Wetland Management Program
2011-2016
LAC DU FLAMBEAU BAND
OF
LAKE SUPERIOR CHIPPEWA INDIANS

Submitted by
Tribal Water Resources Program
Gretchen Watkins

Table of Contents

Overview

Wetlands make up more than a fourth (28%) of the reservation area. When the reservation was delineated during the 1854 treaty, federal government and settlers thought it was just low value “swamp” land. The Lac du Flambeau Band of Lake Superior Chippewa Indians “Tribe” on the other hand utilized the wetlands for hunting and gathering for the majority of their resources. Wild rice a native North American water dependent grass is used by the tribe for substance. Lac du Flambeau Tribe’s history of coming to the area revolve around finding “food that grows on water” referring to wild rice.

Wetlands also play a vital role in the health of watersheds. Wetlands provide critical habitat for many species of fish, amphibians, shellfish, waterfowl, medicinal plants and insects as well as migratory birds and mammals, all vital to the Tribe. Wetlands also protect and enhance water quality of the 260 lakes on the Reservation and 71 miles of streams by buffering shorelines from wave actions, stormwater, and erosion and provide critical habitat for fish and wildlife.

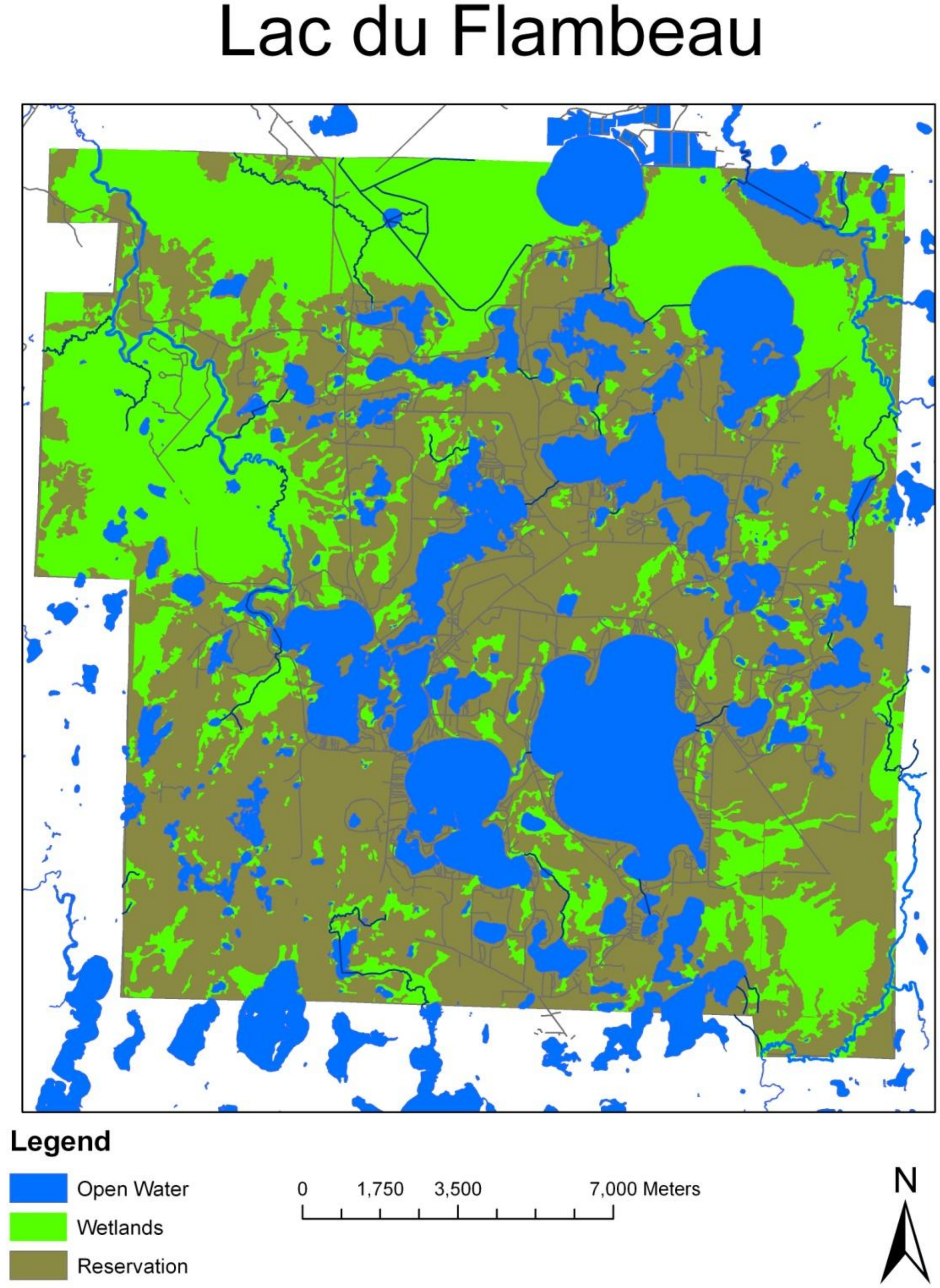
On the Lac du Flambeau Reservation the majority of the degradation to wetlands is from roads/trails, stormwater, invasive species, and agriculture (i.e. cranberry operations). Currently the US Army Corps of Engineers (US ACE) permit fill activity involving wetlands connected to navigable surface water, for activates that takes place on fee and trust lands on the Lac du Flambeau Reservation. US ACE and local records indicate that less than a percent of wetlands have been filled or drained on the reservation. Most of the wetland loss has arisen from residential development, road construction, and bank stabilization. Lake shorelines have been mostly developed for residential or recreational properties. Now more marginal properties with access blocked by wetlands have been looked at for development. Permit request and unauthorized fills have risen in recent years due to this development of marginal property development.

The Lac du Flambeau Constitution and Integrated Resource Management Plan are the Tribal resource planning documents that address wetlands and their protection. The Tribe has also adopted Federally approved Water Quality Standards and a Tribal Shoreline Protection and Enhancement ordnance that are used to protect the functional values the wetlands provide the Tribe or Tribal Resources.

The Tribe conducted a wetland inventory by aerial photo interpellation to determine the extent and type of wetlands on the Reservation. This inventory that is now a GIS layer is used to determine areas for protection and enhancement, for determining permit conditions, and to assess protection activities.

The purpose of this management plan is to give guidance, and lay a framework for the Tribal Natural Resource Department to follow in order to control wetland degradation. Under this management plan the tribe will address monitoring and assessment; regulatory activities including 401 certifications; restoration and protection, and water quantity standards for wetlands. Tribal ordinances will be reviewed and updated on a 3 year basis with collaboration from Federal, State, Tribal and local governments, and a public participation/comment period. Baseline data for water chemistry, temperature, habitat, and biological function will be gathered on a 5 year rotational period as funding is available. Wetlands impaired or threatened will be identified and assessed for restoration needs. As restoration projects and prevention methods are implemented the Water Resource Program will assess water quality to determine effectiveness of the controls. The assessment report and management program will be reviewed, evaluated, and revised every 5 years. Collaboration from Tribal, Federal, State, and local governments, and a public participation/comment period during the integrated resources management planning process will be incorporated into the wetland plan every ten years.
Utilizing these many different mechanisms of collaboration, education, restoration, and enforcement, the Tribe will be able to improve wetland functional values[1] for the Tribe.

[1] Wetland functions are defined as a process or series of processes that take place within a wetland. These include the storage of water, transformation of nutrients, growth of living matter, and diversity of wetland plants, and they have value for the wetland itself, for surrounding ecosystems, and for people. (Novitzki)



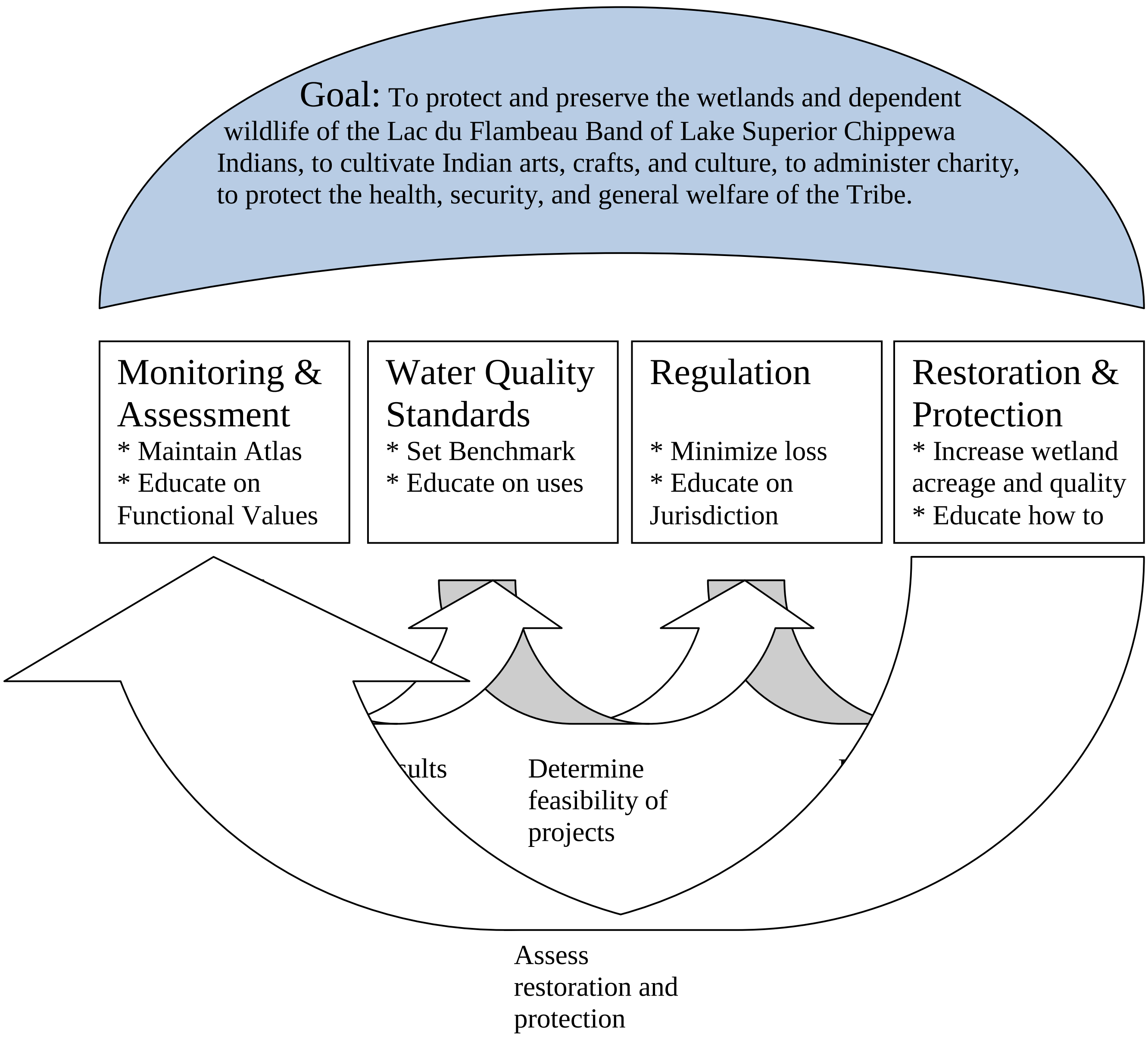
This management plan will document how the Tribe's current wetland management program fits into EPA's core elements of Monitoring and assessment; Restoration and protection; Water quality standards; and Regulation.

Introduction

The goal of the wetland management program is to protect and preserve the wetlands and dependent wildlife of the Lac du Flambeau Band of Lake Superior Chippewa Indians, to cultivate Indian arts, crafts, and culture, to administer charity, to protect the health, security, and general welfare of the Tribe. The Water Resource Program goal to protect and restore the water quality, watershed condition, and aquatic/riparian habitat on the Lac du Flambeau Reservation as stated in the Tribes Integrated Resource Management Plan mirrors the wetland goal. This will aid in the ability of the wetlands of the Reservation to attain beneficial uses for the Tribal members and non-members alike. Beneficial uses as stated in the Tribes Water Quality Standards for the Tribal members include wild rice (pictured above) gathering and other cultural uses that differ from beneficial uses of non-member activities. The protection and restoration of Tribal member's beneficial uses are the responsibility of the Tribal Government and Federal Government under constitution and treaties. The goal is to integrate the wetland program into the overall Natural Resource Department for the protection of Tribal resources by making sure that the following are accomplished.

The primary goal of the Management Program is in keeping with the LDF Constitution developed by the Tribe to protect Tribal rights. The responsibility of the Tribal government as stated in the Constitution and Bylaws of the Lac du Flambeau band of Lake Superior Chippewa Indians of Wisconsin Article IV- Power and Duties of the Tribal Council, Section 1 (a), states:

> "To regulate the use and disposition of tribal property to protect and preserve the tribal property, wildlife and natural resources of the Lac du Flambeau Band of Lake Superior Chippewa Indians, to cultivate Indian arts, crafts, and culture, to administer charity, to protect the health, security, and general welfare of the Tribe."



Only in attempting to achieve the goals stated above will the Tribes constitutional responsibility be met. The primary objective from the integrated resources management program is to protect high quality waters and improve substandard water quality conditions in the Lac du Flambeau Reservation, and one way this is accomplished is through wetland protection.

Utilizing these many different mechanisms of collaboration, education, monitoring, and regulation, the Tribe will be able to better control wetland degradation as development continues.

Core Elements:

EPA's core Elements are met through following the Tribes guiding documents as stated above. This management plan will document how the tribes current wetland management program fits into EPA's core elements of Monitoring and assessment; Restoration and protection; Water quality standards; and Regulation.

EPA's Core Elements of a wetland program help to measure progress toward the Tribes Goals. EPA's Core Elements are Monitoring and Assessment; Restoration and Protection; Water Quality Standards; and Regulation. The tribe has integrated the Core Elements in to the following wetland management program. The following narrative will describe the implementation of the core elements and how the tribe would like to further expand each element. The core elements will be listed in order of Monitoring and Assessment; Water Quality Standards; Regulation and Restoration and Protection.

Monitoring and Assessment:

The Lac du Flambeau Wetland Management Plan (WMP) provides a detailed description of the steps taken to identify wetlands and problem areas and priority wetlands for restoration. Summary Table 1 identifies the wetlands by Class flowing the US Fish and Wildlife Service "Classification of Wetland and Deepwater habitats of the US".

Class	Sub Class	Acres		
Scrub/shrub	Needle-leaved	3147	**14%**	
Scrub/shrub	Needle-leaved evergreen	68	**0%**	
Scrub/shrub	Broad-leaved deciduous	206	**1%**	
				15%
Forested	Needle-leaved evergreen	847	**4%**	
Forested	Needle-leaved deciduous	639	**3%**	
Forested	Needle-leaved	6302	**28%**	
Forested	Dead	179	**1%**	
Forested	Broad-leaved deciduous	1714	**8%**	
				43%
Emergent/wet meadow	Persistent	194	**1%**	
Emergent/wet meadow	Narrow-leaved persistent	9268	**41%**	
				42%
Undetermined		4047		

These wetlands were identified primarily by stereoscopic analysis of aerial photographs taken no earlier than 1986 and transferred to a 1:24,000 photo enlargement. The delineated wetlands on the enlargement reflect ground condition existing as of the 1996 date of the interpreted aerial photography. Wetlands were identified on the aerial photographs based on vegetation, visible hydrology, and geography in accordance with a wetland classification system based on the US Fish and Wildlife Service "Classification of Wetland and Deepwater habitats of the US". National Cooperative soil survey maps, precipitation records, and other ancillary data were also utilized in determining wetlands.

The wetlands are divided evenly from forested at 43% and Emergent/wet meadow at 42% with the remainder being Scrub/shrub at 15%. There was also 4047 acres of undetermined class that includes some open water and edge wetlands less than 2 acres. On the Reservation we also have 260 lakes identified by area photo interpolation with 100 of the lakes less than an acre in surface area. The wetland layers over lap many of the smaller lakes and edge of lakes and rivers. The line between wetland and lakes and rivers is not distinct and the wetland delineation did not do a great job at separating the systems between Riverine, Lacustrine and Palustrine.

The Lac du Flambeau Tribal Natural Resources Department would like to improve these data layers to better map the Tribe's aquatic resource and fit with EPA's definitions of lake, river, and wetlands to modify our Clean Water Act Section 106 atlas of waters, and listed waters for water quality standards. Currently we define water for regulatory purposes at the ordinary high water mark. "Ordinary High Water Mark" as defined in our water quantity standards, means the highest point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation, presence of aquatic vegetation, or other easily recognized characteristic. This definition allows for all waters to be included in the regulatory protections but makes it hard for separating the monitoring and assessment protocols for each water body type.

The Tribe is moving forward with using National Aquatic Resource Monitoring methods developed by the EPA and plans to classify reservation waters based on National Aquatic Resource Survey methods and definitions of water body type. For instance EPA's lake definition in the national lake survey was Lake size (e.g., greater than 1 ha), Water depth (e.g., at least 1 m depth), Amount (%) open water (e.g., less than 50% covered by vegetation). A revised atlas of water bodies on the reservation will be important as we implement our new federally approved water quantity standards as we have different section in the water quality standards that apply to wetlands.

Aquatic invasive species like purple loosestrife and phragmites are also a great concern for the wetlands on the reservation. We have an extensive monitoring program with a volunteer training and notification system with over 100 trained volunteers. Purple loosestrife is most extensive on the reservation with about a total of 2 acres in scattered areas around the reservation. The Tribe maintains a GIS data layer that is updated yearly with density of purple loosestrife stands and management practices utilized. The Tribe plans to maintain and expand the invasive species program to manage invasive in Reservation wetlands.

The Tribal Natural Resource department conducts wildlife surveys to determine movement and use of critical habitat on the Reservation. The Tribe plans to continue and expand the wildlife surveys in to the future particularly with pre and post surveys of restored areas.

Monitoring and Assessment: Wetland Atlas and Functional Values Education
Monitoring and Assessment are critical to understanding what wetlands are on the reservation and the value provided to the Tribe. An accurate wetland atlas with associated functional values is critical to educating the community, land managers, and elected officials of the importance of protecting wetlands.

Goal:
Improve monitoring and assessments to convey information on the functional values wetlands provide the Tribe so the Tribe can protect important values including the protection of wild rice, ground and surface water quality, flooding and storm damage, and protection of habitat.

Objective:
The Tribal Natural Resource Department will continue to monitor and assess wetland condition and will by the end of 2015 1) revise the water atlas to reflect overlap of wetland and open water habitat, 2) assess 10% of the wetlands functional values and health on the reservation using parts (RAM) of the National Wetland Condition Assessment protocol, 3) assess and document threats to wetland functional values and prioritize 3 wetlands for restoration, 4) conduct pre and post wild life surveys of restored area, and 5) educate citizens, natural resources managers, and elected officials of the value of wetlands by hosting a booth at lakes fest, attending managers meetings, and presenting to Tribal Council.

General Strategies:
Below is a list of general strategies pertaining to Monitoring and Assessment to be addressed in all Reservation watersheds:

1. Update and revise the water atlas to reflect overlap of wetland and open water habitat
2. Assess 10% of the wetlands functional values and health on the reservation using parts (RAM) of the National Wetland Condition Assessment protocol
3. Assess and document threats to wetland functional values and prioritize 3 wetlands for restoration
4. Conduct pre and post wild life surveys of the Powell Marsh restoration
5. Educate citizens, natural resources managers, and elected officials of the value of wetlands by hosting a booth at lakes fest, attending managers meetings, and presenting to Tribal Council

Project	Lead Agency	Cooperating Agency	Water bodies to Improve	Implementation Schedule
1	LDF Water Resource Program	USFS, EPA, NRCS, WDNR, Vilas County, LDF Town, UW Extension	All Reservation Waters	2012
2	LDF Natural Resource Department	Tribal Forestry, Tribal Wildlife, and Tribal Water Resources	All Reservation Waters	2011
3	LDF Natural Resource Department	Tribal Forestry, Tribal Wildlife, and Tribal Water Resources	All Reservation Waters	2013
4	LDF Natural Resource Department	Tribal Forestry, Tribal Wildlife, and Tribal Water Resources	All Reservation Rivers	2011
5	LDF Natural Resource Department	Tribal Forestry, Tribal Wildlife, and Tribal Water Resources	All Reservation Rivers	On-going

Water Quality Standards:

Lac du Flambeau Tribe received federal approval of their water quality standards September 2010. The Tribal standards include language specific to wetlands. The Tribal standards define “Wetlands” as meaning “waters of the Reservation under the Clean Water Act that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, and bogs.” This definition in combination with the ordinary high water mark definition of “the highest point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation, presence of aquatic vegetation, or other easily recognized characteristic” are used to regulate and manage wetlands on the reservation.

The tribal water quality standards also are specific to wetlands under the designated uses that apply to wetlands:

(1) Fish and Aquatic Life. Water quality necessary to support a balanced aquatic life community, and to protect the gathering of aquatic resources for food, medicinal, or crafting purposes.
(2) Water Contact. Secondary contact (skin in direct contact but not to the point of submergence or ingestion), for the protection of recreation, ceremonies, and cultural activities.
(3) Wildlife Protection. Water quality necessary to support the propagation and maintenance of wildlife that utilize aquatic resources as a food source.
(4) Wild Rice. Supporting wild rice habitat for sustainable growth and consumption.
(5) Water Supply. Supports the use of water for industrial, agricultural, or aquacultural purposes.

At the boundary between wetlands of different designated uses, the water quality criteria necessary to protect the more sensitive use or uses shall apply.

Cool and cold water fishery and navigation are not listed as uses for wetlands. This allows for example regulation of wetlands to protect sensitive habitat like wild rice instead of supporting the movement of water craft. Also under the human contact use bacteriological criteria is different for waters that are mostly suited for swimming versus wildlife. The Tribal water quality standards states:

(1) Bacteriological Criteria protect waters for human contact. Water contact use is divided into two subcategories (Primary and Secondary) based upon frequency of use. Where compliance is based on a monthly geometric mean then at least five samples must be collected in equally spaced time periods over thirty days; when less than five samples have been collected in a thirty-day period, the single sample shall not be exceeded. The following bacteria criteria apply to each subcategory: –

(a) For lakes and rivers that are used for swimming or submergence bacteriological density shall not exceed a monthly geometric mean of 126 Escherichia coli per 100 ml, or a single sample maximum of 235 cfu Escherichia coli /100 ml.

(b) Intermittent streams and streams surrounded by sedge meadows, shallow lakes surrounded by floating sedge and peat mats, wetlands and bogs that are infrequently used for swimming or submergence due to highly stained waters, extensive vegetation, and deep mucky substrates that create dangerous conditions for swimming; for these waters the bacteriological density shall not exceed a monthly geometric mean of 206 cfu Escherichia coli per 100 ml, or a single sample maximum of 940 cfu Escherichia coli /100 ml.

This distinction allows for wildlife to be protected while humans are protected for swimming in suitable waters. The Tribal water quality standards Biological and wild rice section will be used when determining 401 certifications for wetland fills. The Biological criteria from the Tribal water quality standards states:

(1) All waters of the Reservation shall maintain a natural diverse biological community; therefore aquatic life shall be as it naturally occurs.

(2) The overall biological community may not be adversely affected by the discharge of water for industrial, municipal, or agricultural purposes, or by the discharge of pollutants to the water.

(3) Natural hydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands shall be protected to prevent significant adverse impacts on.
(A) Water currents, erosion or sedimentation patterns;
(B) Natural water temperature variations;
(C) The chemical, nutrient and dissolved oxygen regime of the wetland;
(D) The normal movement of aquatic fauna;
(E) The pH of the wetland; and
(F) Normal water levels or elevations.

The tribal water quality criteria for the protection of wild rice states:

(1) Natural hydrological conditions necessary to support the biological and physical characteristics naturally present in waters shall be protected to prevent significant adverse impacts to wild rice.

(2) The following wild rice criteria shall be met in Reservation waters:
(A) Natural erosion or sedimentation patterns;
(B) Natural sedimentation rates;
(C) Natural water temperature variations; and

The Tribe plans to develop an administrative procedure for the 401 certification process that would include a specific way of determining impacts of wetland fills on the biological and wild rice of the Reservation.

Water Quality Standards: Set Benchmark, Educate on uses

The most powerful tool for water quality standards for the Tribe is to insure Tribal uses of waters are protected. The tribe use wetlands for many different cultural, medicinal, food, and recreational uses. More information on how/who we educate-would this be a spot to put lakes fest or a different example?

Goal:

Protect all tribal designated uses of water by setting measurable criteria to be protective of human health and ecosystem health.

Objective:

The Tribal Natural Resource Department will continue to monitor and assess wetland condition and will by the end of 2015, improve 401 certification process that would include a specific way of determining impacts of wetland fills and point source pollution on the biological and wild rice of the Reservation.

General Strategies:

Below is a list of general strategies pertaining to Water Quality Standards to be addressed in all Reservation watersheds:

1. Develop 401 certification administrative procedures for wetland fills
2. Work with Army Corps of Engineers on an implementation and enforcement MOU for review and inspection of wetland fill permits process
3. Strengthen wild rice criteria by determining a background level of sulfate in wild rice waters and modifying WQS language
4. Strengthen biological criteria for specifically wetland protection

Project	Lead Agency	Cooperating Agency	Water bodies to Improve	Implementation Schedule
1	LDF Water Resource Program	EPA, GLIFWC, BIA	All Reservation Waters	2011
2	LDF Natural Resource Department	USFS, EPA, WDNR, GLIFWC, BIA	All Reservation Waters	2011
3	LDF Water Resource Program	USFS, EPA, WDNR, GLIFWC, BIA	All Reservation Waters	2011
4	LDF Natural Resource Department	NRCS, EPA, WDNR, GLIFWC, BIA	All Waters	2013

Regulation:

The Tribal Water Resource Program under the direction of the Tribal Natural Resource Director and Tribal Council administer the wetland program. The Lac du Flambeau Water Resource program has been in operation since 1990 and was added to the existing programs in the Natural Resource Department with the primary objectives of obtaining authority for various programs within the Clean Water Act. The Tribal Water Resource Program is annually funded under EPA Section 106 of the Clean Water Act, Bureau of Indian Affairs (BIA) P.L. 93-638 contract monies, NRCS EQUIP/WHIP project monies, USGS cooperation monies, and Tribal general fund monies. Special project money is also acquired though US ACE, US EPA, WI Department of Natural Resources, Health and Human Services, Indian Health Service, and others as need dictates. The goal is to integrate the wetland program into the overall Tribal Clean Water Act Pollution Prevention program.

The Lac du Flambeau Tribal (LDFT) Water Resource Program under the LDFT Natural Resource Department, with authority from the LDF Tribal Council, is responsible for water pollution control programs. The LDF Tribal Natural Resource Department is responsible for administering the Lac du Flambeau Reservation's water quality laws. LDF Tribal code and federal law require program reviews for all projects located within the exterior boundaries of the Reservation. Projects on tribal land, allotted land and fee land owned by tribal members that affect land or resource use or involve ground disturbance (not listed as exemptions) must be reviewed. The Tribal Natural Resources Department has developed a LDFT Land Use and Housing Review Process known as the Green Sheet Process. The Tribal programs that review the Green Sheet Projects are Land Management, Historic Preservation, Planning, Water and Sewer, Forestry, Roads Maintenance, Housing/Building Inspector, Water Resource, and Environmental with final review from the Natural Resources Department Director. Each program will review the project and submit comments or conditions citing Tribal or Federal Codes that pertain. Each program will also determine if outside agency review is necessary. The Natural Resource Department and the Conservation Code Committee make final determinations on issues and refer them with recommendations where necessary to the Tribal Council.

Wetland acreage		Fee	Trust
Oneida Co.		86	127
Vilas Co.		3,590	11,391
Iron Co.		160	9,563
Total		3,836	21,081
% of total wetland		15%	85%

Land disturbance projects and laws regulating land disturbance activities within the Reservation but on fee lands owned by non-Tribal members follow Federal, State, and local laws and procedures. Activities including, but not limited to, the construction (> 1 ac or involving placement of fill material into waters of the US) or operation of municipal, agricultural, residential, industrial, or commercial facilities, which may result in discharge (including discharges form point and nonpoint sources) into any of the waters on the LDF Reservation that require federal permits, will be sent to the Tribe for 401 certification of the Tribal Water Quality Standards, and comments from the Tribe will be considered with regard to the Federal Trust Responsibility to the Tribe. Land disturbance projects and laws regulating land disturbance projects on fee lands owned by non-Tribal members that do not require a federal permit fall under State and local jurisdiction. No formal notification is given to the Tribe for comments. Tribal comments are treated as other public stakeholders comments. The Tribe participates in and comments on projects and development of new or revised laws regarding waters of the Reservation as time and resources allow.

The Tribal Water Resource Program administers pollution source controls with technical assistance from, tribal program mangers, Natural Resources Conservation Service (NRCS), US Fish and Wildlife Service (FWS), US Environmental Protection Agency (EPA), and US Army Corps of Engineers (ACE), and collaboration with State and local governments during the public comment review period. The Town, Counties, State and Federal governments preside over non federal laws, ordinances, and codes pertaining to non-tribal members on fee lands within the Reservation. The Town manages the zoning ordinances, the counties (Vilas, Oneida, and Iron) also manage the zoning ordinances, the State has a minimum standard for the zoning ordinance and isolated wetlands, and the Federal government manages fill discharges to navigable waters and waterbodies and wetlands associated with navigable water (waters of the US).

<u>Tribal Laws/Programs</u>

The following is a list of Federal Agencies that could potentially be conducting activities that would fall within the guidelines of the Management Program: USDA Natural Resources Conservation Service, United States Geological Survey, Bureau of Indian Affairs (BIA), Indian Health Services, and Housing and Urban Development.

The LDF Tribe uses their own authority to adopt standards for additional surface waters. The BIA has responsibilities over all properties held in trust by the U.S. Government for Native American Tribes. The BIA will provide technical assistance and resources when available.

The Tribe has authority to manage and protect the reservation's water resources, including the ability to implement the wetland management program. The LDF tribal programs are implemented through their green sheet process and Water Quality Standards, Water Resources Ordinance, Land Use Ordinance and others as listed below. The LDF Natural Resources Department has developed and implemented BMPs in the form of official controls for shoreline development and other sources of pollution. Currently the Tribal ordinances pertaining to the control of wetland pollution are:

Chapter 23: Reservation Water and Shoreline Protection and Enhancement Ordinance Requires:

- 75' setback of structures and vegetation manipulation from the ordinary high water mark (OHWM) for all water bodies
- 200' setback for all activists from the OHWM of outstanding resource waters
- 200' minimum frontage for unsewered lots
- Controls on dredging, filling, and ditching
- No fill in wetlands (with exceptions and a 2X mitigation requirement)

Chapter 28: Lac du Flambeau Water Quality Standards Code:

- Antidegradation policy
- Water quality standards

Chapter 27: Lac du Flambeau Boating Safety Ordinance:

- Regulates boat traffic, speed, and equipment in sensitive waters (wildrice waters, small lakes/wetlands)

Chapter 22: Tribal Solid Waste Code:

- Regulates disposal of unwanted marital

The Town of Lac Du Flambeau (located in the intersection between Vilas County and the Reservation) has also developed a land use / zoning ordinance that is more protective then Vilas County's ordinance. Therefore the Town of Lac Du Flambeau administers the zoning ordinance for isolated wetlands confined within fee lands owned by non-tribal members within the Township.

The **BIA** has responsibilities over all properties held in trust by the U.S. Government for Native American Tribes. The BIA provides technical assistance and resources when available. Circle of Flight is a BIA program that funds and helps leverage fund for wetland enhancement and restoration. The BIA along with the Tribal Natural Resource Department, manages and regulates the cutting of timber on Tribal Lands. The Tribal Forestry Program must follow federal BMPs, and must meet the requirements of the National Environmental Policy Act (NEPA), and complete and Environmental Impact Statement (EIS) for all timber sales. The BIA provides technical and financial support for water quality investigations, and management plan development through the BIA Water Resource Program.

The Tribe plans to continue implementation of the wetland protection regulations to minimize loss of wetlands and to educate community on what regulations pertain to their activities.

Regulation: Minimize loss, Educate on jurisdiction
Regulation is the best means controlling human or societal behavior by rules or restrictions and a principle duty of government to protect tribal membership as per the constitution. The Tribal Natural Resource Department first tries to educate the community to not pollute but when that fails and health and welfare of the Tribe are in jeopardy implementation of rules are needed.

Goal:
Protect the health and welfare of the tribe and natural resources of the tribe for the next seven generations by implementation of rules to protect wetlands functional values.

Objective:
Work with all agencies and programs to implement current laws to insure wetlands on the reservation are protected.

General BMP Strategies:
Below is a list of general strategies pertaining to regulations to be addressed in the Reservation:

1. Conduct review on all land disturbing activities that could relate to wetland destruction and issue conditions and specific BMPs for the protection of wetlands
2. Work with ACE, Town, Counties, and State to implement laws pertaining to isolated wetlands.
3. Educate ACE, Town, Counties, and State on jurisdiction pertaining wetland fills at lakes fest and with a development of a webpage for permits.

Project	Lead Agency	Cooperating Agency	Water bodies to Improve	Implementation Schedule
1	LDF Water Resource Program	ACE, EPA, BIA	all	On-going
2	LDF Natural Resource Department	WDNR, EPA, BIA	all	On-going
3	LDF Natural Resource Department	WDNR, EPA, BIA	all	2011-2012

Restoration and Protection:

Education

Education is the key to protection of wetlands. The more people who know and understand the causes, effects and solution to wetland pollution, the less likely they are to be part of the problem and the more likely they are to become part of the solution. Therefore, an education program to promote voluntary corrective action by industry, Tribal members, and other community members, to prevent or reduce future problems by increasing general public awareness. Education programs will include a variety of approaches and might include videos like “Powell Marsh a Northwoods Hidden Treasure” (http://www.youtube.com/watch?v=CZh_B7xApCI&feature=related), brochures, fact sheets, and presentations at Tribal events. Below is a list of educational projects for the Tribe:

a. Host annual “Lakes Fest” to promote education and awareness of lake stewardship. Presenters from Tribal, Federal, State, and local agencies and not for profits set up educational booths. Activities, food, games, and prizes are used to bring people into the event.
b. Provide education and information on invasive species, and BMPs at key locations, events and boat landings on the Reservation.
c. Participate in the Town Lakes Committee, and Vilas county aquatic invasive species (AIS) educational programs.

d. Provide education to agencies, contractors, governments, and private landowners on best management practices (BMP) for shoreline development, roads, agriculture, and habitat alterations.
e. Develop and distribute educational videos, brochures, booklets, web pages, Kiosk, and posters.
f. Host field trips to the Powel Marsh for the local schools and community groups.
g. Facilitate development of recreation opportunities and infrastructure on the Powell Mash.

Mitigation and Demonstration Projects

Many departments within the Tribe manage direct aspects of the wetland mitigation and demonstration projects. Much of the day to day management like burring and water control structures and levee system are managed by the Tribal Forestry Department and the Wildlife Program. Control burns are used to control woody vegetation that has arisen since fire suppression is needed to protect homes and infrastructure. Likewise mowing and cutting are used to keep nescience species at bay and maintain critical habitat for water fowl. The Tribal Forestry and Tribal Wildlife programs coordinate with the water program on a project by project basis for review of regulatory requirements and fire management plan creation and implementation.

As mentioned in the regulations section of this management plan we require a 2 times mitigation of all wetlands that are filled. In general our plan is to avoid, minimize, and then mitigate, because created wetlands usually provide less functional values then natural wetlands. Administrative procedures need to be developed to formalize this process. Aquatic invasive species are also threatening wetland function values. The Tribal Natural Resources department is active in managing purple loosestrife populations by using bio control techniques (pictured) and direct removal.

The Tribe partners with **USDA Natural Resource Conservation Service (NRCS)** who administers multiple programs for farmers/loggers on the reservation. The two biggest programs that are implemented on the Reservation are the Environmental Quality Incentives Program (EQIP), and the Wildlife Habitat Incentive Program (WHIP).

The Environmental Quality Incentives Program (EQIP) is a voluntary conservation program that supports production agriculture and environmental quality as compatible goals. Through EQIP, farmers may receive financial and technical help with structural and management conservation practices (BMPs) on agricultural land. NRCS provides the technical assistance with cost-share payments used to establish or improve wildlife habitat like prescribed burns. Under the agreement, the landowner agrees to implement and maintain the cost-shared practices and allow NRCS access to monitor the effectiveness of the practices.

The EQIP program can help to work with cranberry growers (wetland operation that place dikes in wetland to cultivate berries) to improve water quality of Reservation waters. The risk of contamination of water resources from the application of plant nutrients, placement of fill material and pesticides is largely due to the proximity and use of surface waters. Surface water resources can also be impacted by the release of “flood waters”, which have the potential to increase in temperature as they are used in production, before being returned to streams, lakes, or other surface water features. The EQIP program can also help with shoreline restoration projects and implementation of forestry BMPs like forest roads crossing wetlands.

The Wildlife Habitat Incentive Program (WHIP) is similar to EQIP but emphasizes re-establishment of declining species and habitats, including prairie chickens, meadowlarks, sharp-tailed grouse, Karner blue butterfly, smallmouth bass, blue-winged teal, and many other species of grassland birds, reptiles, insects and small mammals. Practices to be implemented though WHIP include, installing in-stream structures to provide fish habitat, restoring prairie and oak savannahs, brush management, and control of invasive species.

Antidegradation

The Tribe’s Water Quality Standards Antidegradation section has a very strong antidegradation section and states for the two highest level of protection:

Tier (2.5) Protection of Exceptional Tribal Resource Water.

(a) Prior to the issuance of any permit with new or expanded discharges under the Clean Water Act that would authorize a discharge that may degrade a waterbody with a Tier 2.5 classification, the applicant for the permit shall demonstrate, to the Department's satisfaction:

the proposed lowering of water quality is necessary to accommodate important social or economic development on or near the Reservation, discharges will not exceed ambient water quality levels at the location of the discharge and will not exceed water quality criteria, cost effective pollution control methods have been implemented or do not exist, cost-effective and reasonable best management practices have been implemented, there will be achieved the highest statutory and regulatory requirements for new and existing pollution sources, and no increased loads of bioaccumulative chemicals of concern ("BCCs") shall be discharged.

(b) If a permit is granted, the permit holder shall provide monitoring data or other information about the waterbody. The Department will review the data and will perform site inspections to further ensure protection of existing uses.

4) *Tier (3) Protection of Outstanding Tribal Resource Waters.* New or expanded discharges to OTRW's or to tributaries of an OTRW that may degrade the OTRW are prohibited with the following exceptions:

(a) Short-term, temporary (no more than 6 months) lowering of water quality;
(b) Maintenance of existing roads, bridges, dams, and similar structures with the assurance from the applicant that best management practices will be implemented for short-term, temporary lowering of water quality; and
(c) Response actions undertaken by the Tribe to alleviate a release into the environment of hazardous substances, pollutants or contaminants which may pose an imminent and substantial danger to public health or welfare.
(d) Existing discharges within an OTRW or adjacent to an OTRW, as of the date of EPA approval of these water quality standards, are allowed to remain and to be maintained. Any expansion or significant modification of structures or discharges related to the allowable exemptions listed above will not be allowed without prior written approval of the [Tribal Natural Resource] Department.

Most wetlands are associated with tier 2.5 waters and the Bear River is a wetland dominated river that is the out flow of the Reservation and protected as a tier 3 Outstanding Tribal Resource Water.

Restoration & Protection: Increase wetland acreage and quality, Educate on how to protect

Wetlands serve vital functions for the Tribal membership and the community at large. Wetlands act as the kidneys of all other water and also produce one of the most important food resources for the Tribe. The Tribe came to this area because of the wetland resources for hunting and gathering.

Goal:

No loss of wetlands on the Reservation.

Objective:

No loss of wetlands on the Reservation by educating the community on the importance of wetlands, restoring impaired wetlands, and improving procedures so degraded wetlands are mitigated at a 2:1 ratio.

Specific Projects:

The following specific projects have been identified in order of importance:

1. Improve administrative procedure for the Antidegradation section of the water quality standards for a 2X mitigation of any wetland loss
2. Conduct restoration projects (burn, wild rice planting, and dike management) at the Powel Marsh that leverage BIA, NRCS, FWS, and other sources of funding
3. Educate people and managers on the best means for restoration and protection

Project	Lead Agency	Cooperating Agency	Water bodies to Improve	Implementation Schedule
1	LDF Water Resource Program	BIA, EPA, ACE	All	2011
2	LDF Natural Resource Department/ Forestry	NRCS, BIA, FWS	All	2011-2012
3	LDF Water Resource Program	EPA, BIA	All	On going

Conclusion

The Lac du Flambeau Wetland Management Plan emphasizes prevention to minimize future restoration needs. This plan consists of ordinances, educational program development, and coordination between other government and local citizens and groups to control wetland destruction. The Tribe will implement this plan on Tribal and fee land though coordination, education, regulation, and investigation. For isolated wetlands on fee lands the Tribal Natural Resource Department (TNRD) will work with the State, County, and Town governments on ordinances development and implementation within the Reservation boundary by providing technical assistance, organizing educational/collaborative gatherings, and commenting when Tribal water uses are at risk.

The goal of the wetland management program is to protect and preserve the wetlands and dependent wildlife of the Lac du Flambeau Band of Lake Superior Chippewa Indians, to cultivate Indian arts, crafts, and culture, to administer charity, to protect the health, security, and general welfare of the Tribe. The goal of water program is to protect and restore the water quality, watershed condition, and aquatic/riparian habitat on the Lac du Flambeau Reservation. This will aid in the ability of the wetland resources of the Reservation to attain beneficial uses for the Tribal members and non-members alike. Beneficial uses for the Tribal members include cultural and wild rice gathering that differs from beneficial uses of non-member activities. The protection and restoration of Tribal members beneficial uses are the responsibility of the Tribal Government and Federal Government under constitution and treaties. Integrating the wetland program into the overall existing Tribal environmental program will insure that Reservation water quality is being protected to the greatest extent possible.