block where two or more residences have been erected facing the same street, the setback for the remaining lots in that block fronting on the same street shall be determined by using the average setback of the existing residences.
 - (b) Where a lot is located at the intersection of two or more roads or highways, there shall be a front yard setback on each road or highway side of each corner lot.
- (3) Side Yard Regulations. There shall be a side yard of not less than ten (10) feet on each side of the building.

- (4) Rear Yard Regulations. There shall be a rear yard of not less than twenty-five (25) feet.
- (5) Height Regulations. The maximum height of all structures shall not exceed thirty-five (35) feet.
- (7) General Regulations. Additional requirements for parking, sewage systems, signs and other regulations are set forth in Section 4 of this Ordinance.

506.7. Neighborhood Service Overlay District.

- (1) **Purpose.** This district is created for the purpose of preserving congruent and compatible uses in the Single Family Urban District and for the following additional purposes:

- (a) to provide that land and buildings which have been historically integrated in and providing service directly to the residents of the adjoining neighborhood continue to be put to compatible uses, and
 - (b) to avoid disruption to longstanding development patterns and neighborhood uses.

- (2) **Application.** The provisions of this section are hereby adopted as an overlay district and shall apply to the following underlying Zoning Districts.

SFU Single Family Urban

- (3) **District Boundaries.**

- (a) The boundaries of the Neighborhood Service Overlay District are identified as depicted in the Amended Zoning Map which the City adopted January 11, 2018.

- (4) **Uses.** The permitted, accessory, interim and conditional uses set forth in § 506.2 – 506.5 shall not apply. Instead, the following listed uses shall be allowed:

- (a) **Permitted Uses.**

- i. Single family detached residential residences
 - ii. Schools
 - iii. Federal, state and local government buildings and structures, including police and fire stations, public works facilities
 - iv. Churches
 - v. Public Parks and playgrounds
 - vi. Home Occupations as defined in § 407.2.

- (b) **Accessory Uses.**

- i. Garages
 - ii. Fences
 - iii. Gardening and other horticultural uses

iv. Recreational equipment

The District Performance Standards at § 506.6 shall apply

507. **St. Croix – Urban Residential District (SC-UR).**

507.1 **Purpose.** The purpose of this district is to set forth standards for urban residential development within the Lower St. Croix River Overlay District.

507.2 **Permitted Uses.** All structures associated with the following uses are permitted in the SC-UR District subject to the dimensional requirements.

- (1) Conservancy.
- (2) Agriculture.
- (3) Single-family detached residences.
- (4) Essential Services – telephone, telegraph, and power distribution poles and lines and necessary appurtenant equipment and structures such as transformers, unit substations, and equipment houses.
- (5) Home occupations as described in Section 407.2.

507.3 **Accessory Uses.** The following are permitted accessory structures in the SC-UR District. All accessory buildings are subject to the provisions of Section 402.3 of this Ordinance.

- (1) Garages.
- (2) Fences.
- (3) Gardening and other horticultural uses.
- (4) Recreational Equipment.
- (5) Any uses customarily associated with and incidental to the permitted uses.
- (6) Docks and boat lifts necessary for landing and mooring watercraft.

507.4 **Interim Uses.** The following are interim uses in the SC-UR District and are subject to the provisions of Section 309 (Interim Uses) of this Ordinance.

- (1) Home occupations provided they are in compliance with Section 407.3 of this Ordinance.

507.5 **Conditional Uses.** The following are conditional uses in the SC-UR District.

- (1) Public Parks and Playgrounds provided that:
 - (a) The site is landscaped.
 - (b) The use is available to the public.
 - (c) The site has access to a City street.
- (2) Accessory apartments provided they are in compliance with Section 409 of this

Ordinance.

507.6 **Prohibited Uses.** The following uses are not permitted in the SC-UR District.

- (1) New or expanded marinas.

507.7 **District Performance Standards.**

- (1) Lot Standards.

- (a) Minimum lot size above ordinary high water mark: One (1) acre.
- (b) Lot width at building setback line: One hundred fifty (150) feet.
- (c) Lot width at waterline (riparian): One hundred fifty (150) feet.
- (d) Site shall be capable of supporting a standard septic system compliant with the Marine on St. Croix Sewer Use Ordinance No. 72.

- (2) Setbacks. Building line setbacks shall be within the following setback distances from platted lot lines:

- (a) Front Yard Regulations:

- 1. There shall be a front yard having a depth of not less than thirty (30) feet, except in a block where two or more residences have been erected facing the same street, the setback for the remaining lots in that block fronting on the same street shall be determined by using the average setback of the existing residences.
- 2. Where a lot is located at the intersection of two or more roads or highways, there shall be a front yard setback on each road or highway side of each corner lot. No accessory buildings shall project beyond the front yard of either road.

- (b) Side Yard Regulations:

- 1. Lots of record having a lot width of ninety-five (95) feet or less shall have a side yard of not less than ten (10) feet on each side of the building.
- 2. Any lots having a lot width of more than ninety-five (95) feet shall have a side yard of not less than twenty (20) feet on each side of the building.

- (c) Rear Yard Regulations: There shall be a rear yard of not less than twenty-five (25) feet.

(e) Setbacks from Ordinary High Water Level (OHWL) measured horizontally, not following any slope:

1. Building and deck setback: One hundred (100) feet.
2. On-site sewage treatment system: One hundred (100) feet.
3. Controlled vegetative cutting areas setback (on slopes less than 12%): One hundred (100) feet.

(f) Setbacks from Bluffline:

1. Building and deck setback: Forty (40) feet.
2. On-site sewage treatment system: Forty (40) feet.
3. Controlled vegetative cutting areas setback (on slopes less than 12%): Forty (40) feet.

- (3) Exception to the minimum dimensional requirements. On shoreline lots where adjoining lots contain principal buildings within one hundred (100) feet of the OHWL, any new principal building may be set back the average setback of said adjacent structure or fifty (50) feet, whichever is greater.
- (4) Height Regulations. The maximum height of all structures shall not exceed thirty-five (35) feet.
- (5) Impervious Surface. The maximum total lot area which can be covered by impervious surface shall not exceed twenty (20) percent of the total lot area or eight thousand seven hundred (8,700) square feet, whichever is less.
- (6) Slopes. No structures shall be placed or grading done on any slopes greater than twelve (12) percent (a vertical rise of twelve (12) feet) in one hundred (100) feet horizontal distance).
- (7) Floodway. No structures shall be placed in any floodway.
- (8) Shoreland Visibility.
 - (a) Color of Structures. The exterior color of new structures, including roofs, shall be earth or summer vegetation tones, unless completely screened from the river during all seasons of the year.
 - (b) The structure shall be visually inconspicuous as viewed from the

river during summer months.

- (c) Stairways and lifts enabling access to the river from steep slopes shall be visually inconspicuous.
- (d) Only signs which are necessary for public health and safety or which designate areas available or not available for public use shall be allowed within the required OHWL setback.

- (9) Tree Preservation. The location and siting of a principal accessory building shall be done in accordance with Section 405.7 of this Ordinance.

507.8 **Additional Requirements.** Refer to Section 510, Lower St. Croix River Overlay District for additional requirements.

508. **Village Center District (VC).**

508.1 **Purpose.**

- (1) The purpose of this district is to provide a commercial center for the City and to:
 - (a) Maintain commercial activities as the primary role of the Village Center District.
 - (b) Have the Village Center serve as the social, cultural and commercial center of the City.
 - (c) Promote the Village Center area as the historic center of the City.
 - (d) Allow non-street level residential uses as a supporting use to commercial activities, so long as such uses do not interfere with the commercial uses allowed in the zoning district.

508.2 **Permitted Uses.**

- (1) Church
- (2) Clubs or Lodges.
- (3) Essential Services.
- (4) Library.
- (5) Municipal Government and Utility Buildings.
- (6) Office Businesses (commercial, professional, and medical).
- (7) Restaurants (café, delicatessens, coffee shops, convenience foods).
- (8) Retail Businesses.
- (9) Schools.
- (10) Service Businesses.
- (11) Taverns.

508.3 **Accessory Uses.**

- (1) Uses which are customarily associated with or incidental to the permitted primary uses of the property are permitted.
- (2) Accessory Buildings for commercial use shall not exceed thirty (30) percent of the gross floor space of the principal building.
- (3) Outdoor dining areas accessory to a restaurant or tavern.

508.4 **Interim Uses.** The following are interim uses in the Village Center District and are subject to the provisions of Section 309 (Interim Uses) of this Ordinance.

508.5 **Conditional Uses.** The following are conditional uses in the Village Center District. (Requires the issuance of a conditional use permit in accordance with the procedures set forth in and regulated by Section 308 (Conditional Use Permits) of this Ordinance.

- (1) Auto Service Station (Auto Repair, Service, Fuel) subject to the following standards:
 - (a) Lot Size. A service station site shall be a minimum of twenty thousand (20,000) square feet in size.
 - (b) Setbacks. The building or buildings shall be set back at least thirty-five (35) feet from the street right-of-way. Near residential districts, the service station buildings, signs, and pumps shall be a minimum of twenty-five (25) feet from adjoining property. In commercial areas, the structures shall be set back at least ten (10) feet from adjoining property.
 - (c) Fencing and Screening. When adjacent or near to residential property, there shall be a screening fence. When adjacent to commercial property, there shall be a bumper-type fence about eighteen (18) inches high between the station and the adjacent commercial property.
 - (d) Vehicles. No vehicles shall be parked on the premises other than those utilized by employees or awaiting service. No vehicle shall be parked or be waiting service longer than fifteen (15) days.
 - (e) Exterior Storage. Exterior storage besides vehicles shall be limited to service equipment, and items offered for sale on pump islands, exterior storage of items offered for sale shall be within yard setback requirements and shall be located in containers such as the racks, metal trays, and similar structures designed to display merchandise.
 - (f) Screening. All areas utilities for the storage, disposal, or burning of trash,

debris, discarded parts, and similar items shall be fully screened. All structures and grounds shall be maintained in an orderly, clean, and safe manner.

- (g) **Architecture.** If possible, the station should be of a type that is reasonably compatible with the surroundings. Most national oil companies have a variety of building types which could be viewed for selection of the most suitable.
 - (h) **Outdoor Displays.** The storage of used tires, batteries, and other such items for sale outside the building should be controlled; such items should be displayed in specially designed containers and be limited to one (1) or two (2) areas well back from the street right-of-way line. Junk cars, empty cans, and other unsightly materials should not be permitted in an area subject to public view.
 - (i) **Conditional Uses.** Business activities not listed in the definition of service stations in this Ordinance are not permitted on the premises of a service station unless a conditional use permit is obtained specifically for such business. Such activities include, but are not limited to, the following:
 - 1. Automatic car and truck wash.
 - 2. Rental of vehicles, equipment or trailers.
 - 3. General retail sales.
- (2) Residential and non-residential uses together in one (1) building, the principal use of which is commercial, subject to the following conditions:
- (a) Residential uses shall not be located on the first floor (street level), or the basement level of the building.
 - (b) Residential uses shall have a separate entrance/exit from the commercial entrance/exit.
 - (c) Adequate parking is provided in compliance with Section 406.3 (Parking requirement) of this Ordinance.
 - (d) The provisions of Section 308 of this Ordinance are considered and satisfactorily met.
 - (e) All current building, fire and safety codes of the City of Marine on St. Croix are complied with.
 - (f) Notwithstanding the requirement contained in the foregoing paragraph (2) that residential and non-residential uses be located together in one (1) building, the principal use of which is commercial, a conditional use

permit may be issued under this Section 508.5 for a residential use located in a structure the principal use of which is not commercial subject to the following conditions:

1. the structure is less than 1,500 square feet in total size, consists of only one floor, is on street level, freestanding, and is not a part of, contained within or built into a larger structure or building;
2. the structure complies with all current rules and regulations governing septic systems;
3. adequate off street parking is available on the subject property;
4. the building does not front upon, or have vehicle ingress or egress over Judd Street;
5. the remaining requirements of sections (2)(d),(e) are met;
6. the structure was constructed before the effective date of this code.

- (3) Outdoor Sales or Storage. Open or outdoor sales, rental, or storage is an accessory use which requires the issuance of a conditional use permit and is subject to the following conditions:

- (a) Area Limit. Outside services, sales, rental, or storage connected with the principal use is limited to thirty (30) percent of the gross floor area of the principal building.
- (b) Screened from Residential. Outside sales areas shall be fenced or screened from view of neighboring residential uses or abutting residential zoning districts in compliance with Section 404.3 of this Ordinance.
- (c) Lighting Shielded. All lighting shall be hooded and so directed that the light source shall not be visible from the public right-of-way or from neighboring residences and shall be in compliance with Section 404.7 (1) of this Ordinance.
- (d) Surfacing. The sales area shall be grassed or surfaced to control dust and mud, and to provide a clean, attractive and usable surface.

508.6 Prohibited Uses. The following uses are not permitted in the Village Center District.

- (1) New or expanded marinas.
- (2) Outdoor sales lots as a principal use.

508.7 District Performance Standards.

- (1) Lot Standards.
 - (a) Minimum lot size above ordinary high water level: N/A
 - (b) Lot width at building setback line: Seventy-five (75) feet.

- (c) Lot width at waterline (riparian): Seventy-five (75) feet.
- (1) Setbacks. Building line setbacks shall be within the following setback distances from platted lot lines:
 - (a) Front Yard: Zero (0) feet.
 - (b) Side Yard: Zero (0) feet.
 - (d) Rear Yard: Zero (0) feet.
 - (e) Setbacks from Ordinary High Water Level (OHWL) measured horizontally not following any slope:
 - 1. Building and deck setback: One hundred (100) feet.
 - 2. On-site sewage treatment system: One hundred (100) feet.
 - 3. Controlled vegetative cutting areas setback (on slopes less than 12%): One hundred (100) feet.
 - (f) Setbacks from Bluffline:
 - 1. Building and deck setback: Forty (40) feet.
 - 2. On-site sewage treatment system: Forty (40) feet.
 - 3. Controlled vegetative cutting areas setback (on slopes less than 12%): Forty (40) feet.
- (3) Exceptions to the minimum dimensional requirements. On shoreline lots where adjoining lots contain principal buildings within one hundred (100) feet of the OHWL, any new principal building may be set back the average setback of said adjacent structures or fifty (50) feet, whichever is greater.
- (4) Height Regulations. The maximum height of all structures shall not exceed forty-five (45) feet.
- (5) Impervious Surface.
 - (a) Impervious surface coverage of lots developed after June 1, 2001 shall not exceed seventy-five (75) percent.
 - (b) Lots of record that have been developed up to one hundred (100) percent of impervious surface coverage on or before June 1, 2001 shall be

considered legally conforming structures/lots.

- (c) Impervious surface may be allowed to exceed seventy-five (75) percent of the lot upon approval of a conditional use permit provided the measures are taken for the treatment of stormwater runoff and/or prevention of stormwater from directly entering a public water. Measures may include, but are not limited to, the following:

1. Install sedimentation basins, debris basins, desilting basins, or silt traps.
2. Install debris guards and microsilt basins on storm sewer inlets.
3. Use oil skimming devices or sump catch basins.
4. Direct drainage into pervious, grasses, yards through site grading, use of gutters and downspouts.
5. Construct sidewalks and driveways of partially pervious raised materials such as decking which has natural earth or other pervious material beneath or between the planking.
6. Use grading and construction techniques which encourage rapid infiltration, e.g. sand and gravel under impervious materials with adjacent infiltration swales graded to lead into them.
7. Install berms, water bars, or terraces which temporarily detain water before dispersing it into pervious area.

- (6) Color of Structures. The exterior color of new structures, including roofs, shall be of earth or summer vegetation tones, unless completely screened from the river.

- (7) Slopes. No structures shall be placed or grading done on any slopes greater than twelve (12) percent (a vertical rise of twelve (12) feet in one hundred (100) feet horizontal distance).

- (8) Floodway. No structures shall be placed in any floodway.

508.8 **Additional Requirements.** Refer to Section 510 Lower St. Croix River Overlay District for additional requirements.

509. **Limited Industry (L-I).**

509.1 **Purpose.** This District is intended to provide for compact, limited industries and industrial uses that may suitably be located in areas of relatively close proximity to non--

industrial development. As such, industries that pose problems of air pollution, noise, vibration, etc. are restricted from this district. All limited industrial uses must be supported with on-site individual or communal sewer treatment systems and private wells.

509.2 Permitted Uses. The following permitted uses shall be allowed within the L-I Zoning District provided they will not produce exterior noise, glare, fumes, obnoxious products or by-products or wastes that violate the standards of this Ordinance.

- (1) Auto Repair Garages.
- (2) Building Material Sales.
- (3) Contractors Shops including building, plumbing, heating, electrical, painting, and landscaping, but not including storage yards.
- (4) Commercial/Professional Offices.
- (5) Essential.
- (6) Manufacturing, assembly, or repair of products.
- (7) Public Utility Buildings.
- (8) Public Vehicle Garages.
- (9) Transportation or freight terminals.
- (10) Warehouses.

509.3 Accessory Uses.

- (1) Any incidental repair, processing, or storage necessary to conduct a permitted principal use.
- (2) Accessory buildings.
- (3) Off-street parking.
- (4) Off-street loading.

509.4 Interim Uses. The following are interim uses in the L-I District and are subject to the provisions of Section 309 (Interim Uses) of this Ordinance:

- (1) None.

509.5 Conditional Uses.

- (1) Open and outdoor storage as an accessory use provided that:
 - (a) The storage area is landscaped and screened from view of neighboring uses and abutting residential zoning districts and public rights-of-way.
 - (b) The storage area is fenced to delineate the limits of the storage area. Outdoor storage shall not exceed the height of the provided fencing or screening.
 - (c) The storage area is surfaced to control dust.
 - (d) All lighting shall be in compliance with Section 404.7 of this Ordinance.

- (e) The storage area does not take up parking space or loading space as required for conformity to this Ordinance.
- (2) Railroad storage and switching yards and rail lines.

509.6 District Performance Standards.

- (1) Height, Regulations. No structure shall hereafter be erected or structurally altered to exceed forty-five (45) feet in height.
- (2) Front Yard Regulations.
 - (a) Required setbacks from public road right-of-way – one hundred (100) feet.
 - (b) Where a lot is located at the intersection of two (2) or more roads or highways there shall be a front yard setback on each road or highway side of each corner lot. No building shall project beyond the front yard setback line of either road.
- (3) Side Yard Regulations.
 - (a) There shall be a side yard having a width of not less than fifteen (15) feet on each side of a building.
 - (b) No building shall be located within fifty (50) feet of any side lot line abutting a lot in any residential or agricultural district.
- (4) Rear Yard Regulations.
 - (a) There shall be a minimum rear yard of thirty (30) feet.
 - (b) No building shall be located within fifty (50) feet of any rear lot line abutting a lot in any residential or agricultural district.
- (5) Screening and Fencing. The City may require the screening or fencing of industrial uses to prevent visual blight, especially on side yards which face residential or agricultural districts.
- (6) General Regulations. Other applicable regulations related to signs, parking and other regulations are set forth in Section 4 of this Ordinance.

510. Lower St. Croix River Overlay District.

510.1 **Purpose.** This district is created for the purpose of protecting the natural resources and natural scenic values of land within the boundaries of the Lower St. Croix Riverway and for the following additional purposes:

- (1) Designating suitable land use districts: along the bluffland and shoreland of the Lower St. Croix River.
- (2) Regulating lot sizes, and the length of bluffland and water frontage suitable for building sites.
- (3) Regulating the setback of structures and sanitary waste treatment facilities from bluffs to protect the existing and/or natural scenic values, vegetation, soils, water, and bedrock from disruption by man-made structures or facilities.
- (4) Regulating the setback of structures and sanitary waste treatment facilities from shorelines to protect the natural scenic value, floodplain, and water quality.
- (5) Regulating alterations of the natural vegetation and topography.
- (6) Conserving and protecting the natural scenic values and resources of the river valley and maintaining a high standard of environmental quality to comply with Minnesota Department of Natural Resources Standards and Criteria for the Lower St. Croix National Scenic Riverway (9NR 220-2202).
- (7) Preserving the historic character, values, and significance represented in the City of Marine on St. Croix.

510.2 **Application.** The provisions of this section are hereby adopted as an overlay district and shall apply to the following underlying Zoning Districts.

SC – RR	St. Croix – Rural Residential District
SC – UR	St. Croix – Urban Residential District
VC	Village Center District

510.3 **District Boundaries.**

- (1) The boundaries of the Lower St. Croix Riverway include all of the land riverward of the legally described boundary line in the official copy of the Lower St. Croix National Scenic Riverway Master Plan and as shown on the map designated as the City of Marine on St. Croix official zoning map.
- (2) The boundaries of the Lower St. Croix River Overlay District include all of the areas as shown on the City of Marine on St. Croix official zoning map on file with the City Zoning Administration Staff.

510.4 **General Provisions.**

- (1) Non-Conforming Uses. Uses which are prohibited by this Ordinance but which are in existence prior to the effective date of this Ordinance shall be non-conforming uses and may continue as lawful, non-conforming uses. Such uses shall not be intensified, enlarged, or expanded beyond the permitted or delineated boundaries of the use, activity, or reclamation plan as stipulated in the most current permit issued prior to the adoption of this Ordinance.
- (2) Substandard Structures. All structures in existence prior to the adoption date of this Ordinance which do not meet the structure setbacks and other dimensional standards of this Ordinance shall be considered substandard structures. All substandard structures that need replacing due to destruction, deterioration, or obsolescence, shall be allowed to be replaced, restored, or rebuilt as necessary to remain the same as they exist on the date of the enactment of this Ordinance; but any change beyond the established structural dimensions of each such substandard structure shall be in compliance with the setback requirements of this Ordinance or any variance that may be obtained or issued for such increase in size.

510.5 **Review Criteria.** When considering a proposal or zoning amendment within the St. Croix River Overlay District, the City Council shall address the following items in making its decision.

- (1) The preservation of the scenic and recreational resources of the St. Croix Riverway, especially in regard to the view from and use of the river.
- (2) The maintenance of safe and healthful conditions.
- (3) The prevention and control of water pollution.
- (4) The location of the site with respect to floodways, floodplains, slopes, and blufflines.
- (5) The erosion potential of the site based on degree and direction of slope, soil type, and vegetation cover.
- (6) The potential impact on game and fish habitat.
- (7) The location of the site with respect to existing or future access roads.
- (8) The amount of wastes to be generated and the adequacy of the proposed disposal systems.
- (9) The anticipated demand for police, fire, medical, and school services and facilities.
- (10) The compatibility of the proposed development with uses on adjacent land.

510.6 **District Requirements.** The following standards and criteria shall apply to development within the Lower St. Croix River Overlay District.

- (1) Site Preservation. The following standards and criteria are provided to preserve vegetative and topographical screening, and to retard runoff, soil erosion, and nutrient loss.
 - (a) Vegetative Cutting. On land within 200 feet of the ordinary high water level in rural districts, 100 feet of the ordinary high water level in urban districts, and 40 feet landward of blufflines and on slopes greater than 12 percent in all districts, there shall be no vegetative cutting of live trees or shrubs without a vegetative cutting permit from the City's zoning administration staff. A permit may be issued only if:
 1. The cutting, including topping:
 - a. Involves trees less than 6 inches in diameter at breast height; and
 - b. Involves vegetation which is not screening any structure from view from the river; and
 - c. Preserves the essential character, quality, and density of existing growths; and
 - d. Maintains continuous canopy cover or
 2. Diseased trees are to be removed and their removal is in the public interest; or
 3. The cutting is necessary for the maintenance of transportation or utility rights-of-way.
 - (b) Vegetative Cutting Permit. A vegetative cutting permit is not required for the following provided the existing quality, character, density, and canopy is maintained as viewed from the river.
 1. Clearing for a validly permitted structure, septic system, roadway, or parking area.
 2. Maintenance trimming or pruning on a particular parcel or in transportation or utility rights-of-way.
 - (c) Grading and Filling. Grading, filling, excavating or otherwise changing the topography landward of the ordinary high level mark shall not be conducted without a grading permit from the City's Zoning Administration Staff. A grading permit may be issued only if:

1. Slopes greater than 12 percent (12 feet vertical rise in 100 horizontal feet) are preserved to the greatest extent possible.
 2. Earth moving, erosion, vegetative cutting, drainage, filling of wetlands, and the destruction of natural amenities is minimized,
 3. The smallest amount of ground is exposed for as short a time as feasible.
 4. During construction, temporary ground cover such as mulch is used and permanent ground cover such as sod is planted upon completion.
 5. Methods to prevent erosion and trap sediment are employed and
 6. Fill is stabilized to accepted engineering standards.
- (d) A separate grading and filling permit is not required for grading, filling or excavating the minimum area necessary for a structure, sewage disposal system, private road or parking area undertaken pursuant to a validly issued building permit.
- (2) Sewage Disposal.
- (a) Any premises intended for human occupancy must be provided with an adequate method of sewage disposal. Public or municipal collection and treatment facilities must be used where available and where feasible. Where public or municipal facilities are not available, all on-site individual sewer disposal systems shall conform to the Marine on St. Croix Sewer Use Ordinance No. 72. A septic tank drainfield system shall be the only acceptable system for installation unless it can be demonstrated that this system is not feasible on the particular lot in question and it can be demonstrated that the system being proposed as an alternative will not cause a pollution problem.
 - (b) No person, firm, or corporation shall install, alter, repair, or extend any individual sewer disposal system without first obtaining a permit therefore from the City's Zoning Administration Staff for the specific installation, alteration, repair, or extension.
- (3) Alterations in Public Waters. Changing the course, current, or cross-section of public waters shall require state and federal permits as specified in sub-paragraph (g) of NR 2201 before any local permits may be issued.
- (4) Transmission Services. A permit from the Commissioner of Natural Resources is

required pursuant to Minnesota Statutes, Sections 84.415 or 105.42 before transmission services may cross state owned lands or public waters and transmission services shall be in accordance with the Natural Resources Regulations including NR 2201(h).

- (5) Public Roads. A permit from the Commissioner of Natural Resources is required before construction, reconstruction, removal or abandonment of any road or railroad crossing of public waters within the Riverway. Said permit shall be in accordance with the Natural Resources Regulations including NR 2201(1).
- (6) Planned Cluster Development. A pattern of subdivision development which places dwelling units into compact groupings may be allowed when the proposed clustering provides a better means of preserving agricultural land, open space, woods, scenic views, wetlands, and other features of the natural environment than traditional subdivision development.

510.7 **Application Procedures.**

- (1) Administrative Procedure. In addition to the applicable administrative procedures set forth in the Zoning Ordinance of the City, the following procedures shall be implemented with respect to land within the Lower St. Croix River Overlay District.
 - (a) A public hearing shall be held by the local authority for all zoning district amendments, conditional use permits, subdivisions, and variances.
 - (b) No less than 20 days prior to the public hearing, the Zoning Administration Staff shall send notice and copies of the applicant's information as specified to the following agencies for review and comment:
 - 1. Department of Natural Resources.
 - 2. City Planning Commission.
 - 3. Regional Planning Commission.
 - 4. Minnesota/Wisconsin-Boundary Area Commission.
 - (c) The applicant for any permit requiring a public hearing shall submit to the City Council at least 30 days prior to such hearing an abstractor's certificate showing the names and addresses of all property owners within 250 feet of the affected property in all areas or a list of names and addresses of all property owners within two hundred fifty (250) feet of the affected property that is acceptable to the City's Zoning Administration Staff.

- (d) Notice of the purpose, time, and place of any such public hearing shall be mailed to all property owners and the elected officials listed in (2) by the local authority at least ten (10) days prior to the date of the hearing.
- (e) Before any zoning district or ordinance amendment or variance becomes final, the City of Marine on St. Croix shall forward the decision to the Commissioner of Natural Resources. The Commissioner of Natural Resources shall certify in writing that the proposed action complies with the intent of the Wild and Scenic Rivers Act and the Master Plan for the Lower St. Croix River in the manner specified in Department of Natural Resources Regulations, including NR 2202 (e).
- (f) The City of Marine on St. Croix shall forward to the Commissioner of Natural Resources all decisions on all conditional use permits and subdivisions within ten (10) days of final action thereof.

(2) Preliminary Plans.

- (a) Preliminary plans for all plats, including planned cluster development, shall be approved by the Commissioner of Natural Resources or his agent in writing prior to preliminary approval by the City Council
- (b) All subdivisions shall comply with the Marine On St. Croix Subdivision Regulations.

(3) Variances.

- (a) Variances shall only be granted the strict enforcement of this Ordinance would cause an undue hardship because of circumstances unique to the particular property at issue. Undue hardship means the proposed use of the property and associated structures in question cannot be put to a reasonable use under the conditions allowed by this Ordinance; the plight of the landowner is due to circumstances unique to his property, not created by the landowner after August 9, 2001; and the variance, if granted, will not alter the essential character of the locality. Economic considerations alone shall not constitute a hardship, if reasonable use of the property and associated structures exists under this Ordinance. In addition, no variance shall be granted that would permit any use that is prohibited by this Ordinance in the zone or district where the subject property is located. Conditions may be imposed in the granting of a variance to insure compliance and to protect adjacent properties and the public interest, especially in regard to the view from the river.

510.8 **Application Submittal Requirements.** The applicant shall submit sufficient copies of the following information, if appropriate, and additional information as requested, to the local authority thirty (30) days prior to the public hearing on the application for an amendment, conditional use, variance, or subdivision.

- (1) Plat of survey showing the property, location, boundaries, dimensions, elevations, blufflines, utility and roadway corridors, the ordinary high water level, floodway, and floodplain.
- (2) The most recent aerial photo of the property lines drawn in.
- (3) Location of existing and proposed structures including height and setback dimensions.
- (4) Location of existing and proposed alterations of vegetation and topography.
- (5) Adjoining water-oriented uses.
- (6) Suitability of the area for on-site waste disposal. Type, size, and location of the system shall be indicated. If a public or municipal wastewater collection and treatment system is to be utilized, the applicant must submit a written agreement from the municipality or sanitary authority indicating that the system has the capacity to handle the development.
- (7) Water supply system.
- (8) An estimate of permanent and transient residents.

510.9 Permit Process and Review Authority. The following table indicates the reviewing authority and process for all permit applications within the Lower St. Croix River Overlay District.

Permit Type	SC-UR <i>(Urban District)</i>	SC-RR <i>(Rural District)</i>	SC-VC <i>(Village Center District)</i>
Building Permits	LP	LP	LA-FD
Septic Permits	LP	LP	LP
Grading Permits	LP	LP	LP
Tree Cutting Permits	LP	LP	LP
Conditional Use Permits	PH-FD	PH-FD	PH-FD
Amendments to Ordinance	PH-CC	PH-CC	PH-CC
Amendments to District Boundary	PH-CC	PH-CC	PH-CC
Plats and Cluster Developments	PH-WA-FD	PH-WA-FD	PH-WA-FD
Variances	PH-CC	PH-CC	PH-CC

LP Permit issued by the local authority in accordance with this Ordinance and all other local permit requirements.

CC Certification by the Commissioner of Natural Resources prior to final, local approval.

PH Public hearing necessary by the local authority giving 20 days notice of meeting to the Commissioner of Natural Resources and other agencies listed in Section 510.7(1)(b) of this Ordinance.

- FD Local authority forwards any decisions to the Commissioner of Natural Resources within 10 days after taking final action.
- WA The Commissioner of Natural Resources shall submit, after notice of public hearing and before the local authority gives preliminary approval, a written review and approval of the project.
- LA Application for permit review by the City Planning Commission and City Council.
- NA Not Applicable

511. Floodplain District.

- 511.1 Purpose.** The purpose of this ordinance is to maintain the community's eligibility in the National Flood Insurance Program and to minimize potential losses due to periodic flooding including loss of life, loss of property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare of the community.
- 511.2 Statutory Authorization.** The Legislature of the State of Minnesota has, in Minnesota Statutes Chapters 103F and Chapter 194 (for counties) and Chapter 462 (for municipalities) delegated the authority to local governmental units to adopt regulations designed to minimize flood losses. Minnesota Statutes, Chapter 103F further stipulates that communities subject to recurrent flooding must participate and maintain eligibility in the National Flood Insurance Program. Therefore, the City of Marine on St. Croix, Minnesota does ordain as follows:
- 511.3 Warning of Disclaimer of Liability.** This Ordinance does not imply that areas outside of the Floodplain District or land uses permitted within such districts will be free from flooding and flood damages. This Ordinance shall not create liability on the part of the City of Marine on St. Croix or any officer or employee thereof for any flood damages that result from reliance on this Ordinance or any administrative decisions lawfully made thereunder.
- 511.4. General Provisions.**
- (1) Adoption of Flood Insurance Rate Map. The Flood Insurance Rate Map for the City of Marine on St. Croix, dated September 27, 1985, developed by the Federal Emergency Management Agency is hereby adopted by reference as the official Floodplain Zoning District Map and made a part of this Ordinance. This map was previously entitled the Flood Hazard Boundary map dated March 15, 1975.
 - (2) Lands to Which Ordinance Applies. This Ordinance shall apply to all lands designated as floodplain within the jurisdiction of the City of Marine on St. Croix.
 - (3) Interpretation. The boundaries of the Floodplain District shall be determined by scaling distances on the Official Floodplain Zoning District map. Where

interpretation is needed as to the exact location of the boundaries of the Floodplain District, the City of Marine on St. Croix shall make the necessary interpretation based on elevations on the regional (100-year) flood profile, if available. If 100-year flood elevations are not available, the community shall:

- (a) Require a floodplain evaluation consistent with Section 5.117 of this Ordinance to determine a 100-year flood elevation for the site; or
- (b) Base its decision on available hydraulic/hydrologic or site elevation survey data which demonstrates the likelihood the site is within or outside of the floodplain.

511.5. Conflict with Pre-Existing Zoning Regulations and General Compliance.

(1) The Floodplain District as overlay Zoning District. The Floodplain Zoning District shall be considered an overlay zoning district to all existing land use regulations of the community. The uses permitted in Sections 511.6 and 511.7 of this Ordinance shall be permitted only if not prohibited by any established, underlying zoning district. The requirements of this Ordinance shall apply in addition to other legally established regulations of the community and where this Ordinance imposes greater restrictions, the provisions of this Ordinance shall apply.

(2) Compliance: No new structure or land shall hereafter be used and no structure shall be located, extended, converted, or structurally altered without full compliance with the terms of this Ordinance and other applicable regulations which apply to uses within the jurisdiction of this Ordinance. Within the Floodway and Flood Fringe, all uses not listed as permitted uses in Section 511.6 shall be prohibited. In addition, a caution is provided here that:

(a) New manufactured homes, replacement manufactured homes and certain travel trailers and travel vehicles are subject to the general provisions of this Ordinance and specifically Sections 511.6 and 511.15;

(b) Modifications, additions, structural alterations or repair after damage to existing nonconforming structures and nonconforming uses of structures or land are regulated by the general provisions of this Ordinance and specifically Section 511.12; and

(c) As-built elevations for elevated structures must be certified by ground surveys as stated in Section 511.10 of this Ordinance.

511.6. Permitted Uses, Standards, and Floodplain Evaluation Criteria.

(1) Permitted Uses in the Floodplain. The following uses of land are permitted uses in the Floodplain District:

(a) Any use of land which does not involve a structure, an addition to the outside dimensions of an existing structure or an obstruction to flood flows such as fill, excavation, or storage of materials or equipment.

(b) Any use of land involving the construction of new structures, the placement or replacement of manufactured homes, the addition to the outside dimensions of an existing structure, or obstructions such as fill or storage of materials or equipment, provided these activities are located in the flood fringe portion of the floodplain. These uses shall be subject to the development standards in Section 511.6(2) of this Ordinance and the flood plain evaluation criteria in Section 511.7 of this Ordinance for determining floodway and flood fringe boundaries.

(c) Travel trailers and travel vehicles are regulated by Section 511.15 of this Ordinance.

(2) Standards for Floodplain Permitted Uses.

(a) Fill shall be properly compacted and the slopes shall be properly protected by the use of riprap, vegetative cover or other acceptable method. The Federal Emergency Management Agency (FEMA) has established criteria for removing the special flood hazard area designation for certain structures properly elevated on fill above the 100-year flood elevation – FEMA’s requirements incorporate specific fill compaction and side slope protection standards for multi-structure or multi-lot developments. These standards should be investigated prior to the initiation of site preparation if a change of special flood hazard area designation will be requested.

(b) Storage of Materials and Equipment:

(1) The storage or processing of materials that are, in time of flooding, flammable, explosive, or potentially injurious to human, animal, or plant life is prohibited.

(2) Storage of other materials or equipment may be allowed if readily removable from the area within the time available after a flood warning or if placed on fill to the Regulatory Flood Protection Elevation.

(c) No use shall be permitted which will adversely affect the capacity of the channels or floodways of any tributary to the main stream, or of any drainage ditch, or any other drainage facility or system.

(d) All structures, including accessory structures, additions to existing structures and manufactured homes, shall be constructed on fill so that the basement floor, or first floor if there is no basement, is at or above the Regulatory Flood Protection Elevation. The finished fill elevation must be no lower than one foot below the Regulatory Flood Protection Elevation and shall extend at such elevation at least fifteen (15) feet beyond the limits of the structure constructed thereon.

(e) All Uses. Uses that do not have vehicular access to lands outside of the floodplain at or above an elevation not more than two feet below the Regulatory Flood Protection Elevation shall not be permitted unless granted a variance by the City Council. In granting a variance, the City Council shall specify limitations on the period of use or occupancy of the use and only after determining that adequate flood warning time and local emergency response and recovery procedures exist.

(f) Commercial and Manufacturing Uses. Accessory land uses, such as yards, railroad tracks, and parking lots may be at elevations lower than the Regulatory Flood Protection Elevation. However, a permit for such facilities to be used by the employees or the general public shall not be granted in the absence of a flood warning system that provides adequate time for evacuation if the area would be inundated to a depth greater than two (2) feet or be subject to flood velocities greater than four (4) feet per second upon occurrence of a regional flood.

(g) On-site Sewage Treatment and Water Supply Systems:
Where public utilities are not provided:

(a) On-site water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems; and

(b) New or replacement on-site sewage treatment systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and they shall not be subject to impairment or contamination during times of flooding. All on-site sewer disposal systems shall conform to the standards of the Marine on St. Croix Sewer Use Ordinance No. 72.

(h) All manufactured homes must be securely anchored to an adequately anchored foundation system that resists flotation, collapse and

lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state or local anchoring requirements for resisting wind forces.

511.7. Floodplain Evaluation.

(1) Upon receipt of an application for a permit, manufactured home park development or subdivision approval within the Floodplain District, the City of Marine on St. Croix shall require the applicant to furnish sufficient site development plans and a hydrologic/hydraulic analysis by a qualified engineer or hydrologist specifying the nature of the development and whether the proposed use is located in the floodway or flood fringe and the Regulatory Flood Protection Elevation for the site. Procedures consistent with Minnesota Rules 1983 Parts 6120.5600 (Technical Standards and Requirements For Floodplain Evaluation) and 6120.5700 (Minimum Floodplain Management Standards for Local Ordinances) shall be followed during the technical evaluation and review of the development proposal.

(2) The City of Marine on St. Croix shall submit one copy of all information required by Section 511.7(1) of this Ordinance to the respective Department of Natural Resources' Area Hydrologist for review and comment at least twenty (20) days prior to the granting of a permit or manufactured home park development/subdivision approval by the community. The City of Marine on St. Croix shall notify the respective Department of Natural Resources Area Hydrologist within ten (10) days after a permit or manufactured home park development/subdivision approval is granted.

511.8. Utilities, Railroads, Roads and Bridges in the Floodplain District. All utilities and transportation facilities, including railroad tracks, roads and bridges, shall be constructed in accordance with state floodplain management standards contained in Minnesota Rules 1983 Parts 6120.5000 - 6120.6200.

511.9. Subdivisions.

(1) No land shall be subdivided and no manufactured home park shall be developed or expanded where the site is determined to be unsuitable by the City of Marine on St. Croix for reason of flooding or inadequate drainage, water supply or sewage treatment facilities. The City of Marine on St. Croix shall review the subdivision/ development proposal to insure that each lot or parcel contains sufficient area outside of the floodway for fill placement for elevating structures, sewage systems and related activities.

(2) In the Floodplain District, applicants for subdivision approval or development of a manufactured home park or manufactured home park expansion shall provide the information required in Section 511.7(1) of this Ordinance. The City of Marine on St. Croix shall evaluate the proposed subdivision or mobile home park development or expansion in accordance with the standards

established in Sections 511.6(2), 511.7, and 511.8 of this Ordinance.

(3) For all subdivisions in the floodplain, the Floodway and Flood Fringe boundaries, the Regulatory Flood Protection Elevation and the required elevation of all access roads shall be clearly labeled on all required subdivision drawings and platting documents.

(4) Removal of Special Flood Hazard Area Designation. The Federal Emergency Management Agency (FEMA) has established criteria for removing the special flood hazard area designation for certain structures properly elevated on fill above the 100-year flood elevation. FEMA's requirements incorporate specific fill compaction and side slope protection standards for multi-structure or multi-lot developments. These standards should be investigated prior to the initiation of site preparation if a change of special flood hazard area designation will be requested.

511.10.Administration.

(1) Permit Required. A permit issued by the City of Marine on St. Croix or its designated official shall be secured prior to the construction, addition, or alteration of any building or structure; prior to the use or change of use of a building, structure, or land; prior to the change or extension of a nonconforming use; and prior to excavation or the placement of an obstruction within the floodplain.

(2) State and Federal Permits. Prior to granting a permit or processing an application for a variance the City of Marine on St. Croix shall determine that the applicant has obtained all necessary State and Federal permits.

(3) Certification of Lowest Floor Elevations. The applicant shall be required to submit certification by a registered professional engineer, registered architect, or registered land surveyor that the finished fill and building elevations were accomplished in compliance with the provisions of this Ordinance. The City of Marine on St. Croix shall maintain a record of the elevation of the lowest floor (including basement) for all new structures and alterations or additions to existing structures in the Floodplain District.

511.11.Variances.

(1) A variance is a modification of a specific permitted development standard required in an official control including this Ordinance to allow an alternative development standard not stated as acceptable in the official control, but only as

applied to a particular property for the purpose of alleviating an undue hardship as defined and elaborated upon in a community's respective planning and zoning enabling legislation.

(2) The City Council may authorize upon application in specific cases such relief or variance from the terms of this Ordinance as will not be contrary to the public interest and only for the purpose of alleviating an undue hardship because of circumstances unique to the property under consideration which are not created by the property owner, as provided for in the respective enabling legislation for planning and zoning for cities or counties as appropriate. In the granting of such variance, the City Council shall clearly identify in writing the specific conditions that existed consistent with the criteria specified herein and in the respective enabling legislation which justified the granting of the variance.

(3) Variances from the provisions of this Ordinance may be authorized where the City Council has determined the variance will not be contrary to the public interest and the spirit and intent of this Ordinance. No variance shall allow in any district a use prohibited in that district or permit a lower degree of flood protection than the Regulatory Flood Protection Elevation. Variances may be used to modify permissible methods of flood protection.

(4) The City Council shall mail a copy of the application for proposed variance to the Commissioner of Natural Resources at least fifteen (15) days in advance of the meeting. A copy of all decisions granting a variance shall be forwarded by mail to the Commissioner of Natural Resources within ten (10) days of such action.

(5) Appeals. Appeals from any decision of the City Council may be made, and as specified in this Ordinance and also Minnesota Statutes.

(6) Flood Insurance Notice and Record Keeping. The Zoning Administration Staff shall notify the applicant for a variance that:

(a) The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as twenty-five (25) dollars for one hundred (100) dollars of insurance coverage; and

(b) Such construction below the 100-year or regional flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions. A community shall maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its annual or biennial report submitted to the Administrator of the National Flood Insurance Program.

511.12. **Non-Conformities.** A structure or the use of a structure or premises which was lawful before the passage or amendment of this Ordinance but which is not in

conformity with the provisions of this Ordinance may be continued subject to the following conditions:

- (1) No such use shall be expanded, changed, enlarged, or altered in a way which increases its nonconformity.
- (2) An alteration within the inside dimensions of a nonconforming use or structure is permissible provided it will not result in increasing the flood damage potential of that use or structure.
- (3) The cost of all structural alterations or additions both inside and outside of a structure to any nonconforming structure over the life of the structure shall not exceed fifty (50) percent of the market value of the structure unless the conditions of this Ordinance are satisfied. The cost of all structural alterations and additions constructed since the adoption of the community's initial floodplain controls must be converted into today's current cost which will include all costs such as construction materials and a reasonable cost placed on all manpower or labor. If the current cost of all previous and proposed alterations and additions exceeds fifty (50) percent of the current market value of the structure, then the structure must meet the standards of Section 511.6 of this Ordinance for new structures.
- (4) If any nonconforming use of a structure or land or any nonconforming structure is destroyed by any means, including floods, to an extent of fifty (50) percent or more of its market value at the time of destruction, it shall not be reconstructed except in conformity with the provisions of this Ordinance. The City of Marine on St. Croix may issue a permit for reconstruction if the use is located outside the floodway and upon reconstruction, is adequately elevated on fill in conformity with the provisions of this Ordinance.

511.13. Penalties for Violation. A violation of the provisions of this Ordinance or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with grants of variance) shall constitute a misdemeanor.

- (1) In responding to a suspected ordinance violation, the Zoning Administration Staff and local government may utilize the full array of enforcement actions available to it including, but not limited to, prosecution and fines, injunctions, after the fact permits, orders for corrective measures or a request to the National Flood Insurance Program for denial of flood insurance availability to the guilty party. The community must act in good faith to enforce this Ordinance and to correct ordinance violations to the extent possible so as not to jeopardize its eligibility in the National Flood Insurance Program.
- (2) When an ordinance violation is either discovered by or brought to the attention of the Zoning Administration Staff, the Zoning Administration Staff shall investigate the situation and document the nature and extent of the violation of the Ordinance. As soon as is reasonably possible, this information will be submitted to the appropriate Department of Natural Resources' and Federal

Emergency Management Agency Regional Office along with the City's plan of action to correct the violation to the degree possible.

- (3) The Zoning Administration Staff shall notify the suspected party of the requirements of this Ordinance and all other Official Controls and the nature and extent of the suspected violation of these controls. If the structure and/or use is under construction or development, the Zoning Administration Staff may order the construction or development immediately halted until a proper permit or approval is granted by the City. If the construction or development is already completed, then the Zoning Administration Staff may either:
 - (a) Issue an order identifying the corrective actions that must be made within a specified time period to bring the use or structure into compliance with the official-controls, or
 - (b) Notify the responsible party to apply for an after-the-fact permit/development approval within a specified period of time not to exceed thirty (30) days.
- (4) If the responsible party does not appropriately respond to the Zoning Administration Staff within the specified period of time, each additional day that lapses shall constitute an additional violation of this Ordinance and shall be prosecuted accordingly. The Zoning Administration Staff shall also upon the lapse of the specified response period order the landowner to restore the land to the condition which existed prior to the violation of this Ordinance.

511.14.Amendments. All amendments to this Ordinance, including revisions to the official Floodplain Zoning District Map, shall be submitted to and approved by the Commissioner of Natural Resources prior to adoption. The floodplain designation on the official Floodplain Zoning District Map shall not be removed unless the area is filled to an elevation at or above the Regulatory Flood Protection Elevation and is contiguous to lands outside of the floodplain. Changes in the Official Zoning Map must meet the Federal Emergency Management Agency's (FEMA) Technical Conditions and Criteria and must receive prior FEMA approval before adoption. The Commissioner of Natural Resources must be given ten (10) days written notice of all hearings to consider an amendment to this Ordinance and said notice shall include a draft of the ordinance amendment or technical study under consideration.

511.15.Travel Trailers and Travel Vehicles. Travel trailers and travel vehicles that do not meet the exemption criteria specified in Section 511.15(1) below shall be subject to the provisions of this Ordinance and as specifically spelled out in Sections 511.15(3) and 511.15(4) below.

- (1) Exemption travel trailers and travel vehicles are exempt from the provisions of this Ordinance if they are placed in any of the areas listed in Section 511.15(2) below and if they meet the following criteria:

- (a) Have current licenses required for highway use.
 - (b) Are highway ready, meaning on wheels or on an internal jacking system, are attached to the site only by quick disconnect type utilities commonly used in campgrounds and trailer parks, and the travel trailer/travel vehicle has no permanent structural type additions attached to it.
 - (c) The travel trailer or travel vehicle and associated use must be permissible in any pre-existing, underlying zoning use district.
- (2) Areas Exempted For Placement of Travel/Recreational Vehicles:
 - (a) Individual lots or parcels of record.
 - (b) Existing commercial recreational vehicle parks or camp-grounds.
 - (c) Existing condominium type associations.
- (3) Travel trailers and travel vehicles exempted in Section 511.15(1) lose this exemption when development occurs on the parcel exceeding five hundred (500) dollars for a structural addition to the travel trailer/travel vehicle or an accessory structure such as a garage or storage building. The travel trailer/travel vehicle and all additions and accessory structures will then be treated as a new structure and shall be subject to the elevation requirements and the use of land restrictions specified in Section 511.6 of this Ordinance.
- (4) New commercial travel trailer or travel vehicle parks or campgrounds and new residential type subdivisions and condominium associations and the expansion of any existing similar use exceeding five (5) units or dwelling sites shall be subject to the following requirements:
 - (a) Any new or replacement travel trailer or travel vehicle will be allowed in the Floodway or Flood Fringe Districts provided said trailer or vehicle and its contents are placed on fill above the Regulatory Flood Protection Elevation determined in accordance with the provisions of Section 511.7 of this Ordinance and proper elevated road access to the site exists in accordance with Section 511.6 of this Ordinance. No fill placed in the floodway to meet the requirements of this Section shall increase flood stages of the 100-year or regional flood.
 - (b) All new or replacement travel trailers or travel vehicles not meeting the criteria of (a) above may, as an alternative, be allowed if in accordance with the following provisions. The applicant must submit an emergency plan for the safe evacuation of all vehicles and people during the 100 year flood. Said plan shall be prepared by a registered engineer or

other qualified individual and shall demonstrate that adequate time and personnel exist to carry out the evacuation. All attendant sewage and water facilities for new or replacement travel trailers or other recreational vehicles must be protected or constructed so as to not be impaired or contaminated during times of flooding in accordance with Section 511.6(2)(g) of this Ordinance.