Red Lake Band of Chippewa
Wetland Program Plan

2024-2028

Red Lake Band of Chippewa Indians in Minnesota

Red Lake DNR Office

US Environmental Protection Agency-Region V

Wetland Program Development Grant

Project Period: 2024-2028

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Overview

The Red Lake Band's goal was to develop a Wetland Program Plan for the entire Reservation, including ceded territories, which can be used as a guide by the Red Lake DNR (RL DNR) staff, as well as potential partners. The purpose of this document is to conserve, protect, and restore wetlands to their natural state prior to human development, to ensure drinking water is safe, and that aquatic ecosystems sustain healthy flora and fauna for cultural and medicinal activities.

Introduction

The Red Lake Indian Reservation (RLIR), which was established in 1863 by treaty with the United States Government, is one of two closed Reservations in the United States. The Red Lake Band (RLB) govern over their own land which lends to making rules and regulations over natural resources that benefit the RLB. The RLIR contains the largest land base in EPA Region 5 that is entirely under Tribal ownership equating to approximately 59% of all Indian land in Region 5. Total land holdings are in excess of 835,000 acres consisting of approximately 308,000 acres of forest, 241,000 acres of lakes, 541,000 acres of wetlands, and over 371 miles of rivers and streams. Wetlands are classified into five types: emergent, wet meadows, scrub-shrub, forested, and a various combination of the previous four. A large portion of the wetland acreage north of Upper Red Lake is part of the largest expanse of peatlands in the conterminous United States. Within the diminished portion of the Reservation, the Red Lake Band, in partnership with the EPA, is responsible for the protection of Red Lake, the 6th largest freshwater lake completely within the United States.

Historically, the RLB has been deeply connected to the Reservation's land and water resources. Wetlands on the Reservation provide members with a suite of different uses expanding from a subsistence cycle of hunting, fishing, and gathering of resources (e.g. 'manomin' or wild rice) to cultural and medicinal purposes.

Outside of being culturally significant, wetlands also have major benefits affecting water quality and wildlife habitat that are also valuable to the RLB. Today, the fishery on Lower Red Lake is one of the largest sources of income to Tribal members. The health of the fishery can be linked to 10 rivers and streams having above average water quality discharging into the Red Lakes. Also, shallow lakes and ephemeral ponds host a variety of (semi)aquatic species that attract local fur and bait trappers. Wetlands within the Reservation serve as nesting and roosting sites for waterfowl located within the Mississippi and western Atlantic flyways. The abundance of wetlands act as a buffer system to combat flooding and are a natural filtration system for pollutants trying to enter the relatively high water table.

Red Lake Band of Chippewa Indians 2016-2020 Wetland Program Plan

During the previous Wetland Program Plan (WPP), the RL DNR developed an updated wetland inventory that improved a dataset that was nearly 30 years old at the time. Since then, the US FWS in conjunction with the MN DNR have updated the NWI across the entire state. Type 5 open water wetlands physical and chemical characteristics were monitored during 2015-2016 which was the second time these wetlands were monitored. Since then, wetland-influenced streams have been monitored for pollutant loads (specifically mercury) during 2021-2023. Monitoring wetland extent and maintaining an updated NWI is a continuing process for the RLB with initial work started in 2016. Due to the size of the Reservation and number of wetlands within the Reservation, expanding to monitor other wetland types has been challenging, but is a goal for the RLB. Recent partnerships with MPCA and MN DNR will help expand this effort in 2024-2025 through a hydrologic and ecological monitoring program. A shoreline ordinance was developed in 2018-2019 to help protect all waters during development practices and includes protections for wetlands. These guidelines were submitted to the Red Lake Planning Committee in hopes to be adopted into the Land Use Plan. Currently, the RLB does not have 401 certification or a 404 coordinator, however with 303(c) (TAS), the RLB hopes to gain these responsibilities. Determining restoration procedures are site specific and will require input from multiple partners, however it is a goal to establish these guidelines based off of an impairment list. The type 5 wetlands are currently being included in our WQS thanks to TAS in 2022. Efforts to expand WQS to other wetland types will require more personnel, partnerships, and funding.

U.S. Environmental Protection Agency Core Elements Framework

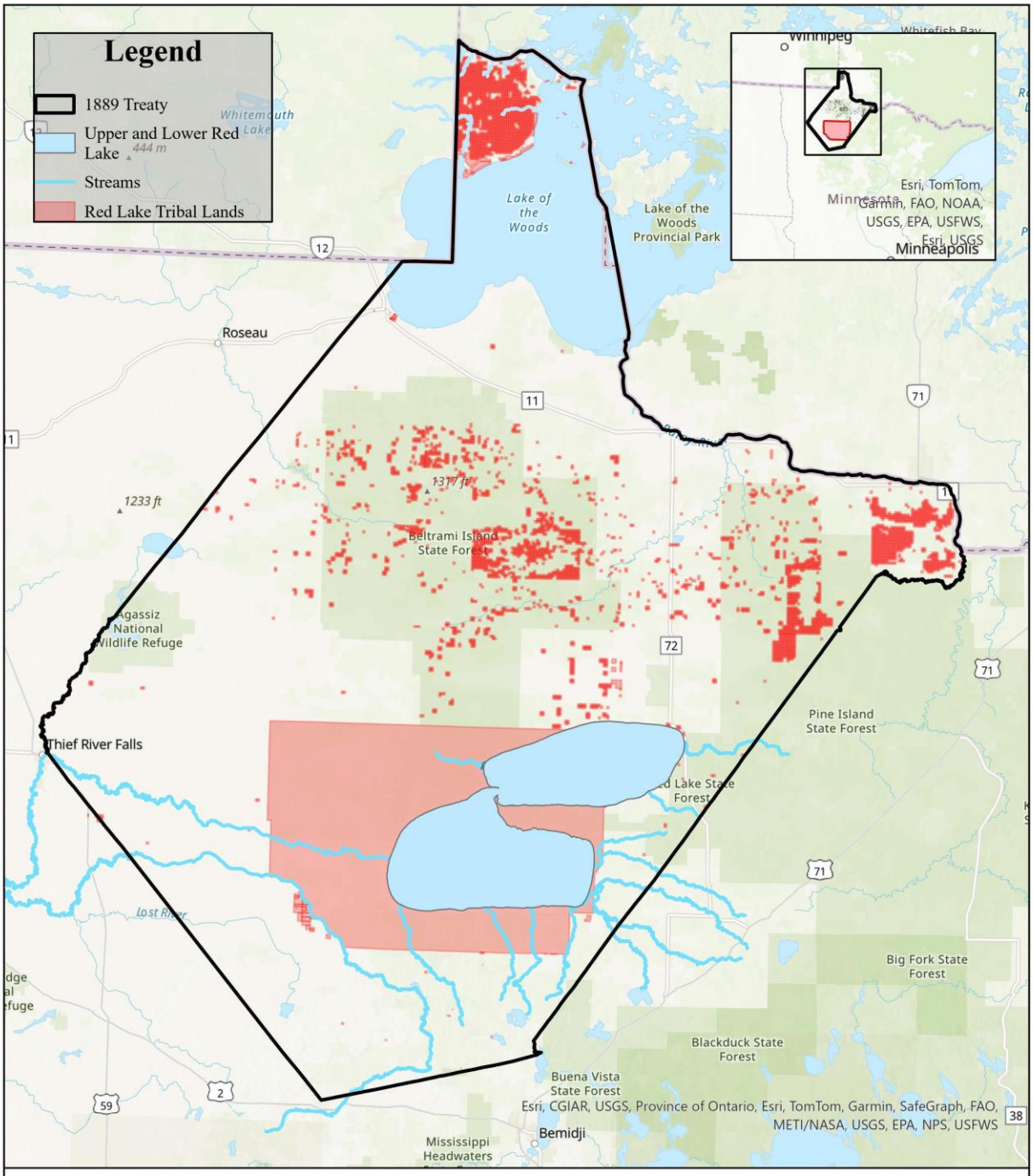
In developing a WPP, the EPA recommends that states and tribes utilize the Core Elements Framework (CEF). This framework defines four broad elements of a comprehensive wetland program. The four Core Elements set by the EPA include the following:

1. Monitoring and Assessment
2. Regulatory Activities including 401 Certification
3. Voluntary Restoration and Protection
4. Water Quality Standards for Wetlands

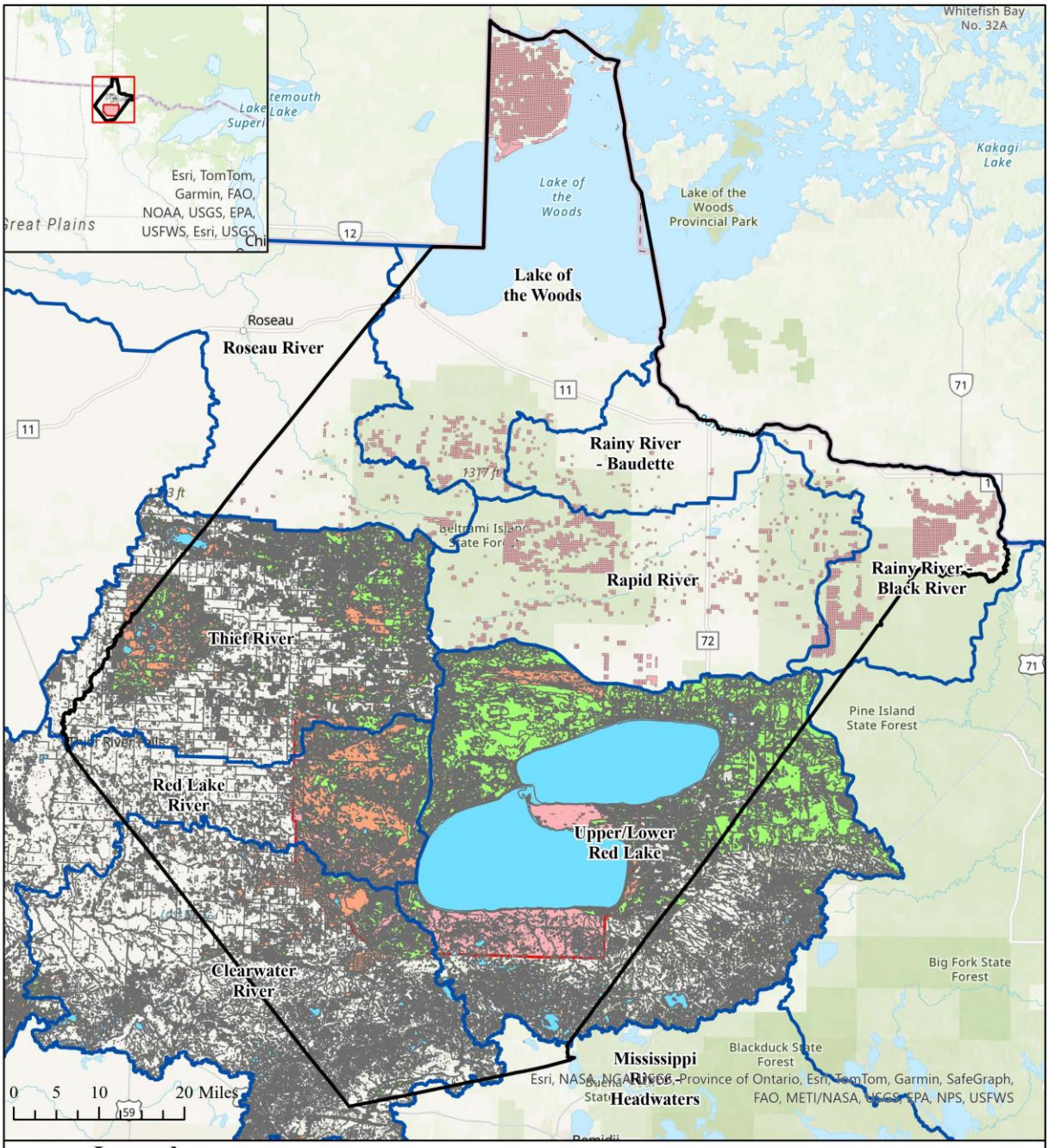
These core elements can be applied to protect wetland resources and address critical issues, such as environmental justice. [1] Red Lake will continue to seek ways to incorporate environmental justice into wetland program development.

This report details a conservation plan for the wetlands within the Reservation and is organized by the four individual core elements. For each element, the summary of the RLB's goals, objectives, and actions are provided in a table for 2024-2028.

[1] EPA. 2024. Learn About Environmental Justice. Available at: https://www.epa.gov/environmentaljustice/learn-about-environmental-justice



Red Lake Overview



Legend

- 1889 Treaty Boundary
- HUC8 Watersheds
- Red Lake Lands
- Diminished Reservation
- Pond/Lake/Stream
- Forested Shrub
- Emergent

Wetland Mapping Project Overview

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Created by Tyler Orgon, Biologist, Red Lake DNR 21 March 2024

Core Element 1: Monitoring and Assessment

Goals

1. Maintain and expand the current Wetland Program capacity

Objective 1. ***Build partnerships with tribal and state partners to expand the Wetland Program's current capacity:***

Over the past decade, extensive monitoring and research has been performed on the Reservation's type 5 open water wetlands and wetland-influenced streams/ditches. The RL DNR has plans to expand monitoring to all feasible wetland types using procedures similar to those conducted by the MN DNR and the MN Pollution Control Agency (MPCA) when funding becomes available. Through partnerships with MN DNR and MPCA, ecological and hydrological monitoring stations will be established starting in the summer of 2024 which covers various wetland types. These sites will be monitored and assessed throughout a 10-year period. These activities will help provide the data needed to determine if climate change and/or human impacts are degrading wetlands within the Reservation.

General Strategy:

Action: Build the capacity of the current Red Lake DNR Wetlands Program.					
Activity	2024	2025	2026	2027	2028
Seek and apply for funding opportunities to implement and sustain a Wetlands Program.	X	X	X	X	X
Collaborate with tribal, state, and federal natural resource partners to identify data needs and wetland uses, goals and objectives.	X	X	X		
Continue monitoring type 5 open-water wetlands while collaborating with tribal and state partners to establish wetland monitoring and assessment sites within the diminished portion of the Reservation.	X	X	X	X	X
Research and incorporate methods to effectively monitor the effects of climate change.	X	X	X	X	X
Monitor ecological and hydrological changes in wetlands surrounding Upper and Lower Red Lake with state partners over a 10-year period.	X				

2. **Maintain/Monitor/Update a comprehensive NWI**

Objective 1. Maintain a high resolution updated wetland inventory to update reference conditions on the RLIR:

Currently, the RLB has an updated National Wetland Inventory (NWI) that was mapped throughout 2016-2020 by the Red Lake Department of Natural Resources (RL DNR) through the use of a WPDG and by US FWS. Since the development of the NWI, technological improvements have been made with high resolution imagery of infrared, false color, and topographic photography. With the use of LiDAR and updated imagery, wetlands are now easier to identify after data manipulation using a Geographic Information System (GIS) in tandem with ArcMap Pro. Through multiple partnerships with the MN DNR, University of Saint Mary's, TetraTech, and US FWS continued efforts to map wetlands based on new Supreme Court rulings is paramount. Providing these updates will help the RLB track wetland acreage that may have been lost due to climate change.

General Strategy:

Action: Update the diminished Reservation portion of the NWI that is consistent with new WOTUS Ruling.					
Activities	2024	2025	2026	2027	2028
Collaborate with tribal, state, and universities to establish goals and objectives to effectively map wetlands.	X	X			
Gather new imagery for GIS manipulation to highlight hydric soils.	X	X	X		
Update current NWI based on new imagery and GIS processing.		X	X	X	
Update current NWI database to incorporate/highlight Sackett Ruling wetlands that are to be federally protected.			X	X	
Ground truth digitized wetlands to determine the effectiveness of GIS processing.					X
Update NWI database in a rotational watershed approach to maintain an up-to-date wetland database.	X	X	X	X	X

Core Element 2: Regulatory Activities including 401 Certification

Goals

1. **A Database that will protect lakes, streams, and wetlands under new WOTUS ruling**

Objective 1. Understand the Sackett Ruling and highlight waters consistent with the Ruling:

Due to recent changes made by the US Supreme Court on Waters of the United States, a complete understanding of what waters are protected under federal law will help the RLB during activities that may result in environmental impacts. With the advancements in technology from computer

processing to aerial image quality, an update to the Reservation's NWI will help the RLB better understand wetland extent. This process will aid in the development of an updated GIS database that includes a section for WOTUS under the new ruling.

General Strategy:

Action: Protect waters based on new Supreme Court ruling on WOTUS.					
Activity	2024	2025	2026	2027	2028
Attend EPA webinars to fully understand new Sackett Ruling.	X	X			
Review Ruling documents to determine what major differences have changed from previous rulings.		X	X		
Update current NWI database to incorporate/highlight Sackett Ruling wetlands that are to be federally protected.			X	X	
Update the shoreline ordinance to incorporate the protections of wetlands in regards to Sackett Ruling.				X	X

2. 401 Certification

Objective 1. Water Quality Authority:

The St. Paul District of the United States Army Corps of Engineers (USACE) administers the Section 404 program in most of Minnesota. Currently, the RLB has 401 authority due to TAS and WQS that need to be met during environmental impacts, however the RLB does not have a 401 certification process in place. Outside of Tribal boundaries, the Minnesota Wetland Conservation Act is currently precedent in conjunction with USACE 404 permitting. Having a 401 Certification process in place, as well as producing guidelines or a process to expedite 404 permitting with the USACE could help leverage the RLB's authority in protecting their waters.

General Strategy:

Action: Acquire 401 Certification to maintain the RLB's 303(c') TAS WQS.					
Activity	2024	2025	2026	2027	2028
Attend local or state wetland delineation trainings and obtain a certificate of completion.	X	X			
Develop a 401 Certification process with EPA.		X	X	X	

Collaborate with local Legal, Planning, and Housing Departments to establish goals to follow during construction practices.	X	X	X		
Collaborate with MPCA about projects occurring outside of Reservation boundaries that may impact WQS within the Reservation.	X	X	X	X	X
Determine if 404 permitting of dredge and fill is feasible.		X	X	X	X
Seek and apply for funding to develop a 404 permitting flow chart to determine which processes need to take place for dredge and fill (obtain a point of contact with USACE).	X	X	X	X	X

Core Element 3: Restoration and Protection

Goals

1. **Maintain, improve, and increase healthy wetland ecosystems through conservation, protection, restoration, and ensure no net loss of wetlands**

   Objective 1. Establish, refine, and strengthen restoration and protection goals:
   In 2017, the RL DNR produced shoreline ordinances to help protect lakes, streams, and wetlands. However, restoration goals are much more challenging due to the complexity of each system. Collaborating with federal, state, and tribal partners will be required to develop restoration goals. Restoration of wetlands to their pre-settlement state will help provide suitable habitat for culturally significant flora and fauna that were lost due to damming and ditch efforts in an attempt to make arable land.

   General Strategy

Action: Refine shoreline ordinances and add protection to other waters not covered by WOTUS, and collaborate with restoration partners.					
Activity	2024	2025	2026	2027	2028
Seek and apply for funding opportunities to implement restoration and protection efforts.	X	X	X	X	X
Collaborate with federal, state, and tribal partners to produce impaired wetland areas in need of restoration.	X	X	X		

Collaborate with federal, state, and tribal partners to establish mutual goals and objectives during restoration efforts.		X	X	X	
Refine the shoreline ordinance that includes further protection outside of current RLB regulations and new WOTUS ruling.	X	X			
Submit the shoreline ordinance to the Tribal Council as a standalone ordinance.			X	X	

Core Element 4: Wetland Water Quality Standards

Goals

1. Implement Wetland Water Quality Standards

Objective 1. ***Analyze current wetland data and establish wetland WQS:***

Over the past decade, extensive monitoring and research has been performed on the Reservation's type 5 open water wetlands. Data collected from these studies will be used to determine baseline conditions and an appropriate wetland WQS for these sites. In order to maintain this data, monitoring type 5 wetlands will continue on a five to ten year rotation. The RL DNR Water Resources has plans to expand their monitoring efforts to all feasible wetland types to achieve an accurate WQS for wetlands. Establishing reference sites for all wetland types will give the RLB baseline data to track changes associated with climate change. Data analysis by the RL DNR Water Resources division will determine the threshold for each parameter monitored. Setting thresholds on physical and chemical parameters would warn the RL DNR when wetlands are in their early stages of impairment. Data and possible tools created from data analysis could be used for educational purposes to inform the public about wetland health which may lead to community participation in protecting their resources.

General Strategy:

Action: Establish wetland WQS within the diminished portion of the Reservation.					
Activity	2024	2025	2026	2027	2028
Seek and apply for funding opportunities that will help cover monitoring and assessment activities of wetlands.	X	X	X	X	X
Analyze current data to determine threshold parameters on water quality data.	X	X	X		
Collaborate with federal and state partners to establish what Floristic Quality Assessment parameters are, how they should be assessed, and how to analyze the assessment.	X	X			

Establish five reference sites encompassing the various wetland types within the Reservation.	X	X			
Monitor and assess sites when funds are available.		X	X	X	X
Establish wetland WQS for each wetland type.				X	X