

NORTH SHORE MANAGEMENT PLAN

A Shoreland Management Plan for Lake
Superior's North Shore



NORTH SHORE MANAGEMENT BOARD

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April 2026 Update



North Shore Management Board

Executive Summary

Mission & Objective:

The Mission of the North Shore Management Board (NSMB) is to direct the development of a North Shore Management Plan with strategies for environmental protection and orderly growth along the North Shore of Lake Superior. To do this, the NSMB pursue projects to continually increase understanding of Minnesota's Lake Superior shoreline, working with member agencies to implement strategies identified in the North Shore Management Plan.

The North Shore Management Plan is designed to provide guidance and land use policy recommendations for units of government within the North Shore Management Zone, as they endeavor to respond to land use inquiries and establish local policy regarding shoreland development. This zone stretches from Lakewood Township in St. Louis County, to the international border, on Minnesota Highway 61. The 2026 update included a complete review and update of all plan documentation, including appendix materials.

How to use this Plan:

County, Tribal, and local government units are encouraged to leverage the content of this plan when considering any policy or other land use determinations within the North Shore Management Zone. This plan includes policy statements and best management practices for shoreland administration, which were recommended to the NSMB by County Zoning Administrators, Area Hydrologists, other Environmental/Land Use professionals, and other technical advisors to the NSMB.

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North Shore Management Board

Chapter 1: Introduction

Draft

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CHAPTER 1: INTRODUCTION

1.1 NORTH SHORE MANAGEMENT PLAN PURPOSE

Since its inception in 1988, the North Shore Management Plan has gone through several updates and was updated in 2025.

There are three main purposes to the NSMP Update:

- 1) Create a template for future operations for the North Shore Management Board that is sustainable and provides benefit to local units of government.
- 2) Review and update as needed the shoreland management standards in the plan.
- 3) Provide land use goals, objectives, and action steps. These action steps can provide a future framework for NSMB activities.

1.2 NORTH SHORE MANAGEMENT BOARD HISTORY

1.2.1 Board Organization and Structure

The North Shore Management Board (NSMB) is composed of elected officials appointed by each respective county board, Tribal, city council and towns board that exercises zoning authority within the North Shore Management Zone (NSMZ). The NSMZ includes census blocks along the coast of Lake Superior, between the Lester River to Pidgeon River.

The NSMB recognizes the following classes of membership: Core Members, Legacy Members, Ex-Officio Members, and Affiliate Members. Each Member is afforded specific rights, representation, and responsibilities, as detailed herein.

Core Members

Core Members are cities, counties, or other local governments that have zoning authority and pay annual dues set by the Board. They have full voting rights, can hold office, and enjoy all the rights given under the Bylaws. Each Core Member appoints an elected official to serve on the Board and a staff member—such as a planner, engineer, or water resource specialist—to serve on the Advisory Committee. Core Members must keep their dues up to date and share hearing notices and decisions related to zoning, wastewater, shoreland management, and ordinance changes.

Members of this class include:

- Cook County
- Lake County
- St. Louis County
- Two Harbors
- Silver Bay
- Beaver Bay
- Grand Marais
- Duluth Township

Legacy Members

Legacy Members are local governments that once held zoning authority and joined under earlier membership rules. They've remained members in good standing since that time. Legacy Members have the same rights and responsibilities as Core Members, including voting privileges and representation by both an elected official and a technical staff member. They are also required to pay dues on time and share hearing notices and decisions related to zoning, wastewater, shoreland management, and ordinance changes.

Members of this class include:

- Silver Creek Township

Ex-Officio Members

Ex-Officio Members are Tribal Nations whose lands overlap or fall within the Board's geographic area and who wish to take part in its work. Because of their sovereign status and government-to-government relationship, Tribal Nations hold a permanent seat on the Board and have the same voting rights and privileges as Core Members. Each Nation designates its own representatives—an elected leader for the Board and technical staff, such as natural or cultural resource specialists, for the Advisory Committee. Ex-Officio Members are expected to stay current on dues and share hearing notices and decisions related to zoning, wastewater, shoreland management, and ordinance changes.

Members of this class include:

- Grand Portage Tribal Nation

Affiliate Members

Affiliate Members are local governments or boards that don't meet the eligibility requirements for Core or Legacy Membership but still want to support and participate in the Organization's work. They may attend meetings, serve on committees, and take part in activities but don't have voting rights or the ability to hold office. Representatives may be elected officials or technical staff, such as planners, engineers, or water resource specialists. Affiliate Members are also asked to share hearing notices and decisions related to zoning, wastewater, shoreland management, and ordinance changes.

Members of this class include:

- Local governments or boards that do not meet Core/Ex-Officio eligibility requirements.
- Soil & Water Conservation Districts (SWDC's)
- Minnesota DNR

All member entities joined the NSMB in 1987, except for Grand Portage Nation and Silver Creek Township. Silver Creek Township joined in 1999 when zoning ordinance and administration were established for the Castle Danger Subordinate Service District.

Lakewood Township, an original member, left in 2012 due to lack of funds and having minimal land within the shoreland overlay boundary. The members of the NSMB include one elected official from each entity represented on the Board. The NSMB operates under the provisions defined in Minnesota State Rules 6120.2800 and the Joint Powers Agreement. Part of the 2016 plan revision was the creation of operating procedures that supplements the Joint Powers Agreement.

The Grand Portage Nation was authorized by resolution as a member of the NSMB on January 9, 2019, after the Board demonstrated that Grand Portage Zoning Ordinances met or exceeded the minimum thresholds of the 2016 NSMP and that the Tribe's jurisdiction is within the management board zone.

A Citizens Advisory Committee (CAC) met continuously since the inception of the NSMB until 2017 and then the committee sunset. The committee had up to 16 members, representing a cross-section of interests and geographical areas. The NSMB has relied on the Citizens Advisory Committee to monitor key land use issues and offer suggestions to the NSMB for projects that may serve to help address these issues. The CAC has been inactive for a number of years but may be reconvened at the Board's discretion to discuss or comment on key land use issues. All NSMB Board meetings are open to the public and interested persons are welcome to attend.

A Technical Advisory Committee (TAC) was created to assist in the creation of the NSMP. The TAC consists of local, county, and state agency officials with expertise in several diverse areas. Members of the TAC consist of local land use and zoning officials from member units of government. In addition, state and federal agency personnel who have responsibilities related to land use on the North Shore are invited to participate.

1.2.2 The Origin of the North Shore Management Board

Minnesota's Statewide Shoreland Management Program was devised by the Legislature in 1969 as a cooperative effort of the Minnesota Department of Natural Resources (DNR) and local units of government. In 1981, the Legislative Commission on Minnesota Resources (LCMR) funded a program evaluation that identified Lake Superior as a distinctive management unit, not adequately addressed by the existing Statewide Shoreland Management Program. Recommendations from this evaluation called for the initiation and support of a local government effort to develop a shoreland management plan for the North Shore of Lake Superior.

During the fall of 1986, the DNR proposed new state shoreland management regulations. DNR staff at a public information meeting presented these draft regulations to concerned citizens and government officials on the North Shore. During that meeting, it became evident that there was a large amount of opposition to the proposed management regulations. The opposition mainly centered on the rules not being applicable to the North Shore, the difficulty and added administrative costs for enforcement of the rules, and the further erosion of local control.

From October 1986 to July 1987, a task force consisting of representatives from the North Shore, local units of government, DNR, and the Arrowhead Regional Development Commission (ARDC), discussed the possibility of jointly organizing the

governmental units along the North Shore for the purpose of developing and implementing a management plan for the shoreland corridor of Lake Superior. The creation of a Joint Powers Board was recommended. In July of 1987, the NSMB was established.

The purpose of the NSMB is to direct the development of a North Shore Management Plan with strategies for environmental protection and orderly growth along the North Shore of Lake Superior (North Shore Management Plan, 1988).

1.2.3 The Development of the North Shore Management Plan

In October 1987, the NSMB and the DNR signed a Memorandum of Understanding (MOU) pertaining to the coordination, cooperation, and responsibilities in developing a shoreland management plan for Lake Superior.

The DNR and the NSMB agreed that the focus for the 1988-89 planning program would be shoreland management. The goals of the Memorandum of Understanding were to define the responsibilities of the NSMB and the DNR in support of common objectives, interests and statutory requirements, to ensure timely identification and resolution of differences, and to enhance communication and coordination. (North Shore Management Plan, 1988)

The intent was for the shoreland management portion of the North Shore Management Plan to serve as a substitute for what would eventually become the Statewide Standards for Management of Shoreland Areas. These standards, adopted in July 1989, provide minimum standards for management of shoreland areas for all lakes in Minnesota except for the North Shore of Lake Superior.

Minnesota Rules Section 6120.2800, Subpart 1a clearly makes this distinction:

North Shore Management Plan. *The minimum standards and criteria for the subdivision, use, and development of the shoreland of Lake Superior, other than for the city of Duluth, are those specified in the North Shore Management plan, A Shoreland Management Plan for Lake Superior's North Shore, December 1988, adopted by the North Shore Management Board on November 29, 1988. The plan is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change.*

Local governments shall comply with part 6120.3900, subpart 6, in administration of their shoreland management controls.

Local governments shall adopt shoreland management controls conforming to the North Shore Management Plan within 18 months of the effective date of this part.

It was intended that during plan implementation, the NSMB would play an ongoing monitoring role to ensure that policies and standards in the North Shore Management Plan were implemented and consistently maintained by local government units. Thus, the NSMB, through the Memorandum of Understanding, took over the oversight

responsibilities that were exercised by the DNR under the Shoreland Management Program. In other words, the DNR is responsible for monitoring compliance with the Statewide Standards for Management of Shoreland Areas on all lakes in Minnesota except Lake Superior. The NSMB is responsible for monitoring compliance with the North Shore Management Plan.

1.2.4 The Implementation of the North Shore Management Plan

The North Shore Management Plan was first completed in December 1988. It was the responsibility of each local unit of government to review and amend their existing land use ordinances, so they agreed with the final North Shore Management Plan. Local units of government took different approaches to meet this responsibility.

Some communities created a zoning overlay where special shoreland provisions were added, others placed text from the NSMP in their ordinances in areas where it made the most sense. Others adopted the NSMP by reference. The NSMB found that all the local units of government adopted the NSMP in a sufficient manner.

1.3 North Shore Plan Update Planning Process

The North Shore Management Plan (NSMP) was updated in 2004, 2016, and 2025.

The NSMB 2016 update was done in partnership with ARDC who initiated a planning process to update the 2016 North Shore Management Plan. This 2025 plan update incorporates elements of the ongoing Coastal Erosion Hazard Mapping project and includes recommendations for land use, incorporating other relevant items into the plan.

It has been nine years since the last update and development continues along the north shore of Lake Superior. With increases in tourism after the COVID-19 pandemic, developmental pressures have influenced the region. It is the opinion of the NSMB that these developments need to be addressed in an improved method. An update to the plan seeks to improve the existing language by aligning terms and definitions in the plan to those of the participating zoning entities, to correspond to current ordinance language and style, and to incorporate newly available datasets and information regarding coastal erosion to serve as a reference and guiding document for the NSMB operations and minimum standards

The North Shore Management Board underwent a 6+ year process including research, design, and development of mapping protocols. Additionally, the process included one year of Digital Shoreline Analysis System (DSAS) mapping with this DSAS data added to the 1988 vintage data. Previous studies have outlined Erosion Hazard Areas that the stakeholders strongly believe need more restrictive zoning setbacks than other areas along the shore. This 2025 Plan update references the future needs for defining the Erosion Hazard Areas including the goals of erosion susceptibility mapping and of updating the original erosion hazard area data.

The North Shore Management Plan 2025 Update provides the NSMB with resources to help make positive informed recommendations for the community, economy, and ecosystem along Minnesota's North Shore.

1.3.1 2025 Plan Update Process

The initial stakeholder meetings for the 2025 plan update included members of the NSMB and the Technical Advisory Committee of the Board. These discussions formed a framework for this Plan revision.

The NSMB's Technical Advisory Committee met several times during the end of 2024 and throughout 2025 to discuss various components of the Plan. Topics reviewed and revised included the Shoreland Development Standards: Zoning, Shoreland Alteration, Wastewater and Sanitary Systems, and Erosion Hazard Areas. At each meeting, proposed revisions were advanced for inclusion in the Plan. Throughout the planning process, the NSMB received updates of these revisions during their regular meetings.

Citizen input was collected through public information and input sessions held in Grand Marais, Two Harbors, and Silver Bay. Local newspapers published articles about the Plan to encourage public attendance and feedback. Surveys were distributed during the sessions, with time provided for participants to draft their responses. Verbal feedback was also recorded. In addition, the surveys were made available on the NSMB website for three months following the public sessions. Additional details regarding the public input process and findings can be found in NSMP section 1.4.5.

1.3.2 2016 Plan Update Process

The 2016 plan update process started in May of 2015. Stakeholders representing various state agencies and local units of government were invited to a strategic planning session discussing future opportunities for the NSMB. The initial meeting looked at past successes and missed opportunities and discussed suggestions for change. This discussion formed an initial framework for the plan revision.

For the development of the Plan update, a steering committee was formed with representatives from the NSMB, the CAC and members of organizations and/or agencies that formed the original Technical Advisory Committee of the NSMB. The steering committee met throughout the planning process and discussed various elements of the plan at each meeting. Throughout the planning process representatives of the member units of government reviewed the recommendations as part of the NSMB meetings.

The update addressed definitions and related sections of the plan, current events that should be considered by the board moving forward and created a new accessible online format for the plan.

1.3.3 2025 Plan Update Emerging Topics

The One Watershed One Plan ([1W1P](#)), the [Great Lakes Compact](#), and Temporary Rental Properties were addressed in the 2016 Plan update. There are no changes from the 2016 plan North Shore Management Plan for these topics.

One Watershed One Plan

The Lake Superior North Watershed plan, also known as amend the One Watershed One Plan (1W1P) was created to maximize the ecosystem services delivered by this globally significant body of water that provide economic, social and environmental well-being particularly in Cook and Lake County. This comprehensive plan is used for the management and health of these County's water resources. This plan identifies problematic water and resource areas and maps out a sustainable course of action to improve and protect.

In 2024, local partners worked together to review and amend the 1W1P. The original plan was approved by the State of Minnesota in January 2017 and adopted by local governmental partners May 23, 2017. Through the 5-year review process, this partnership assessed existing data, resource goals, past accomplishments, and stakeholder input to develop local strategies to protect and restore this cherished watershed.

This 1W1P entails land from the northeastern tip of the state, the western boundary of Grand Portage Reservation, to the southwest, extending a small amount into the St. Louis County. That includes most of the north shore and its communities. This plan targets concerns of the environment in these communities, such as storm water drains, drinking water, climate change, pollution, invasive species, sewage treatment systems, etc. Addressing these challenges will improve numerous north shore cities.

Many of the areas that were seen as a priority are the north shore communities, such as the cities of Two Harbors and Grand Marais. These two cities were both categorized as tier 1 priority areas (the highest priority tier). These communities will undergo changes to the city's planning and zoning to implement the protection and restoration of the environment. If these concerns are not addressed now, there will be greater risk factors in the future for the generations to come. Overall, the communities and their citizens are large assets to helping the Lake Superior North Watershed plan be successful. Citizens are an immense portion of the protection, restoration, implementation, education and development of the comprehensive plan.

A majority of the streams and rivers in Lake and Cook counties flow into Lake Superior, and a majority of these are impaired waters, meaning that they do not meet the requirements for designated uses (swimmable, fishable, drinkable or consumable). Two of the most impaired waters are the Poplar River and the Knife River; these both flow through the land of north shore communities. The goal is to improve the quality of these streams or rivers by engaging local citizens, businesses and organizations to help restore and maintain quality water. This is especially important because much of the public drinking water supply for many of these communities is sourced from Lake Superior, and many of these impaired streams flow into Lake Superior. These waters

must be protected to ensure proper and safe drinking water for the north shore communities. The streams, forests, and lakes of northeastern Minnesota are some of the highest quality natural resources in the United States, with millions of people visiting annually to enjoy activities utilizing these natural wonders of the North Shore.

Both Cook and Lake Counties have comprehensive plans that serve as the legal basis for their official controls, but they will ensure that the LSNW management plan is implemented by revising and adopting these policies. Both counties have developed incentive programs for the protection, restoration and management of the LSNW plan. The plan is over a 10-year time frame, but it will be reviewed on a bi-annual basis, reprioritizing as needed. The NSMB can aid as needed during these review and implementation processes throughout the plan's lifespan.

Grand Portage Nation assesses water quality and 10-year strategic management plans annually, collaborating with regional experts, prioritizing issues, developing measurable goals and implementing plans to protect & restore water quality within the Reservation boundaries and the Grand Portage Zone of Lake Superior. Grand Portage Water Quality Assessments are entered into a US EPA database (ATTAINS) developed for State and Tribal assessments, annually. Assessment results are shared with the State and discussions have occurred regularly with MPCA regarding adoption of Tribal water quality assessments into the 1W1P documents.

Great Lakes Compact

The Great Lakes Water Compact and Agreement was adopted in 2008 to jointly determine how to manage the waters of the Great Lakes basin. It protects the health of the world's largest surface freshwater resource for generations to come by setting responsible standards for water use. This water management plan is an interstate compact involving the eight states of Illinois, Indiana, Michigan, Minnesota, Ohio, Pennsylvania, New York and Wisconsin. These states are also required to develop their own water conservation policies while keeping the Great Lakes Compact goals in mind.

The compact is mainly concerned with four issues: clean water, conserving water, invasive species, and coastal conservation. Maintaining clean water protects the health of people, fish, and wildlife of the Great Lakes. In order to do this, the compact particularly addresses untreated municipal sewage overflows, nutrient runoff, algae growth, pollution from petroleum refineries, and pharmaceutical pollution. Around 40 million people rely on the great lakes as their source of drinking water.

The Great Lakes alliance has even created a report outlining six different options for separating the watersheds of the Mississippi River with the great lakes to prevent invasive species, called "Preliminary Feasibility of Ecological Separation of the Mississippi River and the Great Lakes." The lake's coasts are the first line of defense against pollution and the safety of fish and wildlife; the reason why conservation of coasts is prominently significant.

Since the north shore communities border the basin, when an entity wants to use a large amount of water and divert the water from the basin, they must follow the guidelines outlined in the Compact and not damage natural resources that depend upon

water. In Minnesota, permits are required for water use of over 10,000 gallons, a lower threshold than the Great Lakes Compact. The Compact also has many resources and educational opportunities that communities and citizens of the north shore can take advantage of, such as, ideas on how to preserve and protect the great lakes including a ravine restoration toolkit, a K-12 educational curriculum, a community guide to contaminated sediment cleanup, an adopt-a-beach program, and much more.

Temporary Rental Properties

Temporary rental sites allow owners to rent out a room or entire home to travelers looking to visit the area. This emerging trend should be observed by the NSMB, as there are potential zoning related issues that could arise. After discussion, it was decided that the NSMB would not take a specific stance on the issue as it was outside of their role. Instead, the board will acknowledge it as an item to monitor as use becomes more apparent in the future and act at a later date if necessary.

Climate Change

Climate change is a growing concern for many and was requested to be addressed during the planning process. Dramatic changes in our weather system (locally and globally) could have a large-scale effect on communities in Northeastern Minnesota, specifically along the shoreline. The NSMB should stay apprised of upcoming climate related studies and impacts and utilize information in future decision making. The NSMB monitor for potential impacts of climate change along the North Shore by visiting the [Our Minnesota Climate](#) website, and the [University of Minnesota Climate Adaptation Partnership](#) website.

Online Presentation and Map Updates

An improved online presentation was a major focal point of the 2016 update. Prior to the update, the plan required being downloaded into eight separate files, hosted on the NSMB's website. A user-friendly format was developed to help local governments be able to reference the plan during meetings concerning land use instead of going through the process of having to perform additional research to be presented at a later date. Questions and concerns could be addressed immediately and decisions reached more quickly.

Additional data including vegetation, storm water, and erosion files can be added to the online version as well. As new data emerges, integrating it into the new plan format will be easy and dynamic. It should be noted that updates to the online version will also be reflected in the hard copy version, which will be made available for download via the NSMB's website.

1.4 PLAN AREA BACKGROUND

1.4.1 North Shore Management Plan Boundary

The North Shore of Lake Superior is part of the shoreline of the Great Lakes and is in northeastern Minnesota in Cook, Lake and St. Louis Counties. The planning area is approximately 150 miles long, extending from and including Lakewood Township, just north of Duluth, to the Pigeon River on the U.S./Canada border. (See Figure 1.1)

The North Shore Management Zone (NSMZ) is defined along the 40-acre subdivision lines of the rectangular coordinate system established in the U.S. Public Land Survey, nearest to the landward side of a line 1000 feet from the shoreline of Lake Superior or 300 feet landward from the center line of U.S Highway 61, whichever is greater. However, the boundary between Lakewood Township and the western corporate limits of Two Harbors is the centerline of the U.S. Highway 61 Expressway. (See Figure 1.1 Inset Map)

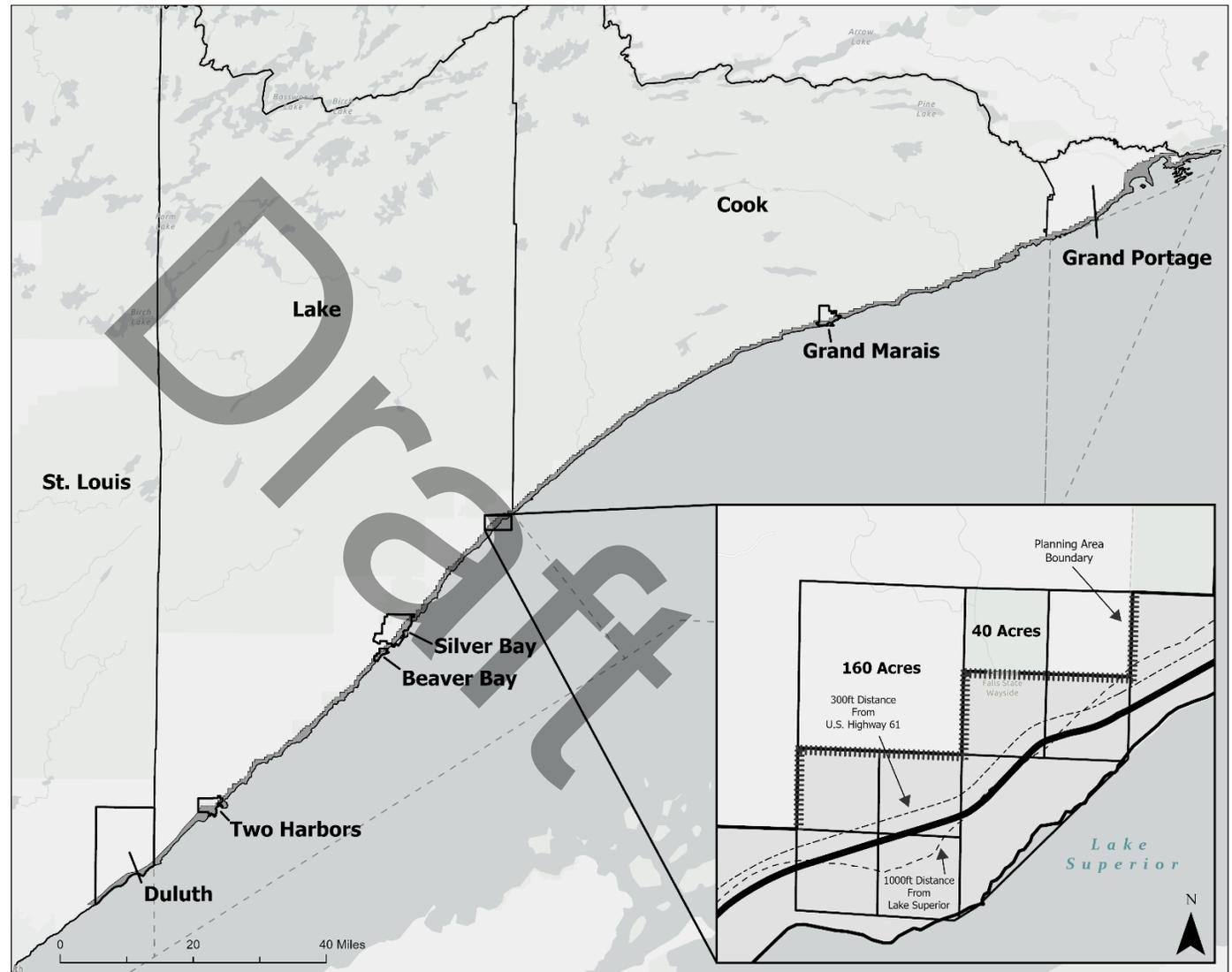


Figure 1.1: North Shore Management Zone (NSMZ)/Plan Area Boundary

1.4.2 Plan Area Physical Characteristics

Plan Area Physical Characteristics as detailed below were derived from the Lake Superior North Comprehensive Watershed Plan, also known as [One Watershed One Plan](#). Please see the 1W1P document for additional information.

Soils & Subsurface Geology

Soils and subsurface geology are dominated by bedrock, glacial till complexes and unconsolidated glacial lake deposits of sand, gravels, clay and silt. Bedrock is complex in its evolution and contributes to the spectacular mountains and ridges that slope toward Lake Superior. Numerous streams flow over the bedrock, forming waterfalls, cascades and rapids. Across the greater watershed in which the Plan area is located, the topography is the most diverse in the state and contains the lowest and highest elevations in Minnesota, 600 feet and 2,301 feet respectively. Bedrock in this watershed is complex in its evolution and contributes to mountains and ridges that slope toward Lake Superior. Bedrock within the watershed is generally either exposed at the land surface or thinly overlain with glacial deposits. Soils of the Lake Superior North watershed are confined by bedrock complexes and are typically characterized as unconsolidated glacial lake deposits of sand, gravels, clay and silt.

Soils along the North Shore are characterized by bedrock and thin and highly erodible glacial soils for over 75 percent of the area project. These soil conditions create challenges for development and wastewater management needs. According to a 2015 soil survey done in Lake and Cook Counties for the area inclusive of one mile inland and 1.5 miles inland for major streams, nine percent of the area has slight development limitations while the remainder have severe limitations. Currently, this would require special measures to overcome construction problems.

Soil shrinking, swelling, low bearing strength as well as slow drainage are additional limitations associated with these soil types. Steep slopes cover 14 percent of the plan area and wetlands cover three percent of the plan area. These last two categories pose the most severe development limitations. Most of the soils within the plan area can accommodate recreational development such as trails and campgrounds and only pose slight to moderate limitations on these uses. (Soil survey of the North Shore of Lake Superior Coastal Zone Management Area, 1977, Soil Conservation Service)

Subsurface Water Resources

There are 15 sub-watersheds associated with the major North Shore streams which drain 1,313,880 acres of the North Shore into Lake Superior. Most of these seasonally flashy streams are short in length, steep and swift, cutting through bedrock, over rapids and down waterfalls. Other streams within the watershed such as the Poplar, Knife, Baptism, and Temperance rivers are notably longer, but exhibit similar pattern and profile as they travel over similar geological and topographic land surfaces. Total Maximum Daily Loads (TMDLs) have been completed for the Poplar River and the Knife River, both of which have turbidity impairments.

The Minnesota Shore of Lake Superior is characterized by very rugged relief on the northern half of the North Shore starting approximately at Silver Bay and going Northeast. The shore becomes less rugged, going southwest with a more rolling landscape traveling southwest of Castle Danger. This landscape creates an environment for fast flowing streams and waterfalls. Map 1.1 Appendix A displays the streams that flow into Lake Superior. There are 27 primary streams along the North Shore, draining an area of 2,184 square miles. Most streams drain a relatively small watershed and travel a short distance to Lake Superior. Streams north of Tofte typically drain larger areas. The Brule River with 270 square miles and the Poplar River with 114 square miles. At 270 and 114 square miles, the Brule and Poplar River watersheds respectively are among the larger watersheds on the Shore. (MPCA, An assessment of representative Lake Superior Basin Tributaries, 2003) The Pigeon River watershed has a total drainage area of about 600 square miles, however more than half of this area is in Canada. The Pigeon River watershed encompasses the northern one-third of the Grand Portage Reservation.

Land Use and Coverage

Two reports, the [North Shore Management Board Node Definition for Comprehensive Plans](#) and [Two Harbors Waterfront Planning Report](#), also include information related to land use. Specifically, these reports address and identify areas for development. Active water use permit information can be accessed online through the DNR Site-Specific Water Use Database (SWUDS) database which can be categorized according to municipality, permitted water use type, among additional attributes. All permitted municipal waterworks within these records are Lake Superior withdrawal.

Land cover along the North Shore is dominated by forest. Approximately half of the plan area is within the Superior National Forest Boundary. Further, there are eight state parks, two state forests, and six Scientific and Natural Areas (SNA) located with the plan area. When the North Shore Management Zone was originally defined, a large amount of the land was privately (54%) held, with 28% publicly, and 15% held tribally.

1.4.3 Land Use Controls

Counties, local units of government and tribal nations who maintain local zoning authority are entitled to make changes over time, determined by each local jurisdiction. Contact local zoning administration staff for area-specific zoning information:

St. Louis County	https://www.stlouiscountymn.gov/departments-a-z/planning-zoning
Duluth Township	https://www.duluthtownship.org/about-pz/
Cook County	https://www.co.cook.mn.us/government/departments/land_services/planning_and_zoning.php
City of Grand Marais	https://www.ci.grand-marais.mn.us/planning-zoning
Lake County	https://www.co.lake.mn.us/environmental-services/planning-and-zoning/
City of Silver Bay	https://www.silverbay.com/?page_id=929
Beaver Bay	https://www.beaverbaymn.com/?SEC=DCDE1E83-64E1-4873-9D86-9241A404B90E
Two Harbors	https://www.twoharborsmn.gov/department/planning_zoning/index.php
Grand Portage Tribal Nation	https://www.grandportageband.com/tribal-land-resources/

1.4.4 Housing Development Trends

The Housing Units within the project area have seen a significant fluctuation since the 1990 Census. Over the entire project area, the housing units decreased by 1.3% percent or 169 units between 2010 and 2020.

Tables 1.1 through 1.3 provide an overview of changes in housing units throughout the plan area. Cook County experienced the largest increase in housing units with almost two thirds of the new units being built in Cook County. Housing Development Trend maps are included in Appendix A Map 1.3.1: 2010 Total Housing Units by Census Block) and 1.3.2: 2020 Total Housing Units by Census Block. Separate maps are necessary due to changes in census block geography.

Table 1.1: Change in Housing Units St. Louis County

Area	1990	2000	2010	2020	Change Actual (2010-2020)	Change Percentage (2010-2020)
Duluth Twsp	705	714	840	900	60	7.14%

Source: Decennial Census (H1) Tables 1990, 2000, 2010, and 2020

Table 1.2: Change in Housing Units Lake County

Area	1990	2000	2010	2020	Change Actual (2010-2020)	Change Percentage (2010-2020)
Beaver Bay	115	139	187	69	-118	-63.1%
Beaver Bay Twsp	371	403	419	400	-19	-4.53%
Crystal Bay Twsp	312	350	329	313	-16	-4.86%
Lake UT 1	198	483	241	214	-27	-11.2%
Lake UT 2	1069	1096	1397	1348	-49	-3.51%
Silver Bay	947	933	974	980	6	0.62%
Silver Creek Twsp	904	984	1073	1019	-54	-5.03%
Two Harbors	1660	1631	1799	1750	-49	-2.72%
Total Change	5576	6019	6419	6093	-326	-5.08%

Source: Decennial Census (H1) Tables 1990, 2000, 2010, and 2020

Table 1.3: Change in Housing Units Cook County

Area	1990	2000	2010	2020	Change Actual (2010-2020)	Change Percentage (2010-2020)
East Cook UT	978	1128	1365	1400	35	2.56%
West Cook UT	1380	1526	1797	1800	3	0.17%
Grand Portage	202	286	313	328	15	4.79%
Grand Marais	680	722	863	825	-38	-4.4%
Lutsen Twsp	549	611	856	901	45	5.26%
Schroeder Twsp	228	210	323	268	-55	-17.03%
Tofte Twsp	286	225	322	414	92	28.57%
Total Change	4303	4708	5839	5936	97	1.66%

Source: Decennial Census (H1) Tables 1990, 2000, 2010, and 2020

1.4.5 2025 Public Input Highlights

As part of the 2025 plan update effort, a survey was distributed at the public information and input sessions as well as being available the NSMB website. Below is a discussion of the survey highlights.

The public was invited to provide feedback on five shoreland development standards outlined in the plan: zoning, planned unit development, wastewater treatment systems, shoreland alterations, and erosion hazard areas. Across all public information and input sessions held as a part of the 2025 update. A total of 8 responses were collected. Findings from public input are provided herein. All 2025 Survey response feedback is included in Appendix B, in addition to 2016 survey data described in Section 1.4.6

Zoning

The public emphasized the importance of consistent enforcement of shoreland zoning across Cook, Lake, and St. Louis Counties. Respondents also highlighted the value of variances as a tool to promote sustainable development while protecting property. Preserving water quality, reducing pollution, and preventing shoreline erosion were identified as top priorities along the North Shore

- 63% of the survey respondents believed it is essential to protect natural resources and scenic beauty.
- 25% think it is important to find a balance between development and environmental protection.

Planned Unit Development

The public expressed concerns about Planned Unit Developments (PUDs), citing a lack of clarity around public benefits and the potential impacts of high-density development within the North Shore Management Zone. Others felt that PUD standards could be beneficial in areas with existing development or where natural restoration is not feasible.

- 63% of the respondents supported the idea of the benefits of PUD but did have some concerns.
- 13% of the respondents strongly opposed PUD, believing it will cause significant harm to the community or the environment.

Wastewater Treatment Systems

Wastewater treatment, both individual and municipal, was the public's top concern. Aging infrastructure needs replacement and upgrades to support future growth. Stormwater infiltration into municipal systems is increasing, and individual systems are often inadequate, difficult to install, or better replaced by community systems in certain locations.

- 75% of respondents believe the current sanitary system needs improvement.

Shoreland Alterations

The main public concern was the enforcement—or lack of enforcement—of existing ordinances. The respondents emphasized that this standard should be integrated with climate resiliency efforts, such as restoring natural vegetation, planning for dynamic conditions like changing water levels, increasing the current setback from the lake shore, and addressing the growing frequency of extreme weather events.

Erosion Hazard Areas

Most survey respondents were familiar with erosion hazard areas and agreed that identifying these areas, and applying higher building standards within them, is essential for protecting infrastructure, personal property, and water quality. Respondents expressed equal concern about several issues: property loss due to erosion, infrastructure damage, habitat degradation, declining property values, and increased stormwater flooding.

1.4.6 2016 Survey Highlights

As part of the planning effort a survey was distributed to approximately 1200 households within the plan area. A total of 165 responses or 17 percent were returned. A complete overview of the survey results can be found in Appendix B, in addition to more recent feedback described in Section 1.4.5. Below is a discussion of the survey's highlights.

The highest-ranking problem areas that people considered a moderate, serious or very serious issue were:

- | | |
|---|------------|
| • Safety in relation to traffic access points | 62 percent |
| • Septic systems polluting Lake Superior | 57 percent |
| • Declining fish habitat | 53 percent |
| • Amount of signage | 53 percent |
| • Visual impacts of development | 52 percent |
| • Residential runoff polluting the lake | 51 percent |

Twenty-seven percent of the respondents felt the quality of life has gotten worse rather than better and 44 percent felt it had stayed the same. Increased traffic and development are the most frequent concerns mentioned in the written comments. When asked how the quality of life could be improved on the North Shore the majority of the comments indicated addressing development issues and traffic concerns. Other areas identified include wastewater treatment needs, services and economic development.

The survey asked residents to respond to a number of development scenario statements. The responses were as follows:

- High density commercial and residential development is appropriate anywhere as long as wastewater services can be provided? Sixty-four percent oppose this statement while 19 percent supports the statement.
- Commercial and high-density development should be clustered near existing centers? Forty-two percent support this statement while 29 percent oppose the statement.
- Commercial and high-density residential development is appropriate if offset by other areas remaining undeveloped (Transfer of Development Rights). Forty-two percent support this statement while 30 percent oppose it.
- Seventy percent favored maintaining the current level of public land on Lake Superior and 44 percent supported increasing the amount of public land. Seventy percent supports encouraging private preservation of open space.

The survey also included questions regarding future NSMB action steps:

- Seventy-two percent of the respondents support ridgeline development guidelines while 9 percent opposes.
- Seventy-eight percent supports signage guidelines on Highway 61 while 5 percent oppose it.
- Sixty-six percent support the guidelines that encourage development in areas already served by utilities and wastewater



North Shore Management Board

Chapter 2: North Shore Management Board Operations

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CHAPTER 2: NORTH SHORE MANAGEMENT BOARD OPERATIONS

2.1 INTRODUCTION

The purpose of this section of the North Shore Management Plan Update is to discuss the organizational and funding issues facing the North Shore Management Board (NSMB). The North Shore Management Board operates with a signed Memorandum of Understanding with the Department of Natural Resources, a Joint Powers Agreement, and operating procedures which reflect the long-term goal that the NSMB provide strategies for orderly growth and resource protection along the North Shore. Copies of the operating procedures, the Joint Powers Agreement, and the Memorandum of Understanding can be found in Appendices C-E.

The short-term goal of the NSMB was to create shoreland management standards that met the criteria outlined in the Memorandum of Understanding between the NSMB and the DNR. For the NSMB to continue as an entity, it is important the NSMP update move beyond these still important standards and offer goals, actions, and implementation steps more commonly found in a traditional comprehensive land use plan.

In discussions with citizens, local officials, state agencies, and others, there were many areas identified where the NSMB could aid local units of government. There was a general view that the NSMB has suffered to some degree since its inception from a lack of direction. Additionally, community members were unfamiliar with the purpose and role of the NSMB.

In summary there are three critical questions for the NSMB that will chart their future:

- 1) Is there a reason for the NSMB to exist?
- 2) If there are reasons for the NSMB to exist, how can the NSMB structure their future activities to meet the needs of local units of government?
- 3) What are funding sources for continued operation of the NSMB?

These questions will be discussed in more detail in the sections below.

2.2 IS THERE A REASON FOR THE NSMB TO EXIST?

Oversight of Shoreland Regulations:

Despite uncertainties over future funding, the NSMB has indicated that they wish for the NSMB to continue following the plan update. If the NSMB is dissolved, there are several issues that would have to be addressed.

Technically, if the NSMB dissolved after finalizing the new plan, the state rule that refers to the North Shore Management Plan would still be fulfilled. The statute makes no mention of a continuing role for the NSMB, it only states that the NSMP shall serve as

the state shoreland regulations for the North Shore of Lake Superior. The oversight responsibilities of the NSMB, however, as outlined in the Memorandum of Understanding, could be transferred back to the DNR. Essentially, the DNR would serve in the same oversight role they currently have for all lakes in Minnesota other than Lake Superior.

While the relationship between North Shore communities and the DNR has improved in recent years, the NSMB still prefers that local control be preserved through the NSMB. This local control allows local units of government to be more responsive to changing conditions. Examples include coastal erosion, integration of regional planning priorities (1W1P, etc.), and adoption of best management practices in land use development. In addition to their oversight responsibilities, a reenergized NSMB that takes a leadership role in key North Shore issues can be seen as an excellent way to ensure continued positive relations with state and federal agencies.

Long Range Planning Activities in a Growing Corridor:

With so many natural amenities and with continued development pressure in the corridor, it makes sense to have a body that can gather information and facilitate discussion among local jurisdictions. In larger cities and counties, it is common to have a member of the planning staff who works solely on long-range or comprehensive planning issues. These staff members are free from the day-to-day tasks that other planners must perform for a local unit of government to operate efficiently. The NSMB could assist in long-range planning for the jurisdictions along the North Shore. Facilitating orderly growth and protection of natural resources have been key goals of the NSMB since its inception.

NSMB staff represent the needs of North Shore communities on relevant planning projects that may be taking place in and around the North Shore Management Planning Area, adding regional context to these discussions.

Coordinating the flow of Information from Studies to Local Units of Government:

Finally, there is a multitude of data and studies that are taking place along the North Shore. The NSMB has an important role in analyzing these studies and determining how local units of government can best utilize this data. In addition, the NSMB is able to seek grant funds to complete projects that will address pertinent data needs along the North Shore. Demonstrating regional and multi-jurisdictional approaches is a benefit when seeking funding to complete projects.

2.3 ACTIVITIES OF THE NSMB

The NSMB functions as a forum that allows for discussion of shoreland issues and sharing of land use data and current planning studies affecting the North Shore of Lake Superior.

With implementation of this plan, the NSMB has identified four tasks to full fill this role:

1) EXAMINATION OF IMPORTANT NORTH SHORE LAND USE ISSUES

Annual work Cycle:

- Quarter 1 (Oct.-Dec.): Staff will work closely with the NSMB, local land use officials, and the Technical Advisory Committee (TAC) to identify key issues to be examined.
- Quarter 2 (Jan.-Mar.): Identified issues will be integrated into a proposed yearly work plan and presented to the North Shore Management Board at their meeting (in accordance with the NSMB's Operating Procedures-Appendix C).
- Quarters 3-4: Additional activities to be performed throughout the remainder of each year will be established under the annual workplan.

2) DATA COLLECTION AND COORDINATION

There are many state, federal, and local agencies collecting land use data, conducting planning studies, and gathering GIS data, etc. This information has relevance for local units of government.

Minnesota's Lake Superior Coastal Program (MLSCP), the Natural Resources Research Institute (NRRRI), Minnesota Pollution Control Agency (MPCA), Sea Grant and Arrowhead Regional Development Commission (ARDC) are examples of organizations with studies that may provide valuable information to North Shore communities.

To fulfill its mission, the Board needs to use this data effectively. To accomplish this, the NSMB staff will serve, as directed by the NSMB, as a liaison between these agencies and local units of government.

Staff would provide their expertise in the following manner:

- Serve on task forces for planning efforts to ensure that the interests of local units of government and NSMB goals are represented.
- Ensure consistency in shoreland management policies as much as possible.
- Facilitate the exchange of information among the members of the NSMB .

Finally, the NSMB will be proactive in gathering and prioritizing the data needs along the North Shore. The NSMB can then write grant applications or support the grant applications of other agencies to address these specific needs.

3) EDUCATION AND INFORMATION DISTRIBUTION — To provide for input on proposed major land use projects by federal, state, and local agencies, the NSMB will perform several tasks.

- a) Receive notices and decisions from local units of government for variances, plats, conditional uses, planned unit developments, environmental reviews, and rezonings.
- b) Receive notices from federal and state agencies on any construction projects they initiate and for projects that they have review authority.

- c) Maintain a web site where the updated NSMP is posted, as well as meeting minutes and agendas for special projects and regular Board meetings. Notices for NSMB public meetings will be posted on the board's website.
 - d) Staff will produce monthly reports that detail all the coordination notices they have received. These reports will detail any trends that may indicate future issues that could be addressed by the NSMB.
 - e) A more detailed report will be completed at the end of each year that analyzes the data sets that have been identified as the most important to the members of the NSMB, TAC, and local land use officials.
- 4) MEETING STRUCTURE — The NSMB will meet quarterly to receive updates on projects and to make progress on the yearly work plan. It is anticipated that issues will come up during the various planning processes on the North Shore where general policy statements are needed by the NSMB.

The TAC will meet prior to each NSMB quarterly meeting to review the yearly work plan and provide technical analysis on the subject matter at hand. Depending on funding, the TAC could consider meeting informally without staff to discuss information or issues that may need to be brought to the NSMB. Local land use and zoning officials are available to discuss any common problems or issues they are facing in both the day-to-day administration of their zoning ordinances and with long-term policy goals.

Finally, to further preserve citizen involvement, the Citizen Advisory Committee (CAC) may be re-assembled. CAC members may be a part of the task forces formed to address specific issues and part of the work plan group that sets priorities for each year. If held, quarterly CAC meetings can be used to discuss any new land use issues that the members are hearing from members of their community.

2.4 FUNDING

Primary funding for the NSMB must come from local units of government and grant sources. Each year, the NSMB establishes membership due rates, which are subject to adjustment from the prior year. Due rates are differentiated between Cities/Townships and County/Tribal members. All member entities are asked to provide payment in order to maintain good standing and ensure board participation is unabridged.

The Minnesota Lake Superior Coastal Program (MLSCP) and the NSMB share common goals. Both organizations could benefit from working more effectively together. The MLSCP has a number of grant programs that could be used to fund NSMB activities for discrete projects. Note, MLSCP grants cannot be used as source of ongoing funding of the administrative costs of the NSMB.

To carry out the future tasks identified in this chapter, it seems reasonable that one staff person and/or organization work approximately 20 hours per week on NSMB-related issues. Approximately half of this time would be devoted to the items set out in Tasks 2, 3, and 4. Cost for this work program could fluctuate depending on the level of involvement the NSMB expects from the staff person to monitor and coordinate shore related developments.

The remainder of staff time (ten hours per week) could be used on the discrete projects identified by the NSMB during their yearly strategic planning sessions (Task 1: Examination of Important North Shore Planning Issues).

2.5 OPERATING PROCEDURES

The NSMB operating procedures set out the roles for NSMB members, NSMB staff, Technical Advisory Committee members, and the Citizens Advisory Committee. A copy of our current NSMB Operating Procedures can be found in Appendix C.

Revised operating procedures were created by the NSMB early in the plan revision process. The goal was to clearly set out roles for members of the Citizens Advisory Committee, Technical Advisory Committee, Planning and Zoning Staff from local units of government, and NSMB staff. A copy of the current Operating Procedures can be found in Appendix C.

2.6 JOINT POWERS AGREEMENT

The Joint Powers Agreement (JPA) was reviewed and updated in 2004. The most important task with the revised JPA is to solidify the ongoing role for the NSMB in the process. The original JPA did not explicitly indicate the NSMB was to continue after the completion of the NSMP. The revised JPA offers clear guidance under Duties and Responsibilities that allow the NSMB to complete its ongoing work. A copy of the Joint Powers Agreement can be found in Appendix D.

In 2019, a resolution was signed adding Grand Portage Nation to the North Shore Management Board. The Grand Portage Nation was authorized by resolution as a member of the NSMB on January 9, 2019, after the Board demonstrated that Grand Portage Zoning Ordinances met or exceeded the minimum thresholds of the 2016 NSMP and that the Tribe's jurisdiction is within the management board zone.

2.7 MEMORANDUM OF UNDERSTANDING

The revised memorandum of understanding (MOU) from 2004 changed statute references to ensure they are accurate. It also better clarified the roles and responsibilities of the NSMB and the DNR. In addition, the MOU states that the DNR will assume the responsibilities of the NSMB should the NSMB dissolve. This means the DNR would be monitoring the implementation of the NSMP as they monitor the implementations of the state shoreland regulations in the rest of the state. A copy of the MOU can be found in Appendix E.



North Shore Management Board

Chapter 3: Shoreland Management Standards

Draft

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CHAPTER 3: SHORELAND MANAGEMENT STANDARDS

3.1 PURPOSE

Through Minnesota Rule 6120.2800, Subpart 1a, the North Shore Management Plan provides minimum standards and criteria for the subdivision, use, and development of the shoreland of Lake Superior. Local units of government are required to adopt standards that are as restrictive or more restrictive than those contained in the NSMP. Standards are provided for five areas: Zoning, Planned Unit Development, Wastewater Systems, Shoreland Alterations, and Erosion Hazard Areas. In the following chapter, the specific minimum standards are in **bold font**.

Local units of governments are encouraged to look at innovative policies for dealing with lots that are non-conforming but have been “grandfathered” in since the initial NSMP was completed.

The North Shore Management Board also acknowledges and supports the goals and implementation actions that have been identified under the Lake Superior North [One Watershed One Plan \(1W1P\)](#) comprehensive watershed management plan. While 1W1P is not a regulatory program, the findings and data produced in this report influence and support regulatory decision making.

Listed below are several definitions that are critical to the interpretation of the North Shore Management Standards.

Definitions:

Area Plan – A community-based comprehensive plan for a designated unincorporated area.

Bed & Breakfast – An establishment in a residential dwelling that supplies temporary accommodations to overnight guests for a fee where an owner or manager resides on the premises.

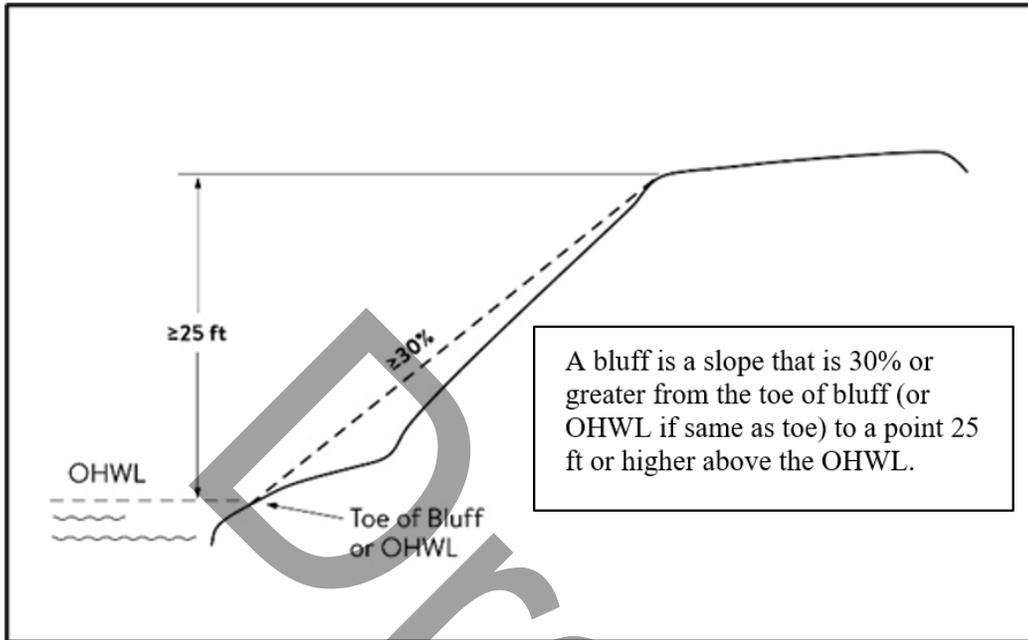
Bluff

1. Part or all of the feature is located within 1,000’ of Lake Superior and/or within 300’ of a public watercourse;
2. The slope must drain toward the waterbody;
3. The slope rises at least 25 feet above the ordinary high-water level (OHWL) of Lake Superior (601.5’ elevation), or 25 feet above the ordinary high-water level of the public watercourse (when outside of the 1,000’ buffer from Lake Superior);
The grade of the slope from the toe of the bluff to a point 25 feet or more above the ordinary high water level averages 30 percent or greater, except that an area with an average slope of less than 18 percent over a distance of at least 50 feet shall not be considered part of the bluff.

The OHWL of Lake Superior is set at 601.5 ft, as stated in the North Shore

Management Plan for Bluff determinations. The DNR determined OHWL, usually the permanent vegetation line on Lake Superior, will be utilized for all Public Waters related issues.

Figure A. Bluff Illustration:



Burden of Proof – The responsibility to present evidence that the land proposed for development is suitable.

Clear-cutting – Removal of all or most of trees.

Dwelling – Any building or portion thereof designed or used primarily for residential occupancy, including single-family dwellings, duplexes, triplexes, fourplexes, and multifamily dwellings, accessory dwelling units, short term rentals, but not including hotels or motels.

Dwelling Unit – Any building or portion thereof that contains separate living facilities for not more than one family. Separate living facilities shall constitute provisions for sleeping, eating, kitchen facilities (including at least an oven range or cooking device and a permanently installed sink), and bathroom/sanitary facilities. “Dwelling unit” does not include a tent, travel trailer, bunkhouse, hotel, motel, tourist court, rooming house, boardinghouse, short term rentals, or tourist home units.

Hotel/Motel/Resort – A lodging facility under single ownership containing two or more individual sleeping rooms, suites or cabins used primarily for providing accommodations for pay for periods of less than 30 days.

Impervious Surface – A constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development. Examples include; rooftops, sidewalks, patios, driveways, parking lots, solar installations, storage areas, and concrete, asphalt, or gravel roads.

Land Disturbance – Any change in the land surface including removing vegetative cover, excavating, filling, grading, and the construction of any structure.

North Shore Management Zone- See Section 1.4.1 for the defined area of the North Shore Management Zone.

Non-riparian – Lots within the NSM Planning Area that do not have shoreline frontage.

Ordinary High-Water Level (OHWL)– Jurisdictional boundary of water basins, watercourses, public waters, and public waters wetlands, and:

1. the ordinary high water level is an elevation delineating the highest water level that has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial;
2. for watercourses, the ordinary high water level is the elevation of the top of the bank of the channel; and
3. for reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool.

Ordinary High Water Mark (OHWM) - The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.” (33 CFR 328.3(e))

Outstanding Resource Value Waters (ORVW) – As defined in Minn. R. 7050.0335, Lake Superior is designated as a “restricted” ORVW from Duluth Township to Hat Point in Grand Portage Tribal Nation. Lake Superior is designated as a “prohibited” ORVW under the purview of Grand Portage Tribal from Hat Point to Pigeon Bay. This designation enhances protections to Lake Superior by controlling or barring new or expanded discharges. Grand Portage Water Quality Standards can be found at the following site;

Project Proponent – The individual group, or organization that initiates and proposes a project for consideration and approval.

Riparian – Lots that have shoreline frontage

Sensitive Shoreland Area – The area within the Northshore Management Zone of Lake Superior is designated as a sensitive shoreland area. The shoreland is designated as a special protection district pursuant to part 6120.3200 or shoreland riparian to any of the following types of public waters:

- A. lakes or bays of lakes classified as natural environment pursuant to part 6120.3000;
- B. trout lakes and streams designated pursuant to part 6264.0050;
- C. wildlife lakes designated pursuant to Minnesota Statutes, section 97A.101, subdivision 2;
- D. migratory waterfowl feeding and resting lakes designated pursuant to Minnesota Statutes, section 97A.095, subdivision 2; or
- E. outstanding resource value waters designated pursuant to part 7050.0335.

Shore Impact Zone - The land located between the ordinary high water level of a public water and a line parallel to it at a setback of 50 percent of the required structure setback.

Shoreland – The North Shore Management Zone as defined in section 1.4.1. (The U.S. Public Land Survey 40-acre subdivision lines, nearest to the landward side of a line 1000 feet from the shoreline of Lake Superior or 300 feet landward from the center line of U.S Highway 61, whichever is greater.)

Shoreline – The minimum horizontal distance between a principal building and the ordinary water elevation of Lake Superior (601.5 feet) as established by the Minnesota Department of Natural Resources.

Tourist Home – A dwelling occupied by permanent residents where lodging is regularly provided for pay to three or more overnight guests for period of less than 30 days, where such use is secondary to the occupancy of the dwelling by a family.

Transient Unit – A unit in a bed and breakfast inn, inn, hotel, motel, motor hotel, hotel-motel complex, condominium, time share complex or so-called interval ownership complex designed for and offering one or more lodging units to travelers and transient guests for temporary lodging and sleeping purposes.

Permanent Vegetation Line – Measurements taken from the point where terrestrial vegetation begins. (This is commonly where a sod layer has developed). **Note:** that this is often different from the OHWL of Lake Superior.

3.2 ZONING

3.2.1 Introduction

The Technical Advisory Committee (TAC) members reviewed the Plan Shoreland Development Zoning Standards and proposed changes to respond to current needs. In addition, the most recent state shoreland standards were reviewed for comparison purposes.

Shorewide applicability is one of the major issues when discussing changes to the minimum standards. Since Lake Superior is different than inland lakes in Minnesota, it poses unique questions. There are four cities that have sizable, incorporated areas within the shoreland management zone. As established in prior updates, it was determined that the NSMP update should encourage development in these areas and other development nodes. The original NSMP seemed to also support this conclusion by stating that commercial-urban areas as defined in that plan were exempted from the density and dimensional standards in the Planned Unit Development (PUD) Guidelines.

State shoreland standards allow local governments to adopt different standards if they can demonstrate that they meet defined criteria. Two examples of these criteria are:

- Shorelands that have been developed with urban uses for many years, where much of the development does not meet the standards.
- Areas where the central business district is located within shorelands.

In the state of Minnesota, Minn. R. 7050.0335 designates restricted and prohibited outstanding resource value waters, which enhances protection of surface waters which have a variety of uses. This is intended to protect water quality standards of surface waters as a form of antidegradation. Lake Superior meets the definition of an ORVW and is designated as either “restricted” or “prohibited” across the entirety of the North Shore Management Zone. These protections are designed to monitor wastewater discharge as developments are planned and may result in enhanced environmental review.

This plan does not propose exempting incorporated areas from plan standards. However, it does allow for some flexibility, as mentioned above, so that incorporated areas and other established development zones can develop at different densities than more sensitive, undeveloped areas.

In addition to PUD density, “implementation flexibility” is built into the North Shore Management Plan through the fact that lots created prior to the adoption of the plan need not be consistent with the plan. While this solution does not penalize landowners for having substandard lots under the new plan, it creates many new non-conforming lots or lots that are “grandfathered” in under the old standards. In the future, further work by the NSMB looking at different ways to deal with non-conforming lots would be useful.

This section of the Shoreland Management Standards provides standards for the following areas:

- 3.2.2 Lot Area and Lot Width
- 3.2.3 Structure Setbacks
- 3.2.4 Highway Access Control
- 3.2.5 Building Height
- 3.2.6 Lot Coverage
- 3.2.7 Subdivision of Property
- 3.2.8 Adoption of shoreland zoning standards into local
- 3.2.9 Environmental Review

3.2.2 Lot Area and Lot Width Standards

During the 2016 plan revision process, the main-discussion focused on shifting from the current density standards, which control density through minimum lot area and lot width, to computing density based on dwelling and non-residential units per acre.

This change allows for more flexibility in lot size when new plats are proposed, enabling designs that better integrate with the land's natural features rather than adhering to rigid lot width and size standards. Additionally, allocated density is beneficial if planning tools such as Purchase of Development Rights (PDR) and Transfer of Development Rights (TDR) are used in the future.

The NSMP encourages development in existing areas and discourages it in undeveloped ones. Therefore, the proposed density for unsewered areas is 0.5 units per acre, which corresponds to a two-acre lot size for single-lot developments.

To promote more open space and reduce the number of individual septic systems, local governments could consider offering bonus densities for developments that include a managed wastewater system, dedicated open space, and a comprehensive stormwater management plan, among other features. These types of developments—often referred to as cluster developments, open space developments, or conservation subdivisions—are becoming more common in Minnesota. This approach could be particularly useful as subdivision pressures increase along the ridgeline and near Lake Superior's non-shoreland properties. While market factors affect the feasibility of such developments, having ordinances in place to accommodate these techniques would still be beneficial. PUD ordinances will continue to address higher-density hotel or mixed-use developments. Some North Shore communities already permit or are considering these types of developments in their ordinances.

Lot Area Standards:

- **Density in unsewered areas shall be 0.5 units per acre (2-acre minimum lot size).**
- **Density in incorporated areas served by a public sewer system shall be a maximum of eight units per acre.**
- **Density in unincorporated areas served by a public sewer system or decentralized system and designated as development nodes in a County Comprehensive Plan or County-approved Area Plan shall be a maximum of four (4) units per acre.**

Lot Width Standards

- **All riparian lots must be a minimum of 200 feet in width.**
- **Unsewered non-riparian lots in developments of four or less lots must be a minimum of 200 feet in width.**
- **No minimum lot width shall be established for newly platted development of five lots and two acres or more in area located in:**
 - a) non-riparian areas**
 - b) incorporated areas**
 - c) unincorporated areas served by a public sewer system and designated as development nodes in a County Comprehensive Plan or County-approved Area Plan**

3.2.3 Structure Setback Standards

The NSMP differs substantially from the statewide shoreland regulations in regard to structure setbacks. State shoreland rules require setbacks based on the location of the ordinarily high water level (OHWL) in accordance with MN Rule 6120.3300, Subpart 3. At the time the NSMP was adopted, the OHWL for Lake Superior was defined as a water surface elevation of 601.5 (mean sea level elevation) which corresponded to the water's edge, depending on the lake level. Lake Superior is classified as a General Development Lake, requiring a 75-foot setback distance from the OHWL for development.

Due to the topography of the Lake Superior shoreline, implementing this standard would have resulted in structures placed 75 feet back from that OHWL and, potentially, still within the active beach area of the lake. To alleviate this problem, the DNR, by policy, defined the OHWL on Lake Superior as the permanent vegetation line. In conjunction, the NSMP set the structure setback to 40 feet from the permanent vegetation line. The rationale for this standard was that a structure set 40 feet back from the permanent vegetation line is always inland of an active beach. In the course of policy making, the Minnesota DNR determined that 40 feet from the permanent vegetation line on Lake Superior reasonably matches, or exceeds, a setback of 75 feet from the water in most cases, protecting active beaches and, subsequently, development within Lake Superior shoreland.

The NSMP update better defines the differences between the vegetation line and the average water level. This two-step process will ensure that all new development is at least 75 from the average water level, regardless of the location of the permanent vegetation line.

Much like non-conforming lots, existing structures in the setback would be “grandfathered” in. However, there was discussion on the idea of mitigation for construction in the setback areas. An action step later in the plan will address this issue.

Riparian Structure Setback Standards

- **40 feet horizontal distance from the permanent vegetation line of Lake Superior or 75 feet horizontal distance from the average water level, which is an elevation of 601.5 feet above sea level, whichever is greater.**
- **75 feet from the ordinary high water level of public water courses.**
- **30 feet from top of bluffs as defined in the NSMP.**

Road Setback Standards

- **35 feet from the right-of-way line on Trunk Highway 61, except where municipal ordinances specify otherwise**

3.2.4 Highway Access Control Standards

Access management is a critical issue facing the NSMB. Proper access management supports the notion that transportation and land use are linked. This is true in any situation but is more important in an area where there is essentially one major route. With few reliever routes available, land use decisions in one area could potentially affect traffic flow farther up and down the route.

MNDOT is strongly emphasizing access management with new guidelines being devised and steps taken to improve coordination with local units of government.

The designation of CSAH 61 and TH 61 as an All-American Road should also weigh into access management decisions. The scenic qualities of the route may create situations where flexibility is needed in determining access standards.

The steps in this section are meant to formalize the notification procedures between MNDOT and local units of government.

Some of these steps may be taken informally already by some jurisdictions, but a unified shorewide standard will provide consistency to MNDOT. In the long term, the NSMB could participate in access management planning in the TH 61 corridor.

Highway Access Control Standards

- **The North Shore earned the state designation of 'Scenic Byway' and, in 2000, became one of two Minnesota Scenic Byways to receive the national designation of 'All-American Road.' The North Shore Scenic Drive is**

located in an area rich in natural, cultural, historical, scenic, and recreational opportunities, making it one of the most popular scenic corridors in Minnesota. One federal regulation for designated Scenic Byways prohibits new billboards along routes that are part of a former federal-aid primary road and county state aid highways.

- All proposed access points shall be reviewed by appropriate authorities.
- All proposed subdivisions shall be reviewed by appropriate authorities.

3.2.5 Building Height Limitations

Building Height and Elevation Standards:

- Maximum building height for all structures is 35 feet from top of building to average natural grade line. The top of the building is defined as the peak of the roof.
- No structure, except decks, piers and docks, shall be placed at an elevation such that the lowest floor, including basement floors, is less than three feet above the highest known water level. In those instances, where sufficient data on known water levels are not available, the elevation of the line of permanent shoreland vegetation shall be used as the estimated high water elevation.

3.2.6 Lot Coverage

In some jurisdictions, the threshold for a stormwater management plan is 10%. Further work by the NSMB in discussing impervious surfaces on a watershed level could lead to adjustment to this standard in the future.

Lot Coverage Standards

- In all management areas, lot coverage by impervious surfaces shall not exceed 25% unless a surface water runoff plan certified by a registered professional engineer is submitted and approved by the local zoning office. However, in no case shall lot coverage by impervious surfaces exceed 50% of the total lot area. The surface water runoff plan shall contain, at a minimum, provisions for sediment entrapment and erosion control to minimize impacts on the receiving waters. Current research at the University of Minnesota may provide additional guidance to the NSMB regarding sediment entrapment and erosion control.

3.2.7 Subdivision of Property

Surveys will ensure that non-conforming lots are not created in addition to providing a record for local units of government.

Subdivision of Property Standards

- **A certified survey shall be submitted upon the subdivision of any parcel into two or more parcels.**

3.2.8 Incorporation of zoning standards for areas within the North Shore Management Zone

Referencing of Zoning Standards in Local Ordinance

- **The members of the North Shore Management Board shall reference the zoning standards of the North Shore Management Plan using one of the following methods:**
 - **Referencing of text from the NSMP into their zoning ordinances; or**
 - **Creation of an overlay zoning district along Lake Superior that contains standards equal to or more restrictive than those contained in this chapter; or**
 - **The North Shore Management Plan zoning standards may be adopted, and local governments may adopt more restrictive standards.**

3.2.9 Environmental Review

A primary consideration of Land Use and Zoning Administrators when reviewing a project proposal is to avoid and mitigate any significant impacts to Minnesota's environmental resources. The Minnesota Environmental Quality Board established environmental review rules as a way to aid units of government and others involved in the environmental review process.

Within the Northshore Management Zone, any environmental reviews should be submitted to the Northshore Management Board for comment.

Environmental Review processes come in various forms, both as required actions or as deemed necessary under the discretion of the Responsible Government Unit (RGU). The bulleted list below describes these reviews, and more information is available by clicking the provided hyperlinks:

- [Environmental Impact Statement \(EIS\)](#)
 - A comprehensive, in-depth review for projects that may cause significant environmental impacts. It compares alternatives, evaluates consequences in detail, and identifies ways to avoid or reduce impacts.
- [Environmental Assessment Worksheet \(EAW\)](#)

- A short, early-stage review used to decide whether a full Environmental Impact Statement is needed. It identifies potential environmental impacts but does not include detailed analysis.
- Alternative Urban Areawide Review (AUAR)
 - A planning-level environmental review for an entire urban area where multiple development scenarios might occur. It looks at cumulative impacts and helps communities plan for growth before individual projects are proposed.

As defined in Minn. R. 7050.0335, Lake Superior is designated as a “restricted” ORVW from Duluth Township to Hat Point in the Grand Portage Tribal Nation. Lake Superior is designated as a “prohibited” ORVW under the purview of Grand Portage Tribal Nation from Hat Point to Pigeon Bay. This designation enhances protections to Lake Superior by controlling or barring new or expanded discharges.

The Grand Portage Band of Lake Superior Chippewa enacts its own environmental reviews, consistent with Grand Portage rules and regulations Indian Health Services rules and US EPA. The North Shore Management Plan acknowledges the Grand Portage Band's authority within their Tribal Nation Boundary. For more information about Grand Portage environmental review and regulations, please visit: <https://www.grandportageband.com/tribal-land-resources/ordinances/>

3.3 PLANNED UNIT DEVELOPMENT

3.3.1 Introduction

This section outlines guidelines intended to provide uniform criteria for the local units of government to review and approve Planned Unit Developments (PUD) as developed during the 2016 update of the Plan. This section starts with explaining the purpose of these guidelines, followed by the definition of minimum size of a PUD. It further discusses design criteria, sewage disposal and a plan approval process.

3.3.2 Purpose, Goal, Definition

Purpose:

The purpose of these guidelines is to provide uniform criteria for the local approval of planned unit developments within the North Shore Management Planning Area. The criteria allow for development densities greater than those provided for in this plan. These provisions apply to new planned unit developments, both commercial and residential, on undeveloped land, redevelopment of previously built sites, or conversions of existing buildings and land.

Planned unit developments must be designed and operated to be compatible and harmonized with their surroundings and located in compliance with the North Shore Management Plan. It is the intent of these guidelines to provide the North Shore units of government with the flexibility to review, modify and approve planned unit developments

that follow the rules of common sense and practicality. The result should be development that optimizes the use of building sites and protects and enhances the natural amenities of those sites.

Goal:

It is the goal of these guidelines to provide uniform standards to local officials and potential developers for the optimization of development opportunities and maximum environmental protection on any given planned unit development site.

Definition:

Minimum Area for Planned Unit Development:

- **Area Served by public sewer system:** **1 acre**
- **Area served by decentralized system or individual sewage treatment system:** **10 acres**

Minimum number of Units:

- **The minimum number of dwelling or transient units for a Planned Unit Development shall be five (5) while meeting other criteria contained in this document such as impervious surface, setbacks and wastewater needs.**

3.3.3 Planned Unit Development Design Criteria

The purpose of the following criteria is to provide guidance to citizens, local officials, and developers in evaluating, reviewing and designing planned unit developments. Many free local resources and services are available to assist in meeting these criteria. These include city and county zoning administrators, health officials, county extension, and soil and water conservation district personnel.

Many state and federal resources are also available. These include the Minnesota Department of Natural Resources, Pollution Control Agency, University of Minnesota Sea Grant Extension, Department of Transportation, Natural Resources Conservation Service, and the U.S. Army Corps of Engineers.

1) Maximum Density:

- | | |
|--|---------------------------------------|
| Unsewered Areas: | 0.5 units per acre |
| Area served by decentralized wastewater system: | 0.5 units per acre |
| Incorporated Areas: | Density standards do not apply |

- **Bonus densities may be allowed in unsewered areas up to a maximum of one unit per acre based on criteria established by local units of**

government except for Lake Superior riparian areas outside incorporated areas and while considering habitat, pollution, view from the lake, accommodation for greater density at development nodes and shoreland alteration.

- 2) Structures, parking areas, and other facilities must be designed and placed to reduce visibility as viewed from Lake Superior, roads and adjacent shorelands by vegetation, topography, increased setbacks, color, or other means acceptable to the local unit of government, assuming summer, leaf-on conditions. The result should be a development that is visually unobtrusive to the natural environment or surrounding properties.
- 3) Units, recreation facilities, and commercial uses must be clustered into one or more groups and located on suitable areas of the development site.
- 4) At least 50% of the development area must be dedicated as open space for the users and residents of the development. Road rights-of-way, land covered by road surfaces, parking areas, units, and structures area considered developed areas, units, and structures are considered developed areas and should not be included in the computation of minimum open space. This 50% open space dedication must be filed as a restriction against the property. At least 40% of the lot width at the shoreline setback line shall be left as open space. For other development in shoreland areas, 25% open space at the structure setback line shall be open space.
- 5) Open space areas, including topography, vegetation, and allowable uses must be preserved by the use of restrictive deed covenants, permanent easements, public dedication and acceptance, or other equally effective and permanent means.
- 6) Areas with physical characteristics unsuitable for development in their natural state, such as wetlands or areas containing significant historic sites shall be considered open space.
- 7) The development must also provide access to developed public roads.
- 8) The dimensional and density provisions of these guidelines do not apply to incorporated areas served by a public sewer system, but the purposes and intent of these PUD guidelines and policies must be met.

3.3.4 Sewage Disposal Standards

- 1) On-site water supply and sewage treatment systems must be centralized and designed, installed and operated to meet or exceed applicable standards or regulations of the Minnesota Pollution control Agency (MPCA) or the local unit of government.

- 2) **On-site sewage treatment systems must be located on the most suitable areas of development.**
- 3) **Public water and sewage service must be used where available, as determined by the local unit of government.**
- 4) **The potential person capacity of a dwelling shall be used to determine the potential gallons generated which in turn shall dictate the appropriate system(s) that should be utilized by the proposed development. Local and state standards and regulations apply and should be consulted.**
- 5) **All new units must utilize water conserving plumbing fixtures and have water meters installed and accessible which serve all sewage generating appliances.**
- 6) **No occupancy of any unit or use of any commercial structure of any planned unit development shall be allowed until the approved sewage disposal system is in place and fully operational.**

3.3.5 Plan Approval

At the time of application, planning, and scheduled development the proposed facility shall be under unified control or ownership. The applicant will provide a detailed development plan to the local government, which must include a description of the following:

- 1) **The property under consideration, including property boundaries, contours, on-site features, roads, lakes, rivers, wetlands, rock outcroppings, wooded areas, and other relevant features.**
- 2) **Building elevations, location on site, proposed uses, number of units, and commercial operations.**
- 3) **A concept statement describing the project.**
- 4) **Parking areas and driveways for both residences and commercial activities, vehicle loading/unloading areas, proposed public road entrances, and projected traffic generation of the proposed development.**
- 5) **Proposed phasing of the final development.**
- 6) **Description of how the project will operate after completion.**
- 7) **Nature of proposed ownership after completion.**
- 8) **Proposed fire protection.**
- 9) **Proposed homeowners' association agreement, where applicable.**

- 10) **Detailed landscape plan that shows existing vegetation, proposed alteration, new plantings and landscaping which is consistent with shoreland alteration guidelines.**
- 11) **Recreational space location and use.**
- 12) **Adequate water sources and water supply system plans.**
- 13) **Proposed sewage treatment system plans.**
- 14) **Storm water runoff plans (construction and operation).**
- 15) **Erosion control plan for shoreline, where applicable.**
- 16) **Erosion control plan for site (construction and operation).**
- 17) **Evidence of application for appropriate permits, state and federal.**
- 18) **Evidence of availability of necessary public utilities.**
- 19) **Proposed financial plans and necessary performance bonds or escrow agreement to protect the local unit of government's financial liability for site restoration, landscaping, erosion control measures, and sewage treatment systems.**

The proposed development plan will demonstrate that the development will conform with adjacent development and be screened from the lake, adjacent roads, and adjacent properties. Any other information deemed to be necessary by the local unit of government will be provided by the applicant. The local unit of government may require plan modifications or may require special conditions or performance standards as a part of its approval of the project.

3.4 WASTEWATER TREATMENT SYSTEMS

3.4.1 Introduction

The 1988 North Shore Management Plan recognized that septic systems were an important issue but did not offer substantial policy guidance for dealing with the issue. The original plan contained the following statement: "There are many issues relating to sanitary systems and water supply along the North Shore, however, most are beyond the scope of this version of the Shoreland Management Plan." The original plan was an asset in recognizing the importance of this issue. Since 1988, both requirements and terminology have changed.

3.4.2 Subsurface Sewage Treatment Systems

In 1996, Minnesota began updating how septic systems were managed, with the adoption of a statewide subsurface sewage treatment system (SSTS) program. By

2010, all counties, cities, and townships were required to adopt an SSTS ordinance, following Minnesota Rule 7082.0050 – General Requirements for Local Ordinances. These local ordinances are enforced by local governmental units (LGUs), with oversight provided by the Minnesota Pollution Control Agency (MPCA).

Each LGU created its own local ordinance. These ordinances meet MPCA/ state rule but may also contain local requirements that are more restrictive than state rule requirements. Because of this, it is essential to check with your LGU to make sure you are following their ordinance correctly.

As of 2025, all three counties along the North Shore have their own SSTS ordinance, aligned with state regulations but sometimes using different terminology.

For properties on non-tribal land, refer to Minnesota Rules Chapters 7080 through 7083:

- a) [Chapter 7080](#): Individual Subsurface Sewage Treatment Systems (flows up to 5,000 gallons per day)
- b) [Chapter 7081](#): Midsized Subsurface Sewage Treatment Systems (flows from 5,001 to 10,000 gallons per day)
- c) [Chapter 7082](#): Administrative Requirements of Local SSTS Programs
- d) [Chapter 7083](#): Certification/Licensing, Product Registration, Advisory Committee

The Grand Portage Band of Lake Superior Chippewa enforces its own septic system rules, consistent with Indian Health Services rules and US EPA. The North Shore Management Plan acknowledges the Grand Portage Band's authority within their Tribal Nation Boundary. More information about septic system rules can be found at the following site: <https://www.grandportageband.com/tribal-land-resources/ordinances/>

Goal

Each member entity of the North Shore Management Board now has an adopted SSTS ordinance with enforcement provisions included. Member entities will maintain SSTS ordinances standards that meet or exceed minimum standards established by Minnesota Statute and administrative rules of the MPCA or follow Indian Health Services and US EPA rules where applicable.

Policy

Contact the local permitting authority—county, tribal, city, or township—regarding septic systems.

- a) [St. Louis County onsite wastewater](#) (septic system)
- b) [Lake County onsite wastewater](#) (septic system)
- c) [Cook County onsite wastewater](#) (septic system)
- d) [Grand Portage Tribal lands onsite wastewater](#) (septic system)

3.4.3 Municipal and Industrial Wastewater Treatment Systems

Municipal or Industrial wastewater is water that has been used by businesses or residents for everything from manufacturing and industrial processes to laundry, toilets, and showers. Treating wastewater is an important part of protecting and preserving Minnesota's water resources. Treatment plants reduce pollutants in wastewater to a level that nature can handle, with different combinations of physical, chemical, or biological processes.

Industries, businesses, and other privately owned facilities in Minnesota that discharge wastewater directly to lakes, streams, and wetlands must obtain permits. The MPCA regulates 850 industrial wastewater facilities in the state, including those for mines, wood and paper mills, food processors, ethanol and power plants, and more.

Treating wastewater protects the environment and human health by removing pathogens and other contaminants before the water is discharged back into the environment. The MPCA regulates municipal and industrial wastewater treatment activities within the Northshore Management Zone, except for within the Grand Portage Nation.

Goals

All municipal and industrial wastewater treatments systems within the Northshore Management Zone adhere to the minimum state standards, as established by the MPCA or Indian Health Services and the US EPA.

Policy

All municipal and industrial wastewater treatment plants must contact and comply with the local permitting authority ordinances, rules, and regulations pertaining to wastewater collection, treatment, and discharge.

The Grand Portage Band of Lake Superior Chippewa enforces its own wastewater system rules, consistent with Indian Health Services rules and US EPA. The North Shore Management Plan acknowledges the Grand Portage Band's authority within their Tribal Nation Boundary. More information about Grand Portage water quality standards and wastewater system rules can be found at the following site:

<https://www.grandportageband.com/tribal-land-resources/ordinances/>

3.5 SHORELAND ALTERATIONS

3.5.1 Introduction

This section highlights increased efforts in the past 37 years managing wetlands and in encouraging quality stormwater management.

The passage, in 1991, of the Minnesota Wetland Conservation Act (WCA) was a significant milestone in wetland management. Local governments are responsible for implementing the standards outlined in the WCA. Some counties have developed separate wetland management plans and added detailed language about wetlands to their zoning ordinances. Grand Portage has federally approved water quality standards, a water resources ordinance, and zoning ordinance that apply to wetland management and permitting activities within the Reservation boundaries.

Stormwater management has also received substantial attention since 1988. This section now includes specific goals, objectives, and policies related to stormwater management.

Note that map data for many of the objectives can only be accessed online by visiting the North Shore Management Board website at northshoremangementboard.org.

3.5.2 Shoreland Alteration Goal, Objectives and Policies

Goal

To maintain the natural character of the North Shore as much as possible and minimize soil erosion while allowing for permitted development under the North Shore Management Plan. Alterations of vegetation and topography will be regulated to prevent erosion to Lake Superior and its tributaries, fix nutrients, preserve shoreland aesthetics, preserve historic values, prevent bank slumping, preserve corridors for movement of wildlife, protect fish and wildlife habitat, conserve cultural resources and preserve the scenic and aesthetic character of the shoreland. These Best Management Practices (BMP) for shoreland alterations will protect the water quality of Lake Superior and will therefore sustain economic values in the corridor.

MN Rule 4410.4300 Subpart 36 a outlines the thresholds that determine who is the Responsible Government Unit (RGU), whether that be the Local unit of Government, the Minnesota DNR, or another party.

Objective 1: Shoreline Alteration

Alterations below the jurisdictional Ordinary High Water Level (OHWL) of lakes and streams shall follow accepted practices and DNR requirements. Any alterations shall first be permitted by the responsible government entity, which may be the DNR, Army Corps of Engineers, Minnesota Pollution Control Agency, Grand Portage Reservation, or the local unit of government. Alterations proposed above the OHWL must be permitted by the responsible LGU

The North Shore Management Board recognizes that grey infrastructure intended for erosion prevention may exacerbate erosion conditions on adjacent or nearby property, are often only partially effective over time, and can cause harm to property and the environment. “Hard Armoring” and ‘gray infrastructure’ are the practices of installing seawalls and rip rap revetements; these types of shoreland alterations are strongly discouraged along Lake Superior, except in unique circumstances.

Additionally, increasing data indicates that the tide pools that develop along the ledge rock outcroppings along the Lake Superior coast are home to unique flora and fauna, and are unique to this region.

Policies

- a) **Prior to permitting structures in public waters (below the OHWL), preferred alternatives shall be implemented whenever practicable, including nature-based solutions (green shorelines), hybrid shorelines, and retreating development from active erosion.**

In the application of MN Rules 6115.0210 Subpart. 5.A. “the proposed project must represent the minimal impact solution to a specific need with respect to all other reasonable alternatives;”. The application of this Rule shall consider minimal impact solutions to include the preferred alternatives listed above. Permits for structures in public waters should include monitoring.

- b) **LGUs shall consider requests to install grey infrastructure such as rip rap or seawalls (retaining walls) within the shore impact zone as Conditional Use Permits, which shall take into consideration any potential negative effects to neighboring property owners and set reasonable conditions such as monitoring.**

A conditional use is an activity or use that would not be appropriate if allowed outright in any number; but which if controlled as to number, location and activity, could be consistent with the local government’s Comprehensive Plan and not be injurious to the public health, safety or general welfare. The review of each proposed conditional use must determine if it will or will not be compatible with the standard of the North Shore Management Plan and if it is found to be, must attach conditions to insure this continued compatibility.

In the review of Conditional Use Permits, the North Shore Management Board and TAC shall have an opportunity to review the request and provide comments to each LGU’s Planning Commission and/or final decision-making authority.

- c) **In addition to all permit requirements established pursuant to applicable statutes, rules, and regulations, any shoreland alterations along the Lake**

Superior shoreline shall consider potential adverse impacts to adjacent property owners and the public trust in any permit application.

As a condition of permit approval, the issuing authority may require monitoring of the structure or of affected lands and waters to determine the impact of the structure upon adjacent property owners, coastal dynamics, or other environmental factors. If monitoring or other documentation identifies a negative impact that was not fully addressed when the permit was approved, the issuing authority may require removal, modification, or improvement to the structure (or another action needed) to mitigate the negative impact.

- d) The permitting authority may also require design solutions and monitoring to ensure minimal adverse impact to the coastal riparian tide pool community, including near shore coastal habitat of the flora and fauna along the ledge rock tide pools.**

Objective 2: Vegetation Management

To manage vegetation in accordance with applicable statutes, ensuring the conservation of critical areas, limiting clear cutting allowing for selective removal for view purposes, and providing appropriate screening of views from Lake Superior. To maintain natural vegetative cover as much as possible, the following shall apply:

Policies

- a) A vegetation management plan is required for total vegetation removal of over 10,000 square feet or 25% of lot area, whichever is a smaller area.**
- b) Vegetation shall be preserved and/or enhanced on bluffs, steep slopes, and within the shore impact zone to maintain stable soil conditions.**
- c) Vegetation removal shall be limited in areas that screen structures, clear cuts, parked vehicles, or other facilities from public roads and Lake Superior. Selective removal of vegetation is allowed to provide a reasonable view of Lake Superior from individual residences, with an emphasis on avoiding removal in the shore impact zone.**
- d) All proposed clear-cutting shall be reviewed and approved by the local unit of government and shall follow this plan. Clear-cutting and intensive vegetation removal in the shore impact zone is not allowed due to negative impacts it has to shoreland values including but not limited to; non-point source pollution, damage to fish and wildlife habitat, and loss or damage to economic/intrinsic shoreline value.**
- e) Vegetation shall be preserved along North Shore streams to provide shade, helping maintain lower stream temperatures.**
- f) Private forest management, such as pruning, trimming, and planting, are encouraged through consultation with the DNR, SWCD, University of**

Minnesota or Minnesota Extension, a Private Consulting Forester, or other relevant agencies.

- g) Private driveways shall blend into the existing terrain, and public utility lines to private properties should be buried whenever possible.
- h) Significant public view corridors from public rights of way to Lake Superior will be in accordance with guidelines established by the 'Scenic Byways' and 'All-American Road' designation.
- i) The NSMB will encourage vegetation removal and screening standards together with the sharing of ideas on vegetation management techniques shore wide.
- j) Local units of government should provide landowners with information on how to include vegetation preservation in the covenants for newly platted lots.

Objective 3: Wetlands

To maintain and protect Minnesota's wetlands and the benefits they provide by locally administering and enforcing the Minnesota Wetland Conservation Act and the Grand Portage Water Resources Ordinance and Water Quality Standards.

Policies

This plan acknowledges and references the Minnesota and Grand Portage wetland regulatory programs. The major wetland regulatory programs include:

- a) [Department of Natural Resources Public Waters Work Permit Program](#) (state program)
- b) [Wetland Conservation Act](#) (state & local program)
- c) [Clean Water Act Section 404 permit program](#) (federal program)
- d) [Clean Water Act Section 401 water quality certification process](#) (State, Tribal, & Federal &
- e) [Grand Portage Water Resources Ordinance and Water Quality Standards](#)

Objective 4: Storm Water Management

Minimize the impact of stormwater runoff through professionally designed stormwater management plans.

Policies

- a) Stormwater management plans shall be required for the following types of development
 - i. When proposed lot coverage by impervious surfaces is 25% or more
 - ii. Planned Unit Development
- b) Stormwater management plans should meet the following criteria:

- i. **All plans shall be approved by professional engineer licensed by the state of Minnesota**
 - ii. **Designed to ensure that there is no post-construction increase in the peak rate or volume of stormwater runoff**
- c) **Local units of government should ask for assistance as needed from appropriate parties in reviewing stormwater management plans. If not already in place, formal agreements should be created to facilitate such partnerships.**
- d) **Utilize Best Management Practices to control post-development stormwater runoff quantity and quality.**

Any increase in surface runoff resulting from new development or redevelopment within the North Shore Management Zone must be controlled so that post-development stormwater runoff quantity and quality do not exceed pre-development conditions. This can be achieved using BMPs designed to maintain runoff levels similar to pre-development conditions.

Best management practices are defined as physical, structural, and/or land management practices that, individually or in combination, prevent or reduce water pollution. BMPs for stormwater quality and quantity include source control, runoff treatment, and streambank erosion control.

- **Source control BMPs** aim to prevent pollution at the source. Examples include using mulches to cover disturbed soil, reseeding disturbed vegetation, enclosing outdoor storage areas, and other practices that prevent pollutants from being transported by runoff.
- **Runoff treatment BMPs** remove sediment and pollutants once runoff has occurred. These BMPs may include facilities that use gravity settling, filtration, biological uptake, and soil adsorption to remove pollutants.
- **Streambank erosion control BMPs** focus on managing the rate, frequency, and duration of stormwater runoff releases. Examples include detention and retention ponds, biofiltration swales, infiltration ponds and trenches, and dry vaults.

It is generally less expensive to prevent pollution of runoff using source control BMPs than to treat runoff. However, because source controls cannot prevent all impacts, a combination of practices is always necessary. Effective watershed management requires the use of both structural and non-structural measures to mitigate negative impacts of stormwater runoff. For detailed information on recommended BMPs for water quantity and quality treatment, please review the Minnesota Pollution Control Agency (MPCA) New Stormwater Manual. <https://stormwater.pca.state.mn.us/>

Objective 5: Erosion Control

To preserve natural topography and minimize soil erosion, an erosion and sediment control plan is required in the following cases:

- a) For land disturbances exceeding 1,000 square feet or 100 cubic yards
- b) For fill exceeding 1,000 cubic yards

For any shoreland alteration exceeding 50 cubic yards within the structure setback area. However, shoreland alterations linked to building or sewage disposal permits are exempt from this requirement.

Policies

- a) **Erosion and sediment control plans shall be reviewed and approved by the local zoning office before land alteration work begins.**
- b) **Alterations must be designed and conducted to ensure minimal exposure of bare ground for the shortest time possible.**
- c) **Mulches or similar materials should be used for temporary bare soil coverage, and a permanent vegetative cover must be established as quickly as possible.**
- d) **Methods to minimize soil erosion and trap sediment before it reaches any surface water feature must be implemented. These methods should be in place before development occurs.**
- e) **Altered areas must be stabilized according to acceptable erosion control standards, consistent with the Minnesota Stormwater Manual, provided by the MPCA.**
- f) **Fill or excavated material must be stabilized to prevent erosion and slope failure.**
- g) **Fill or excavated material must not be placed on steep slopes, unless designed by qualified professionals.**
- h) **Approved permanent erosion control practices must be maintained.**
- i) **Any development disturbing one acre or more of land, or smaller sites of a larger development disturbing one or more acres, must obtain a combined National Pollutant Discharge Elimination System/State Disposal System permit from the Minnesota Pollution Control Agency.**

Objective 6: Natural Shoreland Restoration

To encourage the complete restoration of natural shoreline within the shore impact zone of Lake Superior.

Policies

- a) **Utilize existing Soil and Water Conservation District Programs**
- b) **Encourage landowners to cease all mowing activities within the shore impact zone.**
- c) **Develop partnership with organizations like the Minnesota Lake Superior Coastal Program, One Watershed One Plan and other public and private entities focused on protecting and enhancing the Lake Superior Coastal area.**

3.6 EROSION HAZARD AREAS

3.6.1 Introduction

Significant efforts have been made to address shoreline erosion issues on the North Shore. Local Government Units have completed various erosion control projects, and agencies like the Soil and Water Conservation District staff have provided technical assistance to property owners with erosion problems on private lands.

The North Shore Management Plan provided the foundation for developing erosion hazard area identification methods for individual local units of government. This section of the plan update aims to continue this role for the NSMB by encouraging the distribution of information.

The process of defining and identifying Erosion Hazard Areas has evolved through multiple steps over time. Both visual representations and written narratives from the original plan were used to create Erosion Hazard Area maps for the North Shore Management Zone (NSMZ) portion of Lake County. However, no such maps have been developed for Cook or St. Louis County. Currently, the available digital tools remain limited in their ability to create clearly defined Erosion Hazard Areas suitable for enforcement or land use regulations. As of the 2026 NSMP update, a multi-phased Coastal Erosion Hazard Mapping (CEHM) project is currently underway. The goal of this project is to update NSMB resources with new data sources, to support Local Government Units in identifying and or clarifying Erosion Hazard Areas. As this project is ongoing, this section of the North Shore Management Plan will be updated upon completion of this work. The mapping process started in 1986, where Erosion Hazard Area subcommittee used the following process to identify the Erosion Hazard Areas. Initially, a detailed soils map from the Coastal Zone Management study was transferred onto a Minnesota Department of Transportation map of the North Shore. Then, all 199 surveys from a 1986 shoreline erosion survey were transferred to the map. Surveys indicating high erosion rates were tagged for further analysis. Of these, fifty sites were revisited, and measurements were made to determine the erosion progression since 1986. Taking this information, the subcommittee members determined that many of the erosion problems reported in 1986 could be attributed to the extremely highwater level and severe storms of the period. Losses of cobble beaches, collapse of sea caves, and the erosion of rocky shorelines were identified as being outside of identified Erosion Hazard Areas. Also noted, areas of high clay banks continued to show signs of failure despite the two intervening years of relatively low, calm water. These areas are identified as Erosion Hazard Areas on the graphic representations of the areas created at that time.

By 1988, the Erosion Hazard Areas were identified as areas of high clay banks. To set the approximate boundaries of these areas, field notes, photos, and the 1986 and 1988 videotapes of the shoreline were used. In 1989, Carol Johnson, NRRI, evaluated several factors identified remotely using standard field validation protocol.

Then in 1990, Johnson published the data in an academic paper entitled, "Erosion Hazard of Minnesota's Lake Superior Shoreline". The data was classified as High, Low, and Unknown Erosion potential. Johnson calculated the shoreline recession rate

between 1930–1975, and 1975–1989 including areas already designated Erosion Hazard Areas in the NSMP. These past efforts to map erosion on the North Shore occurred 35 years ago, rendering them outdated considering increased water levels and storm cycles.

May 2008, the NSMB completed the Erosion Hazard Area Planning Process. This identified a process for measuring erosion rates using the USGS Digital Shoreline Analysis System (DSAS) tool. This guided the future multi-phased work.

In 2009, the NSMB Erosion Forum Summary and Resources Guide were published.

In 2018, a multi-phased project was started to gather available data for the coastal area and identify data gaps. By 2021, strategies and methodologies were defined, and GIS analysis was conducted for identified pilot areas. After reviewing these findings, the methodology and plan for the completion of the entire North Shore was developed. In 2023 and 2024, using the previously developed methodology, the analysis was completed. This Erosion Recession Analysis is ongoing as of 2026 for the North Shore and will result in updated resources for Local Government Units to leverage as they identify or update Erosion Hazard Areas.

The current methodology to determine erosion recession rate is outlined in the [Coastal Erosion Hazard Mapping Methodology webpages](#). To identify Erosion Hazard Areas, additional information is needed to identify erosion susceptibility and vulnerability. Vulnerability includes areas of rapid shoreline succession (i.e. slope failures such as landslides and clay bank sloughing) as stated in the [MnDOT Slope Vulnerability Assessments](#).

The next steps in the delineation of the Erosion Hazard Areas will be to secure the services of a coastal engineer. As of the 2026 NSMP update, the NSMB has sought funding for determining erosion susceptibility and average rate of shoreline recession, which will thereby support redefinition of erosion hazard areas by the responsible LGUs. This information will benefit local units of government, their Zoning and Planning Departments, and will be an aid to the [One Watershed One Plan Lake Superior North in Lake and Cook County shoreline priority areas](#).

3.6.2 Goal, Objectives and Policies

Goal

To protect public and private property, public safety and interest, by limiting development in areas prone to excessive shoreline erosion.

Objective 1

To promote awareness and understanding of shoreline erosion, lake levels, and natural shoreline processes.

Policies

- a) **The North Shore Management Board shall encourage the development and distribution of informational materials about shoreline erosion, lake levels, and natural shoreline processes.**

b) The North Shore Management Board shall serve as a liaison working with:

- Minnesota Department of Natural Resources
- International Joint Commission
- Environmental Protection Agency, Great Lakes Region Office
- Natural Resources Conservation Service
- U.S. Army Corps of Engineers
- Natural Resources Research Institute
- Minnesota Department of Transportation
- National Oceanic and Atmospheric Administration
- Large Lakes Observatory
- University of Minnesota
- Federal Emergency Management Agency (FEMA)
- Board of Water and Soil Resources

Information pertaining to shoreline erosion, lake levels, and natural shoreline process can be accessed at the following websites.

- a) [USACE Great Lakes Water Level Data](#)
- b) [NOAA Lake Level Viewer](#)
- c) [NOAA Digital Coast – Nature Based Solutions](#)
- d) [Lake County SWCD Lake Superior Coastal Erosion](#)

Objective 2

To define and identify areas of high erosion recession, within the North Shore Management Zone.

Policies

- a) Erosion recession rates shall be updated throughout time and shall be defined as areas of Lake Superior's North Shore where the long-term average annual rate of recession is one foot or greater per year.
- b) Erosion Hazard Areas shall be defined or clarified by Local Government Units. Local Government Units with zoning authority shall reference erosion recession rates in their determination of Erosion Hazard Areas.
- c) The North Shore Management Board will refine the definition and identification of Erosion Hazard Areas in future based on new recommendations of coastal engineers and erosion susceptibility information.

Objective 3

To designate special provisions for Erosion Hazard Areas.

Policies

- a) **Erosion Hazard Areas will be identified in the zoning ordinances of local units of government. The standards for erosion hazard areas shall be noted through the use of an overlay district or through special provisions in the zoning ordinance.**
- b) **At the time of permitting, areas defined as Erosion Hazard Areas by the North Shore Management Board should have an onsite inspection, as determined by the local unit of government, to inform the landowner of erosion susceptibility.**
- c) **The burden of proof concerning the suitability of land for the proposed development shall be borne by the project proponent. Accordingly, a site development plan shall be required and approved by the zoning officer prior to all new construction in Erosion Hazard Areas. The site development plan shall include a description of:**
 - **Surface runoff including roof drains**
 - **Subsurface runoff**
 - **Vegetation removal including proposed landscaping**
 - **Proposed sewage treatment systems**
 - **Topography of site**
 - **Structure and driveway location**
 - **Potential bluff toe protection**
 - **Slope alterations**
 - **Other pertinent information as requested**
- d) **The site development plan for Erosion Hazard Areas shall include setback and shoreline erosion control recommendations and follow shoreland alteration guidelines.**
- e) **Structure setbacks in Erosion Hazard Areas:**
 - 1) **Structures and soil absorption areas shall be setback the annual erosion rate times 50 plus 25 feet (to allow for structure relocation) from the top edge of the eroding bluff. Where slumping is evident, the setback shall be measured from the uppermost shear zone (point at which the soil separates, and slumping begins). In the absence of an established long-term erosion rate, the setback shall be 125 feet.**
 - 2) **The structure setback and the location of the soil absorption areas can be modified by variance if the landowner provides technical data proving a different recession rate or that the erosion hazard, although correctly estimated, can be mitigated by structural protection. The setback, however, shall not be reduced to less than the setback standards detailed in the zoning standards portion of this chapter.**

3.6.3 Erosion Hazard Maps

The Northshore Management Board supports continuous improvement in determination of erosion hazard areas within the Northshore Management Zone. Identification and maintenance of Erosion Hazard Area maps are ongoing processes. As such, a primary role of the NSMB is to maintain erosion recession data within the NSMZ. Local Government Units are ultimately responsible for leveraging information produced by the NSMB, as they make determinations of Erosion Hazard Areas.

As described in Section 3.6.1, erosion susceptibility and recession data is currently being compiled and analyzed by staff to the NSMB. As such, the content included below still reflects our plan content from 2016. Upon completion of this process, Section 3.6.3 will be updated to reflect the completed activity.

Erosion Hazard Areas within the North Shore planning area were shown on the Shoreland Management Area maps included in the original plan. The scale of those maps, however, only provides a general guide to the erosion hazard areas on the shore. Again, it is the responsibility of the NSMB to monitor local efforts to create, update or otherwise enhance erosion hazard data within the Zone. It is then the responsibility of Local Government Units to establish erosion hazard areas at a scale that is more useful for site-specific planning and analysis. Local Government Units will continue to use the maps and methods they have devised for official determination of erosion hazard areas.

Only those areas deemed to be of high potential for erosion were put on the maps in the 1988 NSMP. Except in rare cases, this was limited to the areas where high clay banks border the lake. Areas of erosion where the long-term erosion rate appeared to be less than the criterion of one foot per year were not mapped. Clearly, there are places outside of the Erosion Hazard Areas shown on the maps where erosion is a problem. However, mapping was limited to those areas where the Erosion Hazard Area policies apply.

The Erosion Hazard Area subcommittee used the following process to identify the Erosion Hazard Areas. First, a detailed soils map from the Coastal Zone Management study was transferred onto a Minnesota Department of Transportation strip map of the North Shore. Then, 199 surveys from a 1986 shoreline erosion survey were transferred to the map. Surveys indicating high erosion rates were tagged for further analysis. Fifty sites were revisited, and measurements were made to see how far the erosion had progressed since 1986. From this information, it was determined that many of the erosion problems reported in 1986 were attributed to the extremely highwater level and severe storms of the period. Losses of cobble beaches, collapse of sea caves and the erosion of rocky shorelines were identified as being outside Erosion Hazard Areas. However, areas of high clay banks continued to show signs of failure despite the two intervening years of relatively low, calm water. These are the areas identified as Erosion Hazard Areas on the maps.

The more critical areas of clay banks were examined from the water. The area from French River to Split Rock River was covered by boat and pictures were taken of potential Erosion Hazard Areas. Field notes, photos, and the 1986 and 1988 videotapes of the shoreline were then used to set the approximate boundaries. The 2016 update of

this plan provided an erodibility index interactive map in the online version of the plan, based on NRRI data that was used to generate the 1988 Erosion recession rates. While this data can be helpful for planning purposes, it is not detailed enough for construction.

Draft



North Shore Management Board

Chapter 4: Future Land Use Goals, Objectives and Actions

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CHAPTER 4: FUTURE LAND USE GOALS, OBJECTIVES AND ACTIONS

4.1 PURPOSE AND AUTHORITY

The 1988 NSMP, in addition to shoreland management standards, provided a Shoreland Use Guide Plan. This section of the plan created Shoreland Management Areas, which consisted of the following categories: Protected Resource, Residential, Commercial-Rural, Commercial-Urban, Resort-Commercial, and Industrial. Each of these categories contained definitions, goals, and policies for each of these sections. The categories were then placed on Shoreland Management Area maps.

An updated copy of these maps is included in Appendix A of this document. These maps identify development cluster areas that include the incorporated communities, commercial rural and resort commercial areas. For these areas the updated plan promotes increased residential density and the location of services. The maps also identify protected areas and special resources.

The 1988 NSMP stated that local units of government should consider maps and the relevant policies when making land use decisions. The maps and the guide plan were not, however, intended to replace local zoning ordinances. The local units of government are responsible for the implementation of the North Shore Shoreland Standards. The NSMB does not serve as a shorewide zoning board with authority to veto or overturn the decisions of local units of government.

The Shoreland Management Area maps have been included in this document and are intended to provide a general idea of the current land uses on the North Shore. These maps do not serve as a zoning map for the North Shore. By adopting the shoreland management standards by text and/or setting up shoreland overlay districts, NSMB members have already taken steps toward shorewide consistency in land use decisions.

The Local Units of Government are encouraged to use these maps as a starting point in their land use discussions and where appropriate refine and or change desired land uses for their area. The Goals, Objectives and Actions identified in this plan are, in part, intended to provide a framework and starting point for discussion at the local level regarding the desired future land use for an area.

The goals and objectives are centered around the following issues: Residential Development, Non-Residential Development, Natural Resources, Lake Superior, Community Character and Design, and Public Infrastructure. In addition, Actions will be associated with these goals that will provide a framework for future NSMB activities and that will offer a framework of issue areas to consider when developing land use plans at the local level. The NSMB believes that a plan that sets specific action steps will result in an NSMB that is more proactive and provides better service to its members.

4.2 RESIDENTIAL DEVELOPMENT

Goal: Residential development density should be structured so higher-density development is clustered around existing nodes of development. Areas of low, medium, and high-density future development should be clearly delineated in the comprehensive plans of NSMB members.

Objective: New residential development along the shoreline should be designed to preserve natural features and minimize impacts.

Actions: Review and revise Planned Unit Development (PUD) standards and subdivision regulations.

Gather information on innovative subdivision and PUD techniques and provide the information to NSMB members.

Actions: To create more flexibility in dealing with density issues, create zoning ordinances that utilize allocated densities (DU/acre) or maximum net density (DU/buildable acre).

Identify funding opportunities to assist members in crafting model ordinances that address this issue.

Actions: Create a residential Transfer and/or Purchase of Development Rights (TDR/PDR) on the North Shore.

Identify funding to facilitate a process where a Transfer and/or Purchase of Development Rights policy document and model ordinance is created. The TDR and PDR process can be used to send development away from sensitive areas to receiver sites more appropriate for development.

Actions: Identify prime areas within communities for residential infill where infrastructure is already available. Direct development toward these areas prior to extending infrastructure to serve new areas.

Work with local units of government to identify high priority areas where lower-density development is desired.

Objective: The future land use goals in faster-growing unincorporated areas should be given high priority.

Actions: Support the existing Area Plans underway along the North Shore and partner with local units of government to identify key areas for future Area Plans.

The NSMB should assist local units of government in seeking funding to produce area plans.

Objective: Future residential development should provide for a mixture of housing types.

Actions: Evaluate zoning approaches that encourage mixed-housing development.

4.3 NON-RESIDENTIAL DEVELOPMENT

Goal: Concentrate future high-density non-residential development near existing community centers and infrastructure. New development should reflect the character and scale of current North Shore communities.

Objective: Support redevelopment and/or infill of existing commercial and industrial areas prior to expansion of commercial and industrial zoning.

Actions: Communities should identify and prioritize areas for redevelopment and infill.

Actions: Support clustering of non-residential development. Investigate zoning techniques that offer incentives to direct non-residential growth toward these identified areas.

Actions: Create a Non-Residential Transfer of Development Rights process on the North Shore.

These actions can be done in conjunction with work on residential areas. This once again reinforces the support of clusters of development. Long stretches of linear development are not considered desirable.

Objective: Local zoning ordinances should reflect the notion that some residential and non-residential uses are compatible and may contribute to the character of the North Shore.

Actions: Create mixed-use zoning options for higher-density areas. Reinforce these notions in areas that already contain mixed-use opportunities.

Objective: The future land use goals in faster-growing unincorporated areas should be given high priority.

Actions: Continue to encourage the existing Area Plans underway along the North Shore and partner with local units of government to identify key areas for future Area Plans.

Objective: New non-residential development at a scale that is compatible with existing community characteristics.

Actions: Utilize zoning techniques that would limit the square footage of certain non-residential uses in areas that demonstrate the small-town community character of the North Shore.

Actions: Identify areas where larger-scale non-residential developments are appropriate in each community.

Communities may desire development but have concerns about the scale of development that is proposed. The NSMB can provide information on tools to encourage development that meets the needs of a community.

4.4 LAKE SUPERIOR

Goal: **Protect the Lake Superior ecosystem by limiting environmental threats and risks from development.**

Objective: Promote and assist with implementation of practices outlined in ‘One Watershed One Plan’ developed by Lake and Cook Counties with Grand Portage Nation participation.

Actions: Work with state agencies, Grand Portage Nation, local land use officials, and citizens to implement improvements identified in the One Watershed One Plan to protect Lake Superior water quality.

Objective: Promote management strategies that address point and non-point source pollution.

Actions: Work with state agencies, Grand Portage Nation, local land use officials, and citizens to create a document of shorewide Best Management Practices that reduce point and non-point source pollution.

Objective: Efficient implementation of NPDES Phase II standards.

Actions: The NSMB should follow and disseminate information on NPDES issues and other federal and state mandates relating to storm water and wastewater management issues.

Objective: Clarify roles and responsibilities of federal, tribal, state, and local agencies that have jurisdiction over issues that relate to Lake Superior.

Actions: Sponsor forums where Grand Portage Nation, SWCD, County Water Planners, MPCA, DNR, and local land use officials gather to discuss the interrelationship of water and land use. The goal here is to create a dialogue prior to issues becoming a crisis. The initial priority for these discussions is to determine how the NSMB can effectively use the information contained in the Lake Superior Lakewide Action Management Plan (LAMP)

Objective: Develop a shorewide plan to address erosion hazard areas.

Actions: Work with SWDC, BWSR, and LGU’s to create a list that prioritizes areas where erosion control is needed and work collectively to gain funding for these projects.

Actions: *Support the use of the GIS Database for Minnesota's Lake Superior Shoreline. This document can be a useful planning tool for local land use officials. In addition, it should be used to determine if there is a need for revision of the erosion hazard maps.*

Objective: Structures on the water should not increase erosion, degrade conditions along the shore, or negatively impact adjacent properties.

Actions: *The NSMB should receive notification of large-scale water-oriented projects proposed by individual property owners and federal, state, and local agencies. The NSMB will comment on these projects if they feel they are not consistent with the NSMP.*

Actions: *Develop a policy document that analyzes the possibility for local units of government to implement regulations for near-shore activities. Guiding principles could be created for the construction and location of docks, mooring spaces, marinas, etc.*

Changes in state law that took effect in October 2002 reduced the amount of permits the DNR processes for docks. The DNR now only requires public waters work permit for commercial marinas, mooring facilities, and docks eight feet or more in width. There are a number of areas in Minnesota where local units of government have created their own rules. Visit the Department of Natural Resources Docks and Access in Public Waters webpage: https://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/docks.html for links to some of these examples.

4.5 NATURAL RESOURCES

Goal: **Maintain the unique character of the North Shore by preserving and enhancing natural resources.**

Objective: Identify important scenic, natural, and historic resources and provide strategies for protecting and preserving these resources

Action: *Form a working group to review the Lake Superior Lakewide Action Management Plan. This group will work with the MPCA and Grand Portage Nation to identify strategies on how to best utilize the information and suggested actions outlined in the Basin Plan.*

Action: *Gain information from citizens on areas that are valued as scenic resources. Map these scenic resources and identify ways to enhance these resources.*

Action: *Maintain a dialogue with fisheries and wildlife managers to stay informed on issues of wildlife management and exotic species.*

Action: *Coordinate maintenance and development of overlay maps (wetlands, soils, slopes, erosion hazard areas, public lands) that identify areas where*

development is constricted. In some cases, portions of this data may already exist.

Action: *Create a shorewide policy document on vegetation management. Gain information on existing efforts by local units of government and state agencies in order to build the framework for this policy.*

Objective: *Improve coordination of wetland protection and preservation strategies between local units of government.*

Action: *Work with Grand Portage Nation, SWCD's and county water planners to ensure that current information on wetland policy is available.*

Action: *Assist in fostering a dialogue between local units of government on the implementation of wetland policy. The following issues should be explored:*

- 1) Wetland functions and values in current ordinances and the unique geology of the North Shore*
- 2) WCA sequencing standards applicability to the North Shore*
- 3) Difficulty in wetland mitigation on the North Shore due to lack of wetlands to restore*
- 4) Possibilities for flexibility in mitigation credit (preserving shoreland areas, fencing white cedar regeneration).*
- 5) How changes to Waters of the United States affects the North Shore Management Zone.*

Action: *Review existing wetland inventories on the North Shore. Identify areas where unique wetlands may not be identified and create maps indicating these areas.*

Objective: *Provide landowners with information regarding management of natural resources as they go through the permitting process.*

Action: *The NSMB will pursue grants and/or speakers who could offer workshops for citizens, contractors, and interested others. Partnerships will be formed with existing agencies and non-profit organizations that provide such information. Key focus areas will be vegetation management and shoreline erosion.*

Objective: *Review options for increasing compliance with environmental regulations.*

Action: *Work with local units of government to develop a model contractor licensing program that could be put in place by local units of government. This program would ensure that quality erosion and sediment control techniques are learned and implemented.*

Action: *Analyze the feasibility of local units of government obtaining the ability to issue an administrative penalty order for violations.*

4.6 PUBLIC INFRASTRUCTURE

- Goal:** Infrastructure improvements should first address environmental concerns and should direct growth near existing nodes of commercial/residential growth.
- Objective:** Begin a shorewide dialogue on wastewater management issues. The land use implications of new and improved wastewater systems should be a common theme of this dialogue.
- Action:* The NSMB should facilitate a process where a discussion takes place on the current state of wastewater treatment on the North Shore. Inventory what is in place along the North Shore in terms of centralized, cluster, and individual systems. Evaluate what decisions have already been made and the implications of those decisions.
- Action:* Facilitate a shorewide discussion on the different wastewater treatment options available along the North Shore.
- Action:* Facilitate a discussion to determine how individual sanitary districts can work together to devise common strategies for management of systems.
- Action:* Facilitate a discussion on the feasibility of organizational structures that could be created for individual septic systems. These are commonly referred to as managed on-site systems. Identify current projects in Minnesota that can be used as case studies.
- Action:* Engage the Minnesota Pollution Control Agency in the discussion of appropriate wastewater management systems.
- Action:* Find a case study to use to facilitate a discussion on wastewater infrastructure on the North Shore. There should be a focus on the land use implications of wastewater infrastructure.

4.7 COMMUNITY CHARACTER AND DESIGN

- Goal:** Preserve the existing character identified by North Shore communities.
- Objective:** Identify community character (scenic, cultural, historic, architectural, etc.) for community nodes and for “rural” areas.
- Action:* Create a framework that identifies common characteristics shared by communities along the North Shore. The NSMB should identify existing work done by the North Shore Scenic Drive Council and create a partnership with this organization.

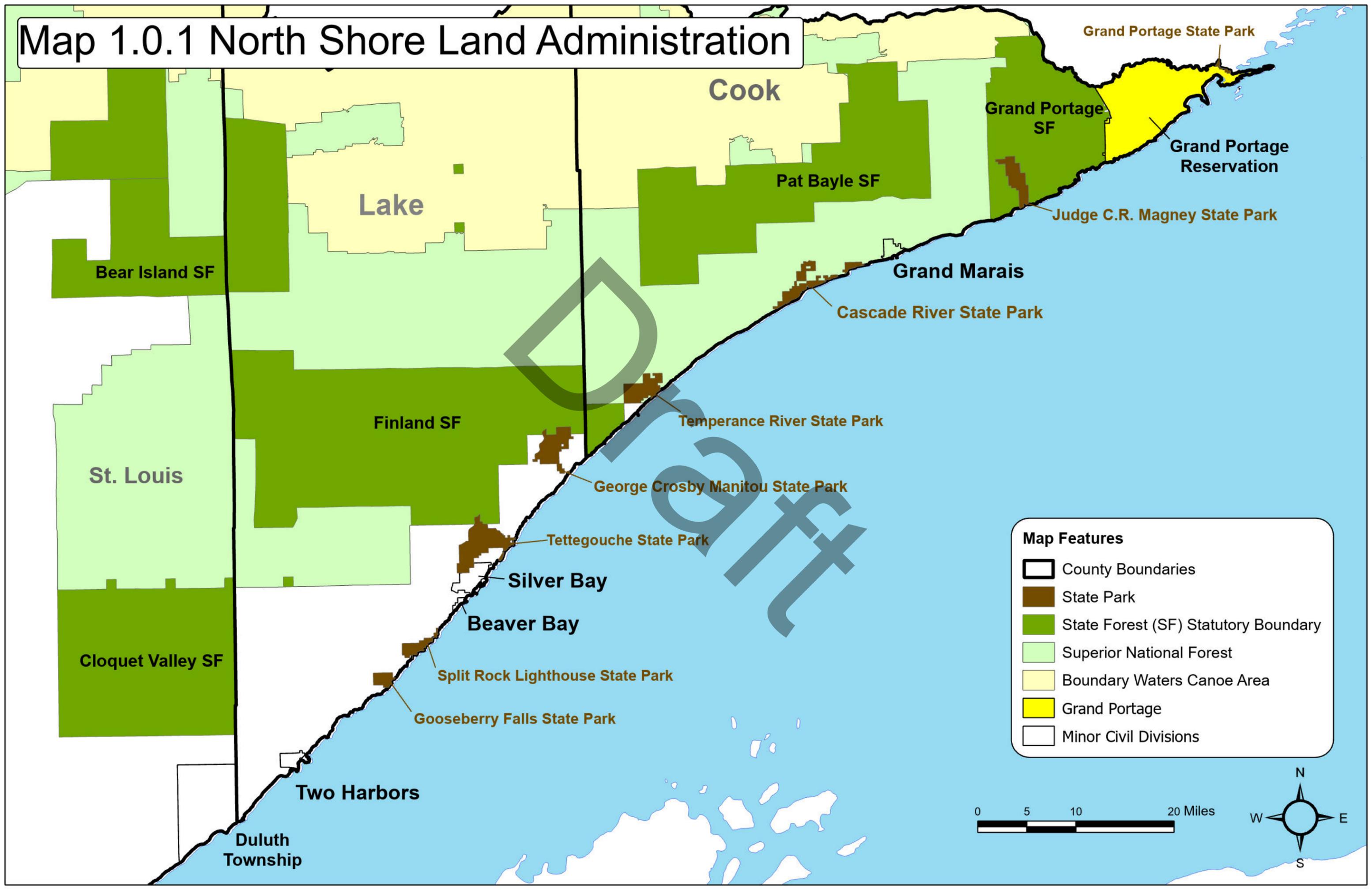
- Action:* Gain consensus through community forums on the characteristics of individual communities that are most valued. Review existing plans for evidence of existing efforts at gaining this consensus. Convene community forums if necessary.
- Objective:** Promote community character within Comprehensive Plans and zoning ordinances
- Action:* Provide guiding principles and model ordinances for communities that desire design standards. These standards may include the following areas or design elements; historic districts and structures, colors, height, landscaping, and signage.
- Actions:* Create a design manual for individuals to refer to when going through the permitting process.
- Objective:** Pursue revitalization of residential and commercial areas that enhance historical and community character.
- Actions:* Assist communities in gaining community consensus on minimum standards for maintenance of structures and the enforcement of these standards.
- Actions:* Support communities who pursue funding governmental and foundational programs to repair aging housing stock and revitalize downtown areas.
- Objective:** Development on the ridgeline of the Lake Superior Highlands should blend in with the landscape.
- Actions:* Develop guiding principles and a model ordinance to allow for ridgeline development that blends in with the natural landscape.
- Objective:** Attractive community gateways that make a statement about the character of each community
- Actions:* Gateway planning should be an integral part of comprehensive plans.
- Objective:** Interact with state, and federal organizations and agencies that support these objectives.
- Actions:* Local units of government and the North Shore Management Board should participate in and look for partnerships with the Department of Natural Resources and the Department of Transportation.
- Objective:** Plan financially to complete a full update of the document every 10 years.
- Actions:* Coordinate amongst member jurisdictions to advocate for state, federal, tribal, or private sources of funding.



North Shore Management Board

Appendix A: Maps

Map 1.0.1 North Shore Land Administration



Grand Portage State Park

Cook

Grand Portage SF

Grand Portage Reservation

Lake

Pat Bayle SF

Judge C.R. Magney State Park

Bear Island SF

Grand Marais

Cascade River State Park

Finland SF

Temperance River State Park

St. Louis

George Crosby Manitou State Park

Tettegouche State Park

Silver Bay

Beaver Bay

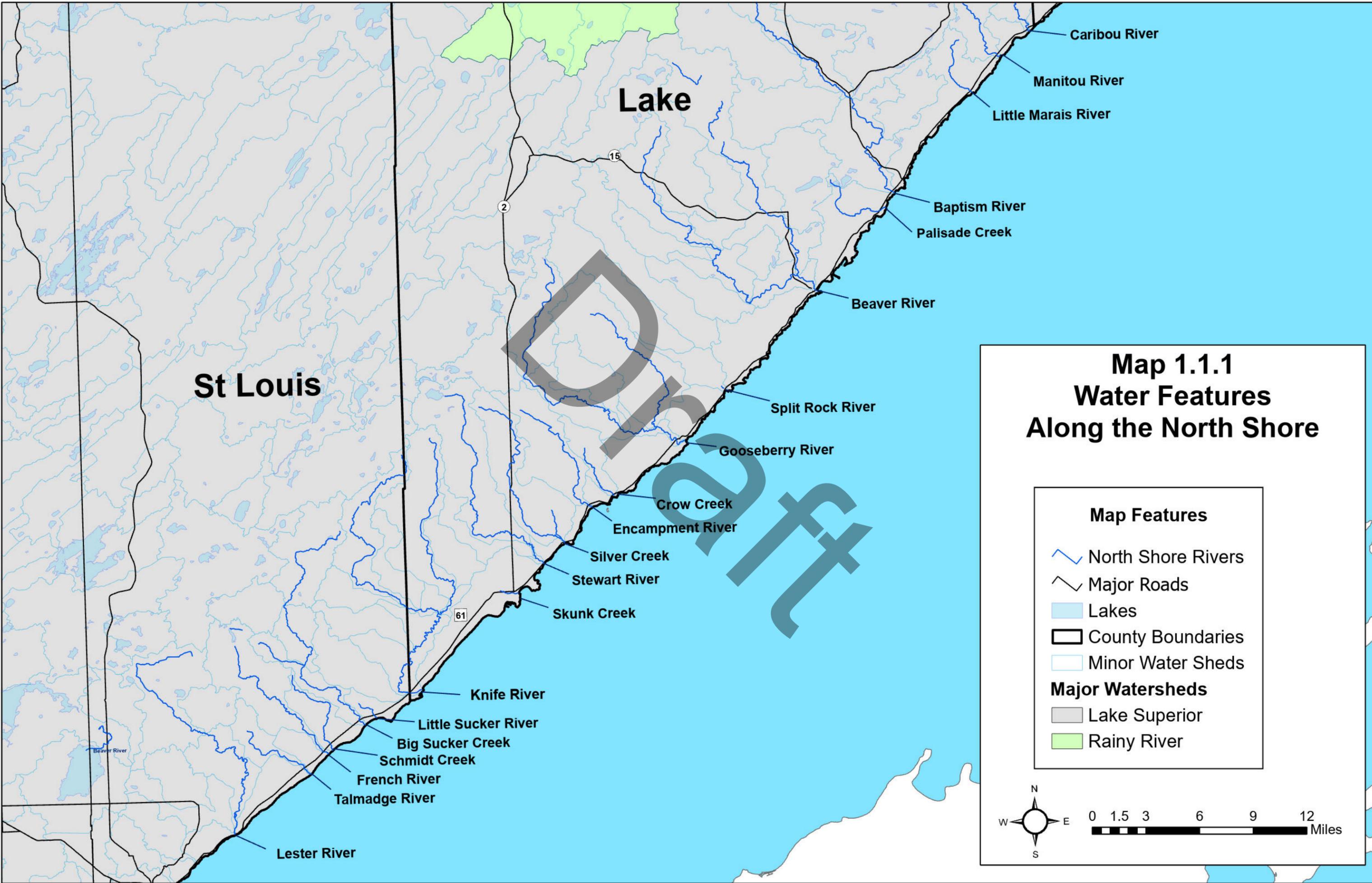
Split Rock Lighthouse State Park

Cloquet Valley SF

Gooseberry Falls State Park

Two Harbors

Duluth Township



St Louis

Lake

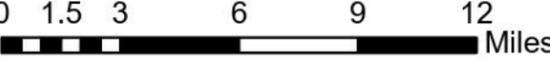
**Map 1.1.1
Water Features
Along the North Shore**

Map Features

-  North Shore Rivers
-  Major Roads
-  Lakes
-  County Boundaries
-  Minor Water Sheds

Major Watersheds

-  Lake Superior
-  Rainy River

Caribou River

Manitou River

Little Marais River

Baptism River

Palisade Creek

Beaver River

Split Rock River

Gooseberry River

Crow Creek

Encampment River

Silver Creek

Stewart River

Skunk Creek

Knife River

Little Sucker River

Big Sucker Creek

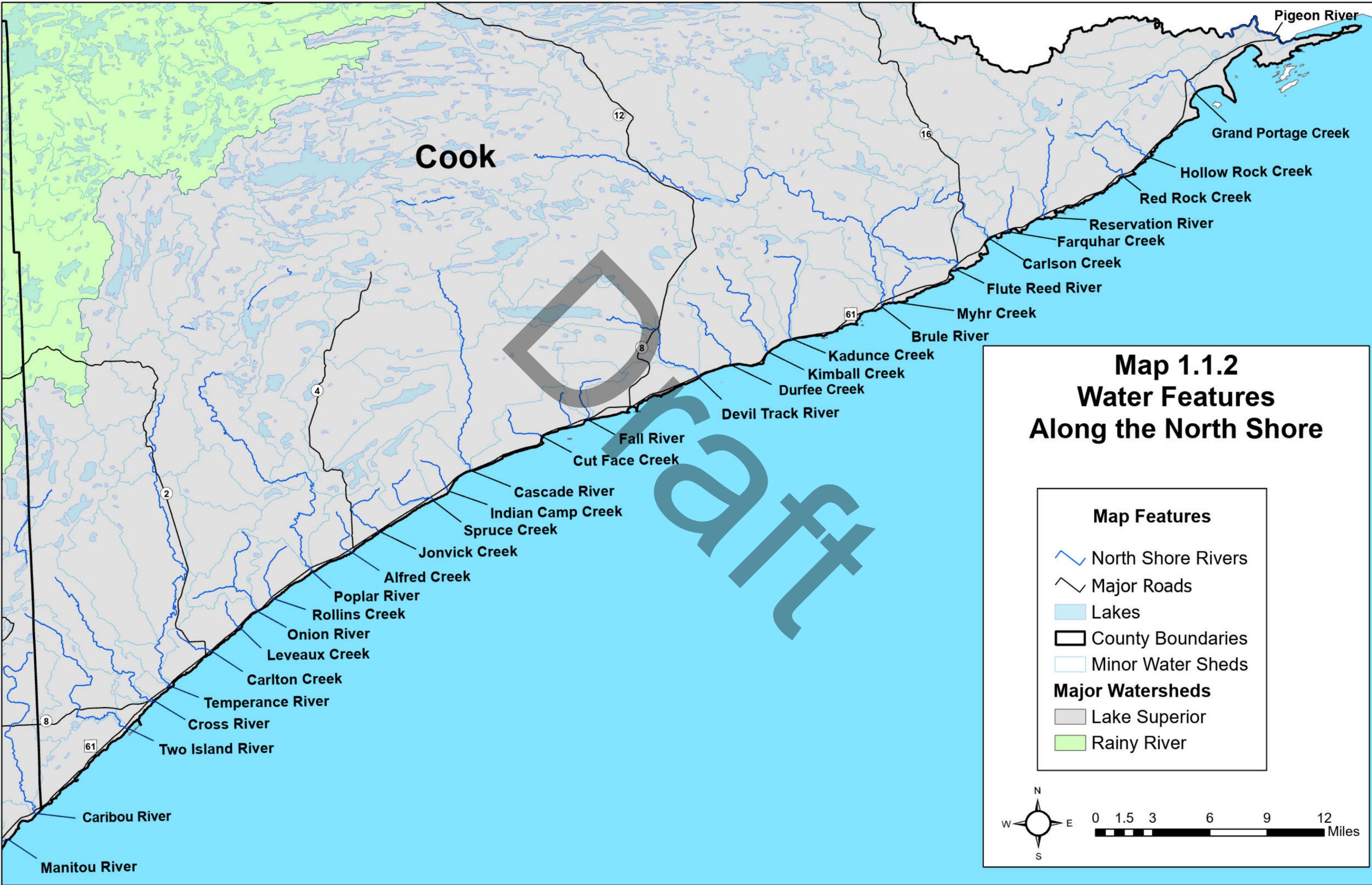
Schmidt Creek

French River

Talmadge River

Lester River

DRAFT



Cook

**Map 1.1.2
Water Features
Along the North Shore**

Map Features

-  North Shore Rivers
-  Major Roads
-  Lakes
-  County Boundaries
-  Minor Water Sheds

Major Watersheds

-  Lake Superior
-  Rainy River



Manitou River

Caribou River

Two Island River

Cross River

Temperance River

Carlton Creek

Leveaux Creek

Onion River

Rollins Creek

Poplar River

Alfred Creek

Jonvick Creek

Spruce Creek

Indian Camp Creek

Cascade River

Cut Face Creek

Fall River

Devil Track River

Durfee Creek

Kimball Creek

Kadunce Creek

Brule River

Myhr Creek

Flute Reed River

Carlson Creek

Farquhar Creek

Reservation River

Red Rock Creek

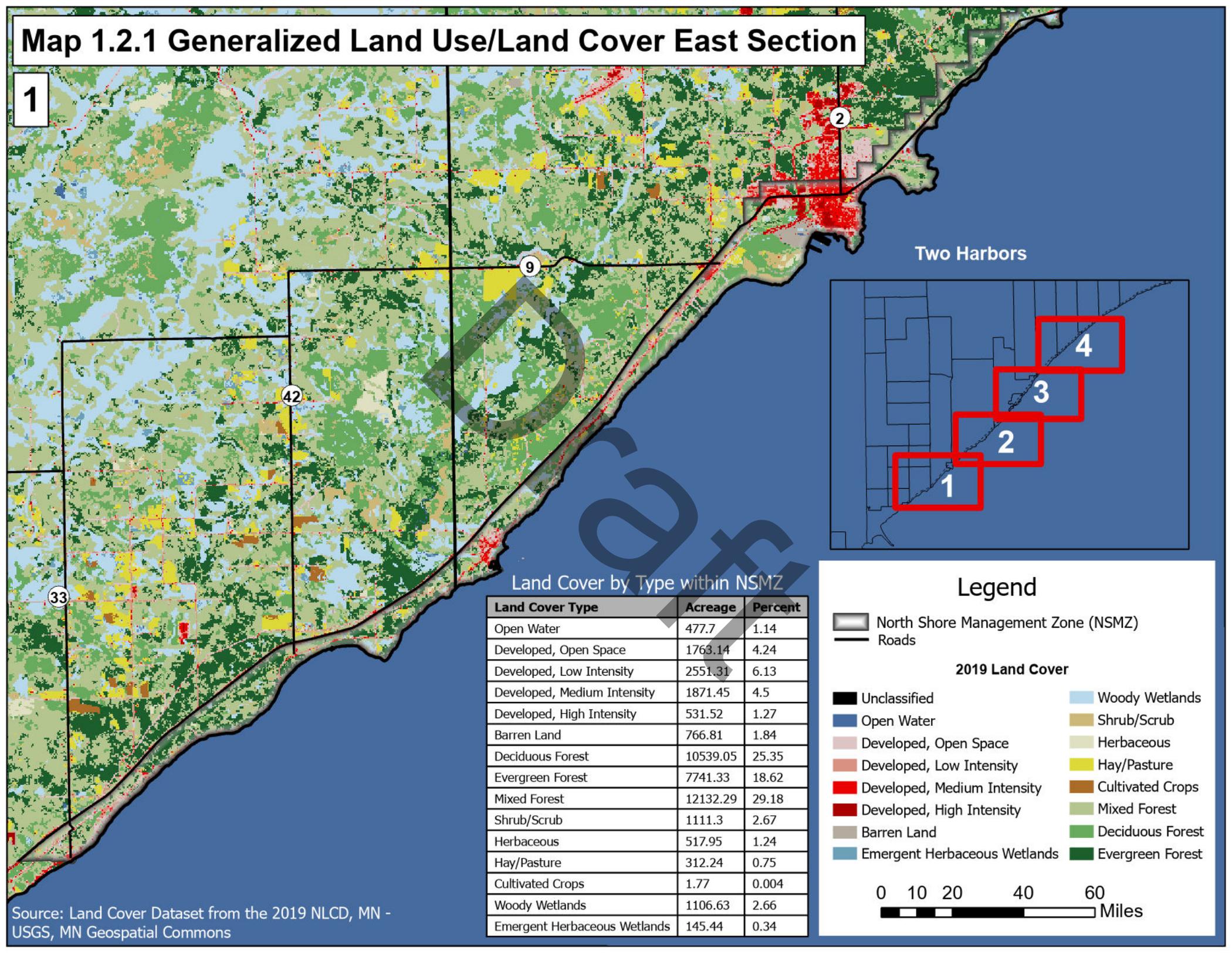
Hollow Rock Creek

Grand Portage Creek

Pigeon River

Map 1.2.1 Generalized Land Use/Land Cover East Section

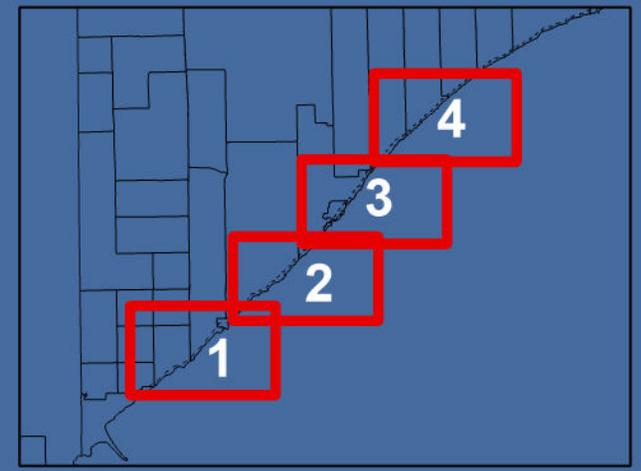
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Land Cover by Type within NSMZ

Land Cover Type	Acreage	Percent
Open Water	477.7	1.14
Developed, Open Space	1763.14	4.24
Developed, Low Intensity	2551.31	6.13
Developed, Medium Intensity	1871.45	4.5
Developed, High Intensity	531.52	1.27
Barren Land	766.81	1.84
Deciduous Forest	10539.05	25.35
Evergreen Forest	7741.33	18.62
Mixed Forest	12132.29	29.18
Shrub/Scrub	1111.3	2.67
Herbaceous	517.95	1.24
Hay/Pasture	312.24	0.75
Cultivated Crops	1.77	0.004
Woody Wetlands	1106.63	2.66
Emergent Herbaceous Wetlands	145.44	0.34

Two Harbors



Legend

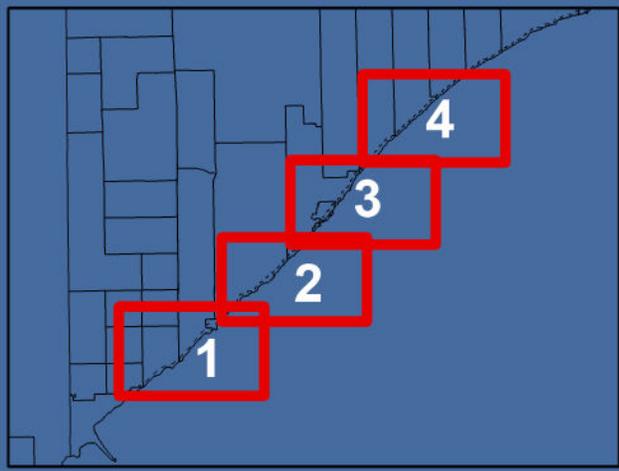
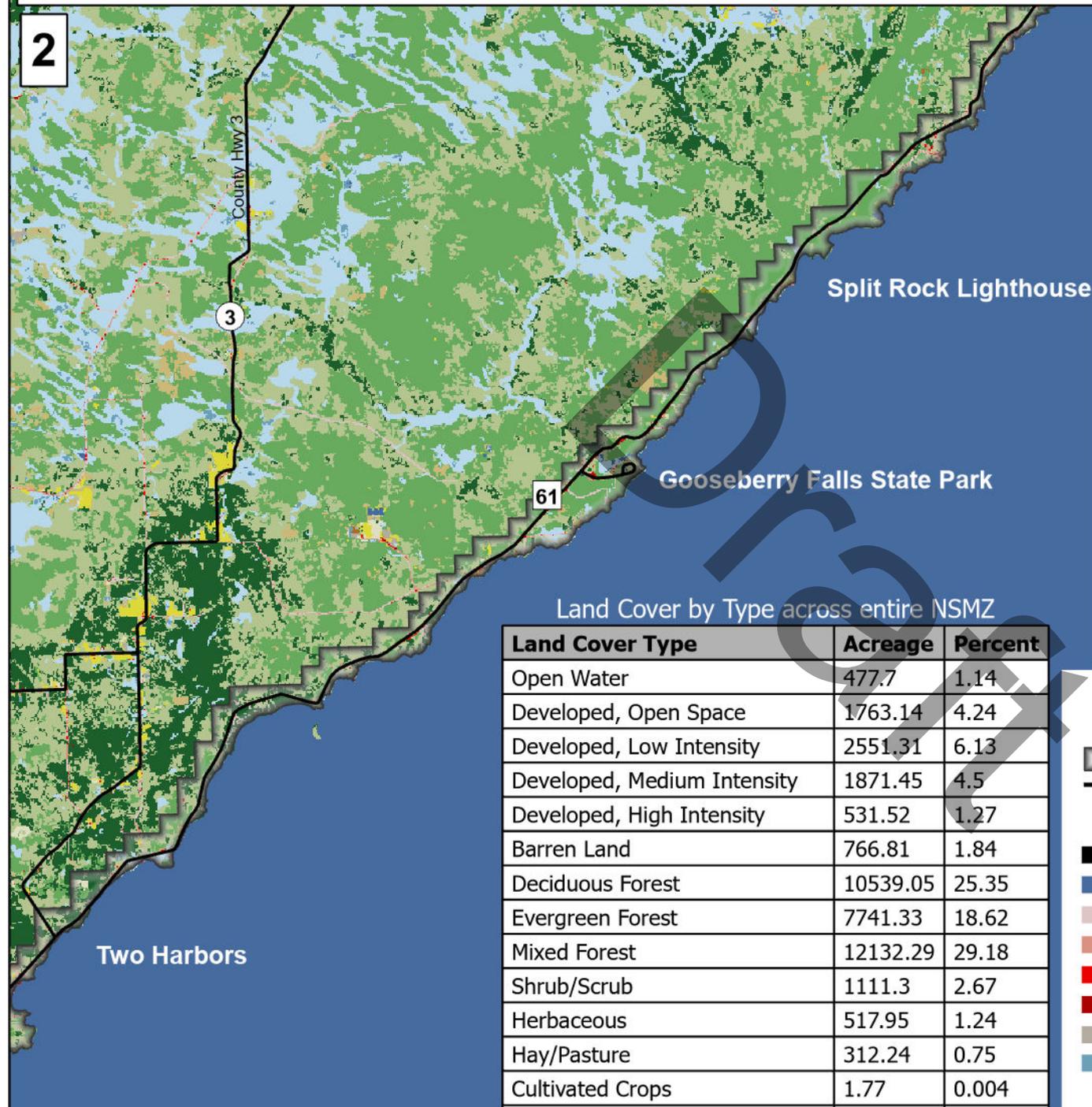
- North Shore Management Zone (NSMZ)
 - Roads
- 2019 Land Cover**
- Unclassified
 - Open Water
 - Developed, Open Space
 - Developed, Low Intensity
 - Developed, Medium Intensity
 - Developed, High Intensity
 - Barren Land
 - Emergent Herbaceous Wetlands
 - Woody Wetlands
 - Shrub/Scrub
 - Herbaceous
 - Hay/Pasture
 - Cultivated Crops
 - Mixed Forest
 - Deciduous Forest
 - Evergreen Forest



Source: Land Cover Dataset from the 2019 NLCD, MN - USGS, MN Geospatial Commons

Map 1.2.2 Generalized Land Use/Land Cover East Section

2

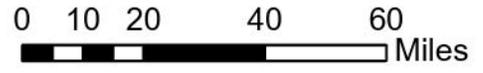


Land Cover by Type across entire NSMZ

Land Cover Type	Acreage	Percent
Open Water	477.7	1.14
Developed, Open Space	1763.14	4.24
Developed, Low Intensity	2551.31	6.13
Developed, Medium Intensity	1871.45	4.5
Developed, High Intensity	531.52	1.27
Barren Land	766.81	1.84
Deciduous Forest	10539.05	25.35
Evergreen Forest	7741.33	18.62
Mixed Forest	12132.29	29.18
Shrub/Scrub	1111.3	2.67
Herbaceous	517.95	1.24
Hay/Pasture	312.24	0.75
Cultivated Crops	1.77	0.004
Woody Wetlands	1106.63	2.66
Emergent Herbaceous Wetlands	145.44	0.34

Legend

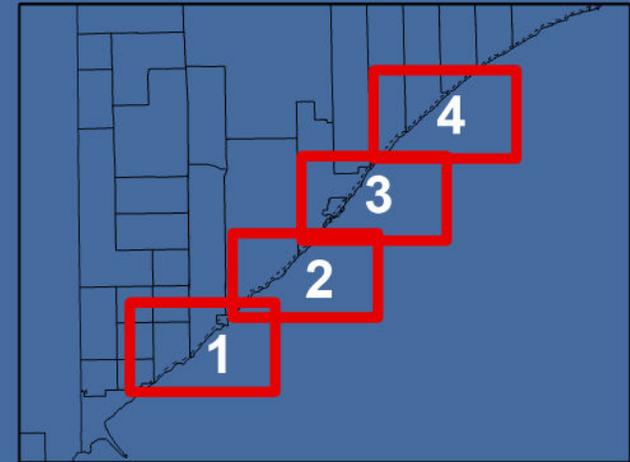
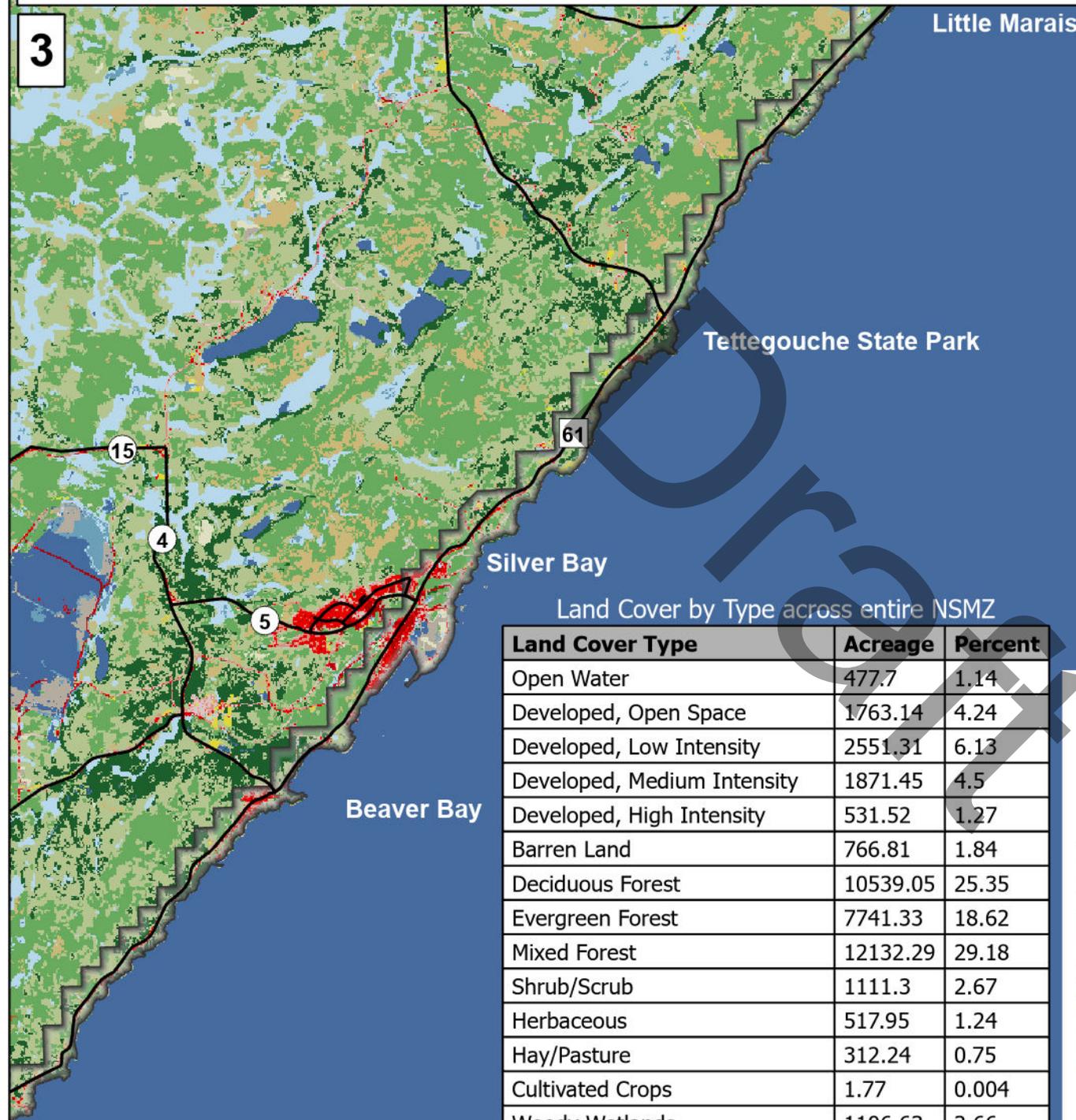
- North Shore Management Zone (NSMZ)
 - Roads
- 2019 Land Cover**
- Unclassified
 - Woody Wetlands
 - Open Water
 - Shrub/Scrub
 - Developed, Open Space
 - Herbaceous
 - Developed, Low Intensity
 - Hay/Pasture
 - Developed, Medium Intensity
 - Cultivated Crops
 - Developed, High Intensity
 - Mixed Forest
 - Barren Land
 - Deciduous Forest
 - Emergent Herbaceous Wetlands
 - Evergreen Forest



Source: Land Cover Dataset from the 2019 NLCD, MN - USGS, MN Geospatial Commons

Map 1.2.3 Generalized Land Use/Land Cover East Section

3



Land Cover by Type across entire NSMZ

Land Cover Type	Acreage	Percent
Open Water	477.7	1.14
Developed, Open Space	1763.14	4.24
Developed, Low Intensity	2551.31	6.13
Developed, Medium Intensity	1871.45	4.5
Developed, High Intensity	531.52	1.27
Barren Land	766.81	1.84
Deciduous Forest	10539.05	25.35
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Cultivated Crops	1.77	0.004
Woody Wetlands	1106.63	2.66
Emergent Herbaceous Wetlands	145.44	0.34

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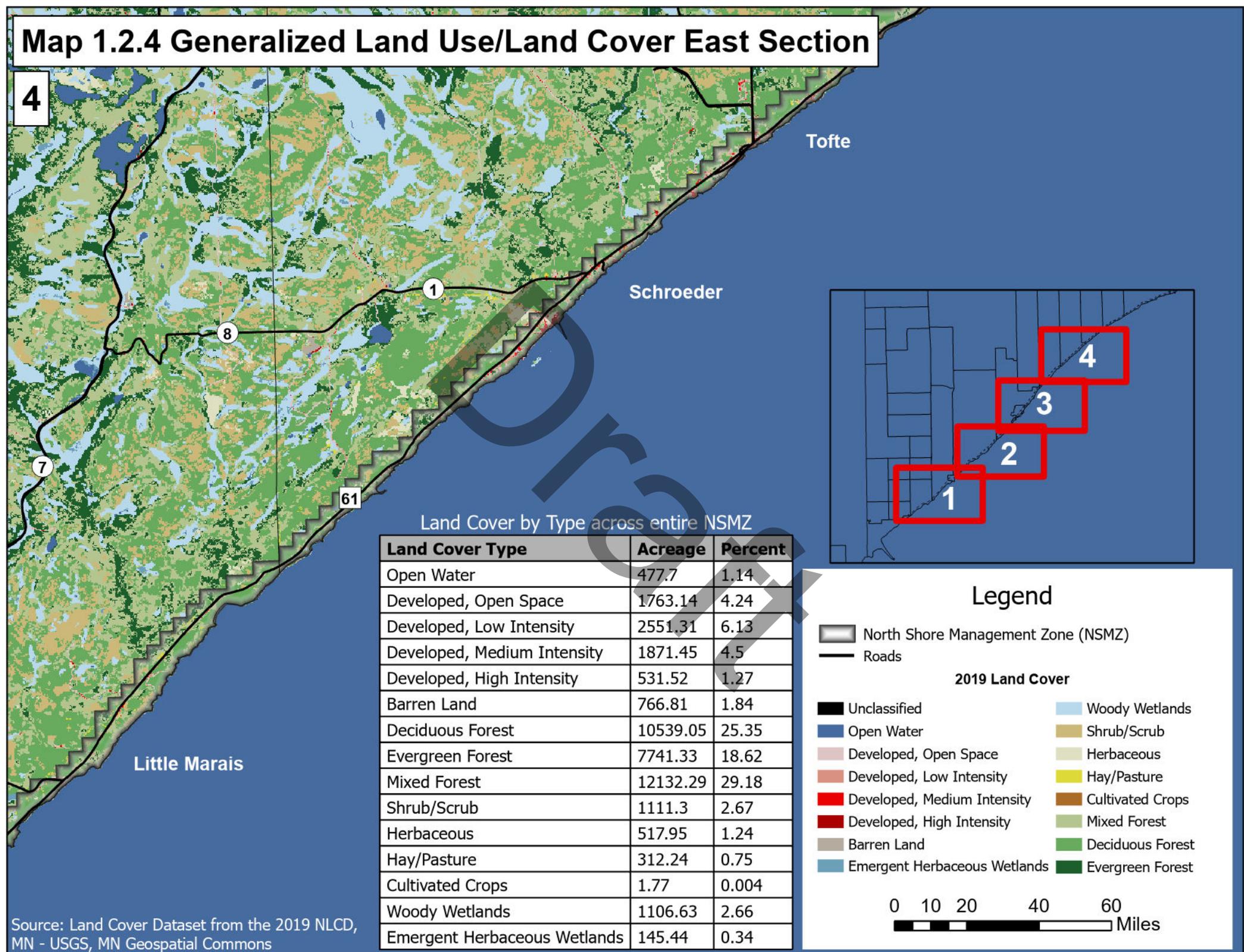
- North Shore Management Zone (NSMZ)
 - Roads
- 2019 Land Cover**
- Unclassified
 - Open Water
 - Developed, Open Space
 - Developed, Low Intensity
 - Developed, Medium Intensity
 - Developed, High Intensity
 - Barren Land
 - Emergent Herbaceous Wetlands
 - Woody Wetlands
 - Shrub/Scrub
 - Herbaceous
 - Hay/Pasture
 - Cultivated Crops
 - Mixed Forest
 - Deciduous Forest
 - Evergreen Forest



Source: Land Cover Dataset from the 2019 NLCD, MN - USGS, MN Geospatial Commons

Map 1.2.4 Generalized Land Use/Land Cover East Section

4



Tofte

Schroeder

Little Marais

Land Cover by Type across entire NSMZ

Land Cover Type	Acreage	Percent
Open Water	477.7	1.14
Developed, Open Space	1763.14	4.24
Developed, Low Intensity	2551.31	6.13
Developed, Medium Intensity	1871.45	4.5
Developed, High Intensity	531.52	1.27
Barren Land	766.81	1.84
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Cultivated Crops	1.77	0.004
Woody Wetlands	1106.63	2.66
Emergent Herbaceous Wetlands	145.44	0.34

Legend

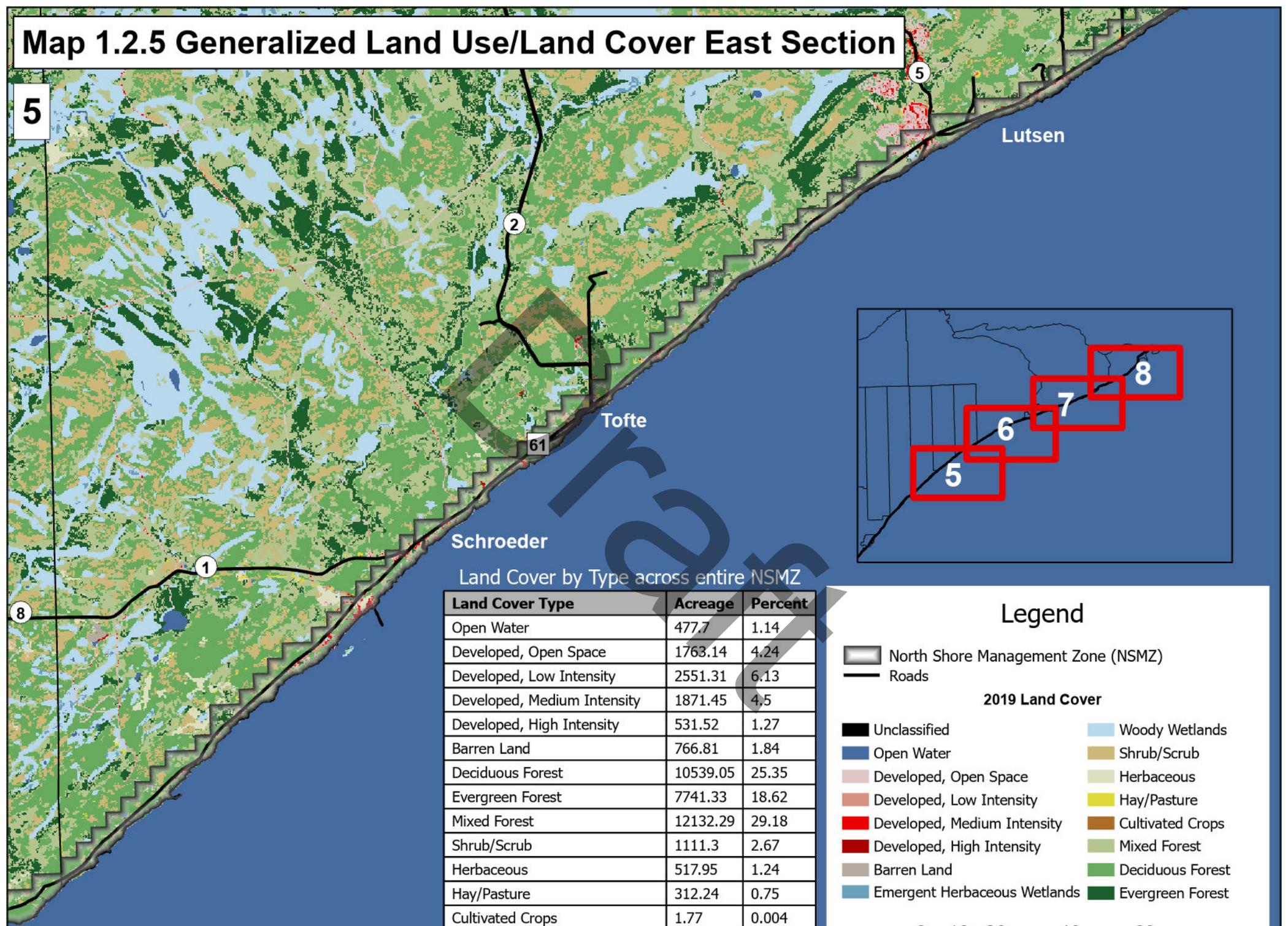
- North Shore Management Zone (NSMZ)
 - Roads
- 2019 Land Cover**
- Unclassified
 - Open Water
 - Developed, Open Space
 - Developed, Low Intensity
 - Developed, Medium Intensity
 - Developed, High Intensity
 - Barren Land
 - Woody Wetlands
 - Shrub/Scrub
 - Herbaceous
 - Hay/Pasture
 - Cultivated Crops
 - Mixed Forest
 - Deciduous Forest
 - Evergreen Forest



Source: Land Cover Dataset from the 2019 NLCD, MN - USGS, MN Geospatial Commons

Map 1.2.5 Generalized Land Use/Land Cover East Section

5



Land Cover by Type across entire NSMZ

Land Cover Type	Acreage	Percent
Open Water	477.7	1.14
Developed, Open Space	1763.14	4.24
Developed, Low Intensity	2551.31	6.13
Developed, Medium Intensity	1871.45	4.5
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Barren Land	766.81	1.84
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Legend

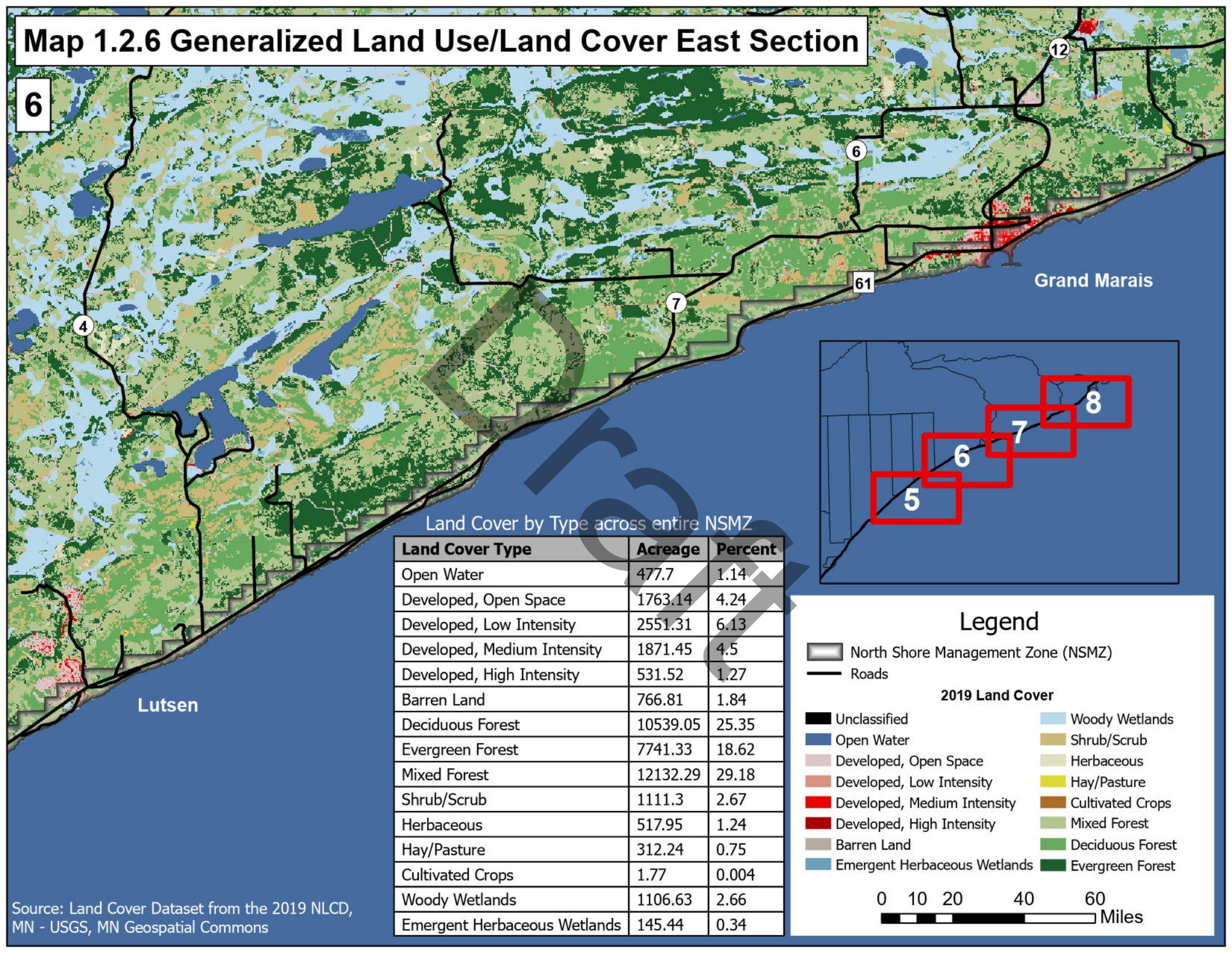
- North Shore Management Zone (NSMZ)
 - Roads
- 2019 Land Cover**
- Unclassified
 - Woody Wetlands
 - Open Water
 - Shrub/Scrub
 - Developed, Open Space
 - Herbaceous
 - Developed, Low Intensity
 - Hay/Pasture
 - Developed, Medium Intensity
 - Cultivated Crops
 - Developed, High Intensity
 - Mixed Forest
 - Barren Land
 - Deciduous Forest
 - Emergent Herbaceous Wetlands
 - Evergreen Forest



Source: Land Cover Dataset from the 2019 NLCD, MN - USGS, MN Geospatial Commons

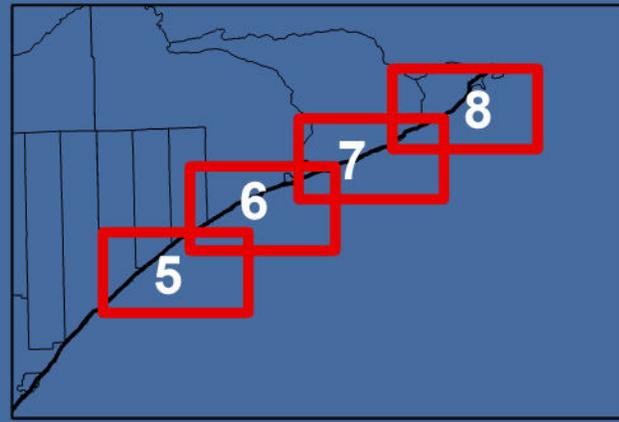
Map 1.2.6 Generalized Land Use/Land Cover East Section

6



Land Cover by Type across entire NSMZ

Land Cover Type	Acreage	Percent
Open Water	477.7	1.14
Developed, Open Space	1763.14	4.24
Developed, Low Intensity	2551.31	6.13
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Legend

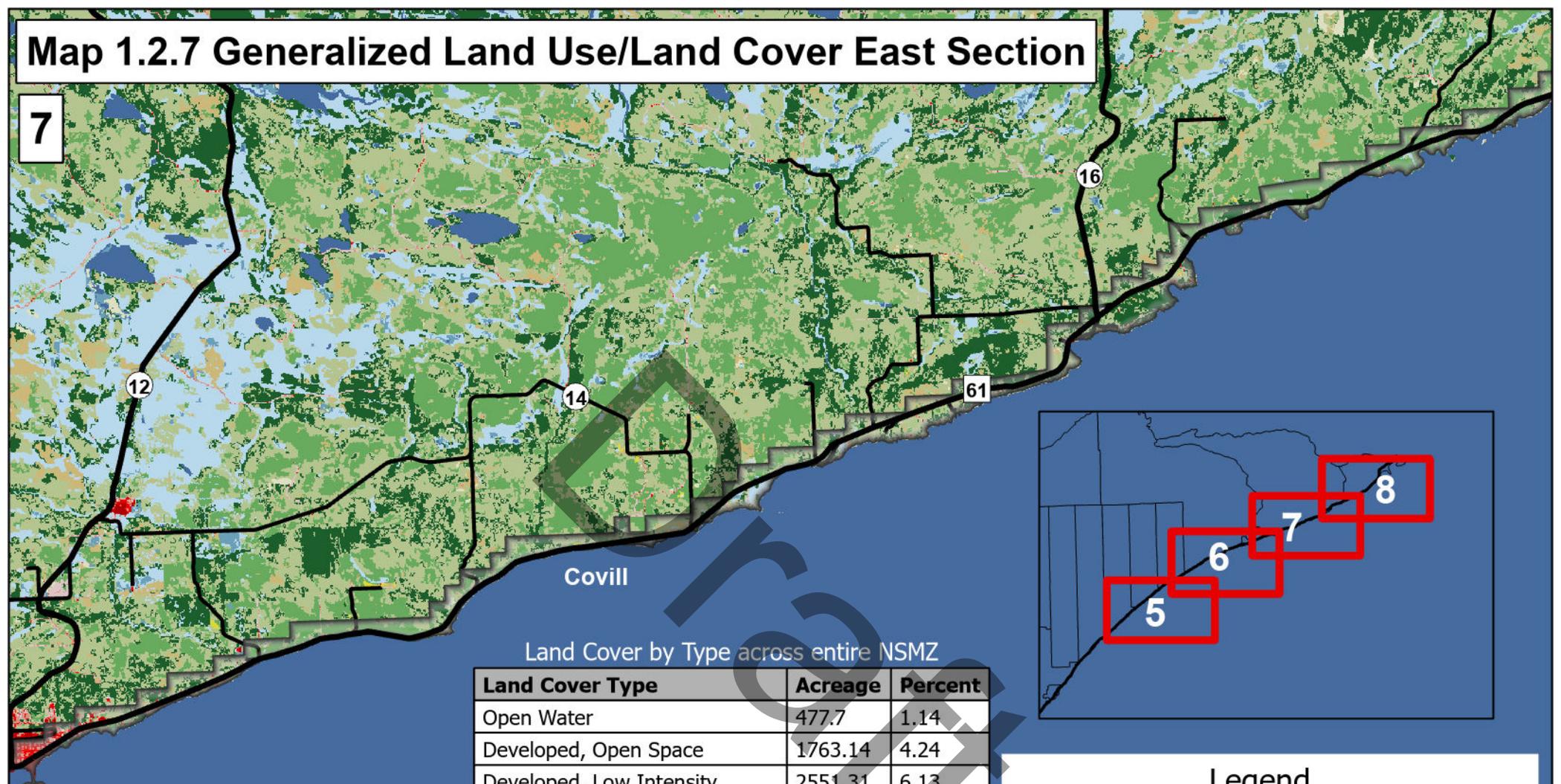
- North Shore Management Zone (NSMZ)
 - Roads
- 2019 Land Cover**
- Unclassified
 - Woody Wetlands
 - Open Water
 - Shrub/Scrub
 - Developed, Open Space
 - Herbaceous
 - Developed, Low Intensity
 - Hay/Pasture
 - Developed, Medium Intensity
 - Cultivated Crops
 - Developed, High Intensity
 - Mixed Forest
 - Barren Land
 - Deciduous Forest
 - Emergent Herbaceous Wetlands
 - Evergreen Forest



Source: Land Cover Dataset from the 2019 NLCD, MN - USGS, MN Geospatial Commons

Map 1.2.7 Generalized Land Use/Land Cover East Section

7



Land Cover by Type across entire NSMZ

Land Cover Type	Acreage	Percent
Open Water	477.7	1.14
Developed, Open Space	1763.14	4.24
Developed, Low Intensity	2551.31	6.13
Developed, Medium Intensity	1871.45	4.5
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Legend

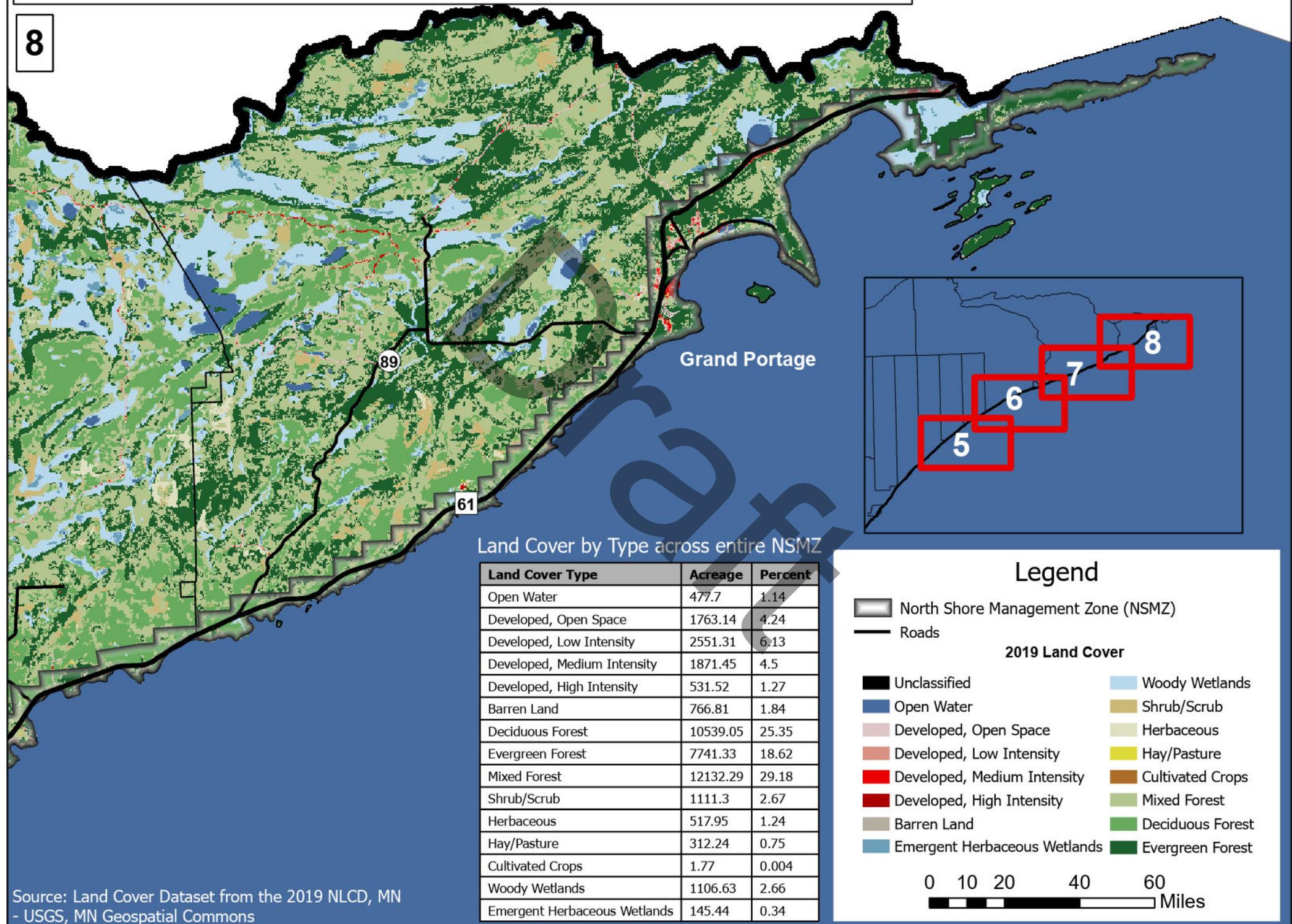
- North Shore Management Zone (NSMZ)
 - Roads
- 2019 Land Cover**
- Unclassified
 - Open Water
 - Developed, Open Space
 - Developed, Low Intensity
 - Developed, Medium Intensity
 - Developed, High Intensity
 - Barren Land
 - Emergent Herbaceous Wetlands
 - Woody Wetlands
 - Shrub/Scrub
 - Herbaceous
 - Hay/Pasture
 - Cultivated Crops
 - Mixed Forest
 - Deciduous Forest
 - Evergreen Forest



Source: Land Cover Dataset from the 2019 NLCD, MN - USGS, MN Geospatial Commons

Map 1.2.8 Generalized Land Use/Land Cover East Section

8



Land Cover by Type across entire NSMZ

Land Cover Type	Acreage	Percent
Open Water	477.7	1.14
Developed, Open Space	1763.14	4.24
Developed, Low Intensity	2551.31	6.13
Developed, Medium Intensity	1871.45	4.5
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Cultivated Crops	1.77	0.004
Woody Wetlands	1106.63	2.66
Emergent Herbaceous Wetlands	145.44	0.34

Legend

North Shore Management Zone (NSMZ)
 Roads

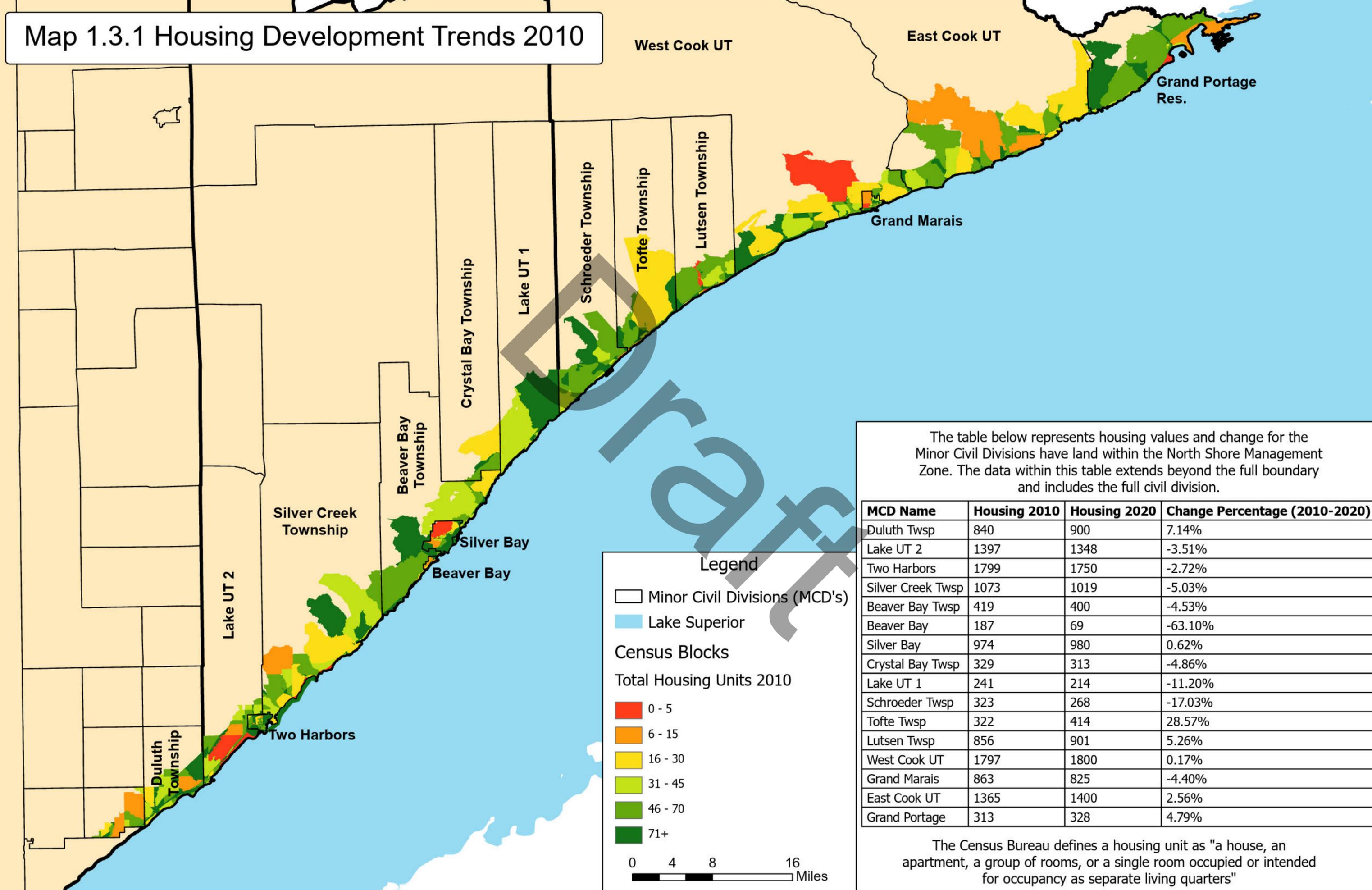
2019 Land Cover

 Unclassified	 Woody Wetlands
 Open Water	 Shrub/Scrub
 Developed, Open Space	 Herbaceous
 Developed, Low Intensity	 Hay/Pasture
 Developed, Medium Intensity	 Cultivated Crops
 Developed, High Intensity	 Mixed Forest
 Barren Land	 Deciduous Forest
 Emergent Herbaceous Wetlands	 Evergreen Forest

0 10 20 40 60 Miles

Source: Land Cover Dataset from the 2019 NLCD, MN - USGS, MN Geospatial Commons

Map 1.3.1 Housing Development Trends 2010

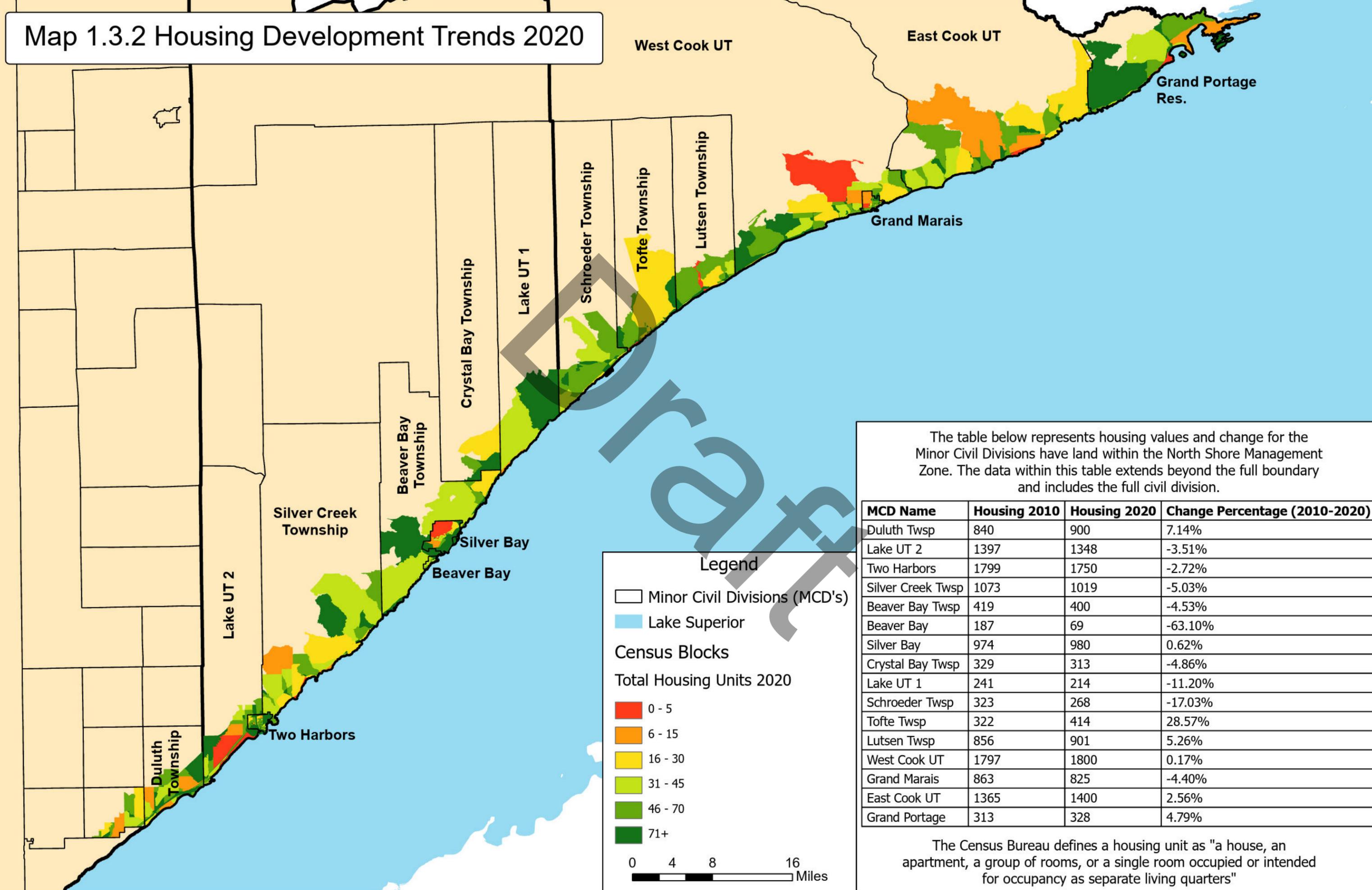


The table below represents housing values and change for the Minor Civil Divisions have land within the North Shore Management Zone. The data within this table extends beyond the full boundary and includes the full civil division.

MCD Name	Housing 2010	Housing 2020	Change Percentage (2010-2020)
Duluth Twsp	840	900	7.14%
Lake UT 2	1397	1348	-3.51%
Two Harbors	1799	1750	-2.72%
Silver Creek Twsp	1073	1019	-5.03%
Beaver Bay Twsp	419	400	-4.53%
Beaver Bay	187	69	-63.10%
Silver Bay	974	980	0.62%
Crystal Bay Twsp	329	313	-4.86%
Lake UT 1	241	214	-11.20%
Schroeder Twsp	323	268	-17.03%
Tofte Twsp	322	414	28.57%
Lutsen Twsp	856	901	5.26%
West Cook UT	1797	1800	0.17%
Grand Marais	863	825	-4.40%
East Cook UT	1365	1400	2.56%
Grand Portage	313	328	4.79%

The Census Bureau defines a housing unit as "a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters"

Map 1.3.2 Housing Development Trends 2020



The table below represents housing values and change for the Minor Civil Divisions have land within the North Shore Management Zone. The data within this table extends beyond the full boundary and includes the full civil division.

MCD Name	Housing 2010	Housing 2020	Change Percentage (2010-2020)
Duluth Twsp	840	900	7.14%
Lake UT 2	1397	1348	-3.51%
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Silver Creek Twsp	1073	1019	-5.03%
Beaver Bay Twsp	419	400	-4.53%
Beaver Bay	187	69	-63.10%
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Grand Portage	313	328	4.79%

The Census Bureau defines a housing unit as "a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters"

Legend

- Minor Civil Divisions (MCD's)
- Lake Superior

Census Blocks

Total Housing Units 2020

- 0 - 5
- 6 - 15
- 16 - 30
- 31 - 45
- 46 - 70
- 71+

0 4 8 16 Miles



North Shore Management Board

NSMB-North Shore Management Plan (April 2026)

Appendix B: North Shore Management Plan Survey & Results

2025 Public Input & Survey Questions & Feedback

Public input was collected during a series of public listening & engagement events, hosted across the NSMZ. A total of eight (8) responses were received from community members, and the input garnered from these sessions are included herein.

Sanitary Systems / Wastewater Treatment

Do you believe the current sanitary system is sufficient to meet the needs of the population in your community?

13%	Yes, it is sufficient
75%	No, it needs improvement
13%	Unsure

Some resorts need better systems
Depends - may need to be upgraded due to managed growth. Also, aging infrastructure needs to be replaced. The system in Grand Portage is closely monitored but as the population increases, the system needs expansion.
Both municipal and onsite systems need improvement. Municipal - infiltration from residences into stormwater systems. On-site systems - new systems are well installed, but existing systems are often inadequate
The Lake County SSTS ordinance should be updated to meet the State Shoreland for compliance inspections - systems 3 years after that . The timeline to update old systems has been generous. Waiting for a sale means property never gets inspected.
As currently written, the plan primarily addresses the installation of sanitary systems. It does not adequately address situations where it is impossible or counter-productive to install properties (e.g. the need for a community system in some areas near Silver Creek)

If you replied “No”, what improvements do you think are needed?

Municipal - additional research into the extent and distribution of infiltration to be able to target appropriate response.
additional county staff to inspect existing systems for failure and adequate treatment
political will and staff commitment to require upgrades if needed
deny building permits if onsite systems isn't adequate.
ensure onsite systems are compliant before permitting short-term rentals. This is already done.
proper wastewater treatment is expensive - what is the price of human (and environmental) health??
Connected to WLSSD but limited capacity for growth in community
Suggest mapping areas in need of larger installations & how these can be effecting designed and installed

How important do you think it is to improve sanitation and waste management systems for Lake Superior sustainability?

38%	Extremely Important
38%	Very Important
13%	Moderately Important
0%	Not Important

Shoreline / Shoreland Alterations

What are your main concerns or suggestions regarding shoreline alterations in your area of the North Shore Management Zone? (e.g. vegetation removal, bank stabilization, construction of structures such as docks or retaining walls, or other alterations):

This seems like a useful standard into which climate change can be integrated through attention to restoring natural vegetation that is likely suitable to climate change, planning for resilience to dynamic conditions like water levels, etc.

Enforce the present ordinance! Stop flagrant disregard, Require planning commissioners and Board of Adjustment members to understand the ordinance.

Enforcement of required buffer vegetation when a stipulation in permits, Rip Rap passes erosion to neighboring shoreland, no habitat benefits, lawn within 50ft of shoreline should be phased out, New clearing / lawn establishment prohibited

* The NSMB needs to prioritize submitting comments on CU applications & variance applications, both the P.C. and B.O.A need to be reminded of the NSMZ stipulations!

Enforce setback rules, expect LGU's to quit allowing variances in the shoreland zone. Strategic assessments of watershed health and conduct watershed-wide restorations (or improvements) instead of hit or miss project within different watersheds. Consider what needs to happen to improve overall watershed health and water quality. Implement.

Evaluate one North Shore watershed at a time, rather than everything at once. Help the public understand that some variances could improve drainage, water quality, ecosystem health. Popular perspectives are that most all variances are allowed. Support removal of invasive species in public spaces so the public doesn't think it's okay.

Standards should be strict more than present standards. Grand Portage has a 75 foot setback for lake protection.

People abide by rules.

Shoreland Alterations are essential as a response to climate change to make the North Shore more resilient to extreme weather.

Planned Unit Development

How do you feel about Planned Unit Developments (PUD) in your area?



Please share any specific suggestions or concerns you have regarding Planned Unit Developments within the North Shore Management Zone:

Concerns that PUDs will be given TIF and allowances because of unclear and/or limited "public benefits"

Concern that once a PUD is begun, there will be inadequate control once the developer begins (i.e. in case of violations, will the project be halted?)

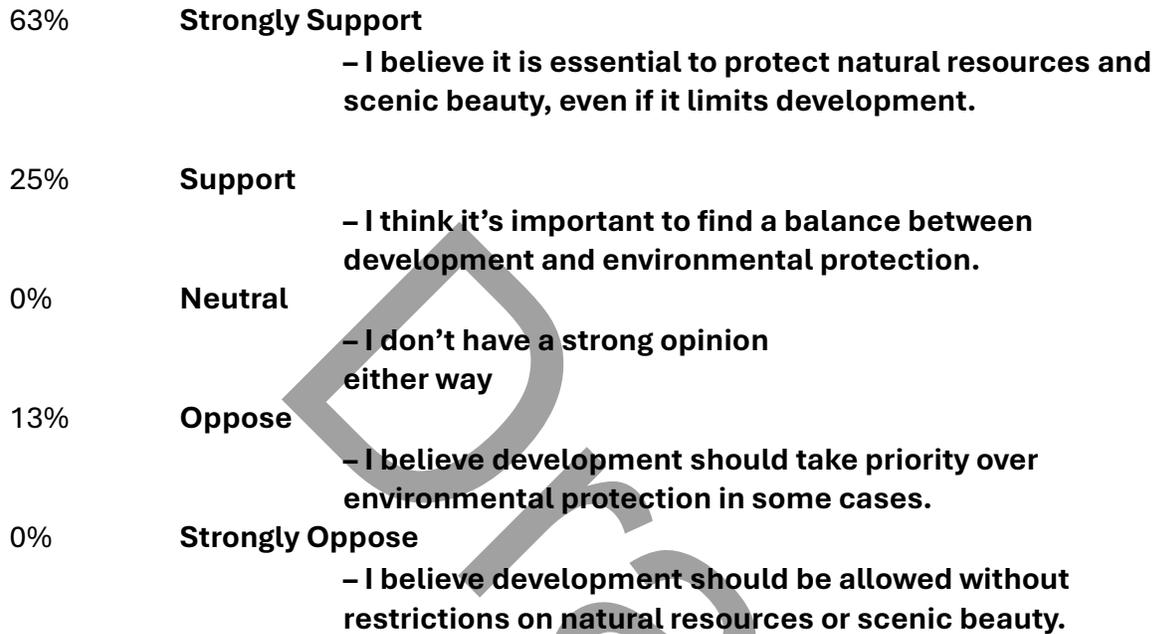
Due to increase in erosion from more severe storms & high rainfall events, high density development in the NSMZ is not desirable as it adds to runoff & is at greater risk of erosion impacts. Also, keeping the shoreline scenic & wild is better for water quality of the lake & more enjoyable for residents.

It seems like this standard could be very restricted to improve areas where existing development exists or natural restoration is not possible (eg because of locality)

The strong preference should be to sustain areas of public access (eg Knife River Beach) of natural constellation wherever possible.

Zoning

How do you feel about balancing the needs of development with the protection of water resources, natural habitats, and the beauty of shorelines in your community's shoreland zoning policies?



Please share any specific concerns or suggestions you have regarding shoreland zoning and its impact on development and the shoreline of Lake Superior:

Equal enforcement in both Lake and Cook County
Our wild North Shore is a valuable resource for our whole community. Protecting the water and natural landscape should be a high priority. We should not sell-out to outside interests / developers for the sake of profits or in the name of tax revenue. Local residents do not ever seem to be the ones that benefit from the profits of development for corporations

People need to understand risks of owning Lake Superior waterfront, erosion is inevitable & a natural process - prevent development that will eventually be at risk of damage / loss due to erosion.

Given community feedback tonight, it seems valuable to address issues with variances in this standard (especially encouraging variances as opportunities for promoting sustainable development & property protection measures).

Please rank the following zoning priorities in terms of their importance to you for environmental protection and orderly growth along the North Shore of Lake Superior. (1 being the most important, 5 being the least important)

Preventing shoreline erosion

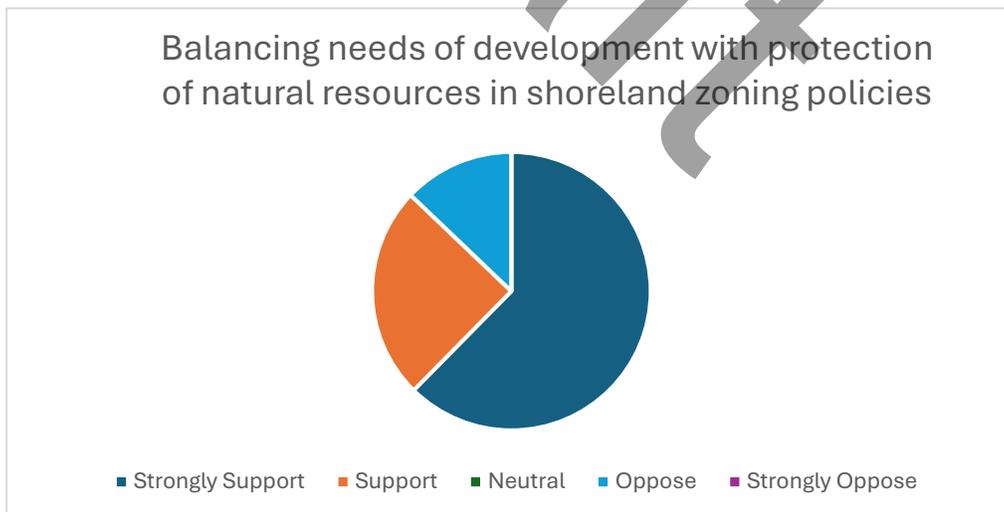
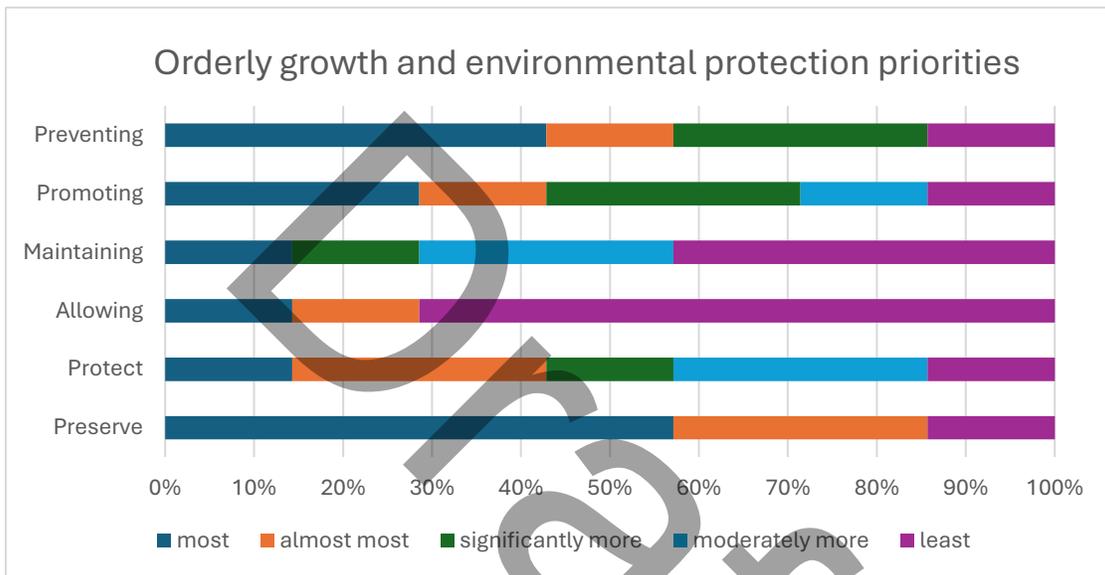
Promoting responsible development and sustainable land use

Maintaining scenic beauty and recreational areas

Allowing individuals to take reasonable steps to protect their property

Protecting wildlife habitats and biodiversity

Preserving water quality and reducing pollution



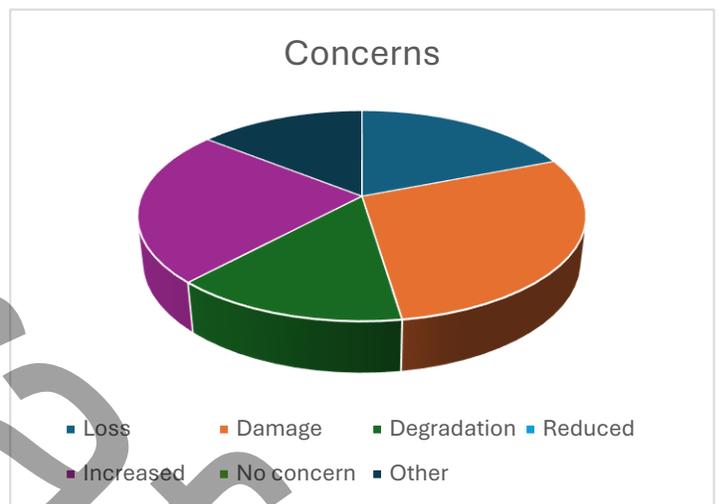
Erosion Hazard Zones

How familiar are you with the concept of erosion hazard zones along Lake Superior?

- 38% **Very familiar**
- 63% **Somewhat familiar**
- 0% **Not familiar at all**

What concerns, if any, do you have about erosion hazards zones in your community?
(Please select all that apply.)

- Loss of property due to erosion**
- Damage to infrastructure (roads, utilities, etc.)**
- Degradation of local wildlife habitats**
- Reduced property values**
- Increased flooding and stormwater runoff**
- No concerns**
- Other (please specify):**



Water Quality degradation from erosion & sedimentation & nutrient loading
continued development/variances allowed along Lake Superior
These zones are essential!

Please share any specific life experiences you have had regarding soil erosion along Lake Superior:

Seen erosion moving veg. line 1'-3' inland
As a former P&Z employee, seeing people put a lot of money into trying to save or improve nonconforming structures on non-conforming lots; applying for variances for these structures because of grandfathered rights.
Closure of Brighton Beach and other wayside rests. Unsafe road conditions and repair closure/delays due to erosion.

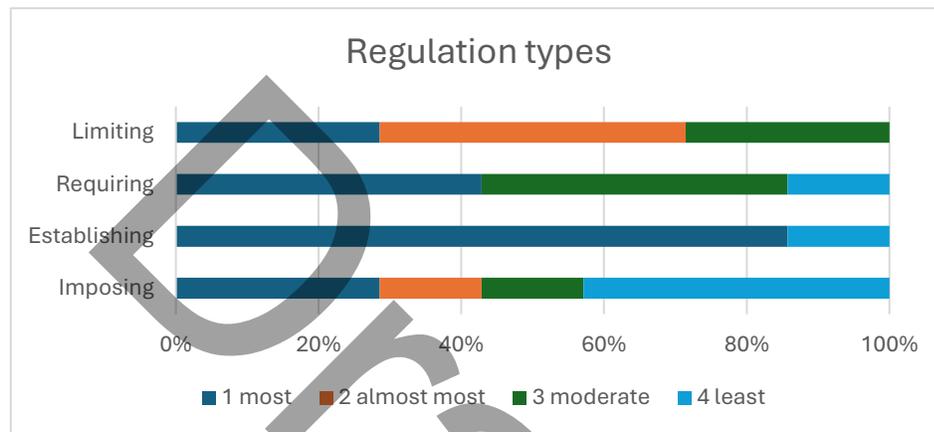
What types of regulations do you believe should be applied to development in erosion hazard zones? (Rank in order of importance, 1 being the most important)

Limiting the construction of buildings within a certain distance from the shoreline of Lake Superior

Requiring erosion control measures (e.g. riprap, vegetation planting)

Establishing no-build zones or greater setbacks from shorelines

Imposing higher building standards to withstand erosion-related risks



Are there other regulations that are not listed that you believe should be considered?

limiting removal of existing vegetation

building height limitations (enforced)

The EHA should be re-evaluated as erosion due to storms is intensifying

It is imperative to pay attention to projected climate & weather conditions and build for resilience, as opposed to historic conditions that are unlikely to persist in to the future.

Importance of establishing a regional resilience plan for the North shore with partners from the communities, the counties, the Grand Portage Band and the ARDC and the 1854 Treaty Authority.

Do you believe erosion poses a risk to your personal property along Lake Superior?
Please give your example.

no

do not live on Lake Superior

erosion on river property is significant with fluctuating water levels (and effects L. Superior as the receiving body)

No, I live in
town.

No

I have friends with personal property along the North Shore. They are concerned about erosion of their shoreland, and how to access expertise and funding to stabilize the area because of climate change.

Draft

Appendix B (Continued): 2016 North Shore
Management Plan Survey & Results

Draft

Safety in relation to the number of vehicle access points along Highway 61	1	2	3	4	5	0
Amount of commercial signage along the Highway 61 corridor	1	2	3	4	5	0
General appearance of commercial signage along the Highway 61 corridor	1	2	3	4	5	0
Other – Please describe						

5. For the problems in Question 4 that you considered to be moderate, serious, or very serious, provide more details below about each problem(s):

Problem: _____

Problem: _____

Problem: _____

(If more space is needed, attach a separate page)

6. Over the past five years, would you say the overall quality of life along the North Shore of Lake Superior is: (Check one)

- Getting better
- About the same
- Getting worse

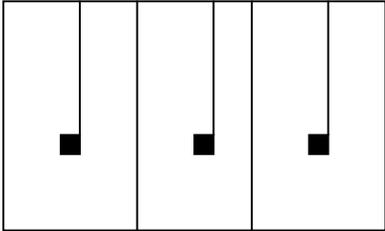
7. Over the past five years, what, if anything, has become particularly better about living on the North Shore?

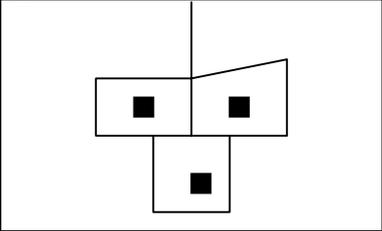
8. Over the past five years, what, if anything, has become particularly worse about living on the North Shore?

9. Write several words or phrases that express why you value living on or near the North Shore of Lake Superior.

10. How could the quality of life be improved on the North Shore?

11. The following is a list of current and possible future development scenarios along the North Shore of Lake Superior? (Circle the number that best describes your support of each development pattern.)

Development Patterns	Strongly support	Support	Neither support nor oppose	Oppose	Strongly oppose
Commercial or residential multiple unit/high density development is an appropriate type of development anywhere on the North Shore as long as adequate wastewater treatment can be provided	1	2	3	4	5
Commercial or residential multiple unit/high density development is an appropriate type of development only in areas near existing high-density residential and commercial areas	1	2	3	4	5
Commercial or residential multiple unit/high density development in some parts of Lake Superior is appropriate only if this would be offset by other parts of the lakeshore remaining undeveloped or developed in lower densities than currently permitted	1	2	3	4	5
Linear low-density residential development along the lakeshore with similar lot sizes and minimum lot frontages 	1	2	3	4	5
Development Patterns	Strongly support	Support	Neither support nor oppose	Oppose	Strongly oppose

Residential growth based on a number of units per acre with less emphasis on minimum lot size and a smaller minimum frontage required 	1	2	3	4	5
Maintain the current level of public land on Lake Superior	1	2	3	4	5
Increase the amount of lakeshore in public ownership	1	2	3	4	5
Encourage private preservation of open space	1	2	3	4	5

12. What are your feelings towards the following action steps that the NSMB could pursue in addressing particular issues along the North Shore? For example, the NSMB recently provided guiding principles on wireless tower development to local units of government. Similar activities could be done for a variety of issues.

Action Steps	Strongly support	Support	Neither support nor oppose	Oppose	Strongly oppose
Guidelines for ridgeline development	1	2	3	4	5
Guidelines for signage in the Highway 61 corridor	1	2	3	4	5
Guidelines for using zoning to encourage development in areas already served by utilities and wastewater systems	1	2	3	4	5
Please describe any other issues you would like to see the NSMB address in the near future? _____ _____ _____					

13. If necessary, please expand upon your thoughts on how future growth should be managed along North Shore.

14. Sewage disposal is an issue currently undergoing a great deal of study along the North Shore. What do you believe is the best long-term solution for dealing with this issue? (You may check more than one)
- Conventional individual lot on-site systems are adequate to address future wastewater needs of lower-density areas
- On-site systems are adequate, but the newest types of technology should be used.
- As much as possible, groups of residences should be part of a cluster system.

- _____ Development of sewer lines to serve higher-density areas should be examined.
- _____ Development of sewer lines along the entire North Shore should be investigated.
- _____ Composting Systems
- _____ Depending on the site and situation, all of these options may be appropriate. There is not one solution to the question of sewage disposal on the North Shore.
- _____ No opinion/Not familiar enough with these options to make an informed choice.

Comments: _____

Thank you for your input.

The revision of the North Shore Management Plan is funded in part through the following sources:

- ***Shoreland Grant from the Minnesota Board of Water and Soil Resources***
- ***Grant from the Minnesota Department of Natural Resources-Waters and Minnesota's Lake Superior Coastal Program through the Coastal Zone Management program administered by the National Oceanographic and Atmospheric Administration through the Office of Ocean and Coastal Resource Management.***
- ***Member governments of the North Shore Management Board have also assisting in funding the revision of the North Shore Management Plan.***

The plan is expected to be completed in Summer 2003.

Please return survey in the enclosed envelope.

Mail to:

**Arrowhead Regional Development Commission (ARDC)
221 W. First Street
Duluth, MN 55802**

- **Question 1:** Does your property have shore line frontage on Lake Superior?

Response	Total	Percent
Yes	77	37.9
No	121	59.6
Missing	5	2.5
Totals	203	100%

- **Question 2:** Please indicate the approximate location of your property:

Response	Total	Percent
Duluth Area	25	12.3
Knife River/Two Harbors	33	16.3
Silver Bay/Beaver Bay	39	19.2
Lutsen/Tofte/Schroeder	54	26.6
Grand Marais/Grand Portage	45	22.2
Missing	7	3.5
Totals	203	100%

- **Question 3:** Are you a seasonal or full-time resident near the North Shore?

Response	Total	Percent
Seasonal	32	15.8
Full-Time	162	79.8
Missing	9	4.5
Totals	203	100%

➤ **Question 4: To what extent do you consider each of the following to be a problem on the North Shore of Lake Superior?**

	Not a problem	Slight	Moderate	Serious	Very serious	Don't know	Missing	Total
Overall water quality	34.0	22.7	22.2	10.3	5.9	4.4	0.5	203
Lake water pollution due to faulty/substandard septic system	15.8%	17.7	25.6	14.8	15.8	9.4	1.0	203
Lake water pollution due to runoff from homes, cabins, resorts.	19.2	21.7	26.6	15.3	9.4	7.4	0.5	203
Lake water pollution due to run off from roads	18.7	26.1	24.1	14.8	5.9	7.9	2.5	203
Well water contamination due to failing septics	21.7	19.7	17.2	8.4	10.3	20.2	2.5	203
Pollution entering lake from watershed	15.3	19.7	22.2	9.9	10.8	21.2	1.0	203
Lakeshore erosion	19.2	27.6	22.2	17.7	6.9	4.9	1.5	203
Vegetation removal by property owners	25.1	17.7	22.7	14.8	7.9	7.9	3.9	203
Declining fish habitat	16.3	17.2	22.7	19.7	9.9	11.8	2.5	203
Declining wildlife habitat	22.2	18.7	22.7	13.8	10.8	8.9	3.0	203
Declining aquatic bird habitat	20.7	19.7	20.7	15.8	9.9	10.8	2.5	203
Loss of wetland areas	25.1	14.8	13.8	16.7	15.8	11.3	3.0	203
Visual impact from road of development of TH 61 corridor	24.6	19.7	23.2	15.3	14.3	2.0	1.0	203
Visual impact from lake of development of TH 61 corridor	24.6	18.7	15.8	14.8	10.8	13.3	2.0	203
Visual impact of wireless communications facilities	41.9	21.7	12.8	9.4	9.9	3.9	0.5	203
Development along the ridgeline	28.6	20.2	18.2	11.3	10.8	8.9	2.0	203
Safety in relation to the number of vehicle access points along TH 61	16.3	18.2	25.6	24.1	12.3	2.5	1.0	203
Amount of commercial signage along TH 61	22.7	22.7	25.1	15.3	12.8	1.0	0.5	203
General appearance of commercial signage along TH 61	24.1	23.6	25.6	12.8	9.9	1.0	3.0	203

➤ **Question 5: For problems in question 4 that you considered to be moderate, serious, or very serious, provide more details below about each problem(s):**

- Business Entrances/Betty's Pies
- Pollution
- Unsafe 61
- No Cell Phone Towers
- Multiple drive entrances
- Highway Access
- Betty's Pies/entrance
- Small shoulders
- Water quality
- Reality signage unattractive
- Signs should not cause distraction
- Get rid of signs
- Exhaust from MN Power
- More homes/driveways
- Wireless towers
- Wetlands
- Signs need repainting
- Signage
- Duluth raw sewage
- Widen Hwy 61
- Overbuilt condos/homes
- Water pollution
- More hwy enforcement
- Septic regulations need revisions
- Spring runoff from road salt
- Too much truck traffic
- Stop development
- Visual impacts
- Road chemicals
- Turn lanes
- Visual effects
- Only one rest area
- Lake pollution
- Sewer system needed
- Water pollution
- TH 61 is dangerous
- Mercury in water
- Duluth needs waste improvements
- Hwy 61 accidents
- Towers/ridge development
- Silt Buildup
- Over development
- Declining habitat
- Air Quality
- Scenic easement should be est.
- Declining bird habitat
- Dense development
- Vegetation removal
- Litter
- Hwy 61 safety
- Low cost housing
- Septic pollution
- Ridgeline Development eyesore
- Driveways on corners
- All suburban sprawl issues apply
- Communication towers not necessary
- Pollution of well water
- Too many signs
- Septic systems are major problem
- Right of way needs mowing
- Development along ridge
- Too many signs
- Development problems
- Erosion
- Clean right of way
- Clean air
- Protect ground water
- Marked increase in number and size of lakeshore lots
- Highway salting
- Better septic systems
- Water quality
- Vehicle access
- Lakeshore erosion
- Road salt kills vegetation
- Truck traffic-should be more lake shipping
- Commercial signage
- Billboards
- Declining habitats
- Lakes with public access should be stocked
- Proximity of RR and Superior St
- Septics are failing
- Vehicle access at Betty's Pies
- Mound septic systems
- Getting too commercial
- Storm water erosion
- Size and nature of signs
- Power plant smog
- Job prospects
- Development is advantageous to economy
- Tighter septic rules
- Less towers
- Visual pollution
- Row houses
- Ship inspections
- Truck Traffic
- Ugly Signage
- Erosion
- Runoff
- Access to TH 61 dangerous
- Billboards
- Resorts/septics
- More traffic
- Traffic
- Loss of trees
- More passing lanes
- Water quality
- No comm. signage
- Commercialization
- Signage too large
- Sprawl
- Less disturbance for spawning fish
- Sewer runoff in Duluth
- Fish decline
- Road conditions
- Visual impacts form lake
- Not conforming to setback distance
- Too many signs
- Highway 61 improvements needed
- Continual development/wildlife
- Too dense
- Duluth pollutes water
- Light pollution
- Visual
- Habitat
- Ridge line development
- Tourists inattentive
- Community sewer needed
- No commercial signage necessary
- Less towers
- Highway Drainage
- Decline in fishing
- No more signs
- Commercial development
- Lax supervision on commercial compliance
- Loss of trees
- Poor development
- Quality of life
- Trashy areas
- Little public input on development

- **Question 6:** Over the past five years, would you say the overall quality of life along the North Shore of Lake Superior is:

Response	Total	Percent
Getting better	37	18.2
About the same	90	44.3
Getting worse	55	27.1
Missing	21	20.3
Totals	203	100%

- **Question 7:** Over the past five years, what, if anything, has become particularly better about living on the North Shore?

- Fixed the highway
- large development
- Improved TH 61
- Highway Improvement
- More entertainment/food
- Things are the same
- Income has increased
- Not as much litter
- TV reception satellite
- Property value
- Better accessibility/more shopping eating choices
- More public access
- Utilities/road
- Climate/ people
- Climate/ people
- Better hiking/ski
- More wildlife
- Road improvements
- Road improvements
- Picnic areas, rest areas
- Nothing
- More accessibility/facilities
- Better road
- New golf course
- Phone/internet
- Road/phone
- Better roads
- Organized efforts to protect environment
- Wilderness outlook
- Environmental conscious
- Refuge at Silver Bay
- Wildlife
- Road improvements
- Area has escaped sprawl
- Tasteful commercial establishments
- Development of trail
- Emergency services
- Shorter driving time
- Economy improving
- Lake protection
- Old building replacement
- Road by Beaver Bay
- More culture/restaurants
- Gitche Gami Trail/ sewer lines along shore
- Home grown businesses
- Rest areas
- Development
- Nothing
- Emergency service
- Exhausted quality of community
- Highway upgrade
- DSS lets remote homeowners join the rest of the world
- Access to better stores
- Awareness of environmental issues
- Litter in TH
- New school facilities
- DSS TV and internet access
- Less time to get to Duluth
- Housing/road
- Road safety
- Road conditions
- Access to technology
- Proposed sewer good
- safety of highway/Castle Danger septic system
- Access to facilities
- TH 61 Safety
- Better restaurants
- Medical service
- Tourists
- Recreational improvements
- Better roads/septic systems

➤ **Question 8: Over the past five years, what, if anything, has become particularly worse about living on the North Shore?**

- Traffic
- Rising taxes
- Truck Traffic
- Sewer plant smell at BP
- Increase Traffic
- Too much traffic/development
- Increased year round residents/push for commercial development
- Too much government control
- Water quality
- Pollution from septics
- Jet ski/loud boats
- Population base is changing
- Over development
- TH 61
- Unfriendly neighbors
- Commercial development
- Roads
- Loss of rustic feel
- Population loss
- Too many people
- Large development
- 4 lane highway needed
- Resort and Condo Building
- TH 61 traffic
- Traffic
- Pollution/septics
- Disrespectful people
- Bad drivers
- More traffic
- Too many environmentalists
- Hwy 61 traffic
- Limited retail/grocery
- Too much truck traffic
- development/traffic
- So few employees
- Proposed McQuade harbor
- Poor road
- Visual development
- Traffic speed
- Trucks
- Speeding trucks
- Water in GM marina is foul
- More congestion
- Traffic density
- Taxation
- Rumble strips
- Increasing housing
- High density development units
- Threat of Wal-Mart
- Development of inland lakes
- Urban sprawl
- More traffic
- Rising property values
- More commercial sites
- urban sprawl
- Taxes too high
- Special event traffic control
- People trying to develop small pieces of property
- Route TH 61 around Two Harbors
- Outsiders raising property values
- Unbalance between older and younger
- Development on lake side of 61
- Outsiders restricting recreational and business use of our area
- More people/more development
- Commercial development
- Traffic/snow removal
- Crime not knowing neighbors
- Hwy 61/ limited cell coverage
- Taxes/regulations/truck traffic
- DNR bad shore resource protection
- Shopping/grocery
- Lack of snow
- Efforts of some to strangle development
- light pollution from Superior Shores
- Tourism
- Slow pace of 61
- Traffic
- Signage/condos
- Trespassers on property
- Traffic density
- Taxation
- Taxes/rumble strips
- Less wild forest
- Congestion/land prices
- Two Harbors is an eyesore
- Traffic noise/ wave riders
- Increased bikers/ inline skaters
- Lack of zoning
- Traffic in summer
- More congested
- Real estate prices/ traffic
- ATV's
- High truck traffic
- Limited education opportunities
- Scattered commercial development
- Increase in pollution
- Not enough jobs/affordable housing
- More people
- Lots of development pressure
- Very limited use at State Parks
- Schroeder has lost several businesses

➤ **Question 9: Write several words or phrases that express why you value living on or near the North Shore of Lake Superior:**

- safe/clean
- proximity of wilderness
- Privacy
- Climate, public lands, recreation
- Climate
- Beauty
- Quiet/Beauty
- Beauty
- Everything you need/ good life/ good recreation
- The Lake
- Beauty/safety
- Beauty/Climate
- Good EMT services
- Clean/quiet
- Heritage
- Climate
- Privacy/quiet
- Lake/wilderness
- Unique area
- Lake view
- Clean air/water
- Lake
- Beauty/Weather
- Lake/nature
- Community spirit
- Nature/beauty
- Relax by shore
- Lake Superior/Climate
- Rural/quiet
- Scenic/Climate
- Born here
- Simple/quiet
- Wildlife/Lake Superior
- Quiet/quaint
- Charm
- Calming
- Character of the land
- Lake Superior/wilderness
- Beauty/nature
- Quality of air and water
- Beauty/solitude
- Rural/beautiful
- Trails/ forest/ climate
- Peaceful/Beauty
- Clean air
- Remote
- Immersion on the natural world
- Better than anywhere in Midwest
- Pristine/majestic
- Big water
- Climate
- Quiet
- Good fishing
- Climate
- Employment/water/air
- Open space
- Beauty/lake
- Forests
- Free of big city
- Beauty/clean air
- Kid can play outside without my worrying
- Quality of life/neighbors
- Get away
- Peaceful/good community
- Beauty/peaceful
- Quiet/safe/beauty
- Lack of pollution
- Access to lake
- Shores/woodlands
- Climate
- Clean
- Clean air
- Rural
- Privacy

➤ **Question 10: How could the quality of life be improved on the North Shore?**

- Discourage large-scale development
- adequate wages, affordable housing
- Public Transit
- Control commercial development/trucks
- Development rules
- Affordable Housing
- Less people/ development
- Control development
- I don't think it can be
- More full time positions
- Keeping it clean
- Addition of a Marina
- Hospital care between Two Harbors and Grand Marais
- Water Quality/sewer system
- Promote more family values
- Need four-lane traffic
- More animal habitat
- Preservation
- Traffic/Hwy 61
- Build four lanes
- A richer economy
- Lower speeds
- Limit access to private shoreline by resort guests
- four-lane highway needed
- Traffic on 61
- Spraying for bugs
- Protection of wilderness
- Enforcement of building codes
- Public sewage/expanding highway
- Education
- Better health care facilities
- Bug control
- Control truck traffic
- Roads/bug control
- Eliminate truck traffic
- Less traffic/less signage
- Limit development
- Better shops/less travel
- Wages/diversity
- Stop development
- Limit development/signage/erosion
- Nicer picnic sites
- Minimize business development
- More conifer trees needed
- More cell towers needed
- More boat launches
- More internet service/cell service
- Slow traffic on London Road
- Service provided to residents instead of visitors
- Minimize high impact development/off road vehicles
- Reduce commercial venues
- Better medical facilities
- Schools
- Better communications
- Lack of young middle class
- Slow down
- Too many tourists
- Better car phones
- Cease development
- Uniform zoning
- traffic management/ job opportunities
- Hwy 61 upgrade
- More jobs for locals
- Selective to new development
- Less development
- Shopping/mass transit
- Improve highway
- Better crowd control during events
- Towers for cell phone coverage
- Affordable housing
- limit growth
- Build a sewer line
- Limit uncontrolled development
- Individual responsibility for septic systems
- Keep businesses away from lake side
- More sanitary districts
- Preserve green space
- Shore in Howland/eating establishments
- More attention paid to sustainability
- Educate people about private property
- Control growth/traffic
- Truck traffic
- Keep a natural environment
- Close Taconite Harbor Power Plant
- Shoreline development be cautious
- Reroute truck traffic
- Make property owners upgrade own septic systems/ keep developers out
- Restrict motor craft/ ATV's
- Another safe harbor
- knit together diverse elements
- Teach people how to respect land more
- Better traffic control
- Stronger enforcement of zoning laws
- Restrictions on personal development
- Traffic/enforcement
- Get through traffic off hwy 61
- Sewer lines from Two Harbors to Silver Creek
- less population over ridge
- less government intervention
- Finish up the highway
- Limit type of vehicles on TH 61; less trucks
- Better planning and zoning

➤ **Question 10 (continued)**

- Control growth/traffic
- Truck traffic
- Keep a natural environment
- Preservation
- More school money
- Less cities immigration
- More environmental studies
- Better land management by DNR
- More sustainable growth
- No more commercial/high density development
- More rest-stops w/ public restrooms
- Better forest management
- Thoughtful land use planning
- Lack of employment
- Find alternative energy source
- Too many people from the Cities
- Do not allow urban sprawl
- Water/sewer
- Emergency services
- Restrict commercial development
- Improve water quality
- Education for property owners
- Preservation
- Keep public and private lands available
- More stores/24-hour food service
- Improve TH 61
- Signage
- Everyday needs of residents need to grow w/ development
- Regulate development

➤ **Question 11: Please describe your support of each development scenarios along the North Shore of Lake Superior:**

	Strongly Support	Support	Neutral	Oppose	Strongly Oppose	Missing	Total
Commercial or residential multiple unit/high density development is appropriate anywhere on the North Shore as long as adequate wastewater treatment can be provided	5.9	12.8	14.3	27.6	36.0	3.5	203
Commercial or residential multiple unit/high density development is appropriate only in areas near existing high-density residential and commercial areas	12.3	29.1%	26.1	13.3	15.8	3.4	203
Commercial or residential multiple unit/high density development is appropriate only if this would be offset by other parts of the lakeshore remaining undeveloped	19.7	22.2	23.6	17.6%	11.5%	3.4	203
Linear low-density residential development along the lakeshore with similar lot sizes and minimum lot frontages	13.3	26.6	26.6	15.8	12.3	5.4	203
Residential growth based on a number of units per acre with less emphasis on minimum lot size and a smaller minimum frontage required	7.9	16.3	27.1	24.1	13.8	10.9	203
Maintain the current level of public land on Lake Superior	33.5	36.0	13.3	4.9	2.0	10.3	203
Increase the amount of lakeshore in public ownership	28.1	16.3	23.6	15.8	10.8	5.4	203
Encourage private preservation of open space	42.9	27.1	14.8	3.0	3.4	8.9	203

➤ **Question 12: What are your feelings towards the following action steps that the NSMB could pursue in addressing particular issues along the North Shore?**

	Strongly Support	Support	Neutral	Oppose	Strongly Oppose	Missing	Total
Guidelines for ridgeline development	40.9	30.5	13.3	6.9	2.0	6.4	203
Guidelines for signage in the TH 61 corridor	45.3	33.0	9.9	4.9	0.0	6.9	203
Guidelines for using zoning to encourage development in areas already served by utilities and wastewater	30.5	35.0	16.3	6.4	1.5	10.3	203

➤ **Question 12a:** Please describe any other issues you would like to see the NSMB address in the near future:

- Practice what you preach
- Loss of control if zoning around septic
- Road construction hours
- Energy efficient homes
- Stream habitat
- Septic and well checks
- More passing lanes
- User tax/sewer line
- Hwy 61 needs improvements
- Sewage issue/waste management
- Truck regulations
- Composting toilets
- Low income housing
- Sprawl
- Restriction on campers/passing
- Control growth/traffic
- Bike trail needed from T.H. to Duluth
- Uniform densities/lot sizes
- Lack of quality groundwater
- Emergency services
- Support sewer line
- Regulations need enforcement
- Keep cleaning up junk areas
- Light pollution
- Emergency service
- Protect property owners rights
- Economic development/Hwy 61
- New sewer will support small lot sizes
- Address light pollution
- Planned access roads before development
- Low paying jobs
- Private preservation through incentives
- Strict guidelines
- More school money
- Discharge into lake from private businesses
- Air quality on local system
- Wireless towers

➤ **Question 13:** If necessary, please expand upon your thoughts on how future growth should be managed along the North Shore:

- wilderness/less development & population
- Personal Docks
- Citizen involvement in future development
- Roads in conjunction with development
- As pristine as possible
- Less development
- Preserve the beauty
- Maintain recycling program
- More public input
- Manage future growth
- Maintain uniqueness/encourage variety activities
- Growth must stop
- User tax/sewer line
- NSMB adds another layer of bureaucracy
- Cook Co. zoning
- Mound systems fail
- Preservation
- Local government involvement
- New arrivals are the problem
- Maintain one acre lot size
- Development is a privilege
- Try to keep growth around cities
- Each community should work on their own plan for development
- Growth destroying uniqueness
- Lots of public and private land
- Sustainable growth
- Control density
- Limited commercial opportunities
- Endless growth is unsustainable
- Too much service based jobs; need mfg.
- Don't allow hungry developers to ruin residents lives
- Limit growth to individual home ownership
- Plenty of roads and trails already exist/no more
- Public consensus to plan and develop
- All development needs to be looked at from the lake too
- Expansion will be detrimental
- Protect lakeshore
- No commercial development
- Access to individual driveways difficult
- Government purchased land
- Use common sense
- Larger lot sizes for new construction
- Less government
- Preservation
- Less is more
- Too many large billboards
- Locally
- Limit growth
- The trail system should become one multi-use trail
- Adapt zoning laws
- NSMB more proactive in guiding communities towards best management practices
- People to build on smaller lots
- NSMB code should prevail throughout North Shore
- Limit commercial development aimed at tourism
- Restrict growth
- No Wal-Mart
- Cluster growth along existing housing

- **Question 14:** What do you believe is the best long-term solution for dealing with sewage disposal? (Respondents could select more than one option)

Option	Frequency
Depending on the site and situation, all of these options may be appropriate	103
Development of sewer lines to serve higher-density areas should be examined	129
On-site systems are adequate, but the newest types of technology should be used	70
As much as possible, groups of residences should be part of a cluster system	156
Composting Systems	42
Conventional individual lot on-site systems are adequate to address future wastewater needs of lower-density areas	167
Development of sewer lines along the entire North Shore should be investigated	32
No opinion	14



North Shore Management Board

Appendix C: Operating Procedures

**NORTH SHORE MANAGEMENT BOARD
CAC, TAC, Local Land Use Staff, and NSMB Staff
OPERATING PROCEDURES**

CITIZENS ADVISORY COMMITTEE

NOTE: The role of the Citizens Advisory Committee will be determined by the budget available to the NSMB and the yearly work plan they choose to undertake. The following procedures for the CAC are based upon the assumption that there is funding available for them to meet on a semi-regular basis.

GOALS AND OBJECTIVES

The objectives of this Committee are:

- (1) Act as a coordinating body for planning activities as directed by NSMB.
- (2) Keep- abreast of resource uses and issues associated with the North Shore.
- (3) Foster and facilitate citizen input on matters that have potential impacts for the North Shore of Lake Superior.
- (4) **Serve as a liaison between the NSMB and member units of government. The CAC is responsible for assisting NSMB members in keeping local units of government informed of NSMB activities.**

ELECTION OF OFFICERS:

Chair: The Chair of the Committee shall be elected by the membership at the January Citizens Advisory Committee meeting. The Chair's term shall be two years. If the Chair needs to resign, the Vice-chair will assume the remainder of the Chair's term and then may serve his/her two-year term starting the following January.

Vice Chair: The vice chair will be elected at the same time as the chair and will serve for a 2 year term.

TERMS OF SERVICE

CAC Appointments: All terms shall be for a period of three (3) years, with approximately one-third of the members being elected each year. A full membership shall consist of 14 members.

Representation: The Citizens Advisory Committee will try to include members to make up a broad representation of public and private interest groups.

An ad hoc review committee will be established at the direction of the NSMB for the purpose of reviewing, recruiting, and recommending new applicants. Also, at the request of the NSMB, any vacancies on the committee will be advertised in the local newspapers. After new members are appointed, a press release will be mailed out notifying the public of the new members.

COMMITTEE OPERATIONS

Meeting Schedule and Notices: This Committee shall meet quarterly, or as necessary, to complete tasks as assigned by the North Shore Management Board. Regular meetings will be the first Thursday of each month and the Chair shall direct staff to prepare and send out meeting notices one week prior to the meeting indicating date, time, place, etc.

Minutes: Complete and accurate minutes from each meeting of this Committee shall be maintained. Copies of said minutes shall be transmitted not later than five (5) days prior to the next regular meeting to each member of this Committee by mailing a copy of such minutes to each of said members.

Meeting Quorum: A majority of the membership of this Committee shall constitute a quorum at a business meeting for the purpose of carrying on the activities of this Committee.

Decision Making: Any act or other business of this Committee may be enacted, constituted or approved by a majority of the committee members present at any meeting. Robert's Rules of Order (Revised) shall govern the procedures of meetings of the Committee and in all matters not otherwise stated. If a meeting is opened with a quorum, it shall remain so even if the quorum is lost during the meeting.

Reports, Recommendations: A member of the CAC (which rotates monthly) should report the committee's progress on planning activities and other matters as appropriate to the North Shore Management Board. **When the CAC feels an issue should be addressed by the NSMB, the following procedure shall be followed:**

- 1) **A resolution supporting the action is passed by the CAC.**
- 2) **Staff prepares a brief report for the NSMB that outlines the issue and details possible ways to address the issue.**
- 3) **After approving the report, the CAC transmits the report to the NSMB for consideration.**
- 4) **Any further action on the issue shall be directed by the NSMB.**

Treatment of Absences: In the event a member of the Committee is absent for three consecutive meetings, the Staff of the Committee shall report such absences to the Chair of the Committee who shall cause the matter of such absences to be placed upon the agenda for the next meeting of the Committee for such action as the Committee deems advisable. Committee members should contact staff when they cannot attend a meeting. Excused absences will be listed in the minutes and indicated on the sign up sheet for that particular meeting. Three consecutive absences without good cause (as determined by the Committee) shall be sufficient reason for the Committee to find a vacancy exists in the term and membership held by the member involved.

Yearly Work Plan: In October of each calendar year, a group of Citizens Advisory Committee members and NSMB shall meet to form a work plan for the upcoming calendar year. This plan shall be presented to the NSMB at their October meeting.

TECHNICAL ADVISORY COMMITTEE

GOALS AND OBJECTIVES

The objectives of this Committee are:

- (1) Provide technical assistance, as needed, to the NSMB.**
- (2) Facilitate an ongoing dialogue on issues that arise that are of importance to the North Shore of Lake Superior.**

STRUCTURE OF COMMITTEE:

REPRESENTATION: Members of the committee shall consist of local land use and zoning officials from member units of governments. In addition, state and federal agency personnel who have responsibilities related to land use on the North Shore shall be invited to participate.

COMMITTEE OPERATIONS

MEETING SCHEDULES AND NOTICES: This Committee shall meet twice per year, or as necessary in order to facilitate discussion and ensure the greatest degree of cooperation and consistency possible in North Shore land use policies.. Meetings shall generally be held on the second Thursday in March and September. Staff shall prepare and send out meeting notices one week prior to the meeting indicating date, time, place, etc.

MINUTES: Complete and accurate minutes from each regular meeting of this Committee shall be maintained. Copies of said minutes shall be transmitted not later than five (5) days prior to the next regular meeting to each member of this Committee by mailing a copy of such minutes to each of said members.

TASK FORCES: At the direction of the NSMB, members of the TAC and/or technical experts in specific areas will be asked to serve on Task forces that address

particular issues along the North Shore. These task forces will generally last for three to six months and require up to six meetings.

REPORTS: When preparing reports, NSMB staff may ask members of the TAC for data and technical assistance.

YEARLY WORK PLAN: In October of each calendar year, a group of CAC, TAC, and NSMB shall meet to form a work plan for the upcoming calendar year. This plan shall be presented to the NSMB at their October meeting.

DISCLAIMER

No action or statement by the CAC or TAC shall be taken **or made on behalf of the North Shore Management Board without the approval of the NSMB. The TAC and CAC** shall not attempt to bind or alter the power and authority of the North Shore Management Board, the State of Minnesota, the federal government or any agency thereof. Further, no such action shall attempt to bind any individual, private industry or company, or any unit or agency of local government participating on or in any committee function.

These operating procedures can be amended from time to time by action of the committee.

LAND USE STAFF FROM NSMB COMMUNITIES

NOTIFICATION: Land use staff shall forward applications for the following land use activities to NSMB staff. Proposals outside the North Shore Management Area but have relevance to the North Shore also should be forwarded. Staff will then forward the information to interested parties and to the NSMB.

- a) **Conditional Uses**
- b) **Variances**
- c) **Planned Unit Developments**
- d) **Wireless Communications Facilities**
- e) **Ordinance Amendments that have significance to the North Shore**
- f) **Plats**

TECHNICAL ADVISORY COMMITTEE: One member of the land use staff from each NSMB community shall serve on the Technical Advisory Committee. This person will attend the bi-annual TAC meetings and also be available to serve on Task Forces as necessary.

NSMB STAFF

FACILITATION: Staff will prepare agendas and minutes for all NSMB, CAC, TAC, and Task Force meetings.

LAND USE INFORMATION: Staff is responsible for providing NSMB communities and the NSMB with information on land use applications within the NSM Planning area in a timely fashion. If directed, staff also is responsible for summarizing these applications to the NSMB.

GRANT WRITING: At the direction of the NSMB, staff will prepare all grant applications for NSMB projects.

LAND USE DATA REVIEW: Staff will complete the monthly land use reports and other documents requested by the NSMB in a timely fashion.

WEB SITE MAINTENANCE: Staff is responsible for maintenance of the web site should this project be completed.

CLEARINGHOUSE: Staff is responsible for ensuring that current land use data, maps, and ordinances are available for other NSMB member communities and interested citizens.