

Wetland Program Plan 2019-2023

Fond du Lac Band of Lake Superior Chippewa



Prepared by
Office of Water Protection

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ACKNOWLEDGMENTS

Development of the Fond du Lac Band of Lake Superior Chippewa Wetland Program Plan was made possible with funding from the Environmental Protection Agency (EPA) through the Wetland Program Development Grants. We are deeply appreciative of EPA Region 5 for their long standing grant support for the continued development of strong environmental programs in Indian Country. Additional funding was supplied by the Fond du Lac Band of Lake Superior Chippewa.

Management of natural resources falls under the Resource Management Division (RMD) in the Fond du Lac Band of Lake Superior's (FDL) Tribal Government. With the goal of developing an Integrated Resource Management Plan (IRMP), the RMD worked with other tribal partners and the public to refine resource management goals and objectives for the Fond du Lac Tribe. The Wetland Program Plan was developed with goals and objectives in mind set forth by the IRMP and collaboration among the FDL Environmental Department staff.

OVERVIEW

The Fond du Lac Band of Lake Superior Chippewa's goal was to develop a Wetland Program Plan for the entire Reservation, to be used to guide the Reservation's Resource Management Division staff, as well as potential partners, in all aspects of wetland conservation, protection and restoration in order to protect and restore our waters, to ensure drinking water is safe, and that aquatic ecosystems sustain fish, plants, and wildlife, and economic, recreational, and subsistence activities.

INTRODUCTION

The Fond du Lac Reservation, which was established in 1854 by treaty with the United States Government and to which the U.S. Government has a trust responsibility, is situated in northeastern Minnesota, adjacent to the city of Cloquet. The Reservation is located about 20 miles west of the city of Duluth, MN and Lake Superior (Appendix, Figure 1). About 4,300 enrolled Tribal members live both on and off the Reservation. A substantial number of non-tribal members also reside on the Reservation.

On the Fond du Lac Reservation, wetlands augment biological diversity by serving as habitat for plants and animals, some of which are endangered, threatened, rare, or sensitive species. Wetland functions that contribute to the health of aquatic resources include groundwater recharge, nutrient transformation, surface water detention, stream flow maintenance, and retention of sediments and other particulates. The Reservation wetlands also support a great variety of wild plants, many of which are harvested for food and traditional medicines. These wetlands and associated ecosystems also provide opportunities for subsistence hunting, trapping, and gathering. These activities are of great importance to Native Americans. This not only exemplifies, but intensifies the need to develop a plan for protecting the wetland resources upon which Tribal members depend.

A comprehensive National Wetland Inventory (NWI), conducted by the United States Fish and Wildlife Service (USFWS), was completed in the 1980s for the Fond du Lac Reservation. Beginning in the late 1990s the Fond du Lac Reservation began an update to this inventory for the Reservation portion of the original NWI inventory. This inventory update was completed in August, 2000 and another update was completed in March 2008. The Fond du Lac Reservation contains 4,662 individual wetland entities based on the Cowardin Classification System (see Classification section below). These wetlands total 43,873 acres or 68.5 square miles; 43.4% of the Reservation land area is wetlands.

It has been estimated that since the 17th century, over fifty percent of the original wetlands in what is now the lower 48 contiguous states, have been destroyed by human activities. On the Fond du Lac Reservation, approximately 2,000 – 4,000 acres of wetlands were drained in the early to mid 1900's when a 47-mile judicial ditch system was constructed, primarily effecting wild rice waters. Fortunately, wetlands are now recognized as some of the most productive and diverse natural areas in the world. Wetlands serve as habitat for waterfowl, wildlife, fish, and support many species of wild plants. It has also been realized, that as human development and its related impacts spread, Indian reservations have become important refuges of biological diversity.

The Fond du Lac Band of Lake Superior Chippewa Business Committee has a responsibility and a commitment to the people and the environment of the Reservation, which involves the protection and enhancement of this biological integrity. The development of a Wetlands Protection and Conservation Program will help to ensure that the further destruction of wetlands within the exterior boundaries of the Reservation will be avoided, and that these wetlands will continue to function in their natural condition. This will also help ensure cultural and subsistence practices are supported into the future.

The Fond du Lac Band developed a set of Water Quality Standards for the surface water resources of the Reservation which were formally approved by USEPA Region 5 in December 2001. The Band has been granted “treatment as a state” authority, under the federal Clean Water Act, enabling it to enact and enforce such standards.

The key outcome of this project is the development of a Wetland Program Plan (WPP), to be implemented within the boundary of the Fond du Lac Reservation. The effects of climate change also need to be considered when planning management practices. The chemical and biological data collected through the implementation of the Comprehensive Wetland Assessment and Monitoring Plan (CWAMP) has been used for the development and administration of a Wetland Regulatory Program. Refinement and expansion of data collection techniques where appropriate will improve data analysis, strengthening the Wetland Regulatory Program and contributing to wetland protection and restoration success. The development of Wetland Water Quality standards from the supporting core elements is a long term goal to further wetland protection and restoration. These have been developed using EPA framework and included in Fond du Lac Office of Water Protections EPA triennial review. They have yet to be approved by EPA.

PROJECT DESCRIPTION

EPA identified Wetland Program Development as a National Priority Area for FY2017. Of the four core elements (Core Elements of an Effective State and Tribal Wetlands Program Framework), Fond du Lac has already developed and implemented three of them as follows:

- 1) Monitoring and Assessment – under a previous Wetland Program Development Grant, Fond du Lac developed a Comprehensive Wetland Assessment and Monitoring Plan (CWAMP) in 2008 and began implementation in 2010 using a 5-year sub-watershed cycle; and
- 2) Wetland Regulatory – in 2006, Fond du Lac developed and enacted both a Wetland Protection and Management Ordinance (Ordinance #03/06), which is modeled after the Clean Water Act Section 404 program and regulates activities in wetlands, including wetland dredge, fill, drainage, etc., and a Water Quality Certification Standards Ordinance (Ordinance #01/06), which governs the processing of 401 Certification using the Band’s EPA-approved Water Quality Standards;
- 3) Voluntary Restoration and Protection- under a previous Wetland Program Development Grant, Fond du Lac Developed a Wetland Restoration Plan and began implementation 2013.

Fond du Lac has also conducted preliminary development of one other Core Element – Wetland Water Quality Standards. However, to date, these narrative standards have not been approved by EPA, but Fond du Lac plans has used the EPA supported framework for narrative standards to guide the revision and resubmission.

All core elements support each other and the monitoring and assessment, regulation, restoration and protection of wetlands on the Fond du Lac Reservation directly contributes to EPA’s 2014-2018 Strategic Plan – Goal 2: Protecting America’s Waters: Protect and restore waters to ensure that drinking water is safe and sustainably managed, and that aquatic ecosystems sustain fish, plants, wildlife, and other biota, as well as economic, recreational, and subsistence activities, Objective 2.2: Protect and Restore Watersheds and Aquatic Systems, Sub-objective: Increase Wetlands.

Implementation of a Wetland Program Plan will begin to contribute to the goal of achieving a net increase in wetland acres with a focus on functional measures and assessment of wetland condition. The refined monitoring and assessment techniques along with increased data and GIS analyses will ensure more successful protection/restoration. The existing core elements implemented support the development of Wetland Water Quality Standards, which will further wetland protection and restoration.

PROGRAM PLAN

Monitoring and Assessment

Goal: To maintain and expand the current Comprehensive Wetland Assessment and Monitoring Program (CWAMP) that facilitates sustainable management and conservation of tribal wetlands.

Objective: To maintain and expand the current CWAMP consistent with the Fond du Lac Band of Lake Superior's Integrated Resource Management Plan (IRMP) and the goals and objectives associated.

General Strategy:

Action (a): Build the capacity and sustainability of the Tribe's Comprehensive Wetland Monitoring and Assessment Program					
Activity	2019	2020	2021	2022	2023
Seek and apply for funding opportunities to implement and sustain a tribal wetland monitoring and assessment program	X	X	X	X	X
Collaborate with tribal wetland resource partners, tribal resource management partners to identify mutual data needs and uses, shared goals and objectives, and program decisions and environmental outcomes resulting from a wetland monitoring and assessment program.	X	X			
From identified wetlands, integrate wetland monitoring efforts with other tribal aquatic monitoring efforts; Conduct wetland monitoring with tribal Clean Water Act 106, and 319 water quality monitoring programs where appropriate and when resources allow.	X	X	X	X	X
Evaluate and revise data management approach for coordinated data standards, storage, management, and reporting of monitoring and assessment data.	X	X			
Refine monitoring strategy by incorporating additional wetland types not currently included in CWAMP. Establish appropriate methods of sampling.			X	X	X
Continue and maintain five-year monitoring and assessment strategy and schedule.	X	X	X	X	X
Research and incorporate methods to gauge the effects of climate change on tribal wetlands and their associated resources.	X	X	X	X	X
Research and incorporate methods to manage tribal wetlands and associated resources in regards to any potential climate change effects.	X	X	X	X	X

Action (b): Establish and continue wetland mapping efforts and development of assessments and tools					
Activity	2019	2020	2021	2022	2023
Evaluate and revise tribal wetland management efforts for monitoring and mapping tribal wetland resources where appropriate.	X	X	X	X	X
Evaluate and revise assessment strategy and protocols where appropriate.	X	X			
Research and consider conducting Wetland Ecosystems Valuation.	X	X			
Conduct Wetland Ecosystems Valuation if applicable and beneficial and when resources allow.			X		

Regulation

Goal: To maintain and refine the current Wetland Regulatory Program that facilitates the sustainable conservation and protection of tribal wetlands.

Objective: Refine and Strengthen the Wetland Regulatory Program by incorporating wetland functions and Wetland Ecosystems Valuation into mitigation requirements.

General Strategy:

Action (a): Use Preliminary Wetland Functional Analysis and Wetland Ecosystems Valuation to refine existing Wetland Regulatory Program.					
Activity	2019	2020	2021	2022	2023
Research and consider incorporating currently mapped wetland functions into mitigation requirements.		X	X		
Incorporate wetland functions into mitigation requirement if applicable and beneficial and when resources allow.				X	
Research and consider conducting Wetland Ecosystems Valuation.	X	X			
Conduct Wetland Ecosystems Valuation if applicable and beneficial and when resources allow.			X		
Incorporate results from Wetland Ecosystems Valuation into mitigation requirements.				X	
Expand regulatory authority to include all aquatic resources when conditions allow.		X	X	X	X

Restoration and Protection

Goal: To maintain, improve, and increase healthy wetland ecosystems through conservation, protection, and restoration.

Objective: Refine and strengthen current Wetland Restoration Plan by developing partnerships, securing funding, and incorporating data and additional data collection and mapping protocols. Investigate developing a Wetland Reserve Program.

General Strategy:

Action (a): Build the capacity and sustainability of the Tribe's Proposed Wetland Reserve Program					
Activity	2019	2020	2021	2022	2023
Collaborate with tribal wetland resource partners, tribal resource management partners to identify mutual conservation needs and uses, shared goals and objectives, and program decisions and environmental outcomes resulting from a wetland reserve program.	X	X			
Research developing a Wetland Reserve Program Plan for the purpose of wetland restoration and protection and for wetland program sustainability.	X	X	X		
Seek and apply for funding opportunities to implement and sustain a tribal wetland reserve program if needed.		X	X	X	X
Use Wetland Restoration Plan and Prioritization map, Integrated Resource Plan, and Land Use Ordinances and property ownership information to aid in planning process.	X	X			

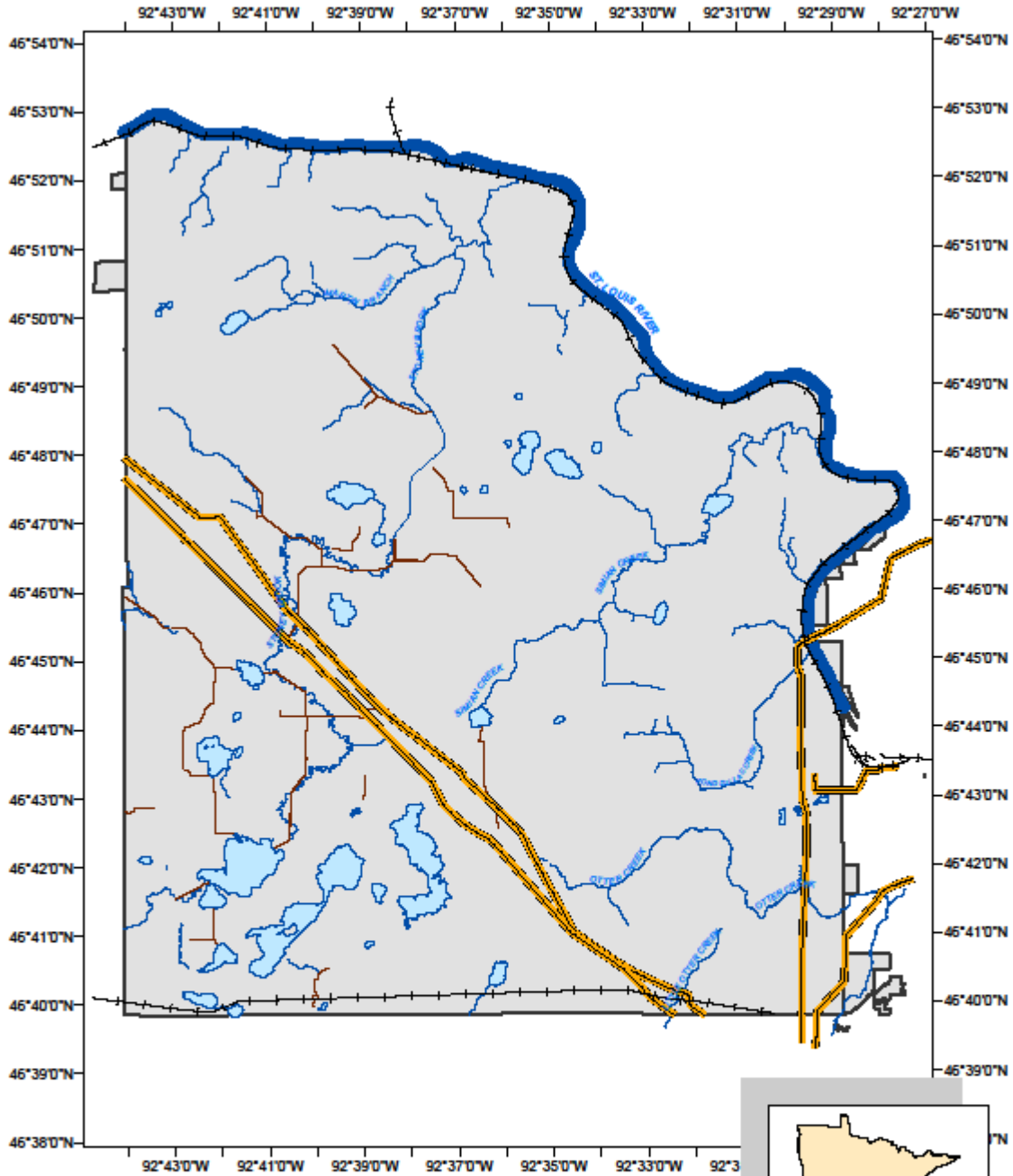
Action (b): Build and maintain partnerships with tribal departments, local, state, and federal agencies, and adjacent landowners for wetland restoration and conservation					
Activity	2019	2020	2021	2022	2023
Utilizing information acquired from the Tribe's inventory, monitoring and assessment efforts to refine restoration and management goals for the Fond du Lac Reservation specific to wetland type, functions, and location.				X	X
Establish and develop strategic partnerships with other Fond du Lac Resource Management Programs to refine wetland management goals; develop tools that utilize monitoring and assessment knowledge to achieve healthy watershed and community outcomes.	X	X	X	X	X
Establish partnerships with other tribal, federal, state, and local agencies and private landowners where appropriate to establish goals and combine efforts toward wetland protection and restoration goals.	X	X	X	X	X
Research and incorporate methods to manage tribal wetlands and associated resources in regards to any potential climate change effects.	X	X	X	X	X

Action (c): Establish and continue wetland mapping efforts and development of assessments and tools					
Activity	2019	2020	2021	2022	2023
Evaluate and revise tribal wetland management efforts for monitoring and mapping tribal wetland resources, where	X	X	X	X	X

appropriate and as needed.					
Evaluate and revise assessment strategy and protocols where appropriate and as needed.					X
Research and consider conducting Wetland Ecosystems Valuation.	X	X			
Conduct Wetland Ecosystems Valuation if applicable and beneficial and when resources allow.			X		
Incorporate results from Wetland Ecosystem Valuation into Wetland Restoration Plan.				X	X

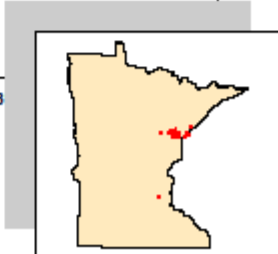
APPENDIX

LOCATION MAP



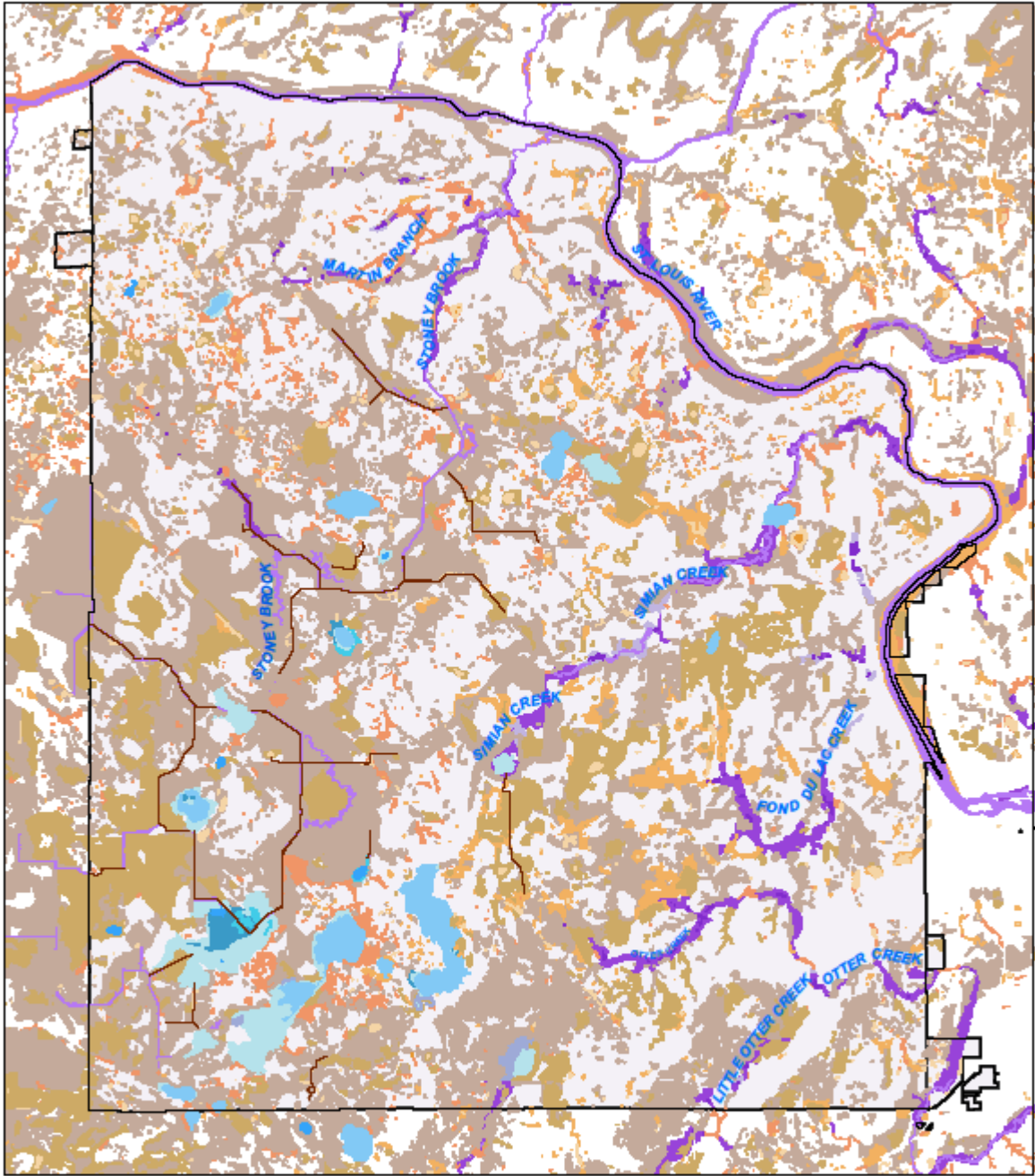
Legend	
— Roads	Lakes
+ Railroads	Streams
— Pipelines	Rivers
— Judicial Ditches	Boundary

Created by: S. Kesner on 3/4/13
 Edited: S. Kesner on 11/12/18



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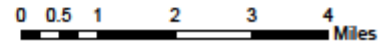
NWI WETLANDS MAP



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LEGEND

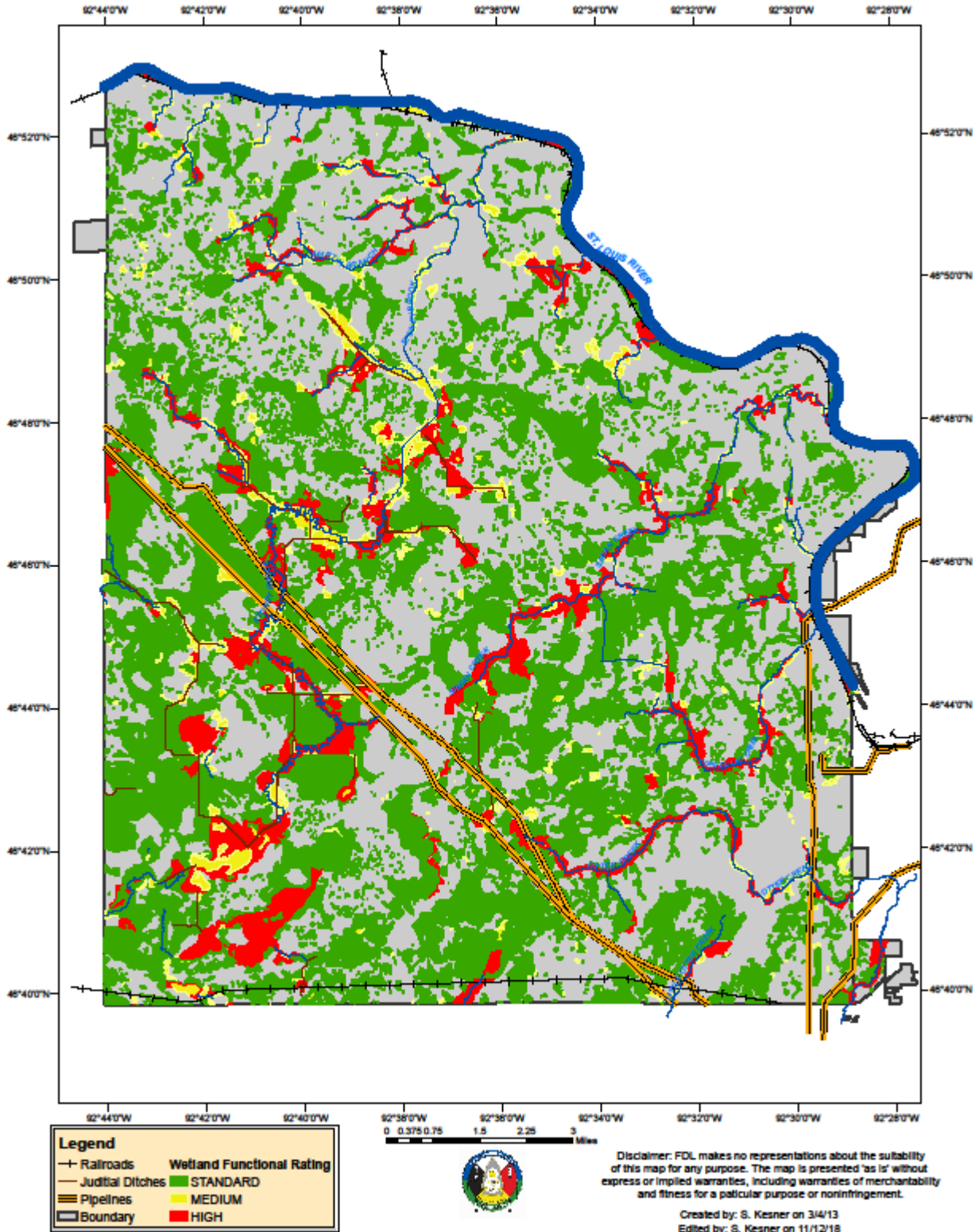
Legend

- Judicial Ditches
- Lentic Basin
- Lentic Flat
- Lentic Floodplain
- Lentic Fringe
- Lentic Island
- Lentic Lake
- Lentic Peatland
- Lentic Pond
- Lentic Slope
- Lotic River Basin
- Lotic River Flat; Lotic Stream Flat
- Lotic River Floodplain; Lotic Stream Floodplain
- Lotic River Fringe; Lotic Stream Fringe
- Lotic River Island; Lotic Stream Island
- Lotic River Pond; Lotic Stream Pond
- Lotic River River
- Terrene Basin
- Terrene Flat
- Terrene Floodplain
- Terrene Fringe
- Terrene Island
- Terrene Peatland
- Terrene Pond
- Terrene Slope
- ecnm_boundary
- Lentic Basin
- Lentic Flat
- Lentic Floodplain
- Lentic Fringe
- Lentic Island
- Lentic Lake
- Lentic Pond
- Lentic Slope
- Lotic River Basin; Lotic Stream Basin
- Lotic River Flat; Lotic Stream Flat
- Lotic River Floodplain; Lotic Stream Floodplain
- Lotic River Fringe; Lotic Stream Fringe
- Lotic River Island; Lotic Stream Island
- Lotic River Pond; Lotic Stream Pond
- Lotic River River; Lotic Stream Stream
- Terrene Basin
- Terrene Flat
- Terrene Floodplain
- Terrene Fringe
- Terrene Island
- Terrene Pond
- Terrene Slope

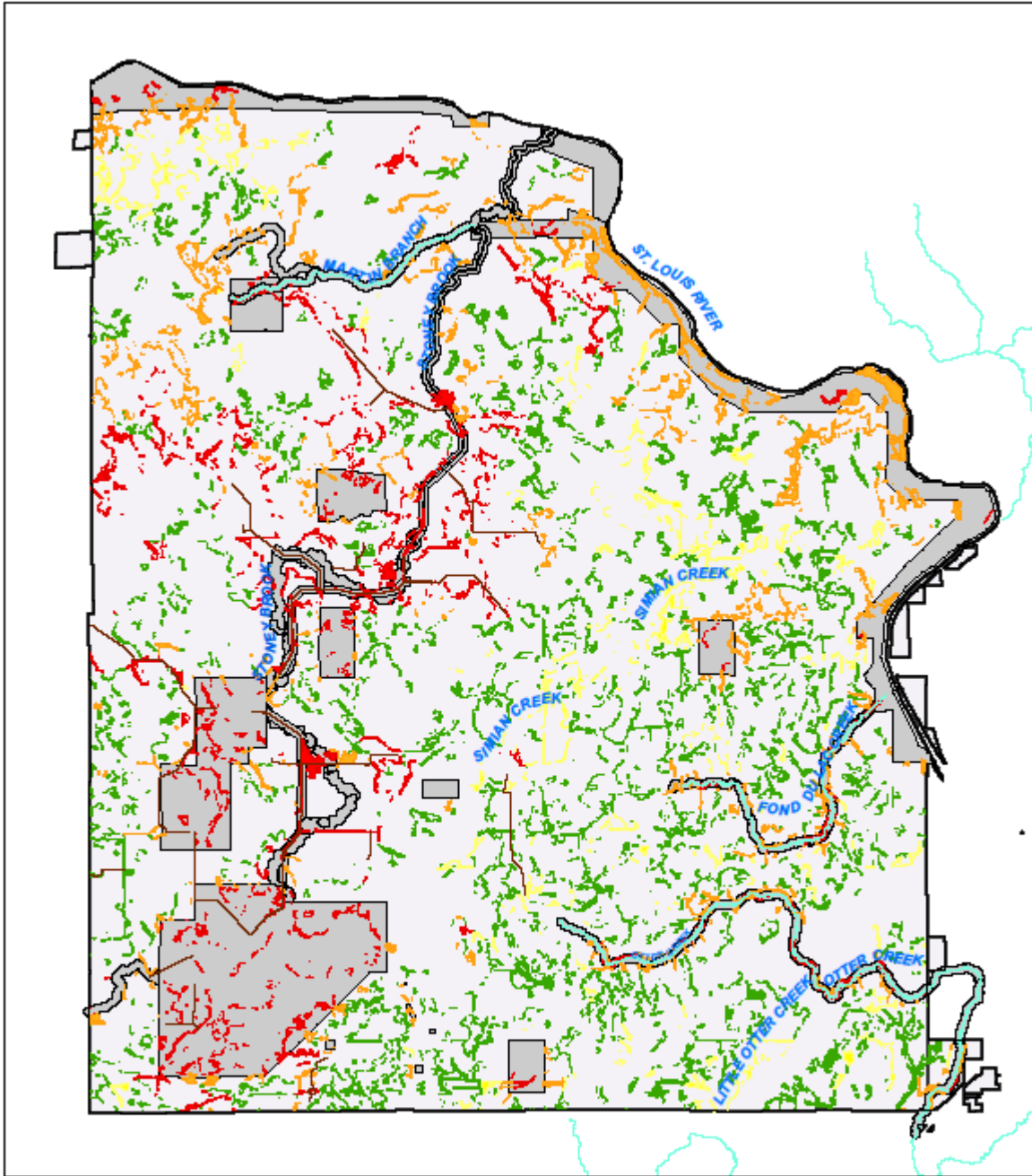
■ Cultural_Preservation

□ Boundary

PRELIMINARY FUNCTIONAL ANALYSIS MAP

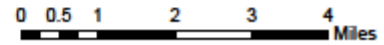


WETLAND RESTORATION PRIORITIZATION MAP



Legend

High Priority	Designated Trout Streams
Medium Priority	FdL_Streams
Med./Low Priority	Cultural_Preservation
Low Priority	Judicial Ditches
Boundary	



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