

**Grindstone Lake Foundation
Final Property Management Plan
Grindstone Lake Cranberry Bog Property**



Grindstone Lake Cranberry Bog

By Karen G. Mumford
Board Member, Grindstone Lake Foundation

On behalf of the Grindstone Lake Foundation
Approved on May 18th, 2022

Applicant: Grindstone Lake Foundation
Project: Acquisition of Grindstone Cranberry Bog Property
Location: Bass Lake Township, Sawyer County

INTRODUCTION

In 2020, the Grindstone Lake Foundation applied for and received a land acquisition grant to purchase, in part, a parcel of land adjacent to Grindstone Lake in Sawyer County, Wisconsin. This parcel of land was a former cranberry farming operation and is, in part, classified as wetlands by the WIDNR. A condition of receipt of the funds is the preparation of a Property Management Plan.

A proposed Property Management Plan was submitted with the grant application. In the past two years, the proposed plan has been available for public comment and input. In addition, at several Grindstone Lake Association events, the Foundation has sought direct input from residents and interested stakeholders on the goals and purposes for the land. Finally, the Foundation has reached out to several federal and state agencies, local and regional entities, and numerous non-governmental organizations for suggestions and comments. What is contained herein is the Foundation's Final Property Management Plan.

PRIMARY GOALS

The primary goals of the Grindstone Lake Foundation Property Management Plan are to provide: (1) water quality protection through restoration and protection of wetland, shoreland, and upland portions of the property, specifically the use of native/natural landscape management, including no manicured landscaping and no additions of impervious surfaces or structures; (2) passive low-impact public recreational experiences; and, (3) educational experiences and demonstration sites that provide information about the importance of wetland, shoreline and nearshore habitats and land restoration.

By achieving these goals, the Foundation will provide three significant benefits to the public. First, the 57-acre parcel and associated 1,537 linear feet of shoreline will be permanently protected from potential agricultural or residential development. This protection will prevent the introduction of nitrogen, phosphorus, and pesticides associated with potential agricultural and residential development from entering Grindstone Lake, classified as a *Wisconsin Outstanding Water Resource*. Second, visitors to the property will have recreational opportunities including hiking, biking, snowshoeing, cross-country skiing, and wildlife viewing along or near the shores of Grindstone Lake. Low impact trails will showcase and enhance the appreciation of the plant and animal life and support physical activity, an important public health goal. These recreational activities are currently not available on publicly accessible lands of this scale along this *Wisconsin Outstanding Water Resource*. Finally, the project will provide K-12, college, and graduate students, local community members and visitors with educational opportunities to learn about shoreline, wetland and upland ecosystem complexes and the importance of restoring and protecting these important natural systems.

DESCRIPTION OF THE SITE

Property Address: 14192W County Rd. K
Hayward, WI 54843

The Grindstone Lake property is located on the south shore of Grindstone Lake, a soft-water drainage lake south of Hayward, WI. The drainage area of the lake is approximately 9,500 acres. Grindstone Lake flows into Lac Court Oreilles through the Little Grindstone channel; water eventually flows into the Couderay River Watershed within the Upper Chippewa River basin. An intact ice ridge defines the 1,537 feet of shoreline on the property. Grindstone Lake is recognized by the Wisconsin Department of Natural Resources (WDNR) as an *Outstanding Water Resource* with very clear water and healthy populations of small mouth bass, walleye, and musky. Grindstone Lake is also listed as a Priority Navigable Waterway by the WDNR because it has a self-sustaining walleye population. Grindstone Lake has 12.46 miles of shoreline and two islands. The mainland shoreline (exclusive of the islands) totals 11.73 miles. Approximately 10.16 miles of shoreline are privately held, 0.91 miles are owned by Bass Lake Township, the cranberry bog occupies 0.29 miles of shoreline, the Lac Courte Oreilles Band of Lake Superior Chippewa own 0.26 miles of shoreline, and the state of Wisconsin owns 0.06 miles of shoreline. A portion of Grindstone Lake is on the LCO reservation and the lake is managed by the WDNR and the Lac Courte Oreilles Band.

Prior to 1938, the property was a natural wetland (Nechuta, 2019) (Figure 1).



Figure 1. Aerial photo of Grindstone Lake parcel on August 29, 1938, before conversion to a cranberry operation.

The land was converted to a commercial cranberry operation in the late 1930s. In later years, the upland area of the property was converted to cells for additional cranberry production. Currently there are five buildings on the property and an unpaved driveway off County Road K. The remaining upland, which includes the property edges and the ice dam, consists of mixed hardwoods, scattered pines and a mix of upland and wetland forbs and grasses (see Figure 2)

The property is bounded by 1,537 ft. of shoreline (see Figure 3) with Grindstone Lake on the north, County Road K on the south, WDNR boat landing and access road on the west, and privately-owned wooded lots on the east (Figure 4). A small section of a snowmobile trail is located along the southern portion of the property adjacent to county road K. This trail was in existence prior to the acquisition of the property.



Figure 2. Trail through upland woods



Figure 3. Grindstone Lake shoreline



Figure 4. Aerial image of parcel and adjacent lands.

LAND MANAGEMENT PRIORITIES OF THE GRINDSTONE LAKE FOUNDATION

As stated in the Grindstone Lake Foundation's Articles of Incorporation:

The purpose of the Foundation is to provide funding for the protection, preservation and restoration of the water quality and other conservation values of Grindstone Lake, Sawyer County, Wisconsin.

LAND MANAGEMENT GOALS

Consistent with this purpose and as indicated in the Grindstone Lake Foundation's Strategic Land Management Priorities, the three principal goals in acquiring and protecting lands are to:

1. Protect and enhance the water quality, fishery, scenic beauty, and other natural features of Grindstone Lake;
2. Create opportunities for citizens to access the Lake shoreline and shoreland areas for low impact recreation and enjoyment; and
3. Promote public education on the natural and cultural history, natural lands and habitat, lake and shoreline protection, and land-water interactions.

These three goals serve as the basis for the five strategic property management objectives approved by the Foundation Board for all land management plans. The five strategic objectives are presented in the following section, as part of the property management plan for the cranberry bog.

The Grindstone Lake Foundation's Strategic Land Management Priorities were informed by the following organizations and documents:

- Wisconsin Department of Natural Resources
 - Grant priorities of the *WI DNR Surface Water Grant program*
 - *Upper Chippewa Basin Plan*
 - *Couderay River Watershed Plan*
- The Grindstone Lake Association
 - *Citizen Assessment of Critical Habitats and Priority Shorelines on Grindstone Lake Report, 2010*
 - *Grindstone Lake Water Quality Report, 2010*
 - Summer 2019 Workshop Report, *Building Citizen-Agency Capacity for Lake Management on Grindstone Lake*
- Sawyer County
 - Land and Water Resource Management Plan, 2017-2026
 - Plan for Outdoor Recreation in Sawyer County, 2014-2020

Protection of the lake water quality, fishery, and other natural features is the Foundation's first goal for land management and is consistent with the lake protection grant priorities of the WDNR Surface Water Grant program:

...assist eligible applicants with implementation of lake protection and restoration projects that protect or improve water quality, habitat or the elements of lake ecosystems.

<https://dnr.wi.gov/Aid/documents/SurfaceWater/LakeProtectionGrantOverview.pdf>).

Grindstone Lake, a WDNR-designated *Outstanding Resource Water* is a clear water oligotrophic lake that supports self-sustaining fish populations including walleye, muskellunge, and bass. Grindstone Lake flows directly into Lac Courte Oreilles. According to the Upper Chippewa River Basin plan, Lac Courte Oreilles waters are impaired due to phosphorus levels that are stimulating algal blooms and reduced summer-time dissolved oxygen levels (<https://dnr.wi.gov/topic/Watersheds/basins/upchip/>). The first strategic priority of the Foundation supports activities, such as wetland and native habitat restoration and prevention of disruptive land uses that will protect the water quality of Grindstone Lake and that of its neighbor, Lac Courte Oreilles.

The Foundation's strategic land management goals for protection of water quality also incorporate findings from two Grindstone Lake Association studies: (1) *Water Quality Study 2010 (2012)*; and (2) *Critical Habitats and Shoreline Priorities (2010)* Both studies call for the protection and restoration of wetland and riparian shoreline vegetation to slow overland runoff and reduce movement of sediments, phosphorus and other nutrients into the lake. In 2019, the Grindstone Lake Association received a small-scale lake planning grant to convene a summer workshop titled *Building Citizen-Agency Capacity for Lake Protection on Grindstone Lake*. The workshop was facilitated by staff from the WDNR and UW-Extension Lakes and involved 21 Grindstone Lake property owners and stakeholders. Participants identified phosphorus mitigation as a major water quality goal and recommended *the acquisition and protection of the cranberry bog as a specific phosphorus mitigation strategy*.

The Foundation's land management goals also incorporate the environmental priorities of Sawyer County, as indicated in the county's Land and Water Resource Management Plan, 2017-2026 (2017), particularly the emphases on water quality and shoreline protection:

An ongoing environmental priority in Sawyer County is to improve water quality and maintain or repair endangered shoreline ecosystems (Sawyer County, 2017, p. 8).

The Sawyer County plan highlights concerns associated with land use practices that degrade water quality:

[Sawyer County] will continue to address resource concerns from shoreline development and inappropriate land uses that threaten water quality, as well as forestry [and] recreation...issues (Sawyer County, 2017, p. 3).

The first two Foundation strategic priorities incorporate nearshore and shoreline restoration activities to meet the county's goal of protecting water quality, ensuring the protection of forest and upland ecosystems, and providing the public with low-impact recreational opportunities.

The Sawyer County plan also acknowledges Grindstone Lake as a critical and unique resource:

*A unique resource for Sawyer County and northern Wisconsin is the Chain of Lakes which includes: Big Round; Little Round; Osprey; **Grindstone**; and Lac Courte Oreilles. This chain of clear water lakes consists of approximately 11,700 acres of surface water. The rare trophic qualities of these lakes make them an important resource that must be preserved for future generations (Sawyer County, 2017, p. 9).*

The Foundation property management priorities support land restoration and protection activities that reduce sediment and nutrient flows into Grindstone Lake to protect its *rare trophic qualities*.

Education is the third strategic priority of the Foundation. This priority also aligns with the information and education objectives of Sawyer County:

Information and education has been a high priority in the past and continues to be important in carrying out the department goals (Sawyer County, 2017, p. 5).

The Foundations' first and third priorities also align with two key objectives associated with wetlands restoration and wetland education as stated in the county plan:

(1) Encourage wetland restoration and enhancement; and, (2) Educate the public on the value of wetlands and related regulations (Sawyer County, 2017, p. 5)

Finally, the cranberry parcel is located along 1,537 ft. of shoreline of Grindstone Lake. Due to population and development pressures in Sawyer County, shoreline development is creating substantial disturbance to water quality and aquatic habitats:

Development along shorelines contributes to the degradation of waters from building site erosion, dramatic increases in impervious surfaces, improper application of lawn care chemicals, reduction of shoreline buffers, and disturbance of the near shore aquatic habitat (Sawyer County, 2017, p. 9)

The land management priorities of the Foundation will support the protection of shoreline areas, restoration and protection of wetland and upland complexes, and prevent adverse nearshore development. The Foundation's strategic priorities will ensure that land acquisitions and associated property management will model restoration and land protection best practices that protect water quality, wetlands, and shoreline and nearshore habitats. All of these priorities and proposed actions support the objectives of the Sawyer County Land and Water Resource Management Plan, 2017-2026 (2017).

The Foundation's second property management priority—provide low-impact recreational opportunities—supports the goals and objectives of the Sawyer County Outdoor Recreation Plan, 2014-2020 (2014). As noted in in the plan,

On a nationwide scale, recreational activity is expected to triple over the next 50 years, growing more than twice as fast as our nation's population. With this increase,

there will be a significant demand on our natural resources (Sawyer County Recreation Plan, 2014, p. 1).

Recently, Sawyer County updated their outdoor recreational plan to recognize the Grindstone Lake cranberry bog as a high priority for the county to expand opportunities for nature study and hiking trails (Sawyer County, 2021). Tourism and recreational experiences are important to Wisconsin's economy. Our proposed property management plan balances the growing demand for recreational opportunities with protection of water quality, critical ecosystems and natural resources. The Foundation prioritizes trails that support low impact non-motorized activities such as hiking, cross country skiing, snowshoeing, and wildlife viewing. These trails will offer recreational and physical activity opportunities all year long.

Consistent with the Foundation's third strategic priority, signage along trails and demonstration sites will provide educational information to users about natural features and the importance of water quality protection. We anticipate involvement of K-12, college and graduate students and instructors to be part of the educational experiences offered at these sites.

In addition, this site will meet the recommendation for providing *designated trails* for Bass Lake Township, where the parcel resides (Sawyer County Outdoor Recreation Plan, 2014, p. 19; and 2021 p. 13). These low-impact recreational opportunities will complement and not impede the Foundation's priority of protecting protect water quality and natural systems.

GRINDSTONE LAKE FOUNDATION LAND MANAGEMENT OBJECTIVES

To accomplish the Foundation's strategic land management goals, Foundation Board members approved five land management objectives. These objectives are described below and inform the property management plan for the cranberry bog on Grindstone Lake. Implementation of the property management plan will be subject to the financial needs of the plan and available resources.

1. Water quality protection and enhancement

The Foundation strives to protect or enhance the water quality of Grindstone Lake with a special focus on phosphorus levels, water clarity, and dissolved oxygen concentrations. Land management plans must serve to protect or enhance water quality in any or all of these parameters. Improved land management designed to improve water quality will protect the lake's natural fishery, maintain the lake's status as an *Outstanding Resource Water*, and counteract harmful effects of climate change on the lake's water quality.

2. Habitat preservation and restoration

The Foundation seeks to preserve the natural habitat of shorelands and the Lake shoreline. The foundation will conduct scientific analyses and assessments of the natural features and current conditions of land it owns or manages. When degradation has occurred, through the presence of invasive species or harmful

land practices, the foundation will develop plans to remove threats and restore native wetland, woodland, and upland habitats.

3. *Recreation and public access enhancement*

The Foundation seeks to provide greater opportunities for low-impact land-based recreation, specifically hiking, biking, snowshoeing, and cross-country skiing, on lands it owns or manages. These recreational opportunities must be planned to provide safe public access and appropriate signage and trail markers. The Foundation also seeks to provide recreational opportunities for persons with physical disabilities.

4. *Citizen and lake property owner education and demonstration*

The Foundation seeks to enhance educational opportunities to neighbors and visitors as well as lake property owners. Land management plans will include educational signage on the natural history, native habitat, and important ecological principles reflected on the project site. The Foundation will also develop management plans that provide opportunities to demonstrate, through small-scale land or shoreline management demonstrations, practices that landowners can implement to protect shoreline and near shore habitats, reduce runoff and contribute to protecting Grindstone Lake. The Foundation will also facilitate research and high impact learning experiences among K-12, undergraduate and graduate students on land it owns or manages.

5. *Partnerships with local, state, national, tribal, and non-profit organizations.*

The Foundation recognizes the importance of collaboration in achieving its goals. Therefore, land management plans will include partnerships with governmental and non-governmental organizations, agencies, educational institutions, and other groups. These partnerships extend the resource base and provide the relevant skill sets needed to achieve our land management goals. These partnerships may involve direct monetary contributions, donated labor and/or materials, or other in-kind services.

GRINDSTONE LAKE CRANBERRY BOG PROPERTY MANAGEMENT PLAN

The plan to manage the land in this parcel is fully consistent with the three principal goals of the Foundation:

1. Protect and enhance the water quality, fishery, scenic beauty, and other natural features of Grindstone Lake;
2. Create opportunities for citizens to access the Lake shoreline and shoreland areas for low impact recreation and enjoyment; and
3. Promote public education on the natural and cultural history, natural lands and habitat, lake and shoreline protection, and land-water interactions.

Similarly, we have established five specific objectives for the management of this parcel. These five objectives form the basis for action in managing the parcel.

1. Protect and Enhance Grindstone Lake Water Quality

The acquisition and permanent protection of the Grindstone Lake cranberry bog provides the opportunity to prevent phosphorus loading into the lake. Annual measurements of summertime total phosphorus levels in Grindstone Lake have varied from a low of approximately 3.5 ug/l in 1995 to a high of over 16 ug/l in 2014. From 2014 to the present, phosphorus levels have been above the threshold of 10.5 ug/l for oligotrophic lakes (Tyrolt, 2019). Landuse activities in the lake's watershed, increasing nearshore/shoreline development and increases in annual precipitation have influenced the increases in phosphorus levels. This is worrisome because phosphorus stimulates algae blooms that then threaten the lake's oxygen levels and two-story fishery. Recent studies indicate that the water clarity of Grindstone Lake, based on Secchi disk measures, is declining by 4 inches per year (Tyrolt, 2019).

The hydrologic budget analyses conducted for Grindstone Lake during water year 2010 found that the greatest percentage of water entering the lake was from runoff (Grindstone Lake Water Quality Report, 2012). Permanent protection of the cranberry bog from agricultural or residential development will prevent the movement of sediments and nutrients from this parcel into the lake. Protection or restoration of native species (as described below) will be an important land management activity to protect water quality. We will document this effort as a phosphorus prevention project.

2. Habitat Preservation and Restoration

The acquisition and permanent protection of the Grindstone Lake cranberry bog will permit the protection and restoration of wetland, upland, and forested ecosystems. Restoration of the parcel offers an unparalleled opportunity to restore and protect native plants and a diversity of habitats of benefit to multiple species. Our proposed site management plan calls for native/natural landscape management, no manicured landscaping, no additions of impervious surfaces or structures, and no mowing (other than trails and parking area).

These efforts will not only help protect water quality but will provide habitat for aquatic and terrestrial organisms. We propose to restore native wetlands on approximately 23 acres previously in cranberry production in the lower elevation area (Figure 5). These acres in the lower elevation area are delineated as wetlands and offer tremendous opportunities for a restored wetland complex (see Figure 6). An additional 8-10 acres in the upper elevation cranberry area of the parcel offers restoration opportunities for native grassland or native forested habitat. Assessment of the site will be conducted to identify the most appropriate locations for wetland, grassland, and forest restoration.

In addition, according to the Grindstone Lake *Citizen Assessment of Critical Habitats and Priority Shorelines* assessment, 6.14 miles of shoreline on Grindstone Lake were rated as moderately or highly modified, 2.84 miles as slightly modified, and 2.76 miles as natural. This land protection effort will be monitored using the same inventory techniques to

ensure that the 0.29 miles of shoreline along the parcel remain in the classification of natural or are restored to the designation of natural.

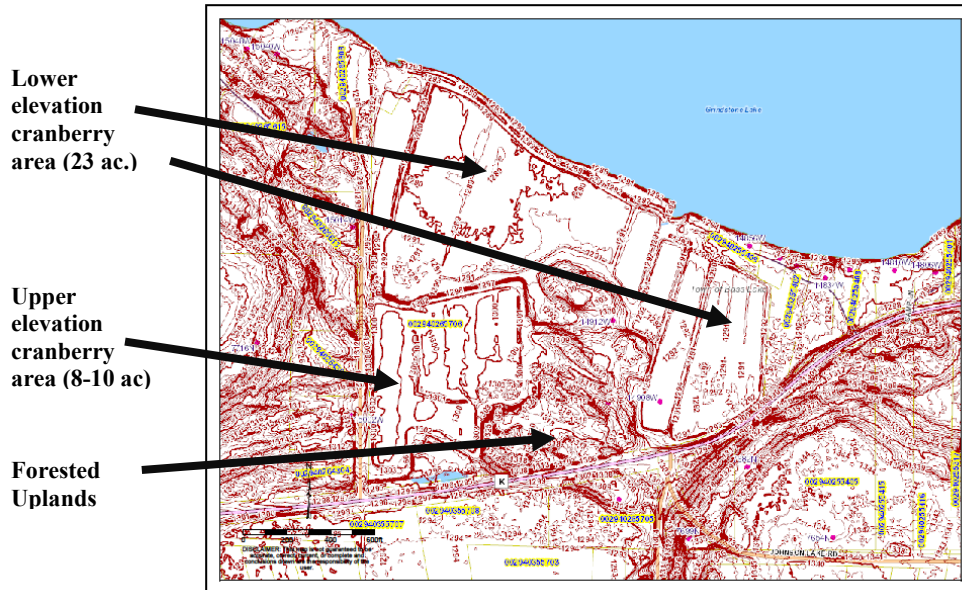


Figure 5. Designation of upper and lower wetland areas and upland forested area of parcel.



Figure 6. Lowland wetlands (Photo taken from upland area towards lowland wetland areas and Grindstone Lake, Fall 2019)

Natural Features Inventory

To provide data for habitat protection and restoration efforts and information for signage and educational materials about the natural features of the site, an inventory of the plants and animals will be conducted in collaboration with faculty and students from the LCO Community College (personal communication, Mike Heim, 2020) or from another university or educational institution. We anticipate conducting a natural features inventory every 10 years to collect information that may include various plants and animal species, both native and non-native. Information will be used to monitor habitat changes and outcomes of restoration efforts.

The site is currently home to unique stands of white cedar along the shoreline, an active bald eagle nest, wild turkeys, deer, monarch butterflies and other pollinators, asters, milk weed, and other native and non-native plants (see Figures 7 and 8).



Figure 7. View of lower wetlands showing milkweed along edge of berm (photo taken Summer 2019)

The inventory will serve as baseline information about plants and animals so that monitoring can be conducted to assess plant and animal changes after restoration. Outcomes from this inventory not only provide baseline data to monitor plant and animal communities, but information for use in educational signage and brochures depicting plant and animal life for use by the public.



Figure 8. View of bald eagle nest in tree on northern edge of upland woods (photo taken Summer, 2019)

3. Recreation and Public Access Enhancement

Township, County, and State parks exist in the area; however, few provide the extent of access to a *Wisconsin Outstanding Water Resource*. The site will be made available for public use without impacting the wetland, grassland, and forested habitats and restoration areas. A proposed 1.7 mile trail system which could take advantage of currently established berms and machinery access paths that may serve as part of the trail complex (see Figures 9 and 10). We plan to mow some of the berms for pedestrian health and safety (e.g. to reduce tick exposure; keep visitors from straying off path).

Analysis of native species and restoration needs will take precedence and influence the final location of trails. Boardwalks may also be established to provide low-impact access to wetlands and sensitive areas for educational purposes and to accommodate those with disabilities. Volunteers with the Grindstone Lake Association and the Grindstone Lake Foundation will monitor seasonal trail use. We will also document the addition of trail miles offered within the Bass Lake Township.



Figure 9. Potential trail configuration based on current location of berms and equipment paths.



Figure 10. Cranberry bog berm

Currently, a small section of a snow mobile trail, maintained by the Sno-Trails Snowmobile Club, is located on the southern portion of the property and was established under the previous owner. This trail is located on the extreme southern portion of the property, farthest away from Grindstone Lake. To maintain community support, we plan to negotiate with the Sno-Trails Snowmobile Club to identify alternative locations for the trail. If none exist, we will consider an annual lease, renewable and contingent upon no impacts to the site and the lake. This would include written assurances that snowmobiles remain on the trail and that the club monitors and is responsible for preventing impacts of trail use on the land.

To provide access from the water for boats, a small seasonal wooden dock could be placed on the northeast shore in the water inlet that was created for cranberry operations. The length of the dock will not exceed 25 feet. No shoreline alteration or modification will occur. The proposed dock would be put in during spring and removed in fall.

4. Citizen and Lake Property Owner Education and Demonstration

Located along County Road K and adjacent to a WDNR boat landing with parking (Figure 4), this parcel is strategically positioned to attract numerous visitors. This also is strategic for providing educational and demonstration experiences to residents, lake homeowners on multiple lakes in the area, students, and visitors. Educational signage along trails and boardwalks will offer information about the importance of wetlands and upland habitats for water quality, wildlife and ecosystem services.

Shoreline and wetland restoration demonstration sites will also be available to explain how lake homeowners can apply similar land and shoreline protection strategies on their own lands. Grindstone Lake Foundation Board members and Grindstone Lake Association members will help monitor use of the site. The Foundation will also track organized events onsite, such as lake association educational events, use by school and college groups, agency visits, etc.

5. Partnerships with local, state, national, tribal, and non-profit organizations

The Foundation will pursue the expertise and resources needed to successfully protect and restore the cranberry bog property. We have already begun to collaborate with local governmental entities such as the Bass Lake Township Board and Sawyer County Zoning and Conservation; state, tribal, and federal agencies, such as WDNR, LCO Dept. of Conservation, and US Fish and Wildlife Service. In addition, non-profit groups such as the Grindstone Lake Association, the Lac Courte Oreilles Lake Association (COLA), Landmark Conservancy and the private sector including resorts (e.g. Anglers Haven Resort, Trails End Resort), outdoor recreation businesses (e.g. New Moon Ski and Bike Shop, Outdoor Ventures) and other interested groups have been invited to contribute to the protection and restoration of the cranberry bog.

Staff with the WDNR played an important role during the summer 2019 Grindstone Lake Association stakeholder workshop in which acquisition of the cranberry bog was identified as a major priority for phosphorus mitigation. We also consulted with US Fish and Wildlife Service staff to identify staffing and funding opportunities for wetland restoration. In addition, FWS staff plan to host a habitat restoration workshop at the cranberry bog site in which regional restoration experts from the public and private sector will analyze the site and identify strategies for restoration. We will collect the names of individuals and agencies who contribute their time, energy and resources to the restoration of the bog and post them on the Foundation website; in publicity materials; and onsite signage so the public can see all who contributed to this initiative.

CRANBERRY BOG ACQUISITION AND PERMANENT PROTECTION

The Grindstone Lake Foundation has secured clear title ownership of the former cranberry bog property. This document represents our commitment to permanent protection of this land from further agricultural or residential development. The only activities or uses permitted on the land are specified in this document and must be in compliance with the requirements of the WDNR land acquisition program.

Five buildings are on the property in the upland forested area—two residential units, a large pole barn, a small garage, and a small pump house. These buildings may be removed as they are unnecessary for our property goals and may be a potential health or safety concern. The pole barn will be inspected to determine if it is structurally sound and whether it could serve a useful purpose, such as for storage of equipment. If the building is unsound and/or has no use, it also will be removed. The parcel can be accessed via an unpaved road off County Road K. There currently is no designated parking on site; however, an area at the end of the unpaved driveway could serve this purpose when mowed. We do not plan to pave the road or add any additional impervious parking structures or surfaces. Other than on trails and in the “parking area,” the remaining property will be maintained as a no-mow non-manicured natural area and will undergo restoration using appropriate native plantings.

Berms are located on the property to separate cranberry cells and to accommodate cranberry production and harvesting equipment. An inventory and assessment will be conducted to determine if the berms need to be removed to restore native wetlands. If some of the berms remain, they may then serve as part of the trail system.

IMPLEMENTATION TIMELINE

The timeline below represents our goals and objectives for implementing educational, recreational, and restoration programs on site. All of the dates below are subject to funding availability and/or grant stipulations.

- 2022-2024: Conduct site and natural features inventories and assessment to develop restoration and conservation implementation plan
Develop wetland and upland prairie restoration plans
Develop presentations and publicity materials on progress at the site
- 2022-2024: Develop recreational master plan for trails, signage, educational experiences, and safety
- 2024-2025: Install trail system, educational and trail signage and instructions for passive recreational use
Develop maintenance schedule and partnership agreements for mowing of trails, trash/litter collection, invasive species removal, etc., with town of Bass Lake and Sawyer County
Monitor public use
- 2025-2027: Apply for wetland restoration permits from Sawyer Co., WDNR, US-ACE
Conduct wetland, upland, forest, and habitat restoration with seeding/planting of native species
- 2027-2031: Monitor wetland and habitat restoration efforts
Assess additional planting needs for vegetative restoration and update restoration plan
Develop educational exhibits and demonstration sites
Inventory and removal of invasive species (ongoing)
Develop presentations and publicity materials on progress at the site
- 2032: Conduct site and natural features inventories and assess on-going restoration and conservation efforts

We anticipate a close working relationship with the Town of Bass Lake, Sawyer County, and the Landmark Conservancy in helping us permanently protect the site, identify consultants, contractors, and others to assist with restoration and management activities.

MONITORING

Ongoing monitoring will occur for other restored habitats (e.g., grassland or forested areas) and to measure public use, management of invasive species, public access needs,

infrastructure needs, educational programs, and demonstration site visits. Monitoring of the wetland restoration will continue until designed wetland functions have been achieved.

We know that with on-going public and private support, we can transform this parcel of concern to many lake residents and conservationists into a permanently protected publicly-accessible natural area of great value to the broader community.

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