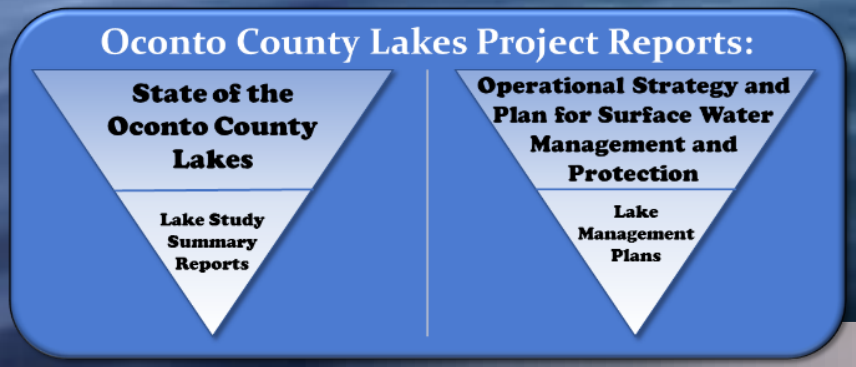
Oconto County Lakes Project

WHITE POTATO LAKE MANAGEMENT PLAN

2022



VISION

White Potato Lake will remain a preferred destination for boating, fishing, and swimming with clean water, sandy shores and fantastic neighbors.

White Potato Lake Management Plan

The authors would like to acknowledge the commitment and enthusiasm of Oconto County Lakes & Waterways Association, Oconto County Land and Water Conservation Department, UW Extension – Oconto County, Wisconsin Department of Natural Resources, UW-Stevens Point Water and Environmental Analysis Laboratory, landowners in the White Potato Lake watershed, and participants in the Oconto County Lakes Project.

This plan was prepared by the Center for Watershed Science and Education at University of Wisconsin – Stevens Point.

Along with the Oconto County Lakes Project participants, the following individuals and organizations contributed to the content of this plan.

White Potato Lake Planning Participants

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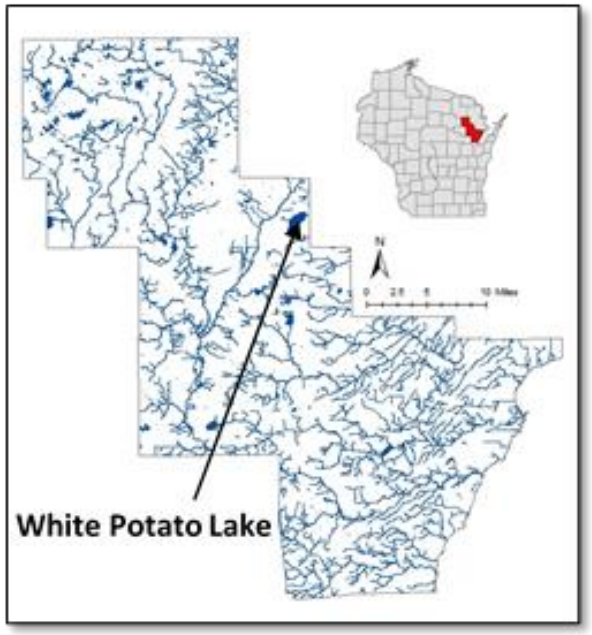
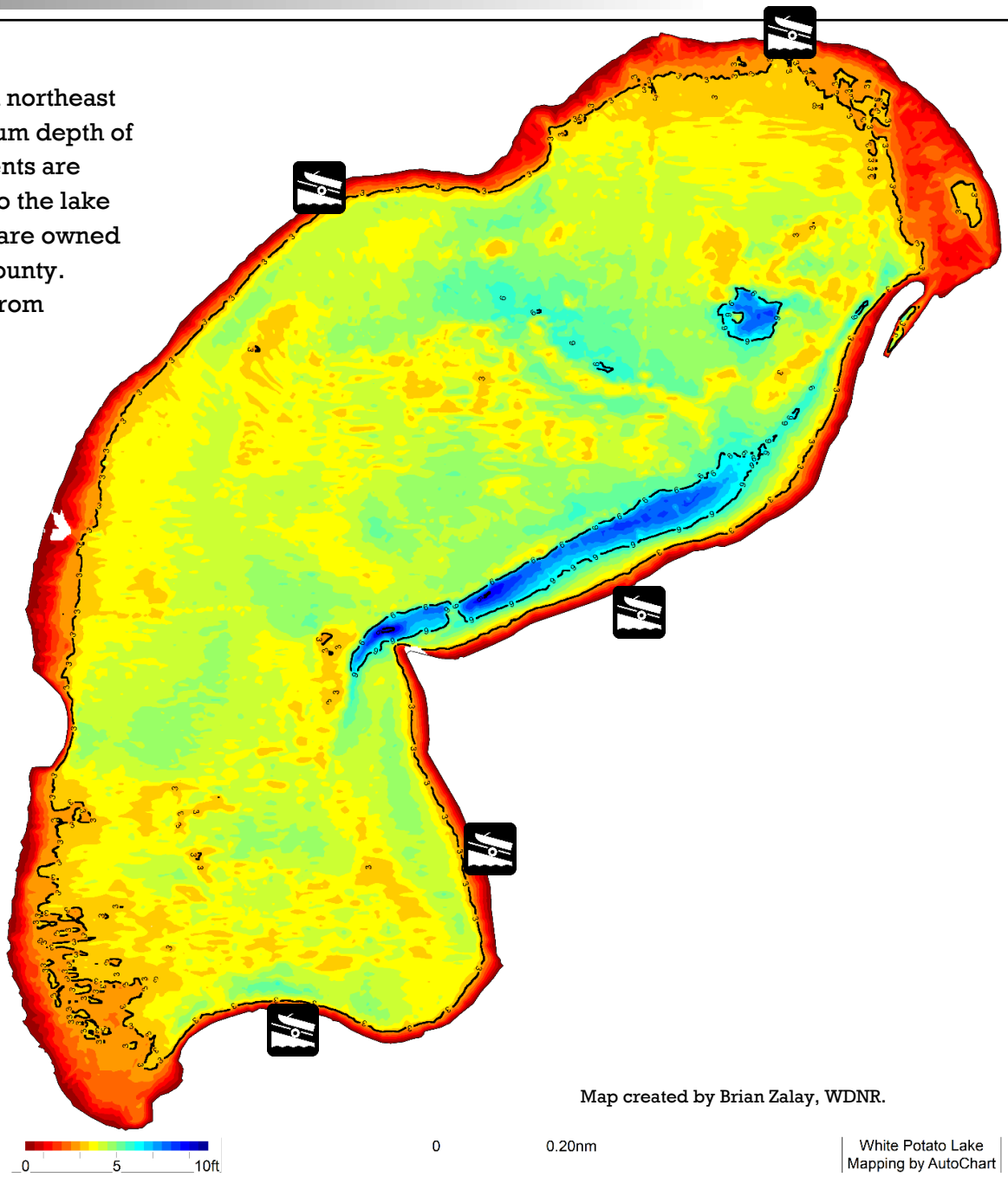
Resource	Acronym or Truncated Name
Citizen Lake Monitoring Network	CLMN
Clean Boats Clean Waters	CBCW
Lumberjack Resource Conservation & Development Council	LRCD
Oconto County Land & Water Conservation Dept.	OC LCD
Oconto County Board of Supervisors	OC Board
Oconto County Lakes and Waterways Association	OCLWA
Town of Brazeau	TOB
University of Wisconsin - Extension	UWEX
UWSP Water & Environmental Analysis Laboratory	WEAL
UWSP Center for Watershed Science and Education	CWSE
USDA Natural Resources Conservation Service	NRCS
Wisconsin Department of Natural Resources	WDNR
Wisconsin Department of Transportation	WDOT
White Potato Lake Sportsmen's Club	WPLSC
White Potato Lake Advancement Association	WPLAA

Background

ABOUT WHITE POTATO LAKE

White Potato Lake is located in the Town of Brazeau, in northeast Wisconsin. This 1,023-acre seepage lake has a maximum depth of 11 feet with moderately clear water. Its bottom sediments are primarily muck with some sand. Visitors have access to the lake from five public boat landings around the lake, which are owned and maintained by the Town of Brazeau and Oconto County. Water enters and leaves White Potato Lake primarily from groundwater.





Map created by Brian Zalay, WDNR.

What Is A Lake Management Plan?

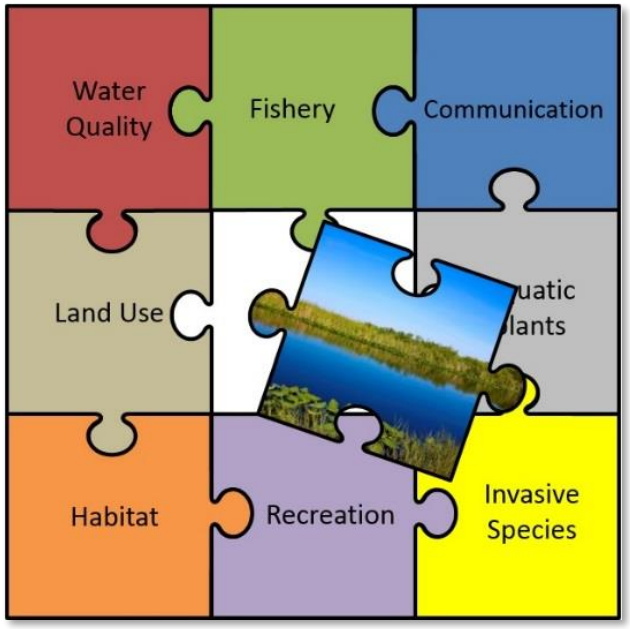
LAKE MANAGEMENT PLANS (LMP)

What is an LMP?

A management plan is a living document that changes over time to meet the current needs, challenges and desires of the lake and its community. Although each lake is different, the WDNR requires that each comprehensive lake management plan addresses a specific list of topics affecting the character of the lake, whether each topic has been identified as a priority, or as simply something to consider. In this way, every LMP considers the many aspects associated with lakes.

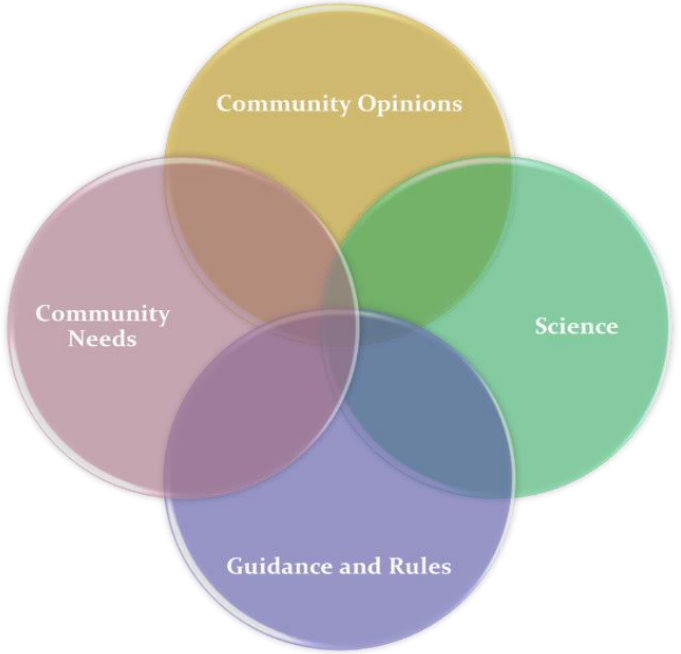
What is the purpose of this LMP?

This plan was created to ensure that White Potato Lake is healthy now and for future generations. It was designed to learn about White Potato Lake and identify features important to the White Potato Lake community, in order to provide a framework for the protection and improvement of the lake.



Implementing the content of this LMP will enable citizens and others to work together to achieve the vision for White Potato Lake now and in the years to come. It is a dynamic document that identifies goals and action items for the purpose of maintaining, protecting and/or creating desired conditions in the lake and identifies steps to correct past problems, improve on current conditions, and provide guidance for future boards, lake users, and technical experts.

Because many entities are involved in lake and land management, it can be challenging to navigate the roles, partnerships and resources that are available. The planning process and content of this plan have been designed to identify where some key assistance exists. The actions identified in this LMP can serve as a gateway for obtaining grant funding and other resources to help implement activities outlined in the plan.



How Was This Plan Created?

ABOUT THIS PLAN

One of the first steps in creating this plan was to gather and compile data about the lake and its ecosystem to understand past and current conditions. This was done in 2019-2020 alongside 5 other lakes as part of the Oconto County Lakes Project. The project was initiated by citizens in the Oconto County Lakes and Waterways Association who encouraged Oconto County to prioritize lake interests. This effort led to funding from the WDNR Lake Protection Grant Program. There was insufficient data available for many of the lakes to evaluate current water quality, aquatic plant communities, invasive species, and shorelands. The data that were available had been collected at differing frequencies or periods of time, making it difficult to compare lake conditions. Professionals and students from UW-Stevens Point, Oconto County Land Conservation Department, UW Extension, Oconto County citizens and WDNR staff collected the data for use in the development of lake management plans. Sources of information used in the planning process are listed at the end of this document.

Reports from the White Potato Lake Study and the materials associated with the planning process and reports can be found on the Oconto County website: **www.co.oconto.wi.us** and navigating to Departments>Land Conservation>County Waterways>County-wide Lake Study.

THE PLANNING PROCESS

Who created the strategic plan?

This plan is the result of a stakeholder-driven effort which involved many partners combining insight, knowledge, and expertise throughout the process. Area residents, lake users, and representatives of local municipalities gathered at public meetings held on June 14, 2019 at the Brazeau Town Hall and on March 8, 2022 via an online platform to learn from one another and make decisions about the fishery, water quality, habitat, and land management in the White Potato Lake watershed. Technical assistance during the planning process was provided by staff from OCLCD, UWEX, WDNR, and the CWSE.

How were various opinions incorporated?

Participation in the planning process was open to everyone and was encouraged by letters mailed to White Potato Lake waterfront property owners and by press releases in local newspapers. In addition, those individuals and organizations who provided their information were provided with emails about upcoming meetings, which could be forwarded to additional contact lists. To involve and collect input from as many people as possible, including those who might not be able to attend the public meetings, an online survey was conducted. Property owners and interested lake users were notified about the survey and how to access it via direct mailings to waterfront property owners and associated lake organizations and press releases in local newspapers. The surveys could be filled out anonymously online, or paper copies were available upon request. Survey questions and responses were shared at the planning sessions and can be found in the Appendix.

How Is This Management Plan Used?

Who will use this plan?

- **Individuals:** Individuals can use this plan to learn about the lake they love and their connection to it. People living near the lake can have the greatest influence on the lake by understanding and choosing lake-friendly options to manage their land and the lake.
- **White Potato Lake Advancement Association or Sportsmans Club:** This plan provides an association with guidance for the whole lake and lists options that can easily be prioritized. Resources and funding opportunities for lake management activities are made more available by placement of goals into the lake management plan, and the association can identify partners to help achieve their goals for the lake.
- **Neighboring lake groups, sporting and conservation clubs:** Groups with similar goals for lake stewardship can combine their efforts and provide each other with support, improve competitiveness for funding opportunities, and make efforts more fun.
- **The Town of Brazeau:** Municipalities can utilize the visions, objectives, and goals documented in this lake management plan when considering town-level planning or decisions within the watershed that may affect the lake.
- **Oconto County:** County professionals will better know how to identify needs, provide support, base decisions, and allocate resources to assist in lake-related efforts documented in this plan. This plan can also inform county board supervisors in decisions related to Oconto County lakes, streams, wetlands, and groundwater.
- **Wisconsin Department of Natural Resources (WDNR):** Professionals working with lakes in Oconto County can use this plan as guidance for management activities and decisions related to the management of the resource, including the fishery, and invasive species. LMPs help them to identify and prioritize needs, and where to apply resources. A well thought out lake management plan increases an application's competitiveness for funding from the State.

Who can help implement this plan?

Lead persons and resources are identified under each action in this plan. These individuals and organizations are able to provide information, suggestions, or services to achieve goals. The following table lists organization names and their common acronyms used in this plan. This list should not be considered all-inclusive – assistance may also be provided by other entities, consultants, and organizations.

Management Plan Structure

GOALS FOR WHITE POTATO LAKE

The foundation of any effective strategic plan is clear identification of goals and the steps needed to achieve the goals. The selected goals should achieve the overall vision for White Potato Lake. This plan also identifies available resources within each objective.

The topics comprise the chapters in this plan and have been grouped as follows:

In-Lake Habitat and a Healthy Lake

Fish Community—fish species, abundance, size, important habitat and other needs

Aquatic Plant Community—habitat, food, health, native species, and invasive species

Critical Habitat—areas of special importance to the wildlife, fish, water quality, and aesthetics of the lake

Landscapes and the Lake

Water Quality—water chemistry, clarity, contaminants, lake levels

Shorelands—habitat, erosion, contaminant filtering, water quality, vegetation, access

Watershed—land use, management practices, conservation programs

People and the Lake

Recreation—access, sharing the lake, informing lake users, rules

Communication and Organization—maintaining connections for partnerships, implementation, community involvement

Updates & Revisions—plan for maintaining a living document

White Potato Lake Management Plan Goals

Goals for White Potato Lake

The following goals and actions were derived from the values and concerns of citizens interested in White Potato Lake and members of the planning committee, as well as the known science about White Potato Lake, its ecosystem and the landscape within its watershed. Implementing and regularly updating the goals and actions in this plan will ensure that the vision is supported and that changes are incorporated into the plan.

LIST OF GOALS

Goal 1	**White Potato Lake will maintain a healthy, well-balanced sport fishery.**
Goal 2	**Maintain a diverse and robust native aquatic plan community free of invasive species.**
Goal 3	**Sensitive areas in White Potato Lake, which provide essential habitat and/or water quality benefits, will be protected.**
Goal 4	**Property owners in the White Potato Lake watershed will understand their connection to the lake and will know about/utilize resources for health land management.**
Goal 5	**Shorelands around White Potato Lake will be healthy and protective of water quality and habitat. Over the next 5 years, at least 1,000 feet (at least 15-20 properties) of mowed shoreline will be restored.**
Goal 6	**Maintain or improve water quality in White Potato Lake.**
Goal 7	**Lake users will be informed about and respectful of White Potato Lake.**
Goal 8	**Increase participation in lake stewardship.**
Goal 9	**Review plan annually and update as needed.**

Fish Community

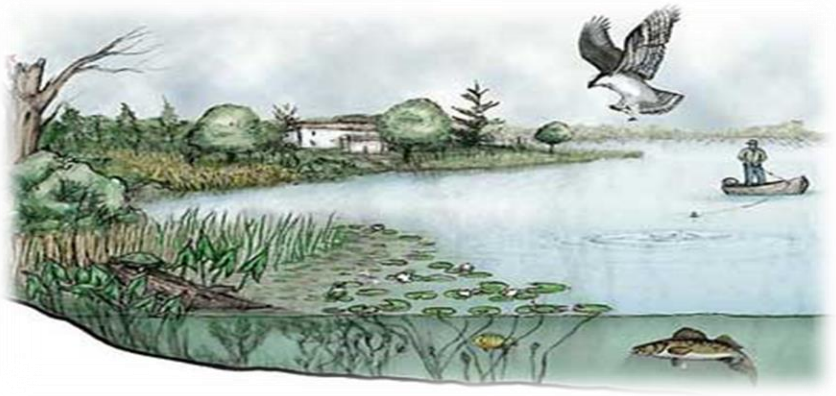
IN-LAKE HABITAT AND A HEALTHY LAKE

The health of one part of the lake system affects the health of the rest of the plant and animal community, the experiences of the people seeking pleasure at the lake, and the quality and quantity of water in the lake. Habitat is the structure for a healthy fishery and wildlife community. It can provide shelter for some animals and food for others. Many animals that live in and near the lake are only successful if their habitat needs are met.

What is lake-habitat?

Healthy lake-habitat in White Potato Lake includes native aquatic plants and shoreland vegetation, as well as tree branches/limbs above and below the water.

Habitat exists within the lake, along the shoreland, and even extends into its watershed for some wildlife species. Native vegetation (including wetlands) along the shoreline and connected to the lake provides shelter and food for waterfowl, small mammals, turtles, frogs, and fish. Native plants in and near the lake can also improve water quality and balance water quantity. Aquatic plants infuse oxygen into the water, which is essential for the fish community. Some lake visitors such as birds, frogs, and turtles use limbs from trees that are sticking out of the water for perches or to warm themselves in the sun. The types and abundance of plants and animals that comprise the lake



community also vary based on the water quality, and the health and characteristics of the shoreland and watershed.

The Fish Community

A balanced fish community has a mix of predator and prey species, each with different food, habitat, nesting substrate, and water quality needs to flourish.

What can affect the fishery?

Activities in and around a lake that can affect a fishery include:

- disturbances to the native aquatic plant community or substrate,
- excessive additions of nutrients or harmful chemicals,
- removal of woody habitat,
- shoreline alterations,
- shoreland erosion can cause sediment to settle onto the substrate, causing the degradation of spawning habitat.

What People Value about White Potato Lake

Beautiful water and sandy shores
Cleanliness and friendly people
Full recreation lake that isn't overrun with people
People in our neighborhood
Clean

Habitat provides shelter and food for fish and wildlife.

Fish Community

Can the fishery be improved?

Managing a lake for a balanced fishery can result in fewer expenses to lake stewards and the public. While some efforts may be required to provide a more suitable environment to meet the needs of the fish, they usually do not have to be repeated on a frequent basis. Ideally, a lake contains the habitat, water quality, and food necessary to support the fish communities present within the lake and provide fishing opportunities for people without a lot of supplemental effort and associated expenses to maintain these conditions.

- Protecting existing habitat such as emergent, aquatic, and shoreland vegetation, and allowing trees that naturally fall into the lake to remain in the lake, are free of cost.
- Restoring habitat in and around a lake can have an up-front cost, but the effects will often continue for decades.
- Costs in time, travel, and other expenses are associated with routine efforts such as fish stocking and aeration.

White Potato Lake Fish Management History

- ✓ Small fingerling walleye have been stocked since the early 1990s and the WPLSC has stocked large fingerlings (5/acre) in alternate years. WDNR will started stocking large fingerling (5/acre) in 2020 in alternate years.
- ✓ Musky stocking started in 2015 (0.25 /acre). If number of stocked muskies does not improve in the 2025 survey, stocking rate will be increased to 0.5/acre.
- ✓ Due to increase in smaller bass, a regulation change to remove 14in. minimum will go into effect May 7, 2022.

Stocking Date	Species	# Stocked	Ave. Length	Source
1992	Muskellunge	500	11.0	WDNR
1997	Muskellunge	150	12.0	WPLSC
1998	Black Crappie	2,000	4.0	WPLSC
1999	Black Crappie	100	4.5	WPLSC
1999	Muskellunge	150	16.0	WPLSC
2005	Walleye	4,000	7.5	WPLSC
2005	Yellow Perch	1,700	6.5	WPLSC
2006	Walleye	4,000	7.5	WPLSC
2006	Walleye	9,985	1.4	WDNR
2006	Yellow Perch	1,800	8.0	WPLSC
2007	Walleye	4,000	8.0	WPLSC
2007	Yellow Perch	4,560	4.7	WPLSC
2008	Walleye	4,082	8.5	WPLSC
2008	Walleye	4,994	1.4	WDNR
2008	Yellow Perch	1,550	7.0	WPLSC
2009	Walleye	4,075	7.5	WPLSC
2009	Yellow Perch	2,000	10.0	WPLSC
2010	Walleye	10,000	1.4	WDNR
2010	Yellow Perch	2,000	9.0	WPLSC
2011	Walleye	4,175	7.5	WPLSC
2011	Yellow Perch	1,564	9.0	WPLSC
2012	Walleye	9,992	1.6	WDNR
2012	Yellow Perch	2,000	10.5	WPLSC
2013	Walleye	4,998	7.5	WPLSC
2013	Yellow Perch	1,550	9.0	WPLSC
2014	Walleye	35,818	2.6	WDNR
2014	Yellow Perch	2,027	9.0	WPLSC
2014	Black Crappie	1,000	5.5	WPLSC

Fish Community

Fish cribs are good cover for small fish, but near shore habitat is essential for reproduction of most species.

2015	Walleye	4,985	6.5	WPLSC
2015	Yellow Perch	1,999	7.0	WPLSC
2015	Muskellunge	249	11.3	WDNR
2016	Walleye	35,768	2.0	WDNR
2016	Black Crappie	994	6.0	WPLSC
2016	Yellow Perch	1,999	7.0	WPLSC
2016	Muskellunge	250	10.9	WDNR
2017	Walleye	5,000	7.0	WPLSC
2017	Yellow Perch	1,975	7.0	WPLSC
2017	Muskellunge	160	10.8	WDNR
2018	Walleye	35,788	1.6	WDNR
2018	Black Crappie	2,000	4.0	WPLSC
2018	Yellow Perch	1,999	7.0	WPLSC
2018	Muskellunge	350	11.6	WDNR
2019	Walleye	4,997	7.0	WPLSC
2019	Yellow Perch	1,998	7.0	WPLSC
2019	Muskellunge	245	12.0	WDNR
2020	Black Crappie	997	7.0	WPLSC
2020	Walleye	5,393	8.3	WDNR
2020	Yellow Perch	2,000	7.0	WPLSC
2021	Muskellunge	256	10.5	WDNR
2021	Yellow Perch	2,000	7.0	WPLSC
2021	Walleye	4,970	7.0	WPLSC

White Potato Lake 2019 Fish Survey Results (WDNR)

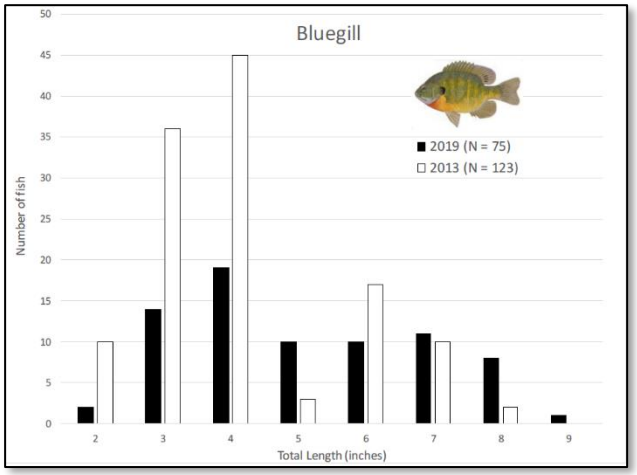
- ✓ Overall survey observed a total of 2,554 fish and twelve species. Most abundant were bluegill, walleye, rock bass, black crappie, and yellow perch.
- ✓ Bluegill (75/mile compared to 61.5/mile in 2013) ranged in age from 3 to 12 years old with average growth rates.
- ✓ Walleye (0.6/acre compared to 2.1/acre in 2013) ranged 2 to 14 years old reaching legal size (15 in.) by age 4.
- ✓ Largemouth bass (27/mile compared to 22.8/mile in 2013) had average growth reaching legal size (14in.) by age 6.
- ✓ Creel survey conducted during summer 2019 to assess fishing activities of anglers and make projections of harvested fish (**Appendix B**).

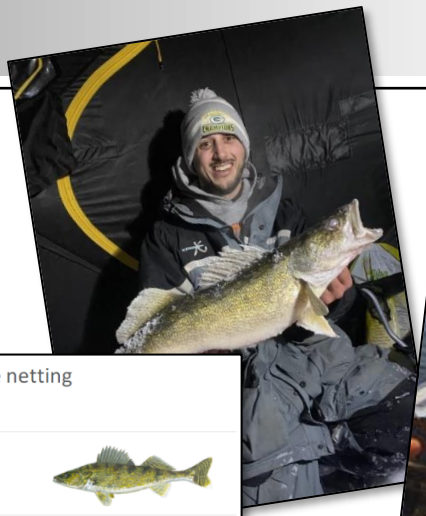
2019					2013				
SPECIES COMPOSITION OF FISHES COLLECTED					SPECIES COMPOSITION OF FISHES COLLECTED				
*COMMON NAME OF FISH	NUMBER	PERCENT	AVERAGE LENGTH (inches)	LENGTH RANGE (inches)	*COMMON NAME OF FISH	NUMBER	PERCENT	AVERAGE LENGTH (inches)	LENGTH RANGE (inches)
Bluegill	565	22.1%	6.0	2.8 - 9.6	Bluegill	1,197	31.4%	6.0	2.5 - 8.8
Walleye	524	20.5%	17.8	8.5 - 24.5	Rock bass	880	23.1%	6.3	3.3 - 9.8
Rock bass	448	17.5%	7.1	3.6 - 10.3	Walleye	832	21.8%	15.7	7.9 - 24.5
Black crappie	391	15.3%	7.2	3.0 - 12.5	Northern pike	340	8.9%	19.1	11.2 - 36.2
Yellow perch	249	9.7%	7.7	3.4 - 12.5	Largemouth bass	199	5.2%	12.6	4.3 - 20.3
Largemouth bass	182	7.1%	8.9	6.2 - 20.0	Black crappie	196	5.1%	7.9	6.0 - 13.6
Yellow bullhead	93	3.6%	10.9	7.2 - 13.7	Yellow perch	66	1.7%	6.6	2.5 - 11.5
Northern pike	73	2.9%	20.9	12.5 - 35.0	Muskellunge	38	1.0%	41.5	36.8 - 49.3
Pumpkinseed	12	0.5%	5.9	3.5 - 8.5	Pumpkinseed	34	0.9%	5.0	4.3 - 7.1
Muskellunge	9	0.4%	43.8	33.4 - 50.7	Yellow bullhead	19	0.5%	10.3	7.3 - 13.3
White sucker	5	0.2%			White sucker	6	0.2%		
Golden shiner	3	0.1%			Brown bullhead	3	0.1%		
					Black bullhead	3	0.1%		
					Golden shiner	3	0.1%		
**Total	2,554				**Total	3,816			

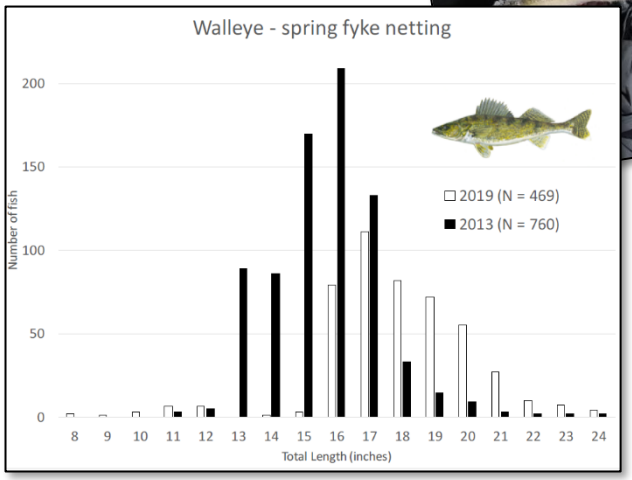
* Common names of fishes recognized by the American Fisheries Society.

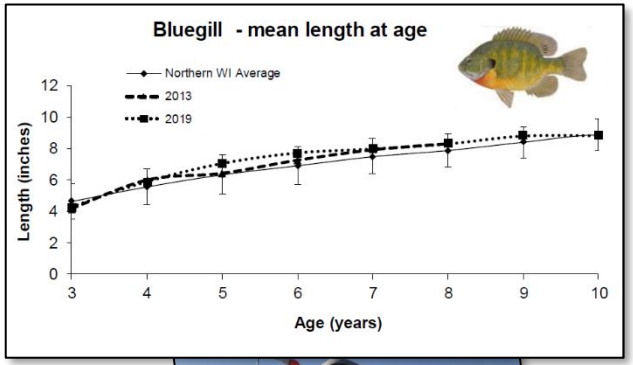
**Includes spring fyke netting, SE1 electrofishing, SE2 electorfishing; recaptures NOT included.

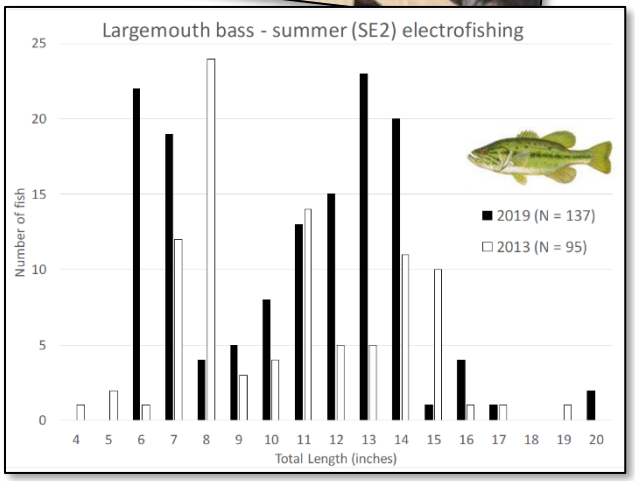
Fish Community

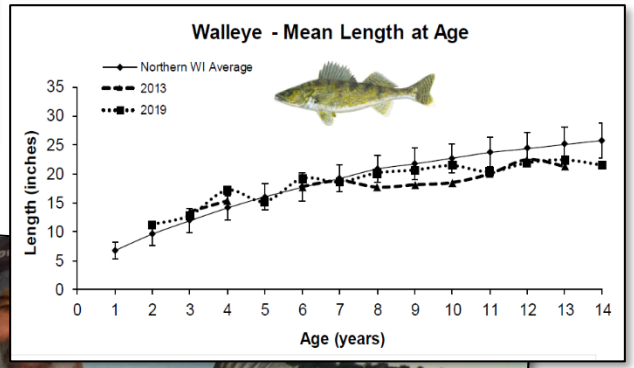


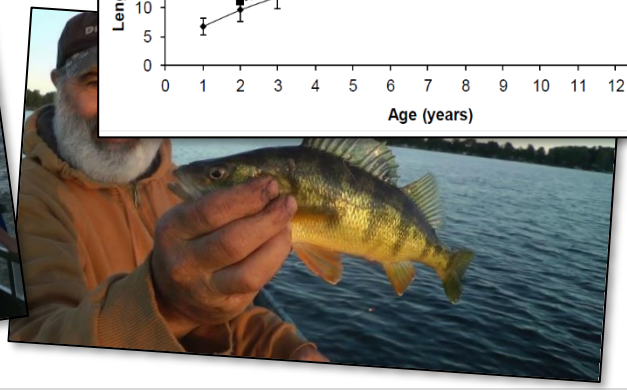


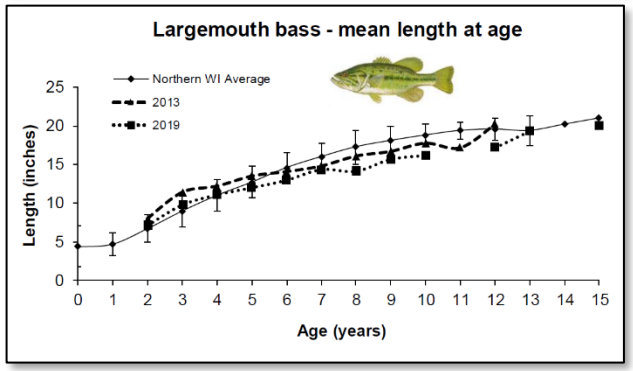




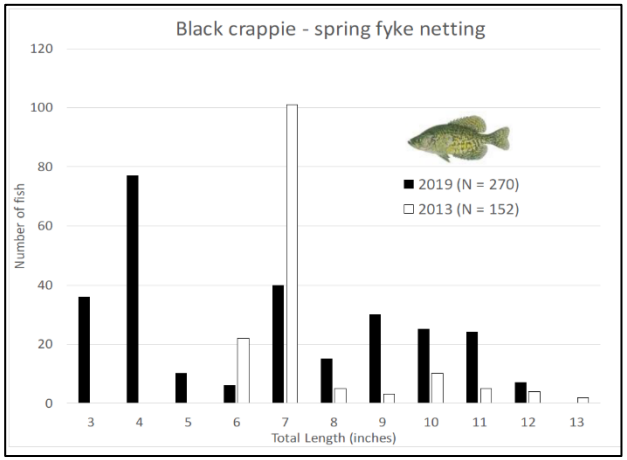


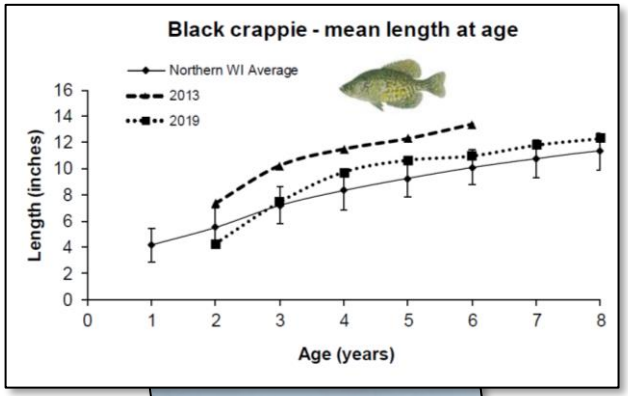


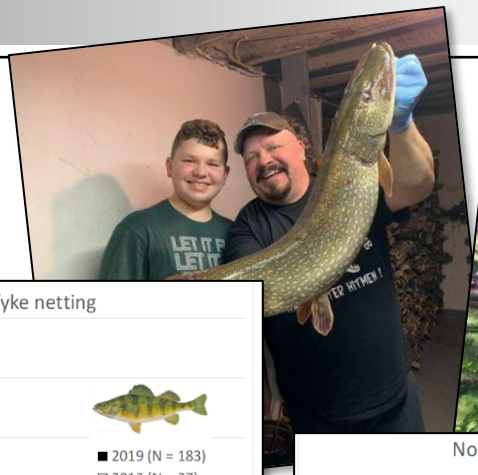


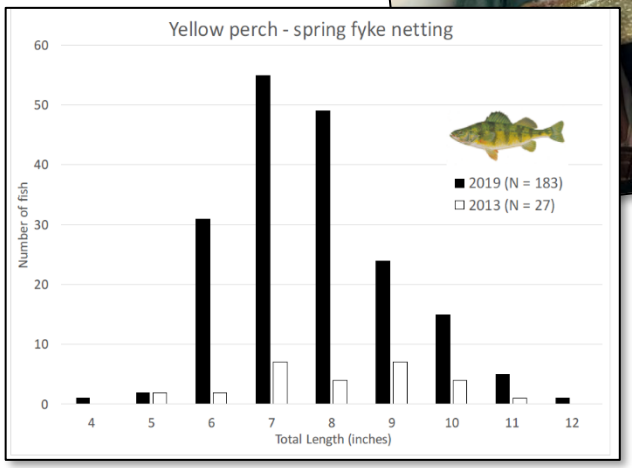


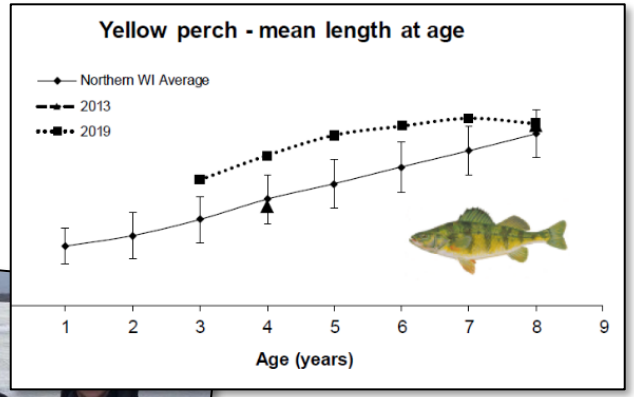
Fish Community

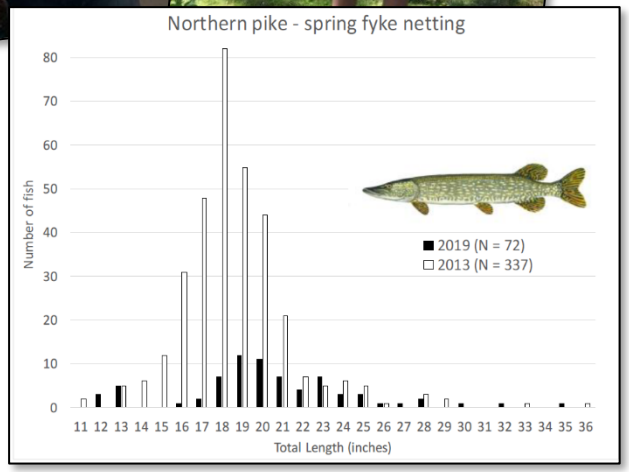


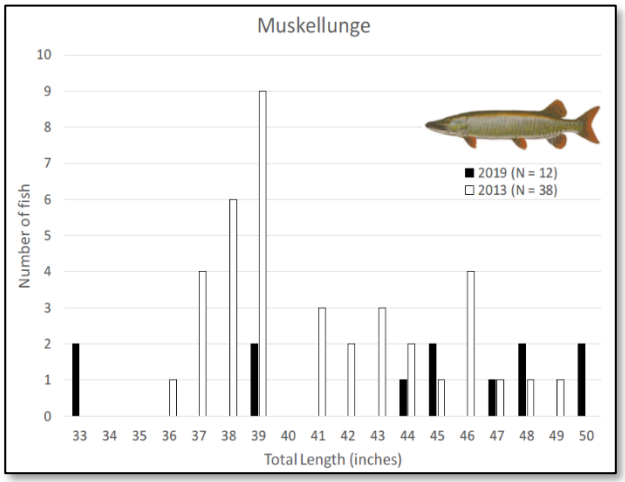












Fish Community

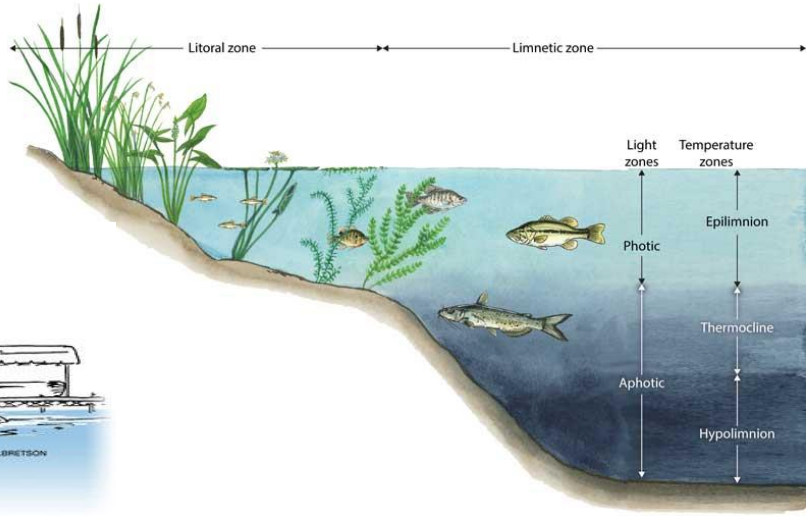
Goal 1. White Potato Lake will maintain a healthy, well-balanced sport fishery.

Objective 1.1 Continue to enhance fish habitat in White Potato Lake. At least 50 fish stick clusters will be installed and 1,000 ft of disturbed shoreland will be restored over the next 5 years.

Actions	Lead person/group	Resources	Timeline
Identify willing property owners for fish stick installations (10% of properties with fish sticks is recommended). Trees can be sourced by identifying other landowners who need a tree removed.		WDNR-Chip Long	Ongoing
Educate property owners about healthy shoreland habitat and its importance to a healthy fishery. Encourage leaving logs, trees branches and limbs in place in the water whenever possible. See **Shorelands** section.		WDNR-Chip Long UWEX-Pat Goggin	Ongoing
Protect natural shoreland and restore disturbed areas.		WDNR-Chip Long	Ongoing

Objective 1.2 Continue to manage for a healthy balance of predator and panfish populations.

Actions	Lead person/group	Resources	Timeline
Continue stocking of walleye, musky and panfish as appropriate.		WDNR-Chip Long	Ongoing
Evaluate regulation change to remove the 14" MLL for largemouth bass going into effect May 7, 2022.		WDNR-Chip Long	Ongoing



Aquatic Plant Community

Native plants provide essential food and habitat for fish and wildlife.

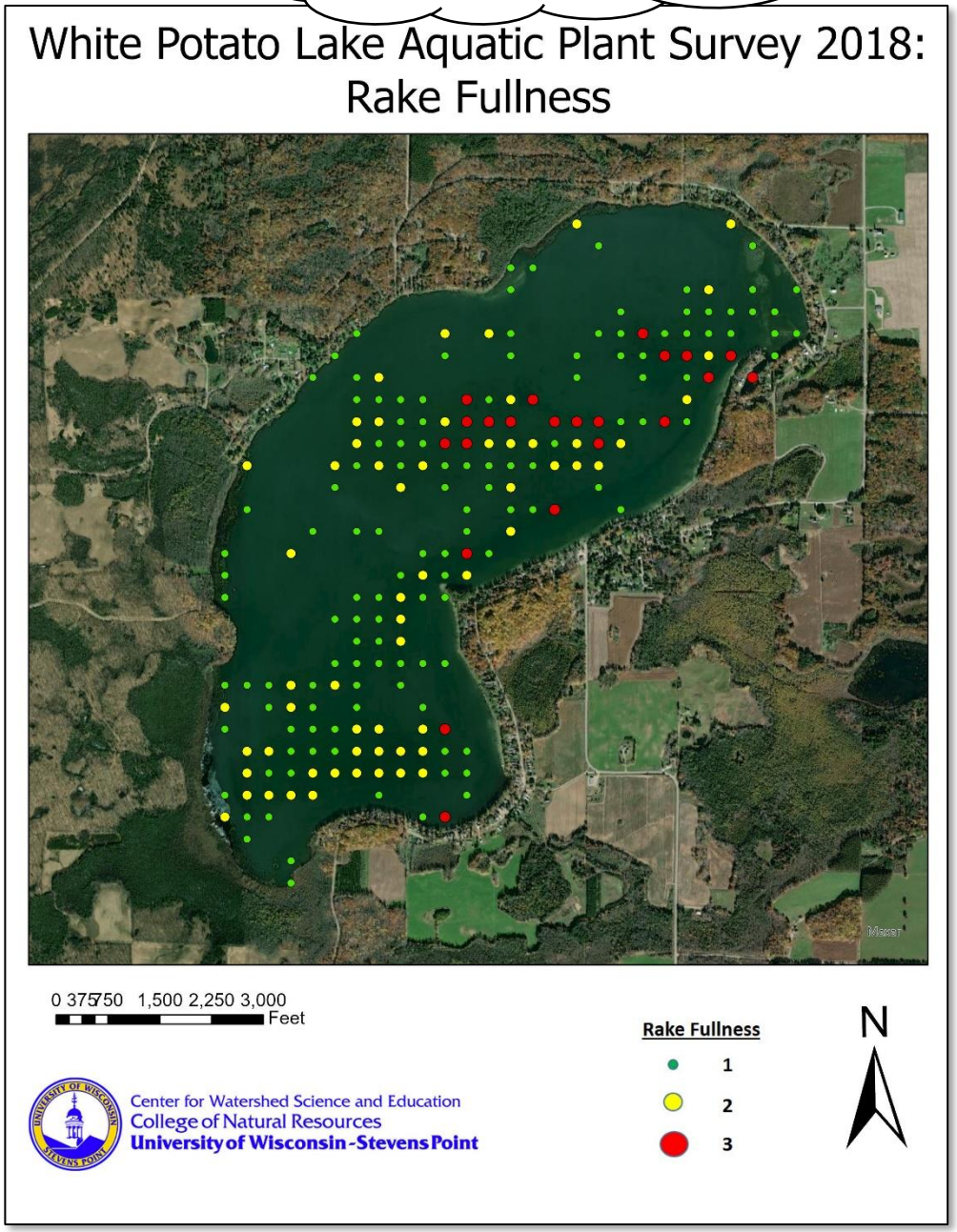
Aquatic Plants

Aquatic plants provide the forested landscape within White Potato Lake. They provide food and habitat for spawning, breeding, and survival for a wide range of inhabitants and lake visitors including fish, waterfowl, turtles, amphibians, as well as invertebrates and other animals. They improve water quality by releasing oxygen into the water and utilizing nutrients that would otherwise be used by algae. A healthy lake typically has a variety of aquatic plant species, which makes the aquatic plant community more resilient and can help to prevent the establishment of non-native aquatic species. Additionally, they stabilize the bottom sediment and help filter out the suspended sediment from the water column.

Aquatic plants near shore and in shallows provide food, shelter, and nesting material for shoreland mammals, shorebirds and waterfowl. It is not unusual for otters, beavers, muskrats, weasels, and deer to be seen along a shoreline in their search for food, water or nesting material. Aquatic plants also serve as indicator species for environmental stressors that could be occurring in a lake or river, such as a runoff event.

White Potato Lake 2018 WDNR Aquatic Plant Survey Highlights

- ✓ 49% (208 of 429) of the sites visited had vegetative growth.
- ✓ The greatest depth aquatic plants were found was 9 feet.
- ✓ 26 species of aquatic plants were identified. This is above the North Central Hardwood average of 16.2.
- ✓ The three most dominate species were slender naiad (55%), largeleaf pondweed x white stem pondweed hybrid (37%), and white stem pondweed (33%).
- ✓ The Floristic Quality Index (FQI) was 29.7. The northcentral hardwood average is 23.3.
- ✓ No invasive species were observed.



Aquatic Plant Community

Slender naiad, also called nodding water-nymph, is a primary food source for waterfowl and provides habitat for many invertebrates.

White-stem x large leaf pondweed hybrid is a cross between these two quality aquatic plants. Having traits of both species, this plant provides great habitat and forage for wildlife.

White-stem pondweed is commonly found in northern lakes in soft sediment in shallow water, but it does not tolerate turbidity well. Its late summer fruits are common forage.

Aquatic Invasive Species (AIS)

Aquatic invasive species are non-native aquatic plants and animals that are most often unintentionally introduced into lakes by lake users. This commonly occurs on trailers, boats, equipment, and from the release of bait. In some lakes, aquatic invasive plant species can exist as a part of the plant community, while in other lakes populations explode, creating dense beds that can damage boat motors, make areas non-navigable, inhibit activities like swimming and fishing, and disrupt the lakes' ecosystems.

No invasive species were observed during the 2018 survey. However, **Rusty crayfish** in 2007, **Chinese mystery snails** and **purple loosestrife** in 2015, and **Eurasian watermilfoil** in 2018 have been previously documented in White Potato Lake.

A point-intercept survey per the DNR protocol is recommended every 5 years to detect changes in the plant community and detect any AIS.

Aquatic Plant Management in White Potato Lake

Management strategies in White Potato Lake were designed to achieve a balance between healthy aquatic habitat, good water quality, and eradication of invasive species.

Management Options for Invasive Species or Nuisance Native Aquatic Plants

Management options that offer the most practical and effective approaches for managing invasive species or nuisance native plants, while minimizing impacts to White Potato Lake as a whole, have been identified. Depending upon conditions, the following options may be used alone or in combination with others.

Hand-pulling. No permit required.

Hand-pulling is the preferred method for removing invasive species. Additionally, lakefront property owners are allowed to

manually remove native aquatic plants from an area up to 30 feet wide without a permit for swimming and boat access (this does not include the excavation or removal of any bottom sediments). Any denuded lakebed is prime real estate for invasive species, however, and close monitoring is necessary to ensure no populations are established.

Diver Assisted Suction Harvesting (DASH). Permit required.

Some populations may be in areas of a lake (deep) that are problematic for hand pulling. DASH, a method where divers guide target plants into a suction device that is filtered on the other end, is an efficient way to access these areas while still thoroughly removing all plant fragments.

Aquatic Plant Management Plan Review

A good aquatic plant management plan strategy should reduce the amount of management activity needed as time goes on. In White Potato Lake, a series of successful strategies (integrated plant management) should lead to a balance between healthy aquatic habitat, water quality, and recreation with minimal annual management.

The latest aquatic plant management and monitoring report is provided by the consultant in **Appendix C**.

Goal 2. Maintain a diverse and robust native aquatic plan community free of invasive species.

Objective 2.1 Eradicate or control Eurasian water-milfoil in White Potato Lake. Ensure no new populations of AIS are introduced.

Actions	Lead person/group	Resources	Timeline
Educate lake users on importance of native aquatic plants for preventing AIS. Bring in speaker for annual meeting, mail literature to property owners, include information in newsletter or website.		WDNR LRCD	Ongoing
Host training, post signage at boat landings, develop coasters or placemats for area businesses, provide brochures for rental properties, etc. on how to identify and remove invasive species, particularly EWM. The more people who know how to recognize AIS, the more eyes there are on the lake.		WDNR UWEX Lakes LRCD	Ongoing
Participate in Clean Boats Clean Waters. Identify volunteers or consider paying someone to staff the boat launches on busy days.		CBCW	Annually
Hire professionals for EWM survey/removal annually (or as needed) to assess EWM populations and identify new populations.		Consultants	Annually

Hire DASH contractors (and/or volunteers) to identify and remove deeper populations of EWM. Seek cost-share and grant funding for these activities where available.		Consultants	As needed
Have a sample of EWM tested for hybrid water-milfoil (HWM). Some HWM strains have been shown to have resistance to traditional chemicals (2,4-D).		WDNR	As needed
Consider herbicide treatment of EWM where appropriate. If possible, use curtains to contain chemical in target area.		WDNR Consultants	As needed
If new AIS is suspected or observed, follow the guidance in **Appendix D.**		WDNR	Ongoing

Objective 2.2 Minimize disturbance to native aquatic plants.

Actions	**Lead person/group**	**Resources**	**Timeline**
Inform property owners of the importance of native aquatic vegetation to impede the establishment of additional AIS, provide food and habitat for wildlife for wildlife, and protect the shoreline via educational materials provided at the annual meeting, direct mailings and newsletter.		WDNR-Brenda Nordin	Ongoing
Encourage landowners to limit plant removal to invasive species or skimming off those that have become unrooted and free-floating. If plants severely impede recreation, consider hand-pulling small areas around private docks (within WDNR guidelines). Cleared lakebed is ideal habitat for AIS to become established, so be vigilant about watching for AIS in these areas.		WDNR-Brenda Nordin	Ongoing
Regularly monitor aquatic plant community to detect any changes in lake conditions and ensure stable populations. A point-intercept survey is recommended.		WDNR-Brenda Nordin Consultants	Every 5 years
Reduce sediment and nutrient loading to lake by improving shoreland buffers (see **Shorelands** section) and implementing BMPs in the watershed (see **Watershed** section).		WDNR-Brenda Nordin OCLCD	Ongoing

Critical Habitat

Every waterbody has areas that are most important to the overall health of the lake.

Critical Habitat

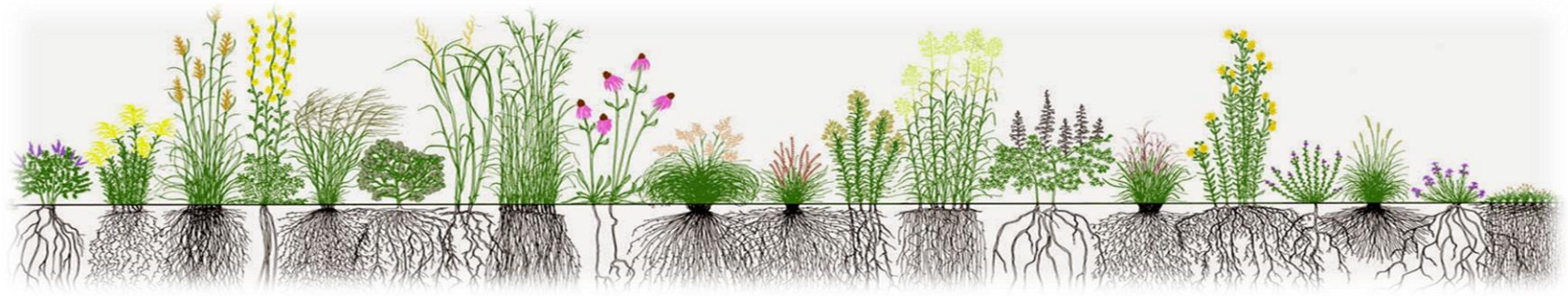
Special areas harbor habitat that is essential to the health of a lake and its inhabitants. In Wisconsin, critical habitat areas are identified by biologists and other lake professionals from the WDNR in order to protect features that are important to the overall health and integrity of the lake, including aquatic plants and animals. While every lake contains important natural features, not all lakes have official critical habitat designations. Designating areas of the lake as critical habitat enables these areas to be located on maps and information about their importance to be shared. Having a critical habitat designation on a lake can help lake groups and landowners plan waterfront projects that will minimize impact to important habitat, ultimately helping to ensure the long-term health of the lake.

Although White Potato Lake does not have an official critical habitat area designation, there are areas within White Potato Lake that are important for fish and wildlife. Natural, minimally-impacted areas with woody habitat such as logs, branches, and stumps; areas with emergent and other forms of aquatic vegetation; areas with overhanging vegetation; and wetlands are elements of good quality habitat. Identifying other important areas around the lake that are important habitat and informing lake users of their value can help raise awareness for the protection of these areas.

Goal 3. Sensitive areas in White Potato Lake, which provide essential habitat and/or water quality benefits, will be protected.

Objective 3.1 Identify and inform others of quality habitat areas in and around White Potato Lake.

Actions	Lead person/group	Resources	Timeline
Request a Critical Habitat Designation from WDNR.		WDNR-Brenda Nordin	2023
If critical habitat is identified, communicate to property owners, visitors, and Town Board as to why these areas are important. Look for opportunities to protect these areas.			TBD



LANDSCAPES AND THE LAKE

White Potato Lake Watershed

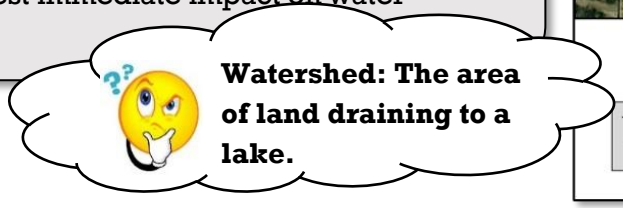
A Lake is a Reflection of its Watershed…

Understanding where White Potato Lake's water originates is important to understanding lake health. During snowmelt or rainstorms, water moves across the surface of the landscape (runoff) towards lower elevations such as lakes, streams, and wetlands. This area is called the watershed. Groundwater also feeds White Potato Lake; its land area may be slightly different than the surface watershed.

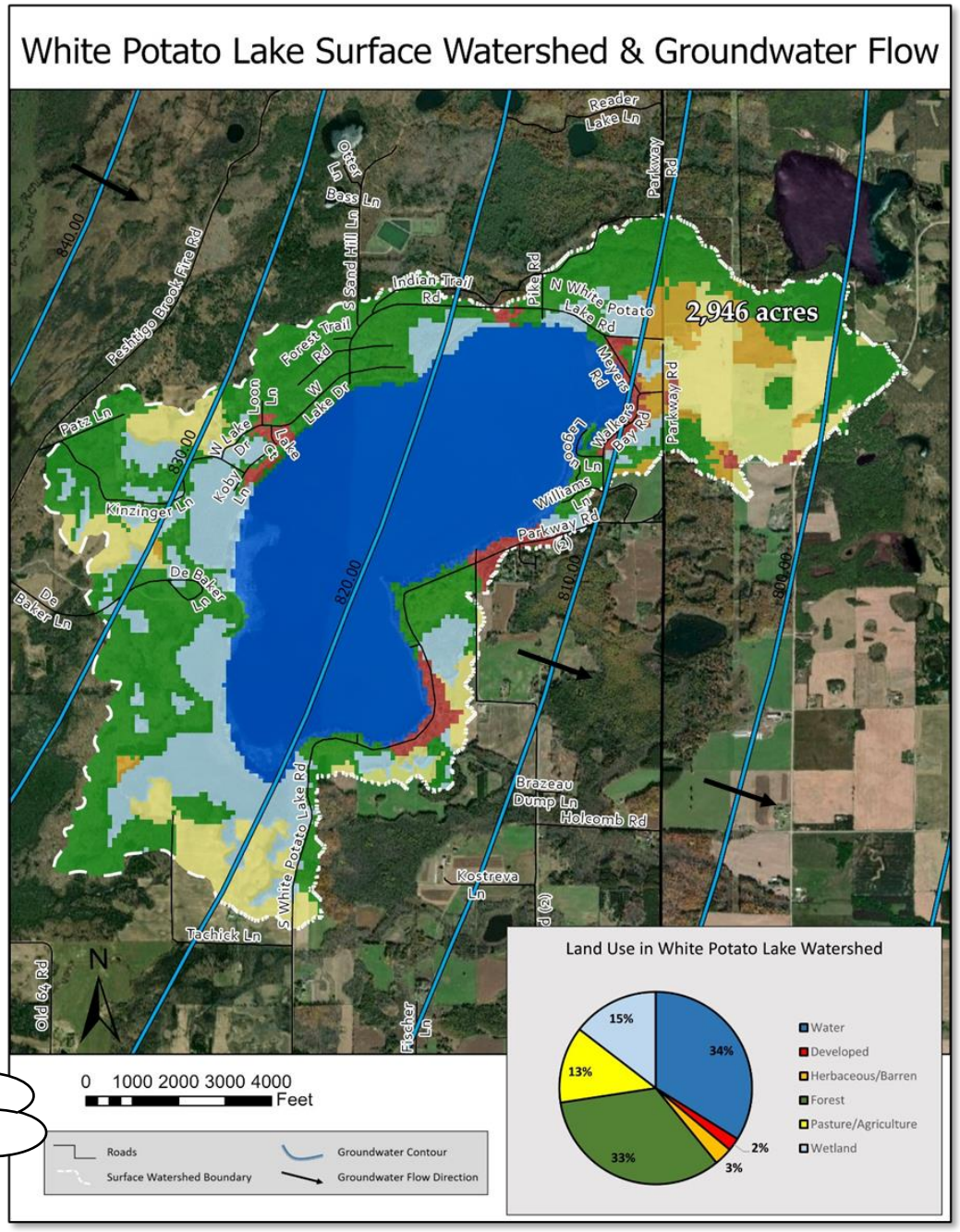
Less runoff is desirable because it allows more water to recharge the groundwater, which feeds the lake year-round - even during dry periods or when the lake is covered with ice. The capacity of the landscape to shed or hold water and contribute or filter particles determines the amount of erosion that may occur, the amount of groundwater feeding a lake, and the lake's water quality and quantity. Landscapes with greater capacities to hold water during rain events and snowmelt slow the delivery of the water to the lake.

White Potato Lake's Watershed

The White Potato Lake watershed is 2,946 acres. Primary land use is forest, wetland and agriculture. The lake's shoreland is surrounded primarily by developed residential lots and wetland. In general, the land closest to the lake has the greatest immediate impact on water quality.



Watershed: The area of land draining to a lake.



Watershed

Why does land matter?

Land use and land management practices within the watershed can affect both its water quantity and quality. While forests, grasslands, and wetlands allow a fair amount of precipitation to soak into the ground, resulting in more groundwater and good water quality, other types of land uses may result in increased runoff and less groundwater recharge, and may also be sources of pollutants that can impact the lake and its inhabitants.

Soil and Erosion

Areas of land with exposed soil can produce soil erosion. Soil entering the lake can make the water cloudy and cover fish spawning beds. Soil also contains nutrients that increase the growth of algae and aquatic plants.

Development

Development on the land may result in changes to natural drainage patterns, alterations to vegetation on the landscape, and may be a source of pollutants. Impervious (hard) surfaces such as roads, rooftops, and compacted soil prevent rainfall from soaking into the ground, which may result in more runoff that carries pollutants to the lake. Wastewater, animal waste, and fertilizers used on lawns, gardens and crops can contribute nutrients that enhance the growth of algae and aquatic plants in our lakes.

What can be done?

Land management practices can be put into place that mimic some of the natural processes, and reduction or elimination of nutrients added to the landscape will help prevent the nutrients from reaching the water. In general, the land nearest the lake has the greatest impact on the lake water quality and habitat and is often the easiest to manage (own property, no politics, etc.).

Be Part of the Solution!

Practices designed to reduce runoff include:

- protecting/restoring wetlands,
- installing rain gardens, swales, rain barrels, and other practices that increase infiltration
- routing drainage from pavement and roofs away from the lake
- meandering lake access paths to minimize direct flow to the lake.

Practices used to help reduce nutrients from moving across the landscape towards the lake include:

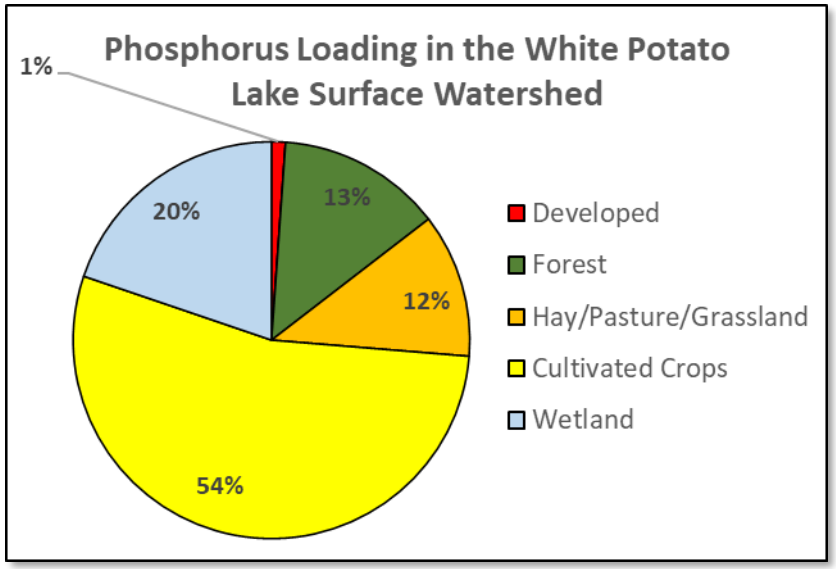
- eliminating/reducing the use of fertilizers,
- increasing the distance between the lake and a septic drainfield,
- protecting/restoring wetlands and native vegetation in the shoreland,
- controlling erosion,
- manure management and cropping practices.

Most of these activities are eligible for cost share and grant assistance!

Watershed

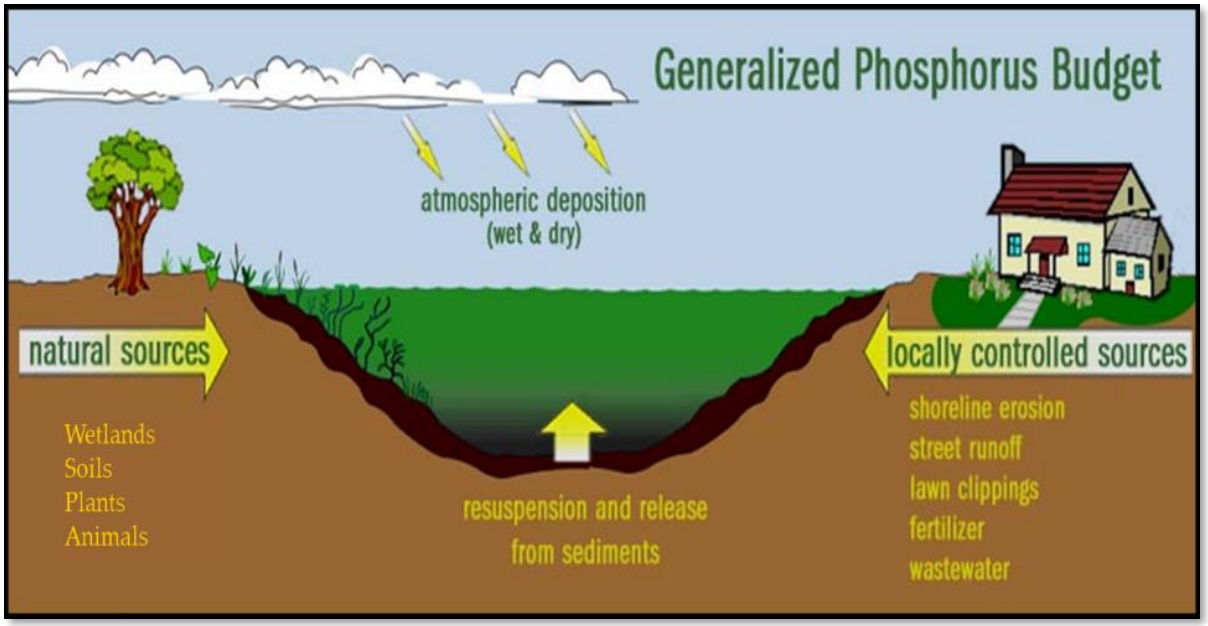
Phosphorus Modeling

Estimates of phosphorus from the landscape can help to understand the phosphorus sources to White Potato Lake. Land use in the surface watershed was evaluated and used to populate the Wisconsin Lakes Modeling Suite (WILMS) model. In general, each type of land use contributes different amounts of phosphorus in runoff and groundwater. The types of land management practices that are used and their distances from the lake also affect the contributions to the lake from a parcel of land. The phosphorus contributions by land use category, called phosphorus export coefficients, have been obtained from studies throughout Wisconsin (Panuska and Lillie, 1995). In the White Potato Lake watershed, the vast majority of these sources are anthropogenic and can be managed.



Phosphorus Loading in White Potato Lake Watershed

Based on modeling results, agriculture had the greatest percentage of phosphorus contributions from the watershed. Efforts to reduce nutrient inputs to the lake must be focused on land uses that we have some control over such as production and developed areas.



Goal 4. Property owners in the White Potato Lake watershed will understand their connection to the lake and will know about/utilize resources for health land management.

Objective 4.1 Support healthy land management practices in the White Potato Lake watershed to reduce sediment and nutrient loading to the lake.

Actions	Lead person/group	Resources	Timeline
Encourage the County to support and follow-up with water quality based best management practices (BMPs) within the lake's watershed. Include BMPs that reduce application of excess nitrogen and pesticides that leach to groundwater.		NRCS DATCP County Board Supervisors	Ongoing
Support landowners interested in the protection of their land via a land conservation program (i.e. conservation easement, conservation reserve program, purchase of development rights, or sale of land for protection).		WDNR Lake Protection Grant Knowles-Nelson Stewardship Fund NWLT	As needed
Encourage any new developments to manage runoff on site and consider ways to minimize impacts from septic systems.		Town of Brazeau Developers/builders	As needed
Encourage design of road and construction projects that will minimize impact to lake.		Town of Brazeau OC Highway Dept/WDOT	As needed
Protect wetlands to maintain the water budget of White Potato Lake. Any altered wetlands should be mitigated within the lake's watershed.		WDNR	As needed
Work with Oconto County to maintain and make improvements to boat launch to reduce erosion and runoff.		Oconto County WDNR	As needed


Cover crops


Drainage swales

Shorelands

90% of lake life spends all or part of their life in the near shore zone.

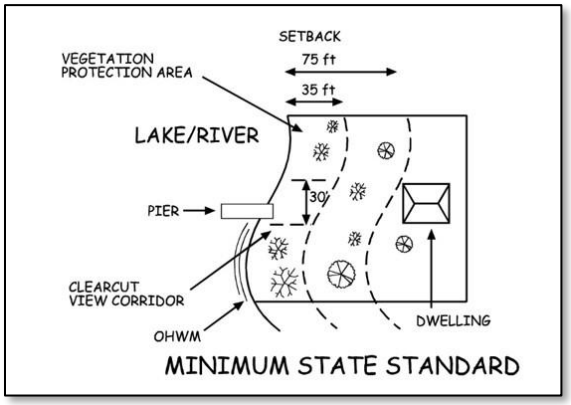
Shorelands

Shoreland vegetation is critical to a healthy lake ecosystem. It provides habitat for many aquatic and terrestrial animals including birds, frogs, turtles, and small and large mammals. It also helps to improve the quality of the runoff that is flowing across the landscape towards the lake.

Healthy shoreland vegetation includes a mix of unmowed grasses/flowers, shrubs, trees, and wetlands which extends at least 35 feet landward from the water's edge.

Shoreland ordinances have been in place since 1964 to improve water quality and habitat, and to protect our lakes. To protect our lakes, county and state (NR 115) shoreland ordinances state that vegetation should extend at least 35 feet inland from the water's edge, with the exception of an optional 30-foot wide view corridor for each shoreland lot. Although some properties were grandfathered in when the ordinance was initiated in 1966, following this guidance will benefit the health of the lake and its inhabitants.

Disturbed shoreland is measured as any shoreline without a shrub or herbaceous layer at the water's edge, regardless of buffer thickness. This may be a result of mowed lawn, artificial beach, etc.



Be Part of the Solution!

Follow Healthy Shoreland Practices

- Mow Less: The simplest, most affordable way to improve your shoreland is to reduce mowing near shore. Native vegetation will re-establish itself over time.
- Leave natural shoreland vegetation in place.
- Restore native shoreland vegetation where it is lacking.
- Plant attractive native species of grasses/flowers, shrubs and trees that will add interest and beauty to your property.
- Don't use fertilizers or herbicides, they may run into the lake. Test your soil to determine if fertilizer is warranted.
- Add or leave woody habitat near the shore. Turtles, birds, and fish love it!
- Never transplant water garden plants or aquarium plants into lakes, streams, or wetlands.
- Visit **www.healthylakeswi.com** for additional resources.

State Shoreland Zoning Ordinance

NR 115 Wisc. Adm. Code for Unincorporated Municipalities

No vegetation within 35 feet of the lake's edge shall be removed except for:

- Up to 30% of shoreline may be removed of shrubs and trees for a view corridor
- A mowed or constructed pedestrian path up to 5 feet wide to access lake

Shorelands

Shoreline Hardening

Shoreline hardening involves the installation of seawalls or concrete riprap to protect waterfront property and improve lake access for humans. By design, it involves increasing shoreline slopes, and often replacing naturally fine substrate (such as sand and silt) with larger materials such as broken concrete.

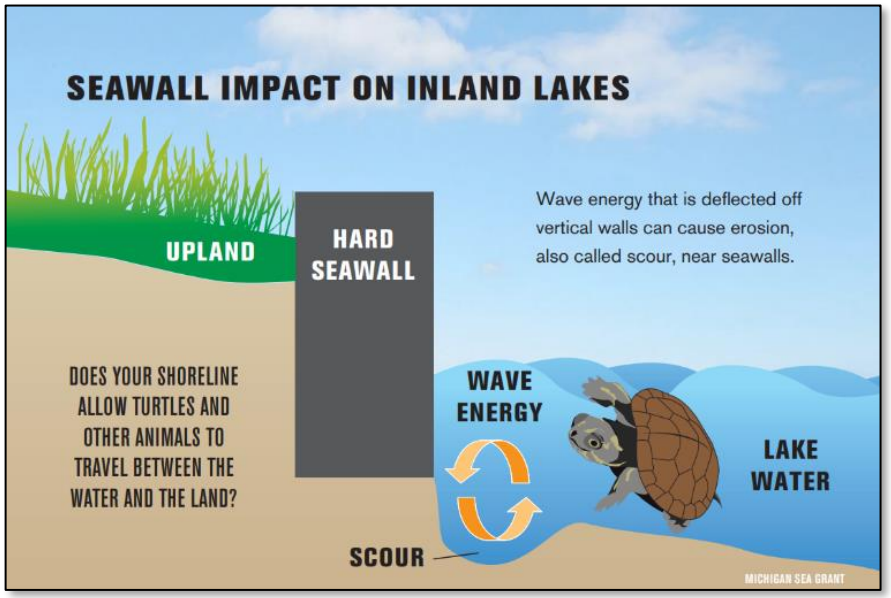
Seawalls on inland lakes tend to be problematic for water quality due to the fact they remove vital wildlife habitat, do not absorb and filter nutrient runoff from land and deflect and even intensify wave energy onto nearby shorelines causing increased erosion and sedimentation of the water.

Many of the impacts of shoreline hardening can be improved through a type of ecological restoration known as shoreline "softening." Aging seawalls, riprap and other hard structures can be removed and replaced by softer, more-natural substrates. Naturalizing the size and slope of sediment is critical for restoring ecological function.

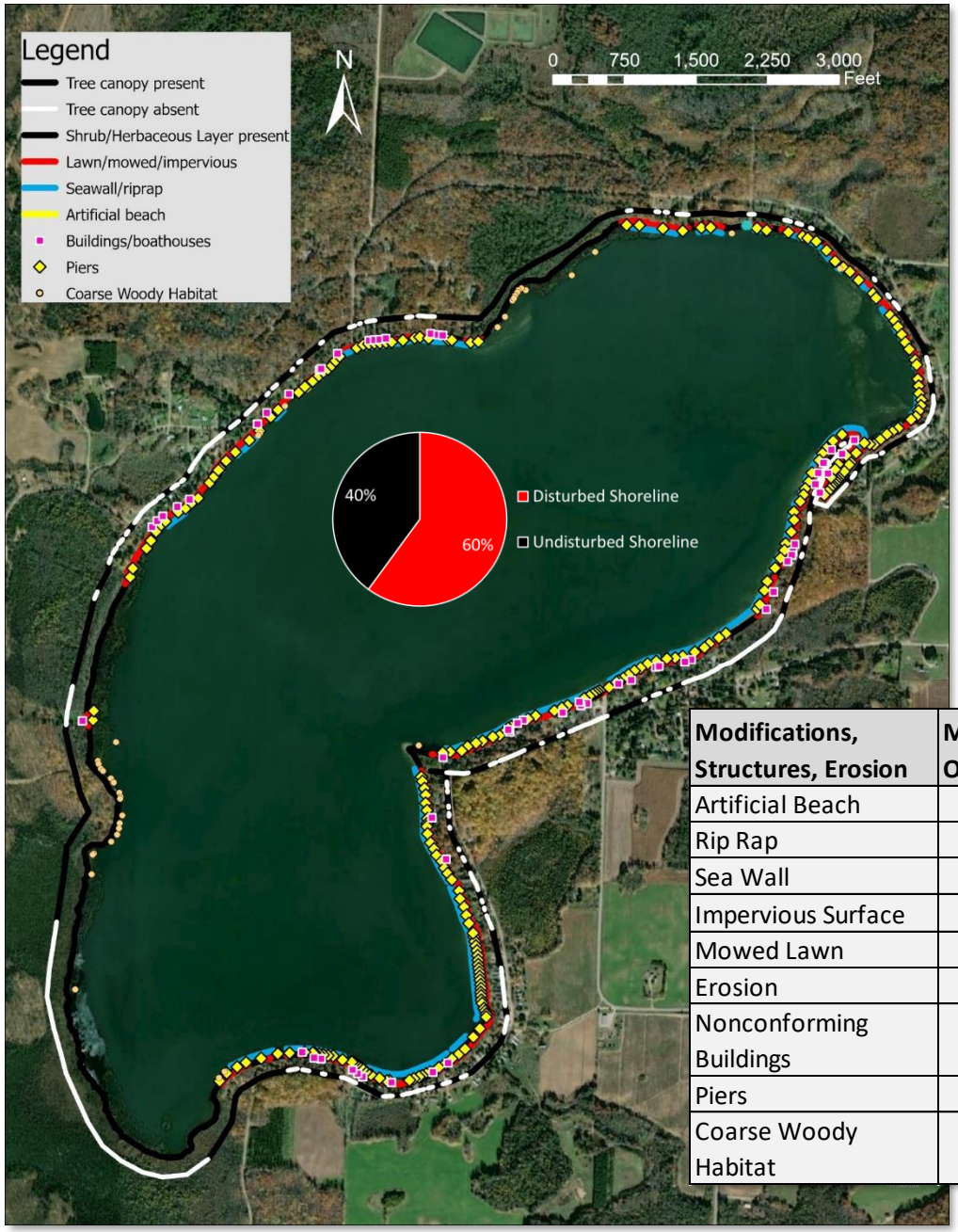
Impacts of shoreline hardening include:

- Shoreline slope is significantly steeper than the gradual transition normally found on natural shorelines. This minimizes the amount of shallow-water habitat and by extension the ecological functions the shoreline provides.
- Organic matter decomposes up to five times more slowly on hardened shorelines.
- Reflection of wave energy increases erosion.
- Disrupts connection between land and water features essential for the life cycle of many species of wildlife.

Lakefront property owners should consider "soft engineering" options, where biodegradable materials and native plants are used to stabilize sediments and absorb incoming wave energy. These methods provide protection against erosion while also maintaining a healthy shoreline ecosystem.



Shorelands

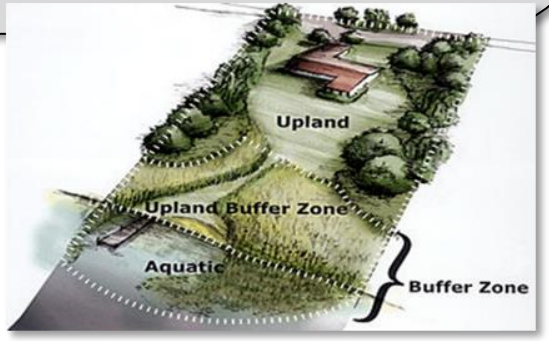


Modifications, Structures, Erosion	Measured Occurrence
Artificial Beach	20 ft
Rip Rap	8,666 ft
Sea Wall	7,527 ft
Impervious Surface	1,868 ft
Mowed Lawn	17,973 ft
Erosion	1229 ft
Nonconforming Buildings	61
Piers	253
Coarse Woody Habitat	6 logs/mile

White Potato Lake's Shorelands

To better understand the health of White Potato Lake, shorelands were evaluated by WDNR in 2019. The survey inventoried shoreland vegetation, erosion, riprap, barren ground, seawalls, structures, and docks. Over half of the 6.4 miles of shoreline is developed as homes and seasonal cottages. A total of 253 piers were counted during the survey (1/134 ft).

- With 260 lakefront lots, 7,800 feet (20%) of disturbed shoreland is permitted under NR115. Based on the 2019 shoreland inventory, 60% (20,310 feet) of White Potato Lake's shoreland was disturbed. Coarse woody habitat was measured at 6 logs/mile (250 logs/mile recommended.)
- White Potato Lake had below average shoreland health compared to other lakes in the study. Some stretches, limited to a handful of parcels, are in good shape, but most portions have challenges that should be addressed.



Coarse Woody Habitat (CWH)

Woody debris (i.e., branches, limbs, trees) that falls into the lake forms critical habitat for tiny aquatic organisms that feed bluegills, turtles, crayfish and other critters. Water insects such as mayflies graze on the algae that grow on decomposing wood. Dragonfly nymphs hunt for prey among the stems and branches. Largemouth and smallmouth bass often find food, shelter, or nesting habitat among these fallen trees.

Above water, a fallen tree is like a dock for wildlife. Ducks and turtles sun themselves on the trunk, muskrats use the tree as a feeding platform, predators such as mink and otter hunt for prey in the vicinity of fallen wood, and dead trees that remain along the shoreline are used as perches by belted kingfishers, ospreys and songbirds.

Undeveloped lakes typically contain hundreds of 'logs per mile' while they may completely disappear on developed lakes. Unless it is a hazard to navigation or swimming, consider leaving woody debris in the water.

Shorelands

White Potato Lake 2019 Shoreland Survey Results			
Total lakefront footage	**# Riparian lots**	**Total allowable (NR115) disturbed shoreland**	**Measured disturbed shoreland**
33,815	260	7,800 feet (23%)	20,310 feet (60%)

Goal 5. Shorelands around White Potato Lake will be healthy and protective of water quality and habitat. Over the next 5 years, at least 1,000 feet (at least 15-20 properties) of mowed shoreline will be restored.

Objective 5.1 Shoreland property owners will be knowledgeable and make good decisions regarding shoreland management.

Actions	**Lead person/group**	**Resources**	**Timeline**
Provide informational materials to all shoreland property owners about basic lake stewardship including healthy shorelands and their composition (wildflowers, native plants, coarse woody habitat, etc.). Include information on cost share programs.		OCLWA UWEX Lakes WDNR Healthy Lakes Grants	Ongoing
Encourage and support shoreland owners interested in shoreland restoration. Include information on how and why to create health shorelands in a welcome packet to rental units and new property owners.		UWEX Lakes OCLCD WDNR Healthy Lakes Grants	Ongoing
Encourage the removal and restoration of sea walls. WDNR will pay for this through implementation grants.		WDNR-Brenda Nordin	Ongoing
Encourage those interested in shoreland restoration to contact OCLCD for available resources.		OCLCD WDNR Healthy Lakes Grants	Ongoing
Consider restoring and showcasing a 'demonstration site' with a sign about shoreland protection.		WDNR	2023
Identify property owners to install fish sticks to improve fish habitat (see **Fish Community** section).		WDNR-Chip Long	2023

Water Quality

Water Quality

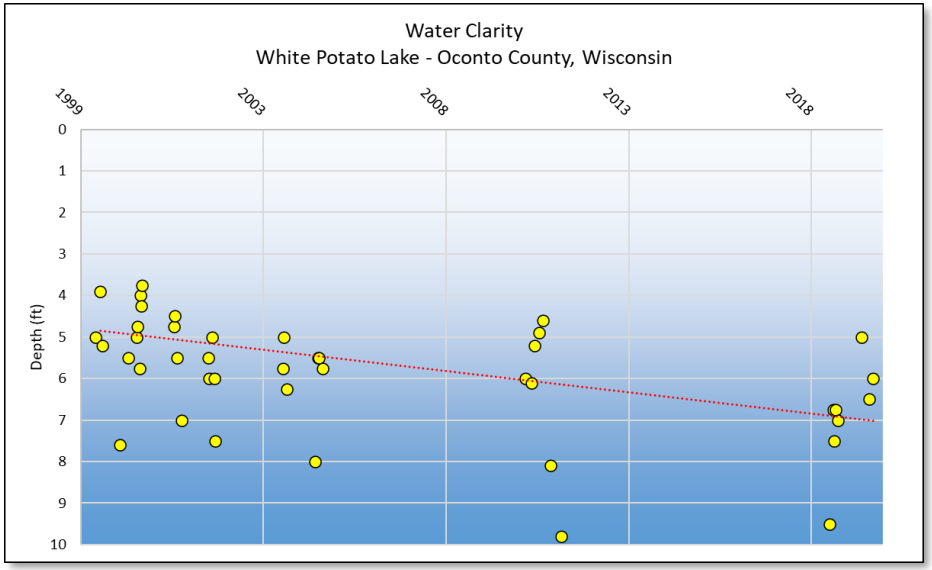
A variety of water chemistry measurements were used to characterize the water quality in White Potato Lake. Water quality was assessed during the 2019-2020 lake study and involved a number of measures including temperature, dissolved oxygen, water chemistry, and nutrients (phosphorus and nitrogen). Nutrients are important measures of water quality in lakes because they contribute to algae and aquatic plant growth. Each of these interrelated measures plays a part in the lake's overall water quality. In addition, water quality data collected in past years was also reviewed to determine trends in White Potato Lake's water quality.

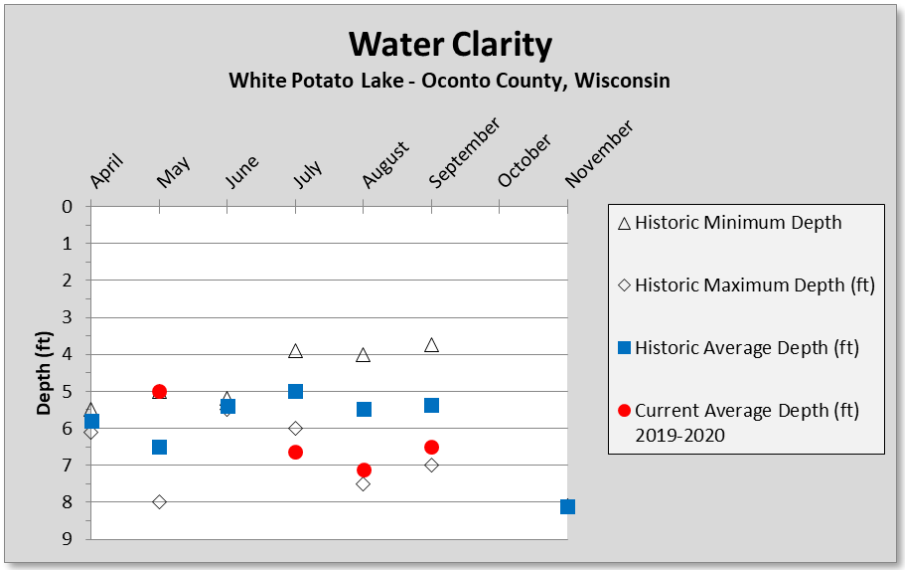
White Potato Lake's Water Quality Summary

- ✓ **Water clarity** ranged from 5-9.5 feet (considered fair), which is similar to historic measurements and suggests a stable to improving trend.
- ✓ **Dissolved oxygen** was deficient for some sensitive species during late winter.
- ✓ Concentrations of **contaminants** were 'normal' during the study. Atrazine was not detected.
- ✓ **Phosphorus** concentrations remained below the standard of 40 ug/L throughout the study. **Inorganic nitrogen** remained below concentrations that spur algal blooms.

Water Clarity

Water clarity is a measure of how deep light can penetrate (Secchi depth). Clarity is affected by water color, turbidity, and algae and helps determine where rooted aquatic plants grow.

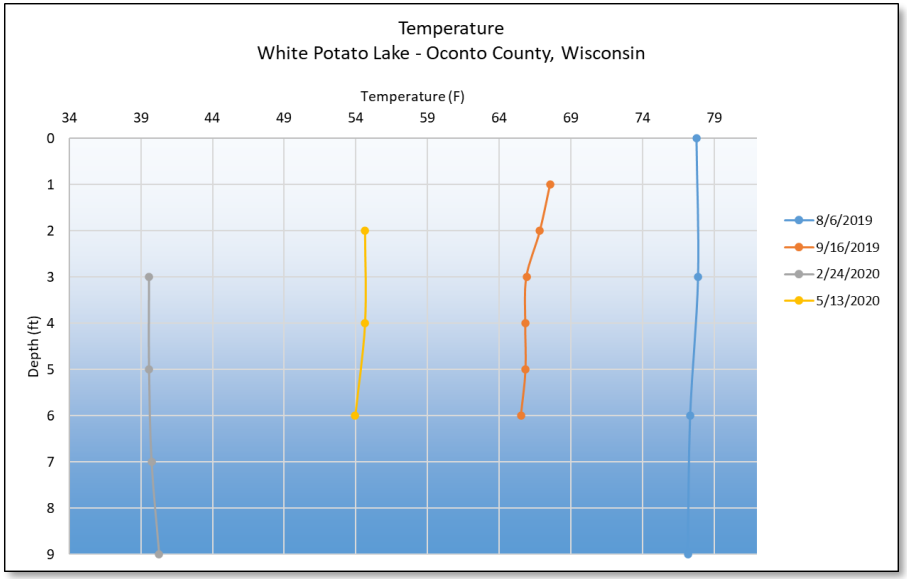




Water Quality

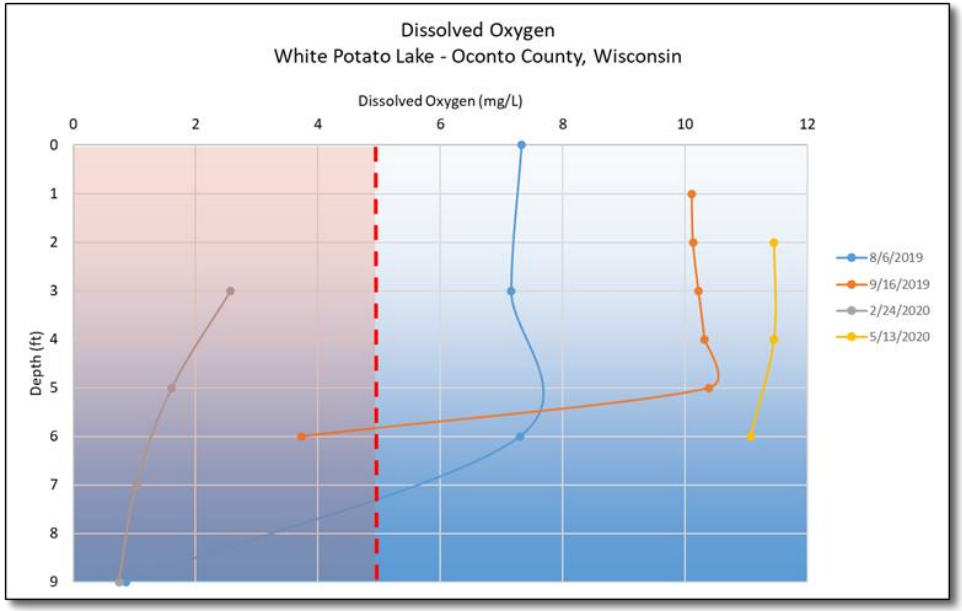
Temperature and Dissolved oxygen

Temperature profiles for White Potato Lake illustrate a typical shallow, mixed lake with similar temperatures from the surface to depth at all times of the year.



Dissolved oxygen is an important measure in White Potato Lake because a majority of organisms in the water depend on oxygen to survive. Oxygen is dissolved into the water from contact with air, which is increased by wind and wave action. Algae and aquatic plants also produce oxygen when sunlight enters the water, but the decomposition of dead plants and algae reduces oxygen in the lake.

Dissolved oxygen concentrations generally decline with depth as access to sources such as the atmosphere and growing plants is decreased. Because it's shallow, 0xygen levels in White Potato Lake don't change much with depth until they reach an anoxic zone near the sediment. Shallow water having a limited capacity to store oxygen once the lake is frozen, the late winter profile shows that concentrations are very low and winter fish kills are possible.



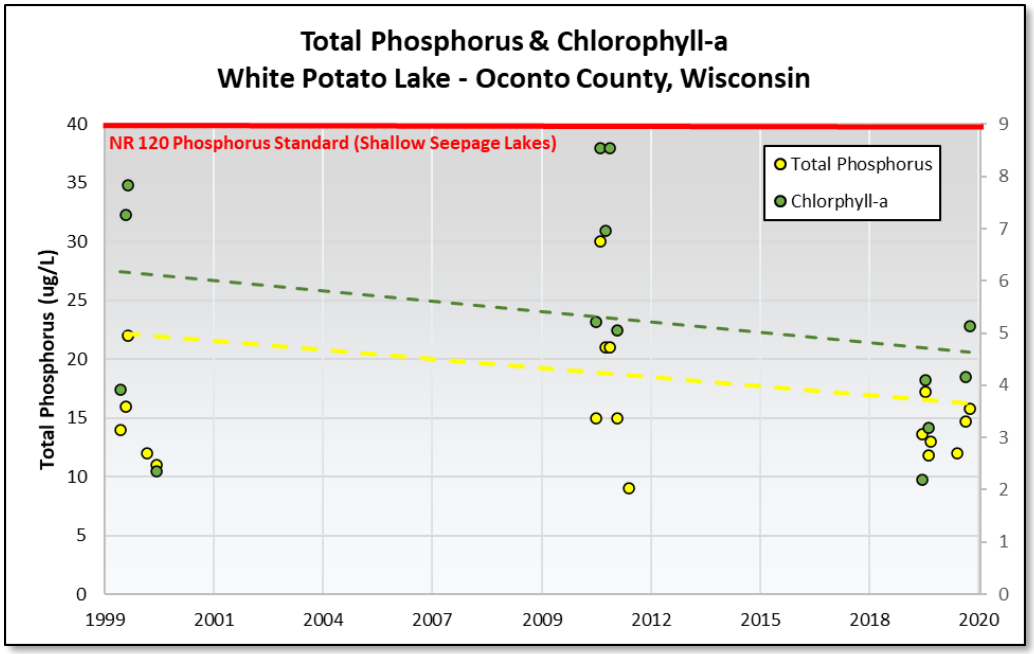
Contaminants

Chloride, sodium and potassium concentrations are commonly used as indicators of how a lake is being impacted by human activity. The presence of these compounds where they do not naturally occur indicates sources of water contaminants. Although these elements are not detrimental to the aquatic ecosystem, they indicate that sources of contaminants such as road salt, fertilizer, animal waste and/or septic system effluent may be entering the lake from either surface runoff or via groundwater. Measurements of potassium were low, but chloride and sodium were elevated which suggests the lake is being impacted by human activity.

Water Quality

Nutrients

Phosphorus is an element that is essential in trace amounts to most living organisms, including aquatic plants and algae. Naturally-occurring sources of phosphorus include soils and wetlands, and groundwater. Common sources from human activities include soil erosion, animal waste, fertilizers, and septic systems. Although a variety of compounds are important to biological growth, phosphorus receives so much attention because it is commonly the "limiting nutrient" in many Wisconsin lakes. Due to its relatively short supply compared to other substances necessary for growth, relatively small increases in phosphorus result in significant increases in aquatic plants and algae. NR 120, Wisconsin Administrative Code lists phosphorus limits for different lake types. Shallow seepage lakes such as White Potato have a standard of 40 ug/L they must stay below to remain healthy. The limited data available show concentrations in White Potato to be well below this standard. Continued monitoring is necessary to verify this. Concentrations of 0.3 mg/L inorganic nitrogen in spring are sufficient to fuel algal blooms throughout the summer. Sources of inorganic nitrogen include animal waste, septic systems/waste treatment effluent, and fertilizers.



Compared to limited data from the late 1990s, a decreasing trend in concentrations is suggested. Continued monitoring is recommended.

Be part of the solution!

Managing nitrogen, phosphorus and soil erosion throughout the White Potato Lake watershed is one of the keys to protecting the lake itself. Near shore activities that may increase the input of phosphorus to the lake include applying fertilizer, removing native vegetation (trees, bushes and grasses), mowing vegetation, and increasing the amount of exposed soil. Nitrogen inputs to a lake can be controlled by using lake-friendly land management decisions, such as the restoration of shoreland vegetation, elimination/reduction of fertilizers, proper management of animal waste and septic systems, and the use of water quality-based management practices.

Goal 6. Maintain or improve water quality in White Potato Lake.

Objective 6.1 Maintain median summer total phosphorus concentrations below 30 ug/L and fall inorganic nitrogen concentrations below 0.3 mg/L.

Actions	Lead person/group	Resources	Timeline
Inform others around the lake about the impact of nutrients and land management on water quality through the distribution of a newsletter and/or hosting a guest speaker at the annual meeting.		OCLWA WDNR UWEX Lakes	Ongoing
Refrain from the use of fertilizers. Encourage soil testing to determine if amendments are necessary.		OC UWEX	Ongoing
Encourage the restoration where there is mowed vegetation to slow and absorb runoff and pollutants (see **Shorelands** section).		UWEX Lakes	Ongoing

Objective 6.2 Continue to develop an ongoing, long-term dataset for White Potato Lake to monitor trends or changes over time.

Actions	Lead person/group	Resources	Timeline
Support volunteers collecting water quality data. Encourage new volunteers to work with the Citizen Lake Monitoring Network.		CLMN WDNR-Brenda Nordin	3+ times annually in summer
Submit all data to WDNR for archival and use by scientists and resource managers.		WDNR	Ongoing

Wisconsin has more than 500,000 registered boats-one for every 10 residents.

PEOPLE AND THE LAKE

The people who interact with the lake are a key component of the lake and its management. In essence a lake management plan is a venue by which people decide how they would like people to positively impact the lake. The plan summarizes the decisions of the people to take proactive steps to improve their lake and their community. Individual decisions by lake residents and visitors can have positive impacts on the lake and on those who enjoy this common resource. Collaborative efforts may have bigger positive impacts; therefore, communication and cooperation between the community and suite of lake users are essential to maximize the effects of plan implementation.

Boating hours, regulations, and fishing limits are examples of principles that are put into place to minimize conflicts between lake users and balance human activities with environmental considerations for the lake.

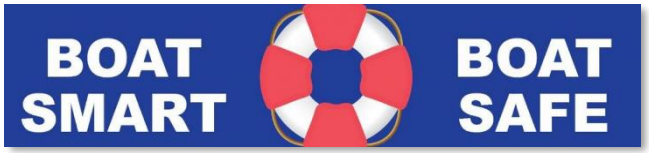
Recreation

According to survey responses, the lake is enjoyed for its scenery, boating, and fishing. There are five public boat launches located around the lake which are owned and maintained by the Town of Brazeau and Oconto County. No Wake is allowed between 6pm and 10am.

Goal 7. Lake users will be informed about and respectful of White Potato Lake.

Objective 7.1 Promote an atmosphere of respect amongst lake users.

Actions	Lead person/group	Resources	Timeline
Work with other lake groups and towns to support a recreational law enforcement officer and municipal court for enforcement of regulations including "No Wake" hours and safe boat operation.		Town of Brazeau OCLWA OC UWEX	Ongoing
Work with Town and County upkeep/repair boat ramps. Boat ramps in disrepair can be unhealthy to the lake if it results in spinning tires, power loading, etc. A well-kept boat launch indicates the amount of attention and care a lake is receiving.		WDNR Town of Brazeau OCLCD	Ongoing



Communication & Organization

The first lake organization in Wisconsin was organized about 1898. Today, over 500 lake associations and 212 lake districts are working for (and in) Wisconsin's lakes.

Communication and Organization

Working together on common values will help to achieve the goals outlined in this plan. This will involve communication between individuals, the Town of Brazeau, Oconto County, resource managers, and elected officials. In addition, staying informed about lake- and groundwater-related topics will be essential to achieving the goals laid out in this plan. See the Oconto County Lake Information Directory in the Appendices for contact information.

Many of the goals outlined in this plan focus on distributing information to lake and watershed residents and lake users in order to help them make informed decisions that will result in a healthy White Potato Lake ecosystem that is enjoyed by many people. Working together on common values will help to achieve the goals that are outlined in this plan.

Goal 8. Increase participation in lake stewardship.

Objective 8.1 Develop opportunities and recruit participation in the management of White Potato Lake.

Actions	Lead person/group	Resources	Timeline
Maintain and update website to provide a common source of information.			Ongoing
Maintain an email list of shoreland property owners and others interested in White Potato Lake.			Ongoing
Distribute a welcome packet to all new shoreland property owners with basic lake stewardship information. WDNR small-scale planning grants can help pay for this.		OC UWEX OC Zoning Dept. OCLCD	Ongoing
Communicate updates to lake management plan and management activities to residents and lake users (and WDNR).			Ongoing
[Continue to] host annual meeting to discuss lake management and opportunities for participation. Invite speakers or conduct demonstrations.		UWEX	Annually

Objective 8.2. Maintain good, clear communication between WPLSC, WPLAA, residents, municipalities, County and State.

Actions	Lead person/group	Resources	Timeline
Network with other lake groups by having White Potato Lake represented at OCLWA.		OC UWEX OCLWA	Quarterly
Network with other lakes in the state to learn lake management strategies, etc. by having a representative attend the Wisconsin Lakes Convention and/or Lake Leaders Institute.		UWEX Lakes	Annually

Updates and Revisions

Updates and Revisions

A management plan is a living document that changes over time to meet the current needs, challenges and desires of the lake and its community. The goals, objectives and actions listed in this plan should be reviewed annually and updated with any necessary changes. Partners listed in the plan should be contacted annually, and updated information complied. A list of changes/updates to the plan should be documented. To ensure that everyone is informed about changes, appropriate approval for changes should be acquired by all partners signing on to this plan.

Goal 9. Review plan annually and update as needed.

Objective 9.1 Maintain an up to date and relevant lake management plan and communicate updates appropriately.

Actions	Lead person/group	Resources	Timeline
Review plan at annual meeting and discuss accomplishments and identify goals/objectives/action for coming year.			Annually
Formally update this plan every 5 years.		OC UWEX UWEX Lakes WDNR	2027

REFERENCES

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Borman, Susan, Robert Korth, and Jo Temte, 2001. Through the looking glass, a field guide to aquatic plants. Reindl Printing, Inc. Merrill, Wisconsin.

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Haney, Ryan, 2021. White Potato Lake Study Summary Report. Center for Watershed Science and Education-University of Wisconsin Stevens Point.

Haney, Ryan, 2021. State of the Oconto County Lakes. Center for Watershed Science and Education-University of Wisconsin-Stevens Point.

Long, Chip, 2022. White Potato Lake Fishery, Oconto County, Presentation to White Potato Lake Planning Meeting, March 1, 2022. Wisconsin Department of Natural Resources.

Panuska and Lillie, 1995. Phosphorus Loadings from Wisconsin Watershed: Recommended Phosphorus Export Coefficients for Agricultural and Forested Watersheds. Bulletin Number 38, Bureau of Research, Wisconsin Department of Natural Resources.

Public Service Commission of Wisconsin, 1948. Opinions and Decisions of the Public Service Commission of Wisconsin, Volume XXXII. 410 pp.

Shaw, B., C. Mechenich, and L. Klessig, 2000. Understanding Lake Data. University of Wisconsin-Extension, Stevens Point. 20 pp.

APPENDICES

Appendix A

Appendix A. Oconto County Lake Information Directory

Algae - Blue-Green

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov
Website: http://dnr.wi.gov/lakes/bluegreenalgae

Contact: Wisconsin Department of Health Services
1 West Wilson Street, Madison, WI 53703
Phone: 608-267-3242
Website:
www.dhs.wisconsin.gov/eh/bluegreenalgae/contactus.htm

Aquatic Invasive Species/Clean Boats Clean Water

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov
Website: http://dnr.wi.gov/topic/Invasives/

Aquatic Plant Management

(Native and Invasive)

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov
Website: http://dnr.wi.gov/lakes/plants/

Aquatic Plant Identification

Contact: Dr. Emmet Judziewicz
UWSP Freckmann Herbarium
TNR 301, 800 Reserve St., Stevens Point, WI 54481
Phone: 715-346-4248
E-mail: ejudziew@uwsp.edu

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov

Aquatic Plant Surveys/Management

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov
Website: http://dnr.wi.gov/lakes/plants/

Best Management Practices (rain gardens, shoreland buffers, agricultural practices, runoff controls)

Contact: Ken Dolata
Oconto County Land & Water Conservation Department
410 ½ East Main Street, Lena, WI 54139
Phone: 920-834-7152
E-mail: ken.dolata@co.oconto.wi.us
Website: http://www.co.oconto.wi.us/departments/

Boat Landings, Signage, Permissions (County)

Contact: Monty Brink
Oconto County Forestry/Park/Recreation
301 Washington Street, Oconto, WI 54153
Phone: 920-834-6995
E-mail: monty.brink@co.oconto.wi.us
Website: http://www.co.oconto.wi.us/departments/

Boat Landings (State)

Contact: Chip Long
Wisconsin Department of Natural Resources
101 N. Ogden Road, Peshtigo, WI 54157
Phone: 715-582-5017
E-mail: Christopher.long@wisconsin.gov
Website: http://dnr.wi.gov/org/land/facilities/boataccess/

Appendix A

Boat Landings (Town)

Contact the clerk for the specific town/village in which the boat landing is located.

Conservation Easements

Contact: Gathering Waters Conservancy
211 S. Paterson St., Suite 270, Madison, WI 53703
Phone: 608-251-9131
E-mail: info@gatheringwaters.org
Website: http://gatheringwaters.org/

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov

Contact: Northeast Wisconsin Land Trust
14 Tri-Park Way, Suite 1, Appleton, WI 54914
Phone: 920-738-7265
E-mail: newlt@newlt.org
Website: www.newlt.org

Contact: NRCS Lena Service Center
410 ½ East Main Street, Lena, WI 54139
Phone: 920-829-5406

Critical Habitat and Sensitive Areas

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov
Website: http://dnr.wi.gov/lakes/criticalhabitat/

Dams

Contact: Meg Galloway
Wisconsin Department of Natural Resources
PO Box 7921, Madison, WI 53707
Phone: 608-266-7014
E-mail: meg.galloway@wisconsin.gov
Website: http://dnr.wi.gov/org/water/wm/dsfm/dams/

Fertilizers/Soil Testing

Contact: Dale Mohr
Oconto County UW- Extension
301 Washington Street, Oconto, WI 54153
Phone: 920-835-6845
E-mail: dale.mohr@wisc.edu
Website: http://oconto.uwex.edu

Fisheries Biologist (management, habitat)

Contact: Chip Long
Wisconsin Department of Natural Resources
101 N. Ogden Road, Peshtigo, WI 54157
Phone: 715-582-5017
E-mail: Christopher.long@wisconsin.gov
Website: http://dnr.wi.gov/fish/

Frog Monitoring—Citizen Based

Contact: Andrew Badje
Wisconsin Department of Natural Resources
Phone: 608-785-9472
E-mail: Andrew.badje@wisconsin.gov
Website: WFTS@wisconsin.gov

Grants

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov
Website: http://dnr.wi.gov/Aid/Grants.html

Appendix A

Contact: Ken Dolata
Oconto County Land & Water Conservation Department
410 ½ East Main Street, Lena, WI 54139
Phone: 920-834-7152
E-mail: ken.dolata@co.oconto.wi.us
Website: http://www.co.oconto.wi.us/departments/

Groundwater Quality

Contact: Kevin Masarik
UWSP Center for Watershed Science & Education
TNR 224, 800 Reserve St., Stevens Point, WI 54481
Phone: 715-346-4276
E-mail: kmasarik@uwsp.edu
Website: http://www.uwsp.edu/cnr/watersheds/

Groundwater Levels/Quantity

Contact: Ken Dolata
Oconto County Land & Water Conservation Department
410 ½ East Main Street, Lena, WI 54139
Phone: 920-834-7152
E-mail: ken.dolata@co.oconto.wi.us
Website: http://www.co.oconto.wi.us/departments/

Contact: George Kraft
UWSP Center for Watershed Science & Education
TNR 224, 800 Reserve St., Stevens Point, WI 54481
Phone: 715-346-2984
E-mail: george.kraft@uwsp.edu

Informational Packets

Contact: UW Extension - Lakes
TNR 224, 800 Reserve St. Stevens Point, WI 54481
Phone: 715-346-2116
E-mail: uwexlakes@uwsp.edu

Lake Groups – Friends, Associations, Districts

Contact: Dale Mohr
Oconto County UW- Extension
301 Washington Street, Oconto, WI 54153
Phone: 920-835-6845
E-mail: dale.mohr@wisc.edu
Website: http://oconto.uwex.edu

Contact: Patrick Goggin
UWEX Lakes
TNR 203, 800 Reserve St., Stevens Point, WI 54481
Phone: 715-365-8943
E-mail: pgoggin@uwsp.edu
Website: http://www.uwsp.edu/cnr/uwexlakes/organizations/

Contact: Eric Olson
UWEX Lakes
TNR 206, 800 Reserve St., Stevens Point, WI 54481
Phone: 715-346-2192
E-mail: eolson@uwsp.edu
Website: http://www.uwsp.edu/cnr/uwexlakes/organizations/

Contact: Susan Tesarik
Wisconsin Lakes
4513 Vernon Blvd., Suite 101, Madison, WI 53705
Phone: 1-800-542-5253
E-mail: lakeinfo@wisconsinlakes.org
Website: http://wisconsinlakes.org/

Lake Levels

See: Groundwater

Lake-Related Law Enforcement (no-wake, transporting invasives, etc.)

Contact: Paul Hartrick
Conservation Warden
Wisconsin Department of Natural Resources
300 Hank Marks Dr., Oconto Falls, WI 54154
Phone: 920-373-4179
Website: http://www.wigamewarden.com/

Appendix A

Land Use Plans and Zoning Ordinances

Contact: Patrick Virtues
Oconto County Planning/Zoning/Solid Waste
301 Washington Street, Oconto, WI 54153
Phone: 920-834-6827
E-mail: Patrick.virtues@co.oconto.wi.us
Website: http://www.co.waushara.wi.us/zoning.htm

Contact: UWSP Center for Land Use Education
TNR 208, 800 Reserve St., Stevens Point, WI 54481
Phone: 715-346-3783
E-mail: Center.for.Land.Use.Education@uwsp.edu
Website: http://www.uwsp.edu/cnr/landcenter/

Nutrient Management Plans

Contact: Ken Dolata
Oconto County Land & Water Conservation Department
410 ½ East Main Street, Lena, WI 54139
Phone: 920-834-7152
E-mail: ken.dolata@co.oconto.wi.us
Website: http://www.co.oconto.wi.us/departments/

Contact: NRCS Lena Service Center
410 ½ East Main Street, Lena, WI 54139
Phone: 920-829-5406

Parks (County)

Contact: Monty Brink
Oconto County Forestry/Park/Recreation
301 Washington Street, Oconto, WI 54153
Phone: 920-834-6995
E-mail: monty.brink@co.oconto.wi.us
Website: http://www.co.oconto.wi.us/departments/

Purchase of Development Rights

Contact: Northeast Wisconsin Land Trust
14 Tri-Park Way, Suite 1, Appleton, WI 54914
Phone: 920-738-7265
E-mail: newlt@newlt.org
Website: www.newlt.org

Purchase of Land

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov
Website: http://dnr.wi.gov/topic/stewardship/

Rain Gardens and Stormwater Runoff

Contact: Ken Dolata
Oconto County Land & Water Conservation Department
410 ½ East Main Street, Lena, WI 54139
Phone: 920-834-7152
E-mail: ken.dolata@co.oconto.wi.us
Website: http://www.co.oconto.wi.us/departments/

Septic Systems/Onsite Waste

Contact: Patrick Virtues
Oconto County Planning/Zoning/Solid Waste
301 Washington Street, Oconto, WI 54153
Phone: 920-834-6827
E-mail: Patrick.virtues@co.oconto.wi.us
Website: http://www.co.waushara.wi.us/zoning.htm

Shoreland Management

Contact: Ken Dolata
Oconto County Land & Water Conservation Department
410 ½ East Main Street, Lena, WI 54139
Phone: 920-834-7152
E-mail: ken.dolata@co.oconto.wi.us
Website: http://www.co.oconto.wi.us/departments/

Shoreland Vegetation

http://dnr.wi.gov/topic/ShorelandZoning/

Shoreland Zoning Ordinances

See: Land Use Plans and Zoning Ordinances

Appendix A

Soil Fertility Testing

Contact: Dale Mohr
Oconto County UW- Extension
301 Washington Street, Oconto, WI 54153
Phone: 920-835-6845
E-mail: dale.mohr@wisc.edu
Website: http://oconto.uwex.edu

Water Quality Monitoring

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov

Water Quality Problems

Contact: Brenda Nordin
Wisconsin Department of Natural Resources
Phone: 920-360-3167
E-mail: brenda.nordin@wisconsin.gov

Wetlands

Contact: Jason Fleener
Wisconsin Department of Natural Resources
GEF2 DNR Central Office, Madison, WI 53707
Phone: 608-266-7408
E-mail: Jason.fleener@wisconsin.gov
Website: http://dnr.wi.gov/wetlands/

Contact: Wisconsin Wetlands Association
214 N. Hamilton Street, #201, Madison, WI 53703
Phone: 608-250-9971
Email: info@wisconsinwetlands.org

Wetland Inventory

Contact: Dr. Emmet Judziewicz
UWSP Freckmann Herbarium
TNR 301, 800 Reserve St., Stevens Point, WI 54481
Phone: 715-346-4248
E-mail: ejudziew@uwsp.edu

Woody Habitat

Contact: Chip Long
Wisconsin Department of Natural Resources
101 N. Ogden Road, Peshtigo, WI 54157
Phone: 715-582-5017
E-mail: Christopher.long@wisconsin.gov
Website: http://dnr.wi.gov/fish/

Appendix B

Appendix B. 2019-2020 White Potato Lake Creel Survey Report

Appendix C

Appendix C. Onterra 2021 EWM Management & Monitoring Report

Appendix D. Rapid Response Plan

REPORTING A SUSPECTED INVASIVE SPECIES

1. Collect specimens or take photos.

Regardless of the method used, provide as much information as possible. Try to include flowers, seeds or fruit, buds, full leaves, stems, roots and other distinctive features. In photos, place a coin, pencil or ruler for scale. Deliver or send specimen ASAP.

Collect, press and dry a complete sample. This method is best because a plant expert can then examine the specimen.

-OR-

Collect a fresh sample. Enclose in a plastic bag with a moist paper towel and refrigerate.

-OR-

Take detailed photos (digital or film).

2. Note the location where the specimen was found.

If possible, give the exact geographic location using a GPS (global positioning system) unit, topographic map, or the Wisconsin Gazetteer map book. If using a map, include a photocopy with a dot showing the plant's location.

Provide one or more of the following:

- Latitude & Longitude
- UTM (Universal Transverse Mercator) coordinates
- County, Township, Range, Section, Part-section
- Precise written site description, noting nearest city & road names, landmarks, local topography

3. Gather information to aid in positive species identification.

- Collection date and county
- Your name, address, phone, email
- Exact location (lat/long or UTM, Township/Range)
- Plant name
- Land ownership (if known/applicable)
- Population description (estimated # plants, area covered)
- Habitat type where found (forest, field, prairie, wetland, open water)

Appendix D

4. **Mail or bring specimens and information to any of the following locations (digital photos may be emailed):**

Wisconsin Dept. Natural Resources
2984 Shawano Avenue,
Green Bay, WI 54313
Phone: (920) 662-5100

UW-Stevens Point Herbarium
301 Trainer Natural Resources Building
800 Reserve Street
Stevens Point, WI 54481
Phone: 715-346-4248
E-Mail: ejudziew@uwsp.edu

Wisconsin Invasive Plants Reporting & Prevention Project
Herbarium-UW-Madison
430 Lincoln Drive
Madison, WI 53706
Phone: (608) 267-7612
E-Mail: invasiveplants@mailplus.wisc.edu

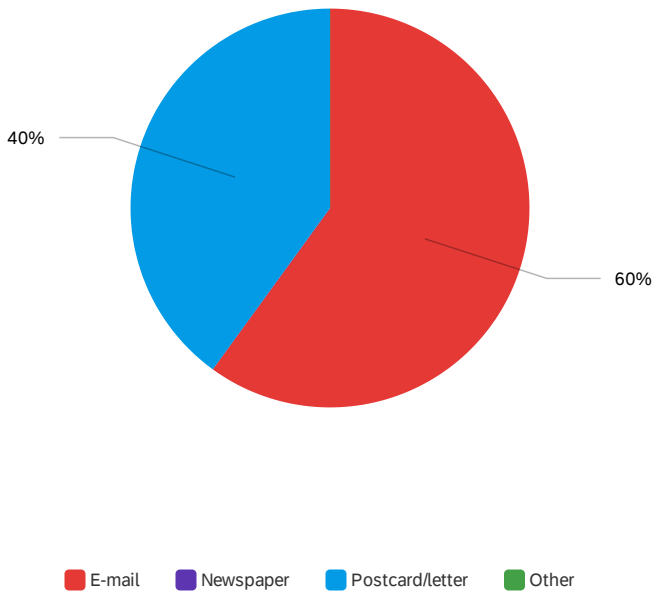
Appendix E

Appendix E. Lake User Survey Results

Default Report

White Potato Lake Survey - Oconto County Lakes Project
February 14, 2023 11:42 AM MST

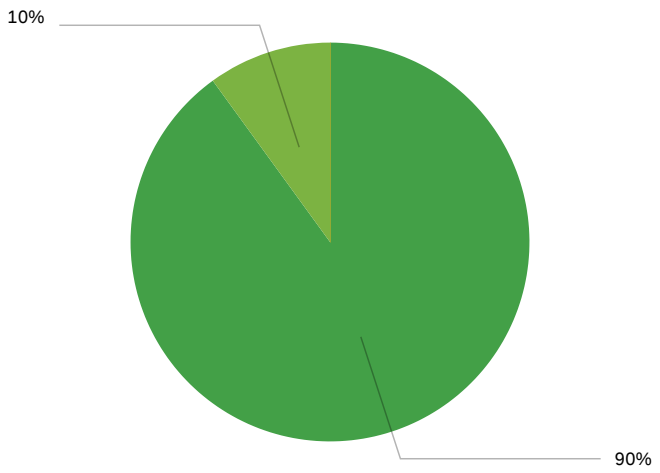
Q2 - How did you hear about this survey?



#	Field		Choice Count
1	E-mail	60%	6
2	Newspaper	0%	0
3	Postcard/letter	40%	4
4	Other	0%	0
			10

Showing rows 1 - 5 of 5

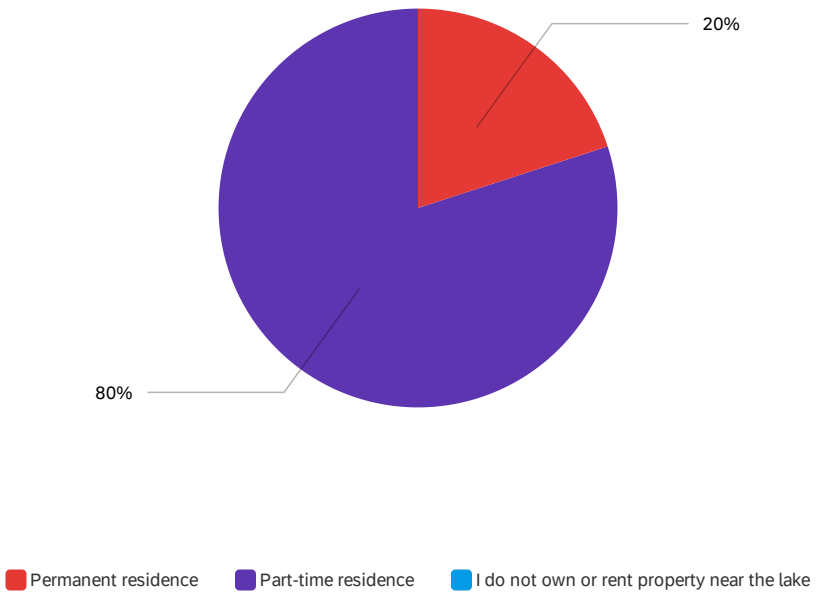
Q3 - Do you own or rent property...



#	Field		Choice Count
1	Around the lake	90%	9
2	Less than 1/2 mile from the lake	10%	1
3	Near the lake, but more than 1/2 mile away	0%	0
4	I do not own or rent property near the lake	0%	0
			10

Showing rows 1 - 5 of 5

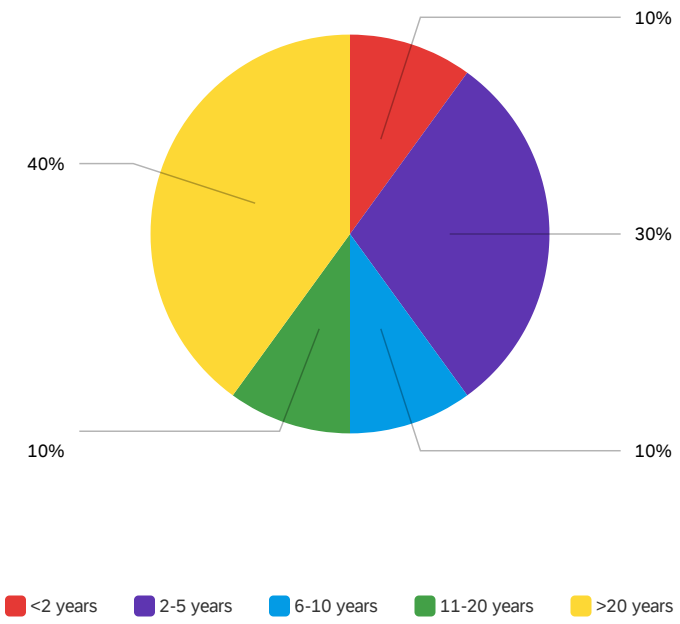
Q4 - If you own or rent property near the lake, is this property your...



#	Field		Choice Count
1	Permanent residence	20%	2
2	Part-time residence	80%	8
3	I do not own or rent property near the lake	0%	0
			10

Showing rows 1 - 4 of 4

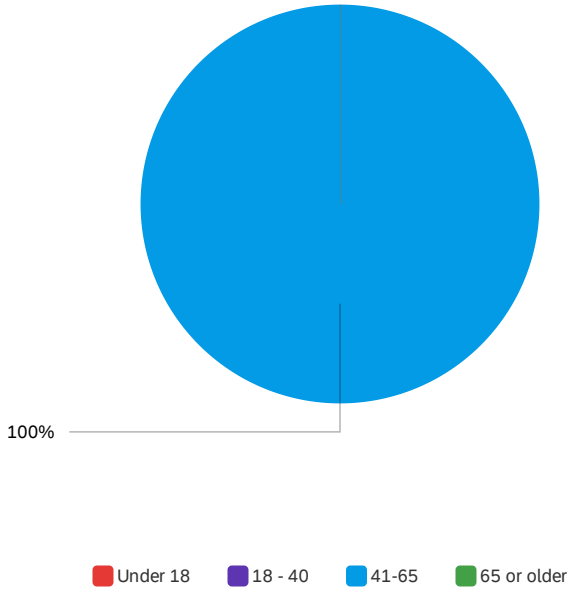
Q5 - How long have you lived on, visited or recreated on the lake?



#	Field		Choice Count
1	<2 years	10%	1
2	2-5 years	30%	3
3	6-10 years	10%	1
4	11-20 years	10%	1
5	>20 years	40%	4
			10

Showing rows 1 - 6 of 6

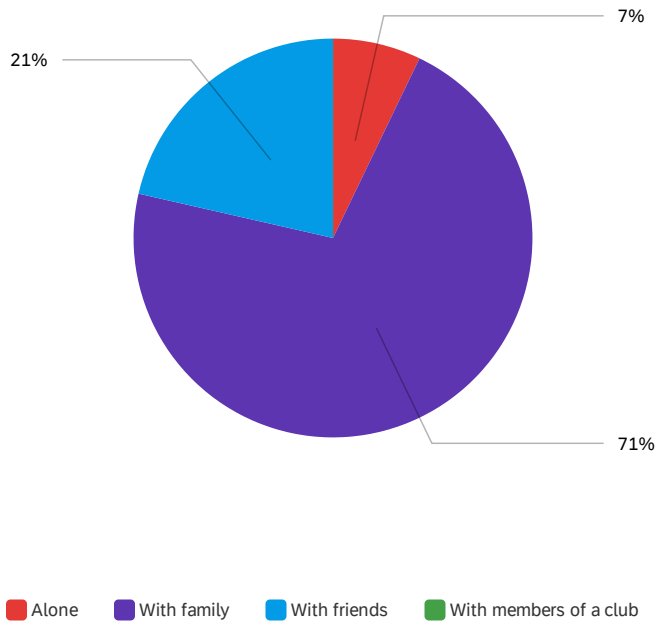
Q8 - Which category below includes your age?



#	Field	Choice Count
1	Under 18	0% 0
2	18 - 40	0% 0
3	41-65	100% 10
4	65 or older	0% 0
		10

Showing rows 1 - 5 of 5

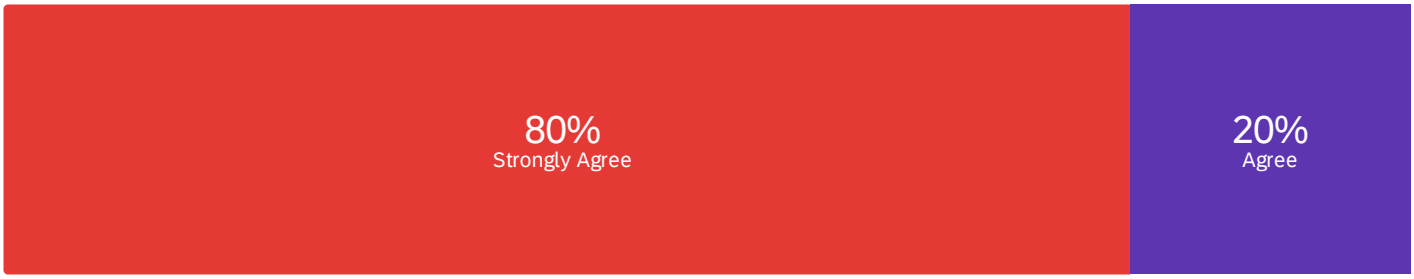
Q9 - When you visit White Potato Lake, are you typically ...(check all that apply)



#	Field		Choice Count
1	Alone	7%	1
2	With family	71%	10
3	With friends	21%	3
4	With members of a club	0%	0
			14

Showing rows 1 - 5 of 5

Q10 - I live on or near the lake...



Strongly Agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree | I do not live on or near the lake

#	Field	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	I do not live on or near the lake	Total
1	To spend time with family or friends	80% 8	20% 2	0% 0	0% 0	0% 0	0% 0	10
2	For the peace and tranquility	60% 6	40% 4	0% 0	0% 0	0% 0	0% 0	10
3	Because I enjoy the view	78% 7	22% 2	0% 0	0% 0	0% 0	0% 0	9
4	Because its a good investment	38% 3	13% 1	50% 4	0% 0	0% 0	0% 0	8

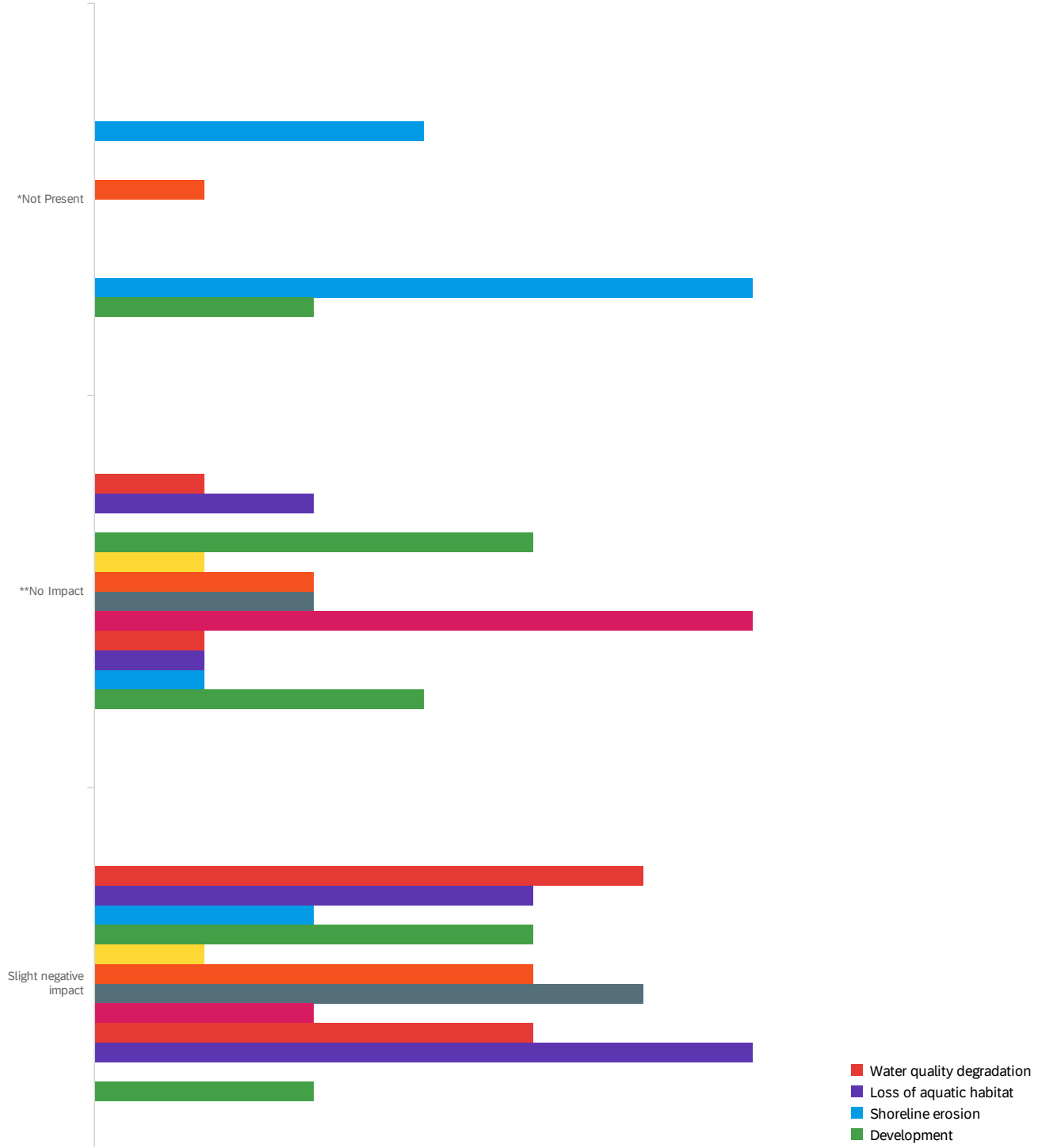
Showing rows 1 - 4 of 4

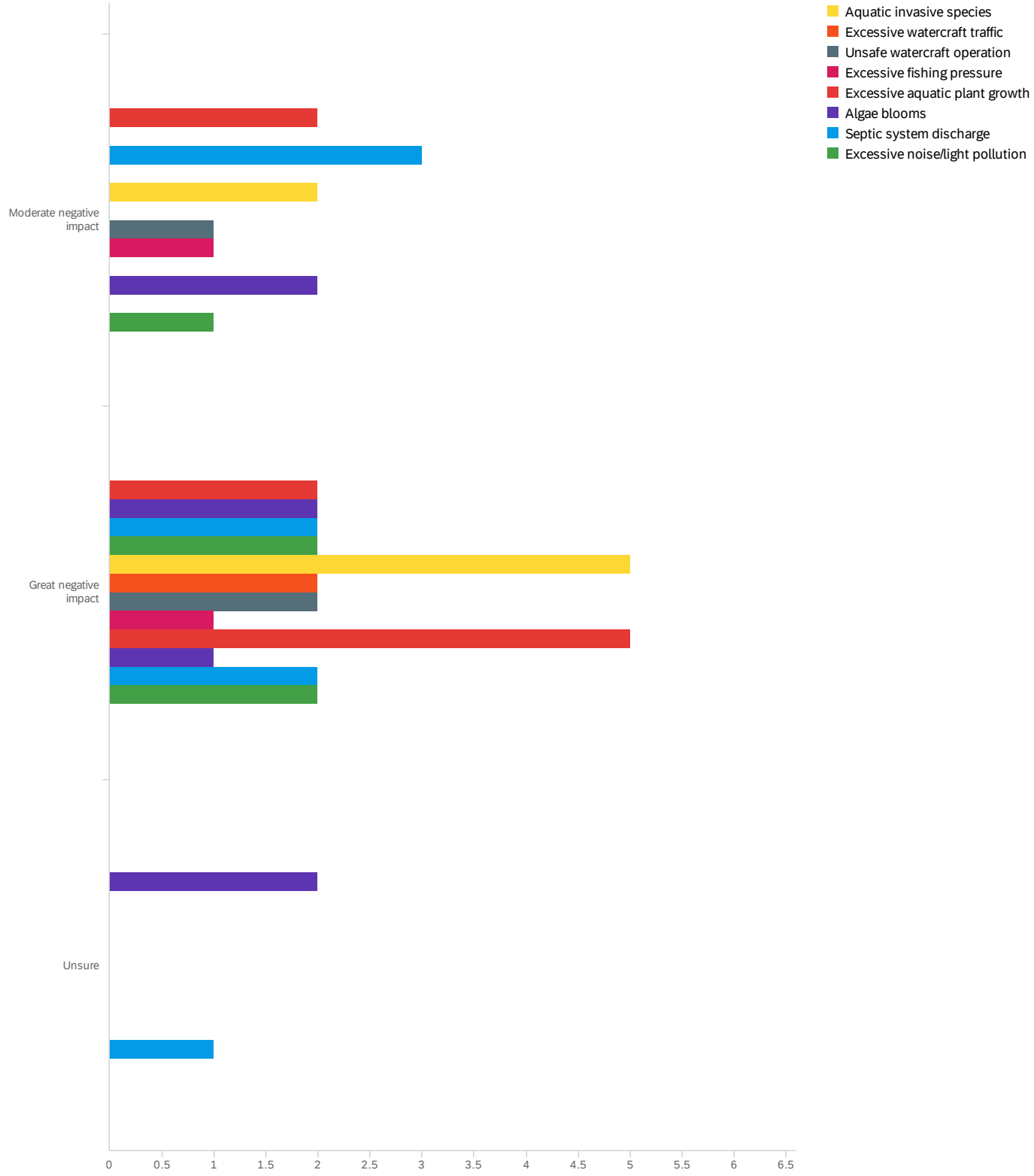
Q11 - What do you value most about White Potato Lake?

What do you value most about White Potato Lake?
The lake itself, fishing, boating,
The beautiful water and sandy shores that are perfect for family fun.
Clean
Cleanliness and friendly people.
Full recreation lake that isn't overrun with people
The people in our neighborhood.
Being a large, clean, sandy body of water.
Fish, swim,

Q42 - Below is a list of negative impacts commonly found in Wisconsin lakes. To what level do you believe each of the following factors may be impacting White Potato Lake?

*Not Present means that you believe the issue does not exist on White Potato Lake**No Impact means that the issue may exist, but is not negatively impacting White Potato Lake





#	Field	*Not Present	**No Impact	Slight negative impact	Moderate negative impact	Great negative impact	Unsure	Total
1	Water quality degradation	0% 0	10% 1	50% 5	20% 2	20% 2	0% 0	10
2	Loss of aquatic habitat	0% 0	20% 2	40% 4	0% 0	20% 2	20% 2	10
3	Shoreline erosion	30% 3	0% 0	20% 2	30% 3	20% 2	0% 0	10

#	Field	*Not Present	**No Impact	Slight negative impact	Moderate negative impact	Great negative impact	Unsure	Total
4	Development	0% 0	40% 4	40% 4	0% 0	20% 2	0% 0	10
5	Aquatic invasive species	0% 0	11% 1	11% 1	22% 2	56% 5	0% 0	9
6	Excessive watercraft traffic	11% 1	22% 2	44% 4	0% 0	22% 2	0% 0	9
7	Unsafe watercraft operation	0% 0	20% 2	50% 5	10% 1	20% 2	0% 0	10
8	Excessive fishing pressure	0% 0	60% 6	20% 2	10% 1	10% 1	0% 0	10
9	Excessive aquatic plant growth	0% 0	10% 1	40% 4	0% 0	50% 5	0% 0	10
10	Algae blooms	0% 0	10% 1	60% 6	20% 2	10% 1	0% 0	10
11	Septic system discharge	60% 6	10% 1	0% 0	0% 0	20% 2	10% 1	10
12	Excessive noise/light pollution	20% 2	30% 3	20% 2	10% 1	20% 2	0% 0	10

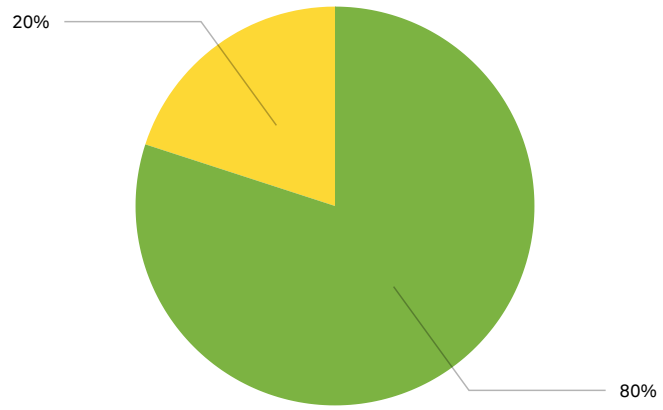
Showing rows 1 - 12 of 12

Q16 - How much impact does the water quality of White Potato Lake have on the following?

#	Field	Major impact	Some impact	No impact	Unsure	Total
1	Personal enjoyment value	50% 5	30% 3	20% 2	0% 0	10
2	Economic value	40% 4	50% 5	10% 1	0% 0	10

Showing rows 1 - 2 of 2

Q17 - Which statement best describes water clarity during the times you spend most on the lake?

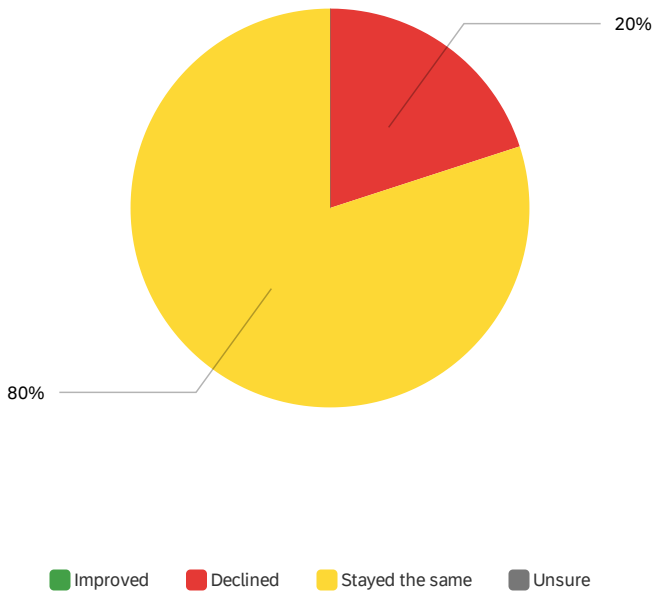


Beautiful, could not be any nicer
Very minor aesthetic problems; excellent for swimming and boating enjoyment
Enjoyment of the lake is moderately impaired because of algae or other water quality problems
Enjoyment of the lake is substantially impaired because of algae or other water quality problems

#	Field		Choice Count
1	Beautiful, could not be any nicer	0%	0
2	Very minor aesthetic problems; excellent for swimming and boating enjoyment	80%	8
3	Enjoyment of the lake is moderately impaired because of algae or other water quality problems	20%	2
4	Enjoyment of the lake is substantially impaired because of algae or other water quality problems	0%	0
			10

Showing rows 1 - 5 of 5

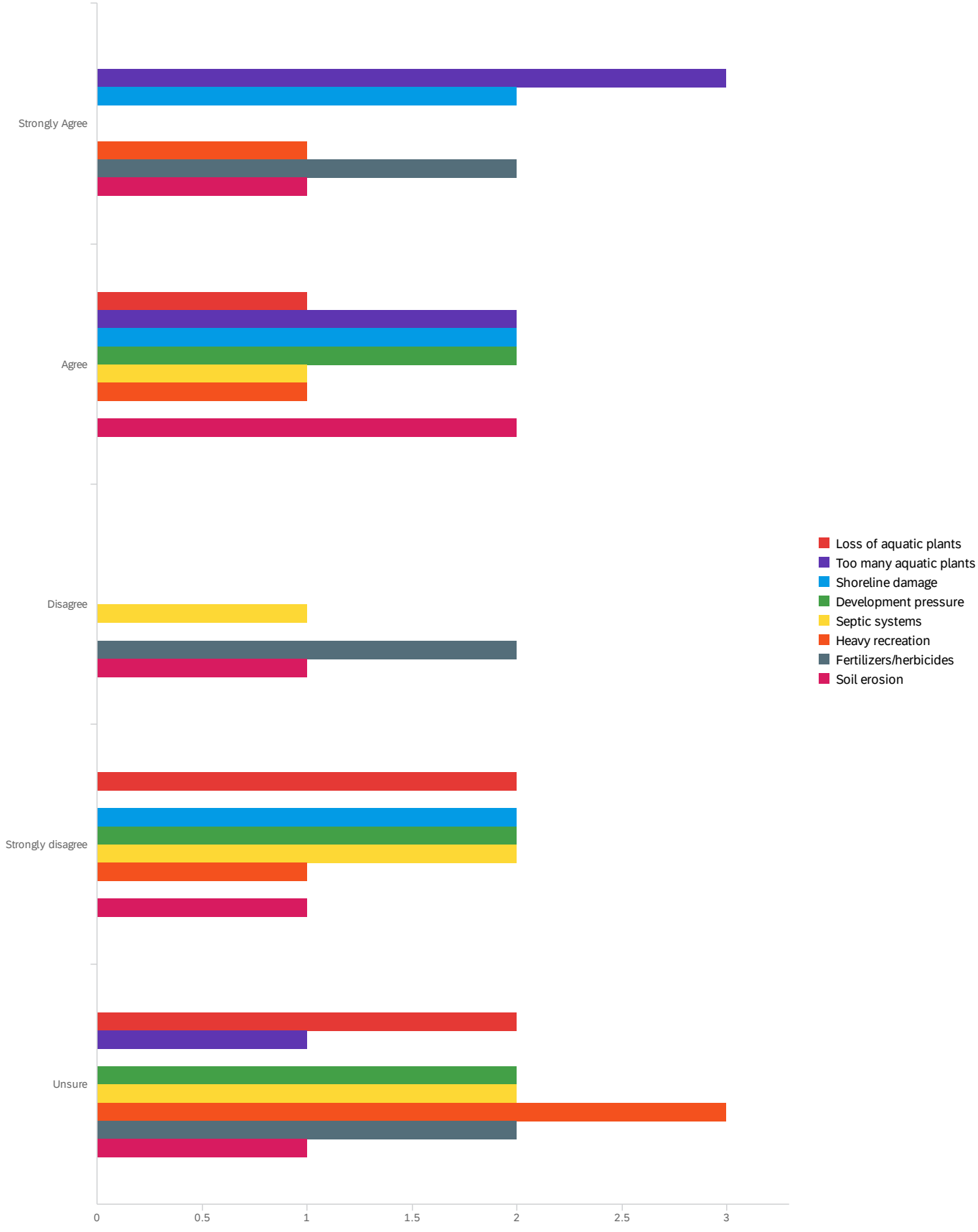
Q18 - During the time that you have lived on, visited or recreated on the lake, how would you say the water quality has changed?



#	Field	Choice Count
1	Improved	0% 0
2	Declined	20% 2
3	Stayed the same	80% 8
4	Unsure	0% 0
		10

Showing rows 1 - 5 of 5

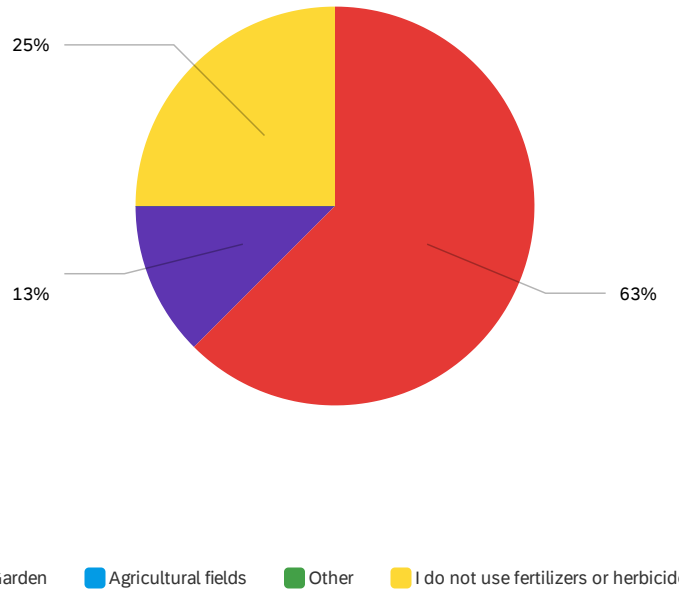
Q19 - If you think it has declined, what, in your opinion, are the primary causes?



#	Field	Strongly Agree	Agree	Disagree	Strongly disagree	Unsure	Total
1	Loss of aquatic plants	0% 0	20% 1	0% 0	40% 2	40% 2	5
2	Too many aquatic plants	50% 3	33% 2	0% 0	0% 0	17% 1	6
3	Shoreline damage	33% 2	33% 2	0% 0	33% 2	0% 0	6
4	Development pressure	0% 0	33% 2	0% 0	33% 2	33% 2	6
5	Septic systems	0% 0	17% 1	17% 1	33% 2	33% 2	6
6	Heavy recreation	17% 1	17% 1	0% 0	17% 1	50% 3	6
7	Fertilizers/herbicides	33% 2	0% 0	33% 2	0% 0	33% 2	6
8	Soil erosion	17% 1	33% 2	17% 1	17% 1	17% 1	6

Showing rows 1 - 8 of 8

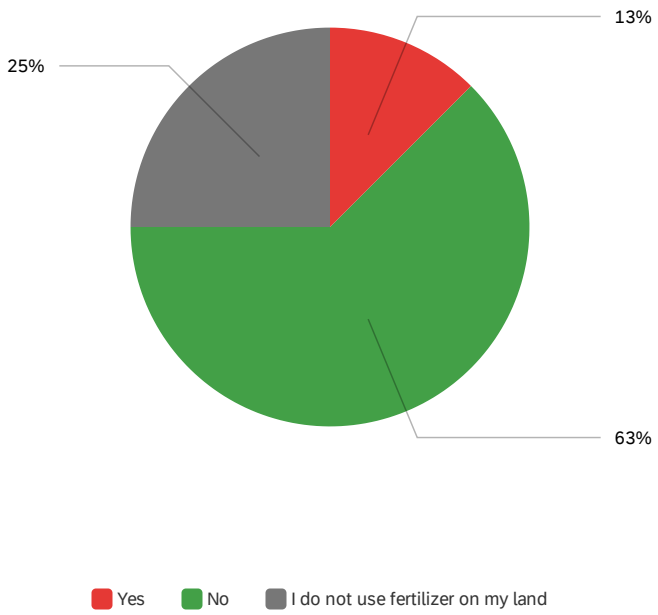
Q20 - If you use fertilizers or herbicides on your land, where are they applied?



#	Field	Choice Count	
1	Lawn	63%	5
2	Garden	13%	1
3	Agricultural fields	0%	0
4	Other	0%	0
5	I do not use fertilizers or herbicides on my land	25%	2
			8

Showing rows 1 - 6 of 6

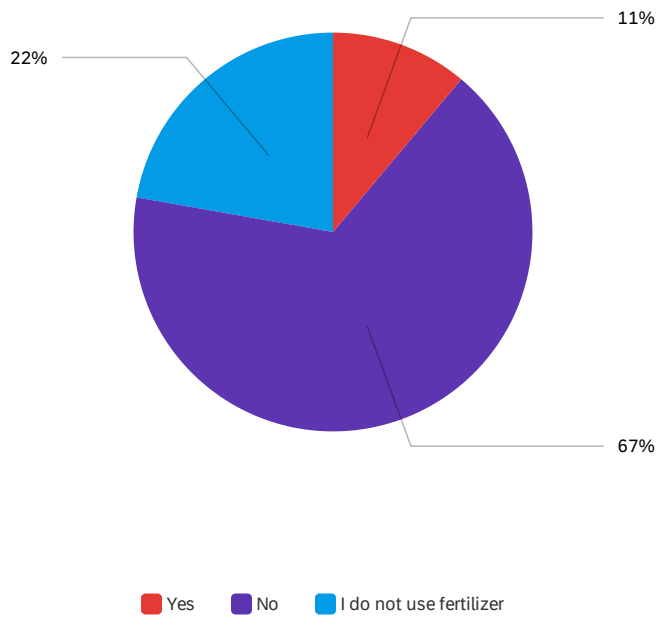
Q21 - Do you use fertilizer that contains phosphorus?



#	Field	Choice Count	
1	Yes	13%	1
2	No	63%	5
4	I do not use fertilizer on my land	25%	2
			8

Showing rows 1 - 4 of 4

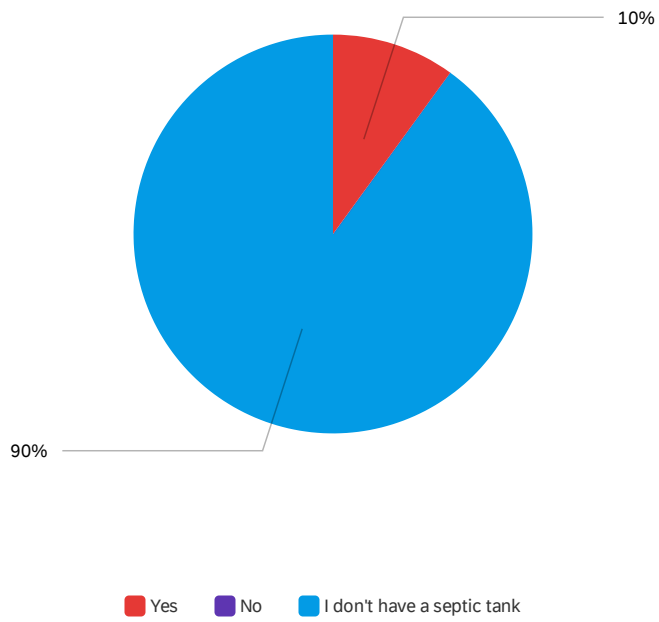
Q23 - Have you had your soil tested before using fertilizer?



#	Field	Choice Count
1	Yes	11% 1
2	No	67% 6
3	I do not use fertilizer	22% 2
		9

Showing rows 1 - 4 of 4

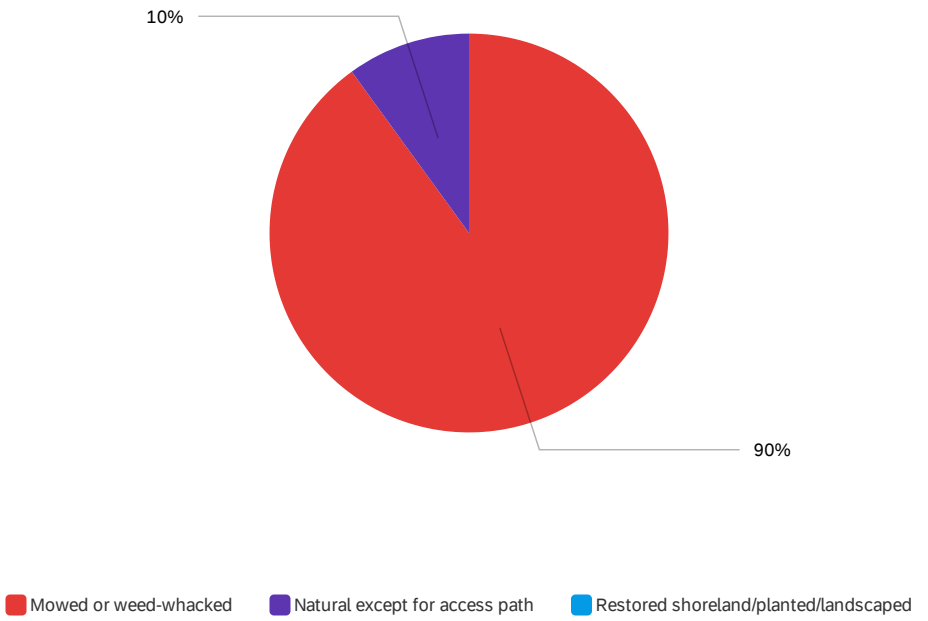
Q22 - Do you have your septic tank pumped regularly (at least every 3 years)?



#	Field		Choice Count
1	Yes	10%	1
2	No	0%	0
3	I don't have a septic tank	90%	9
			10

Showing rows 1 - 4 of 4

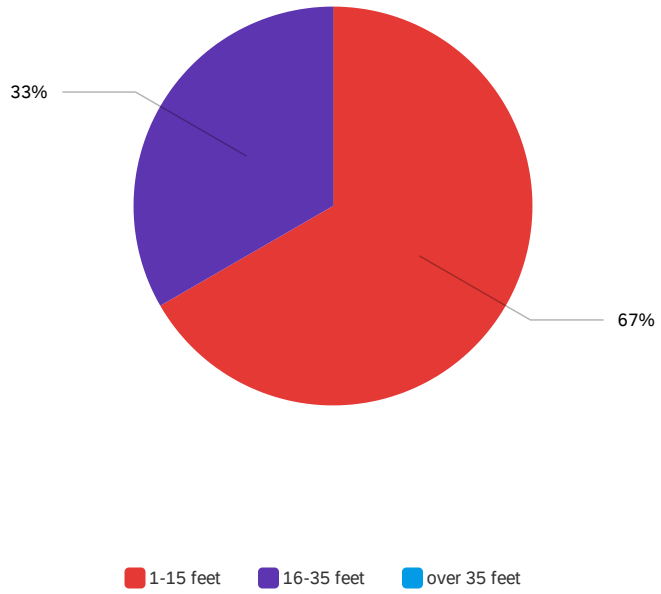
Q25 - How do you currently manage the majority of your property within 35 feet of the lake?



#	Field		Choice Count
1	Mowed or weed-whacked	90%	9
2	Natural except for access path	10%	1
3	Restored shoreland/planted/landscaped	0%	0
			10

Showing rows 1 - 4 of 4

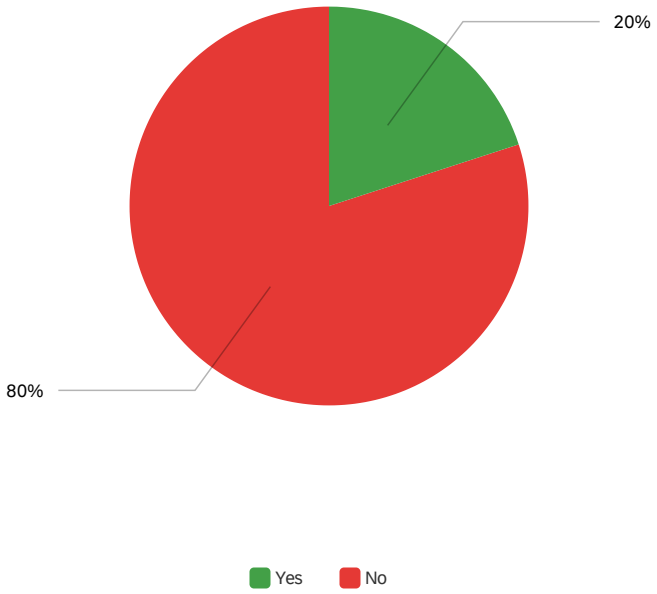
Q26 - If you have unmowed shoreland vegetation, how far inland from the water's edge does it extend?



#	Field	Choice Count
1	1-15 feet	67% 4
2	16-35 feet	33% 2
3	over 35 feet	0% 0
		6

Showing rows 1 - 4 of 4

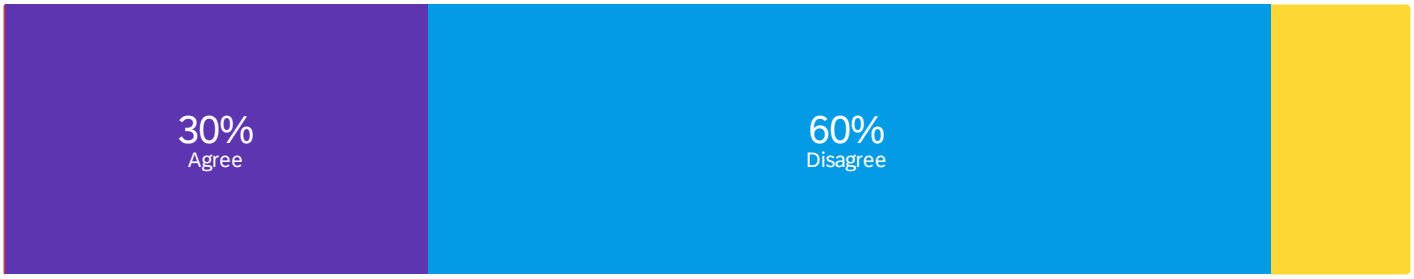
Q31 - Do you have woody structure such as fallen trees or large branches in the shallow water along your property?



#	Field		Choice Count
1	Yes	20%	2
2	No	80%	8
			10

Showing rows 1 - 3 of 3

Q27 - In your opinion, does shoreland vegetation...

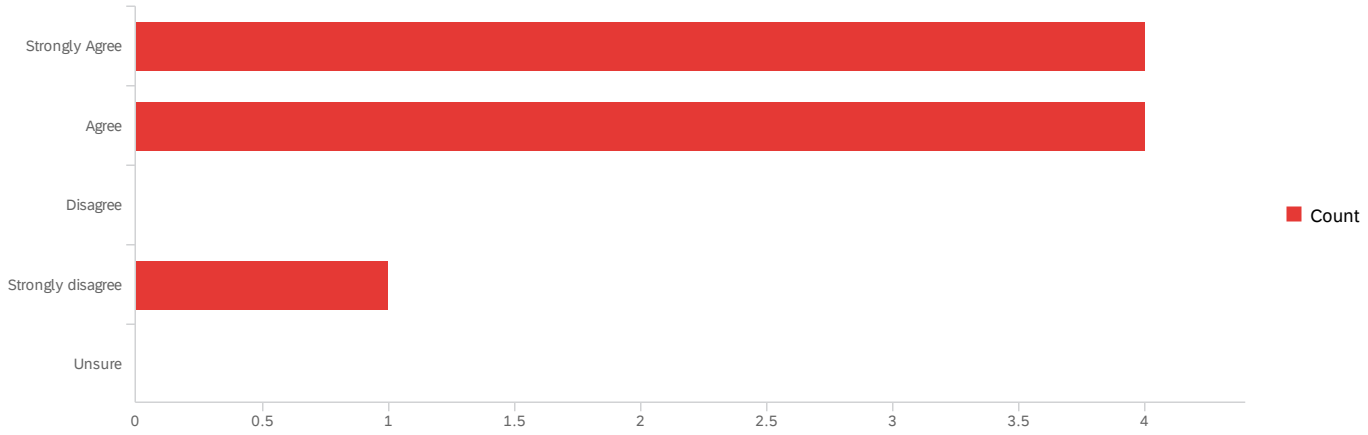


Strongly Agree Agree Disagree Strongly disagree Unsure

#	Field	Strongly Agree	Agree	Disagree	Strongly disagree	Unsure	Total
1	enhance the beauty of the property	0% 0	30% 3	60% 6	0% 0	10% 1	10
2	increase the economic value of the property	0% 0	10% 1	50% 5	20% 2	20% 2	10

Showing rows 1 - 2 of 2

Q28 - What might motivate you to change how you manage your shoreland?



#	Field	Strongly Agree	Agree	Disagree	Strongly disagree	Unsure	Total
1	Improving water quality	22% 2	67% 6	0% 0	11% 1	0% 0	9
2	Providing better habitat for fish and wildlife	44% 4	44% 4	0% 0	11% 1	0% 0	9
3	Available financial/technical assistance	44% 4	22% 2	11% 1	11% 1	11% 1	9
4	Savings on landscaping/maintenance costs	22% 2	44% 4	22% 2	11% 1	0% 0	9
5	Increasing my privacy	11% 1	33% 3	22% 2	22% 2	11% 1	9
6	Increasing my property value	11% 1	33% 3	44% 4	0% 0	11% 1	9

Showing rows 1 - 6 of 6

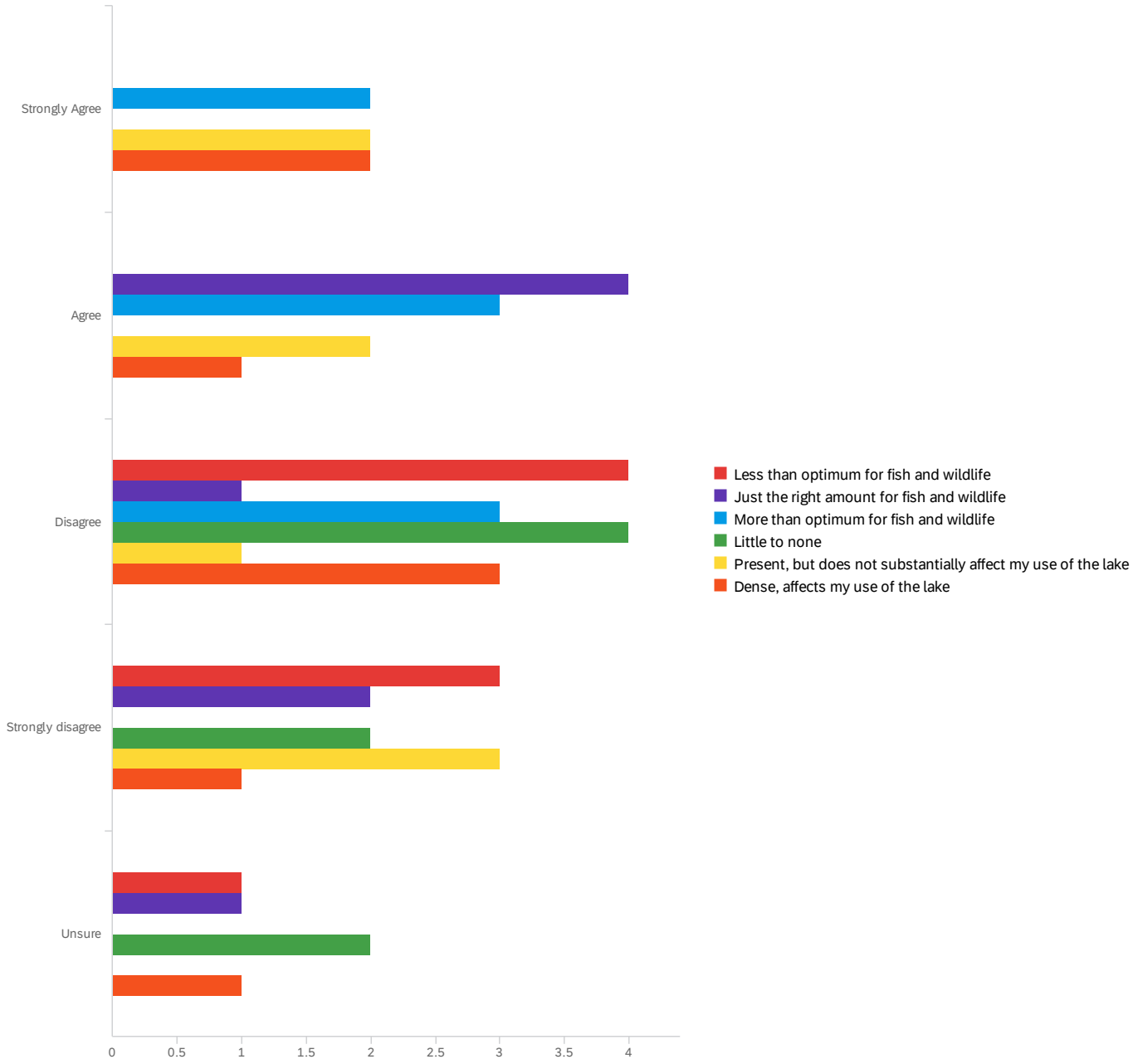
Q32 - In your opinion, which statement best describes the amount of aquatic plant growth in White Potato Lake?

#	Field	Strongly Agree	Agree	Disagree	Strongly disagree	Unsure	Total
1	Less than optimum for fish and wildlife	0% 0	0% 0	50% 4	38% 3	13% 1	8
2	Just the right amount for fish and wildlife	0% 0	50% 4	13% 1	25% 2	13% 1	8
3	More than optimum for fish and wildlife	25% 2	38% 3	38% 3	0% 0	0% 0	8
4	Little to none	0% 0	0% 0	50% 4	25% 2	25% 2	8
5	Present, but does not substantially affect my use of the lake	25% 2	25% 2	13% 1	38% 3	0% 0	8
6	Dense, affects my use of the lake	25% 2	13% 1	38% 3	13% 1	13% 1	8

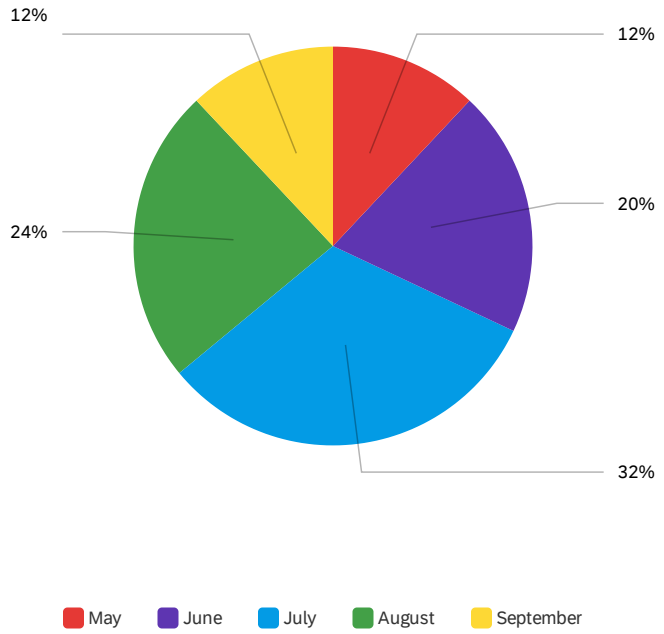
Showing rows 1 - 6 of 6

#	Field	Strongly Agree	Agree	Disagree	Strongly disagree	Unsure	Total
1	Less than optimum for fish and wildlife	0% 0	0% 0	50% 4	38% 3	13% 1	8
2	Just the right amount for fish and wildlife	0% 0	50% 4	13% 1	25% 2	13% 1	8
3	More than optimum for fish and wildlife	25% 2	38% 3	38% 3	0% 0	0% 0	8
4	Little to none	0% 0	0% 0	50% 4	25% 2	25% 2	8
5	Present, but does not substantially affect my use of the lake	25% 2	25% 2	13% 1	38% 3	0% 0	8
6	Dense, affects my use of the lake	25% 2	13% 1	38% 3	13% 1	13% 1	8

Showing rows 1 - 6 of 6


Strongly Agree
Agree
Disagree
Strongly disagree
Unsure
0
0.5
1
1.5
2
2.5
3
3.5
4
Less than optimum for fish and wildlife
Just the right amount for fish and wildlife
More than optimum for fish and wildlife
Little to none
Present, but does not substantially affect my use of the lake
Dense, affects my use of the lake

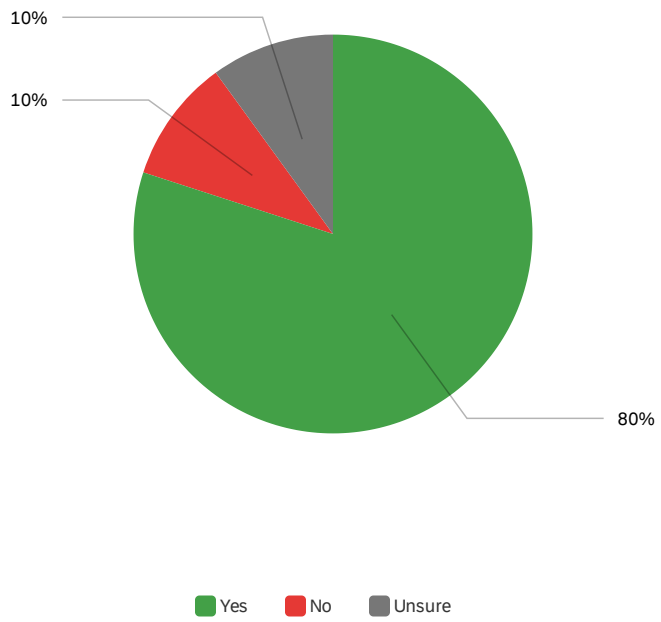
Q33 - If you think the plant growth in White Potato Lake is dense, what month(s) do the problems occur? Check all that apply.



#	Field	Choice Count
1	May	12% 3
2	June	20% 5
3	July	32% 8
4	August	24% 6
5	September	12% 3
		25

Showing rows 1 - 6 of 6

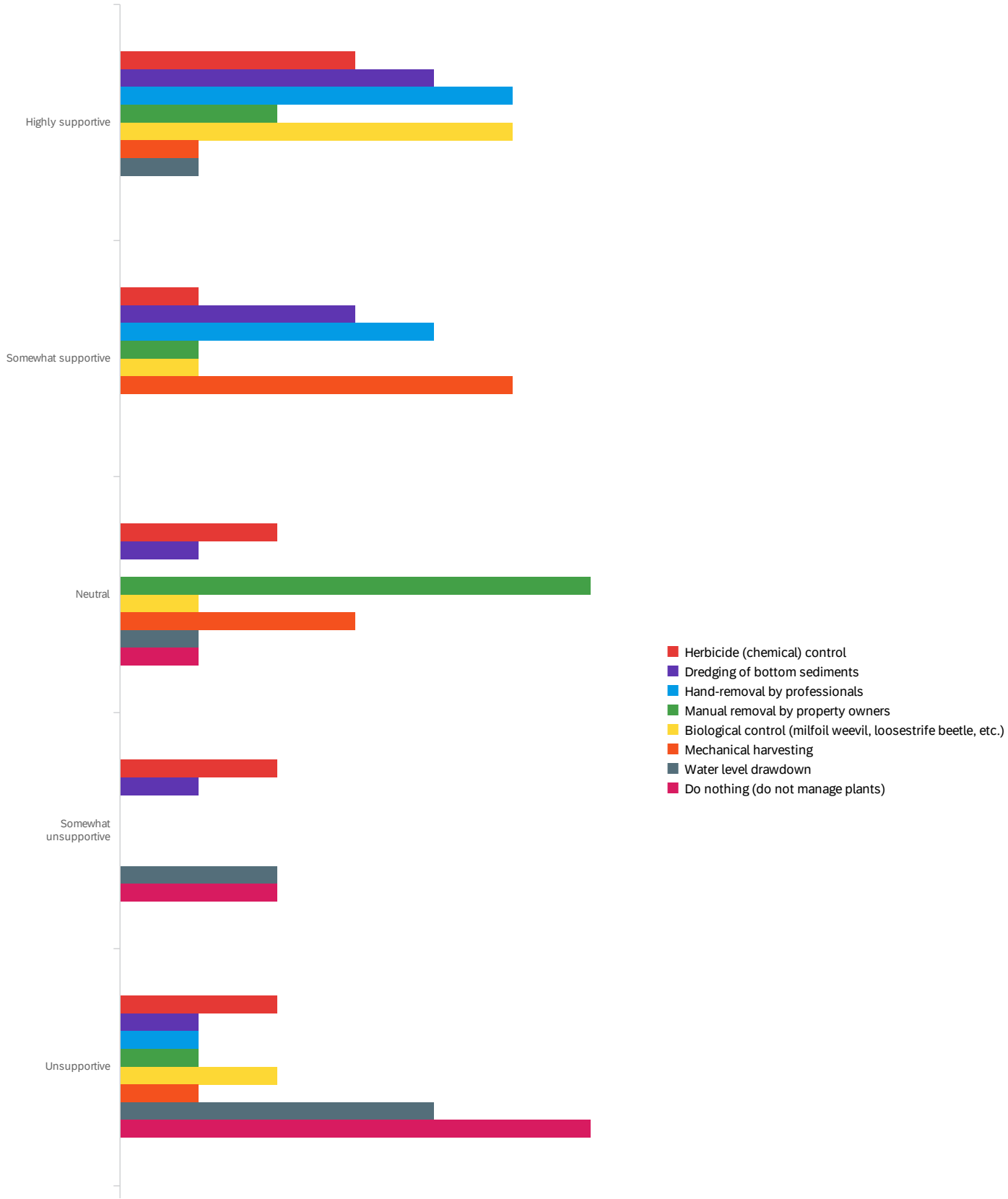
Q34 - Do you believe aquatic plant control is needed on White Potato Lake?

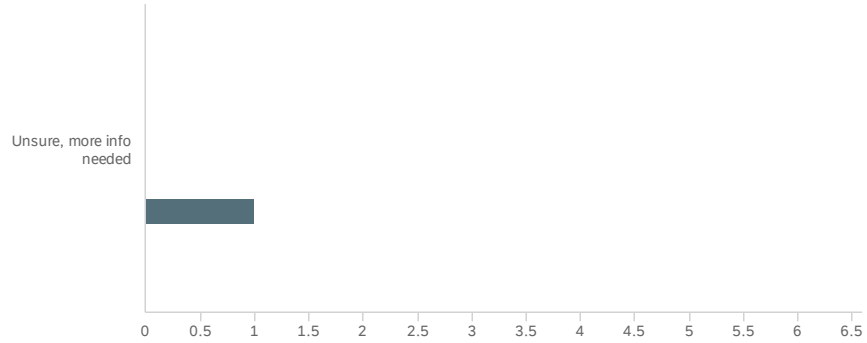


#	Field		Choice Count
1	Yes	80%	8
2	No	10%	1
3	Unsure	10%	1
			10

Showing rows 1 - 4 of 4

Q35 - What is your level of support for the responsible use of the following techniques to manage aquatic plants on White Potato Lake?

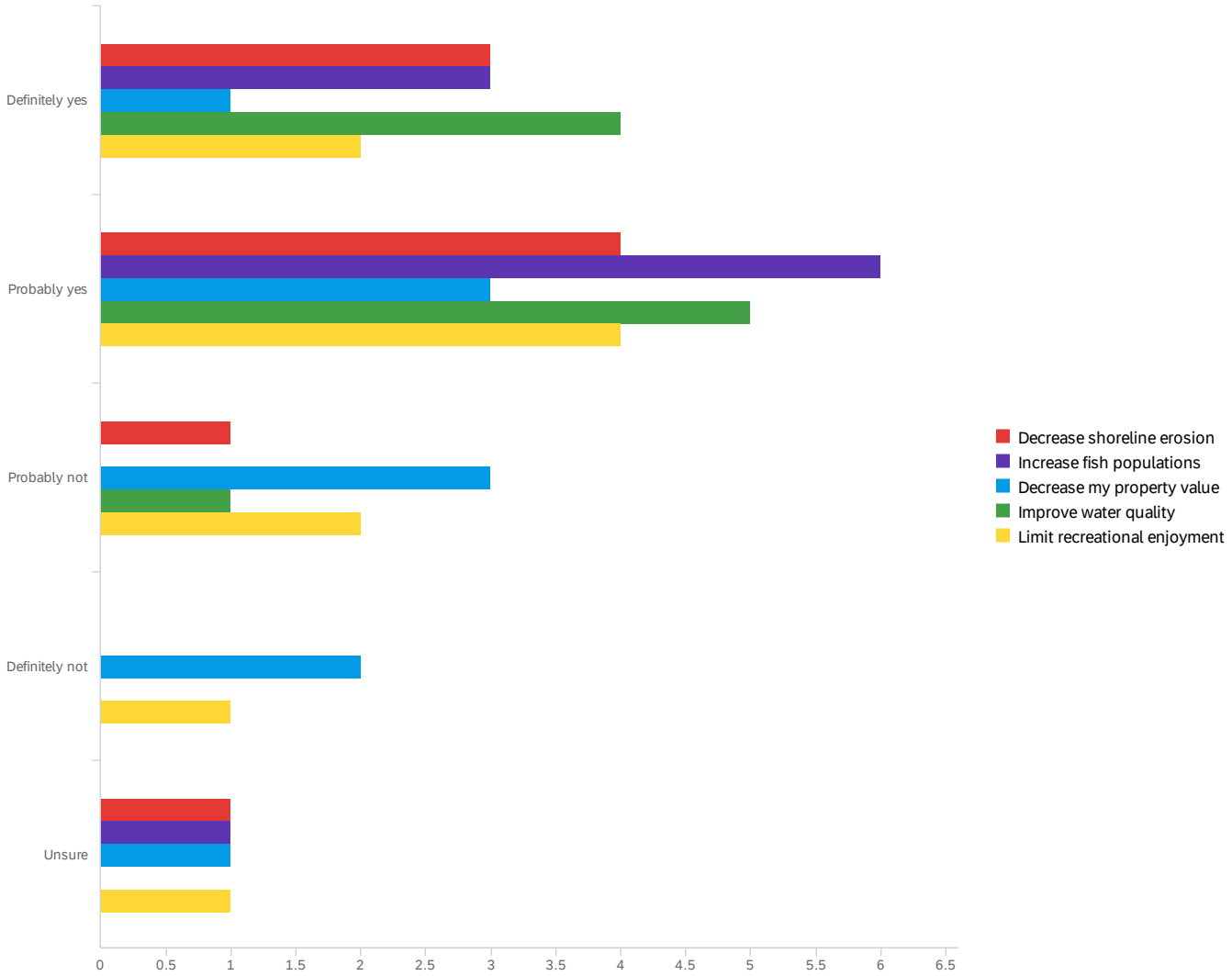




#	Field	Highly supportive	Somewhat supportive	Neutral	Somewhat unsupportive	Unsupportive	Unsure, more info needed	Total
1	Herbicide (chemical) control	30% 3	10% 1	20% 2	20% 2	20% 2	0% 0	10
2	Dredging of bottom sediments	40% 4	30% 3	10% 1	10% 1	10% 1	0% 0	10
3	Hand-removal by professionals	50% 5	40% 4	0% 0	0% 0	10% 1	0% 0	10
4	Manual removal by property owners	20% 2	10% 1	60% 6	0% 0	10% 1	0% 0	10
5	Biological control (milfoil weevil, loosestrife beetle, etc.)	56% 5	11% 1	11% 1	0% 0	22% 2	0% 0	9
6	Mechanical harvesting	10% 1	50% 5	30% 3	0% 0	10% 1	0% 0	10
7	Water level drawdown	11% 1	0% 0	11% 1	22% 2	44% 4	11% 1	9
8	Do nothing (do not manage plants)	0% 0	0% 0	11% 1	22% 2	67% 6	0% 0	9

Showing rows 1 - 8 of 8

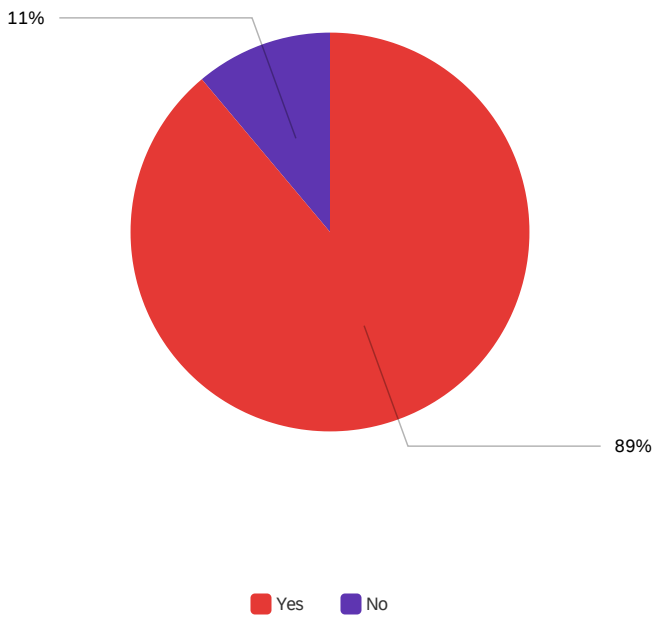
Q36 - In your opinion, does establishing or maintaining native vegetation in the water in the near-shore area...



#	Field	Definitely yes	Probably yes	Probably not	Definitely not	Unsure	Total
1	Decrease shoreline erosion	33% 3	44% 4	11% 1	0% 0	11% 1	9
2	Increase fish populations	30% 3	60% 6	0% 0	0% 0	10% 1	10
3	Decrease my property value	10% 1	30% 3	30% 3	20% 2	10% 1	10
4	Improve water quality	40% 4	50% 5	10% 1	0% 0	0% 0	10
5	Limit recreational enjoyment	20% 2	40% 4	20% 2	10% 1	10% 1	10

Showing rows 1 - 5 of 5

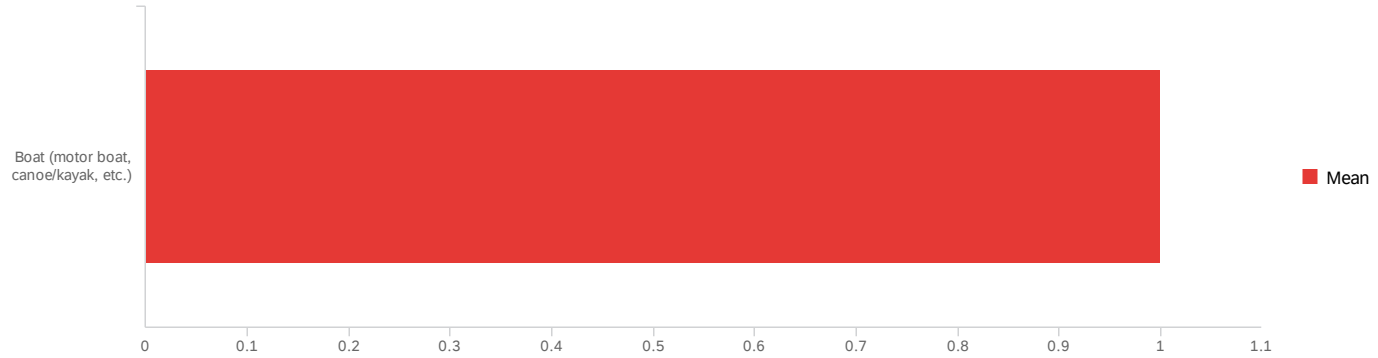
Q37 - Are you aware of invasive species (in general)?



#	Field		Choice Count
1	Yes	89%	8
2	No	11%	1
			9

Showing rows 1 - 3 of 3

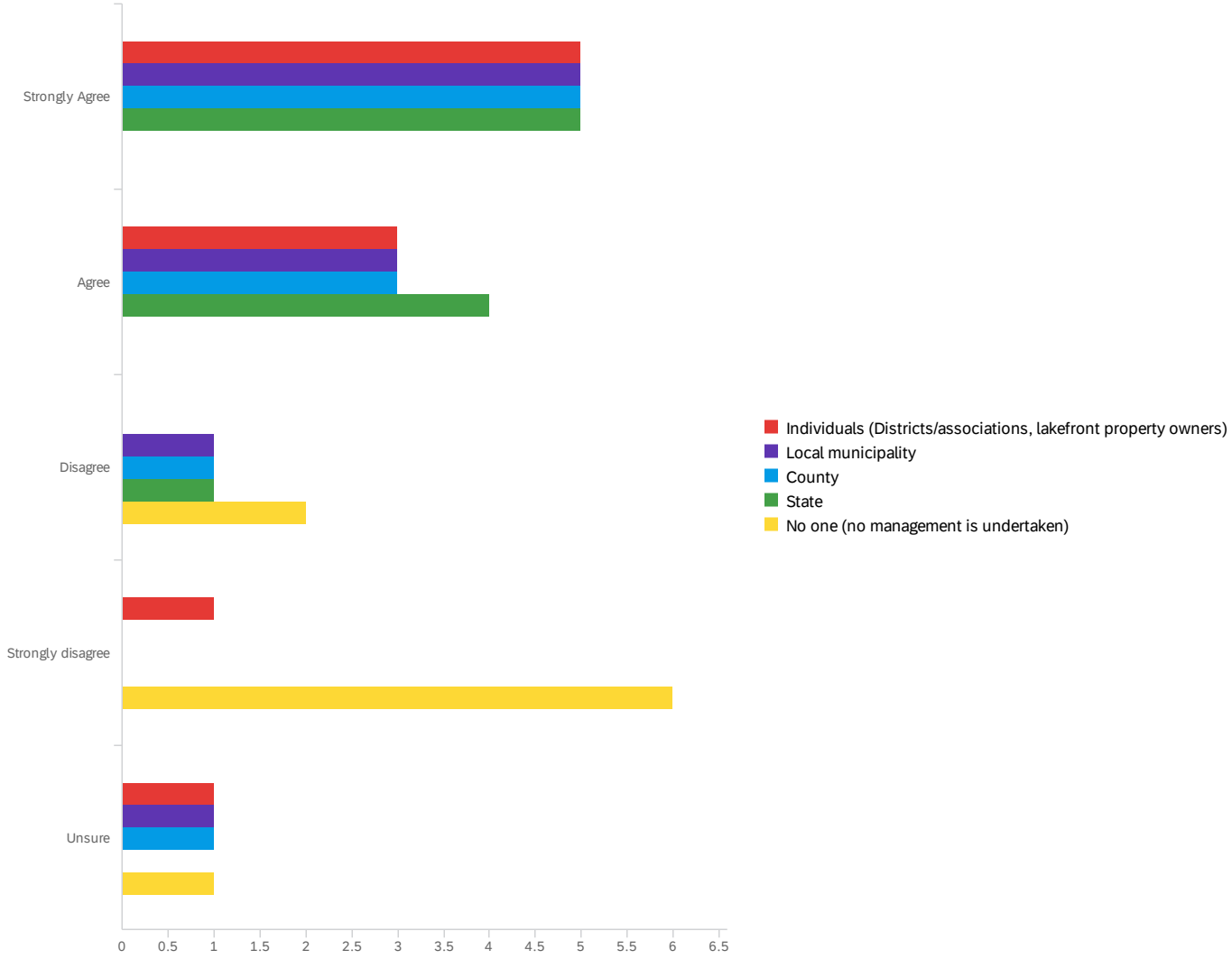
Q39 - After you have been to another lake, do you clean your.... before bringing it back to White Potato Lake?



#	Field	Yes, always	Sometimes	Rarely	No, never	Total
1	Boat (motor boat, canoe/kayak, etc.)	86% 6	14% 1	0% 0	0% 0	7
2	Trailer	86% 6	0% 0	14% 1	0% 0	7
3	Fishing equipment	71% 5	29% 2	0% 0	0% 0	7
4	Live wells	100% 5	0% 0	0% 0	0% 0	5

Showing rows 1 - 4 of 4

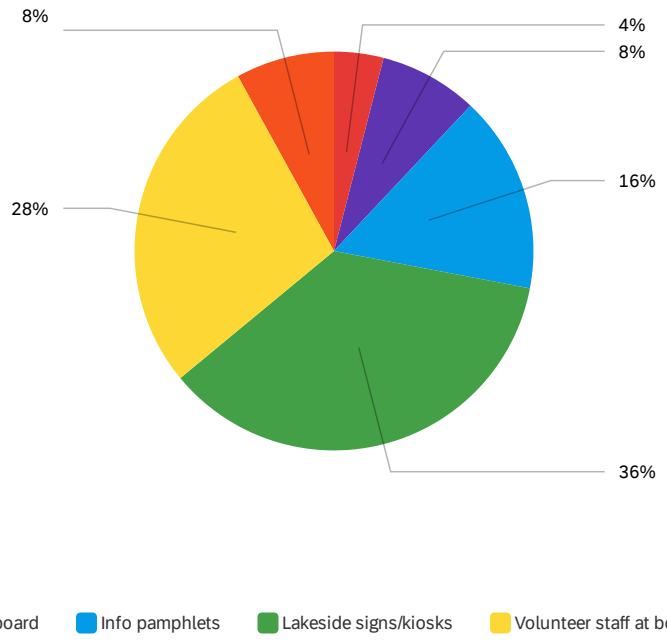
Q40 - Who should pay the cost of managing invasive aquatic plants?



#	Field	Strongly Agree	Agree	Disagree	Strongly disagree	Unsure	Total
1	Individuals (Districts/associations, lakefront property owners)	50% 5	30% 3	0% 0	10% 1	10% 1	10
2	Local municipality	50% 5	30% 3	10% 1	0% 0	10% 1	10
3	County	50% 5	30% 3	10% 1	0% 0	10% 1	10
4	State	50% 5	40% 4	10% 1	0% 0	0% 0	10
5	No one (no management is undertaken)	0% 0	0% 0	22% 2	67% 6	11% 1	9

Showing rows 1 - 5 of 5

Q41 - What is the most effective way to inform others about aquatic invasive species?



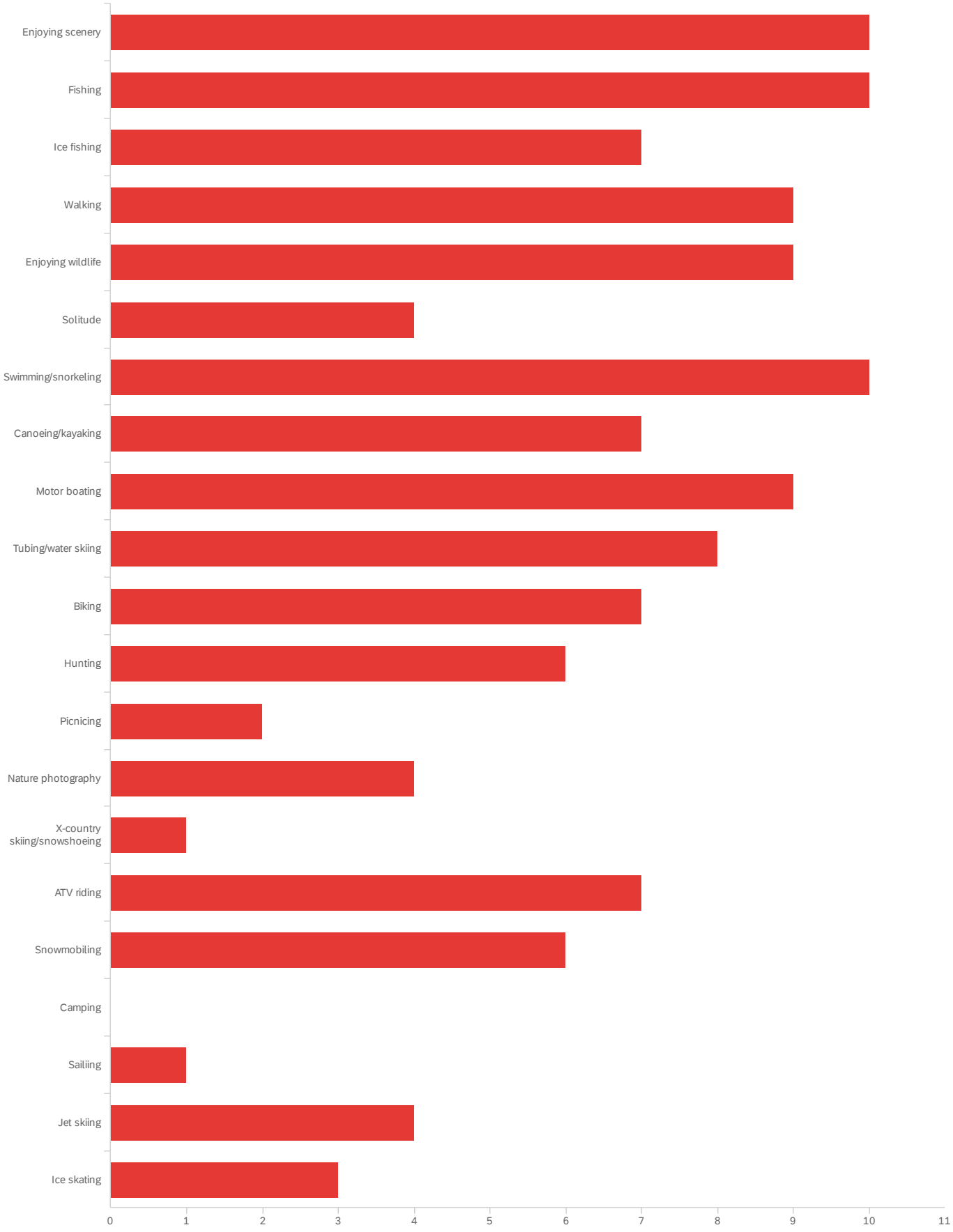
#	Field		Choice Count
1	Newspaper	4%	1
2	Billboard	8%	2
3	Info pamphlets	16%	4
4	Lakeside signs/kiosks	36%	9
5	Volunteer staff at boat launch	28%	7
6	Other	8%	2
			25

Showing rows 1 - 7 of 7

Q12 - In your opinion, what should be done to restore, maintain or improve White Potato Lake?

In your opinion, what should be done to restore, maintain or improve White...
Do our best to keep the invasive plants from spreading more.
With the Invasive Species in the lagoon (and I live on the lagoon) 1. Put up a steel bulkhead across the lagoons mouth to close it off. 2. Shock to remove fish. 3, completely pump water out of the Lagoon into the swamp across the road on Walker's Bay. 4. let bottom dry. 5. mechanically removed sediment spoils and plants 6. remove bulkhead and refill lagoon.
I feel the milf oil should be removed and the weeds should be lowered in amounts(there are a lot of weeds)
Hold everyone to same standards of keeping property clean and free of looking like a junk yard and dump
Establishment of Lake District for local control.
Establish a lake district so that all property owners share in the costs and have accurate information supplied to them through the district.
Anything to control the weeds

Q45 - What recreational activities do you partake in on White Potato Lake (check all that apply)?



#	Field	Choice Count

#	Field	Choice Count	
1	Enjoying scenery	8%	10
2	Fishing	8%	10
3	Ice fishing	6%	7
4	Walking	7%	9
5	Enjoying wildlife	7%	9
6	Solitude	3%	4
7	Swimming/snorkeling	8%	10
8	Canoeing/kayaking	6%	7
9	Motor boating	7%	9
10	Tubing/water skiing	6%	8
11	Biking	6%	7
12	Hunting	5%	6
13	Picnicing	2%	2
14	Nature photography	3%	4
15	X-country skiing/snowshoeing	1%	1
16	ATV riding	6%	7
17	Snowmobiling	5%	6
18	Camping	0%	0
19	Sailiing	1%	1
20	Jet skiing	3%	4
21	Ice skating	2%	3
			124

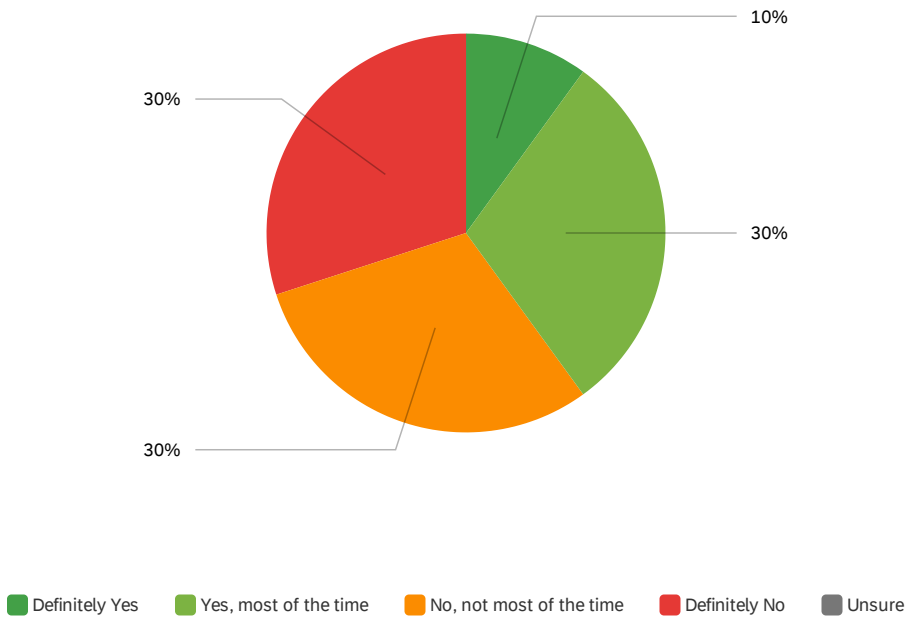
Showing rows 1 - 22 of 22

Q46 - Other recreational activities not included above:

Other recreational activities not included above:

Dirt Biking, Tubing.

Q47 - "No Wake" is allowed on White Potato Lake between 6pm and 10am. Do you like the current "No Wake" rules as they are?



#	Field		Choice Count
1	Definitely Yes	10%	1
2	Yes, most of the time	30%	3
3	No, not most of the time	30%	3
4	Definitely No	30%	3
5	Unsure	0%	0
			10

Showing rows 1 - 6 of 6

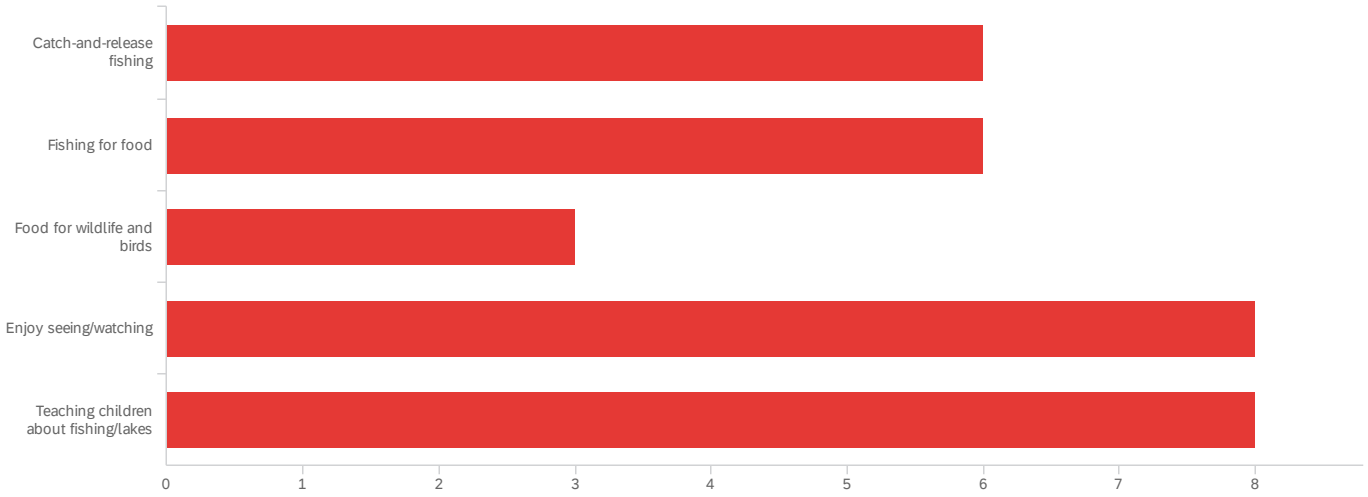
Q48 - If you think the "No Wake" rules should be adjusted...in what way?

If you think the "No Wake" rules should be adjusted...in what way?
Instead of no wake, there should be waterskiing hours for a lake of this size.
I think No wake could be extended Thursday through Saturday to 7PM June 1st - September 1st.
I think they should end later
Between sunset and sunrise.
Enforce them
Enforced if wake is created by joy riding, not just from one side of lame to home dock.
1 hour before sunset
Allow for wake to be made to get to fishing spot in am.
No wake should probably be abolished as it is there for the fishermen and 90% of them do not follow the no wake rules.
Instead of no wake, control the waterskiing hours

Q49 - What could be done to improve your recreation experience on White Potato Lake?

What could be done to improve your recreation experience on White Potato La...
Instead of no wake, there should be waterskiing hours for a lake of this size.
boat landings - repair and Yellow Stripes them to show alignment when backing in a trailer. Dredge 1 landing deeper. addition of buoys in lagoon to mark no wake, by the outlet of thee lake to mark swim area.
Later wake time endings, less weeds, milf oil removal, more fish.
Clean up the properties that are an eye sore and look like a junk yard and dump
Pleasure craft (jet and water skiers avoid slow boats and shoreline.
Reduce weeds
Noise does become a problem in the summer. Fireworks every weekend have become common and disrupt sleep.
I don't really know of anything.
Eliminate no wake

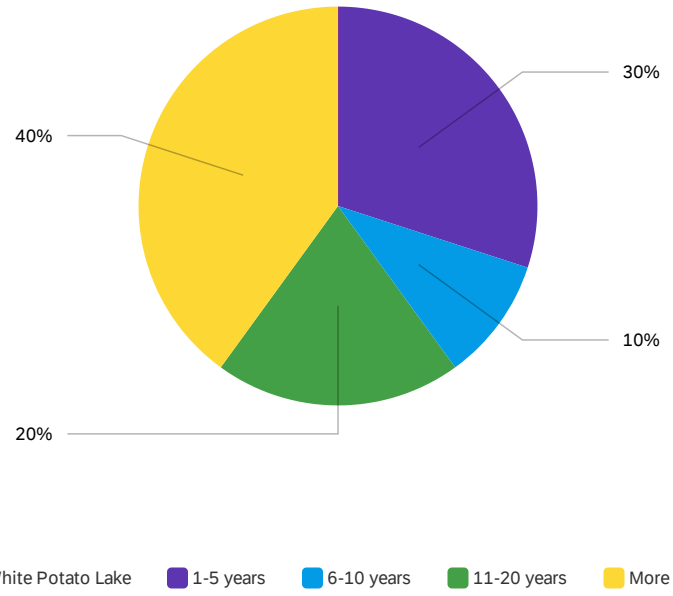
Q51 - For what purposes do you value the fishery in White Potato Lake? (Check all that apply)



#	Field		Choice Count
1	Catch-and-release fishing	19%	6
2	Fishing for food	19%	6
3	Food for wildlife and birds	10%	3
4	Enjoy seeing/watching	26%	8
5	Teaching children about fishing/lakes	26%	8
			31

Showing rows 1 - 6 of 6

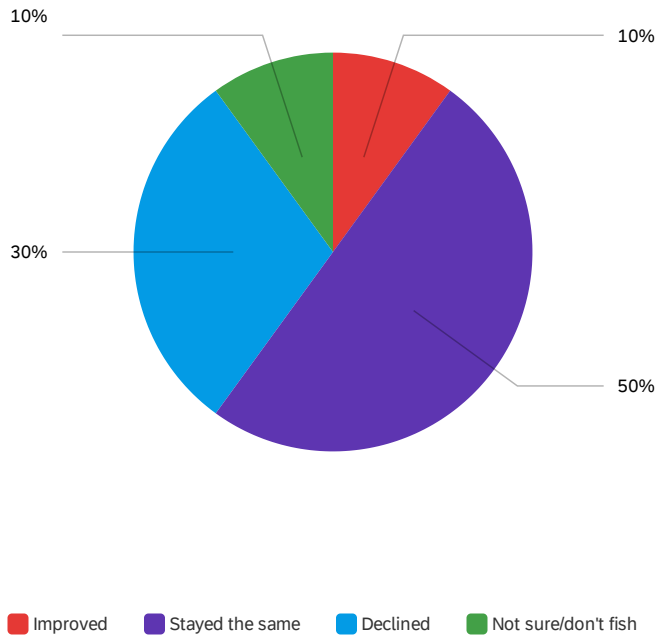
Q52 - How many years experience do you have fishing White Potato Lake?



#	Field	Choice Count
1	I don't fish White Potato Lake	0% 0
2	1-5 years	30% 3
3	6-10 years	10% 1
4	11-20 years	20% 2
5	More than 20 years	40% 4
		10

Showing rows 1 - 6 of 6

Q53 - In the time you have been fishing White Potato Lake, would you say the quality of fishing has...



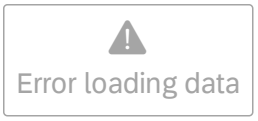
#	Field	Choice Count	
1	Improved	10%	1
2	Stayed the same	50%	5
3	Declined	30%	3
4	Not sure/don't fish	10%	1
			10

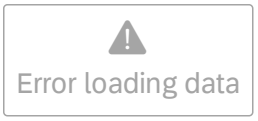
Showing rows 1 - 5 of 5

Q54 - What do you think has contributed to the change in fishing?

What do you think has contributed to the change in fishing?
Lagoon is not as deep as it used to be.... the amount of weeds in the lagoon I think have negatively affected the fishery in that area. at one time there was a small store in the lagoon and the props from boat traffic kept a section of the lagoon free and clear of weeds. Now it is a thick Matt of weeds from June - October.
Too many weeds
Lake is very shallow
Active sportsman's club that has been good stewards of the fish.
Water quality

Q55 - When and how often do you fish White Potato Lake?

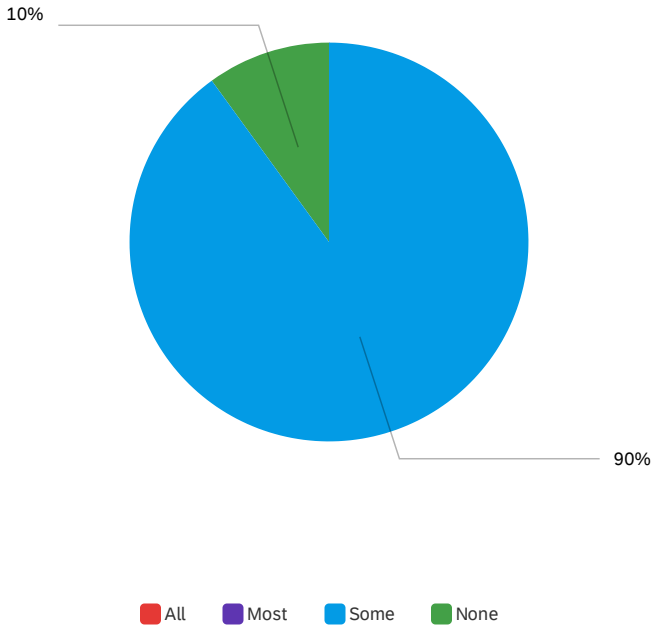




Q56 - What type of fish do you catch on White Potato Lake?

What type of fish do you catch on White Potato Lake?
Pan fish, Bass, walleye
Walleye, Northern, Panfish, Perch
Pike, Muskie, Blue Gill, Large Mouth Bass, Small Mouth Bass, Perch, Rock Bass, Crappie, and Walleye.
Perch and panfish
Walleye, Northern, Bass, Perch, Bluegill
Bass panfish
Panfish, walleye, bass and northern
Bass and blue gill
Panfish, bass, walleye, northern

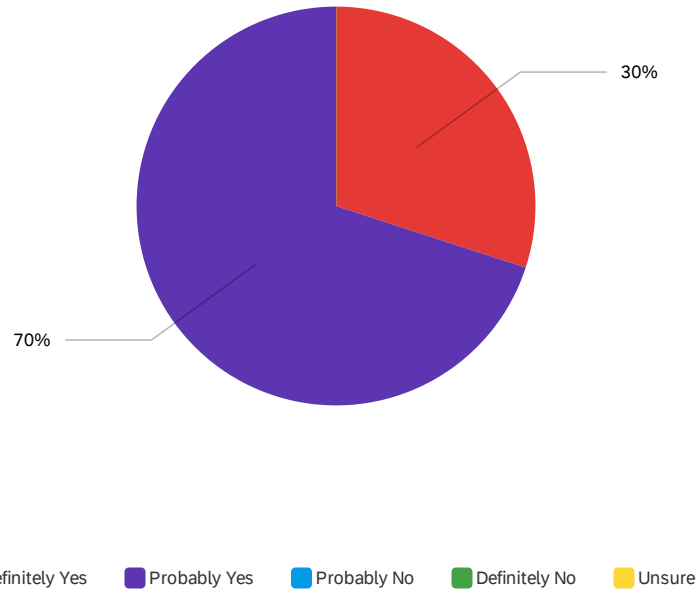
Q57 - In general, how many of the fish you catch are big enough to keep?



#	Field	Choice Count
1	All	0% 0
2	Most	0% 0
3	Some	90% 9
4	None	10% 1
		10

Showing rows 1 - 5 of 5

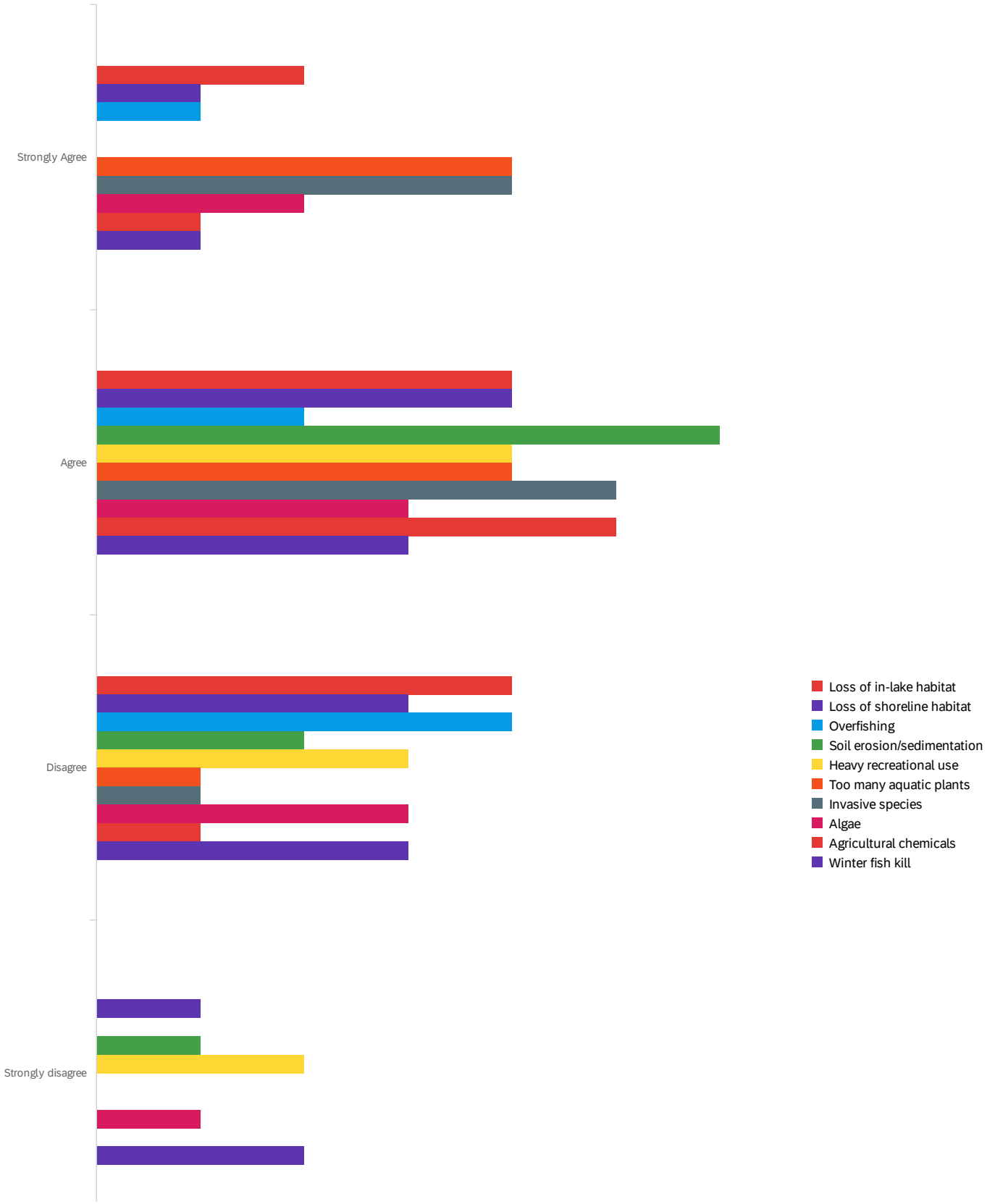
Q58 - Do you believe fish from White Potato Lake are safe to eat?

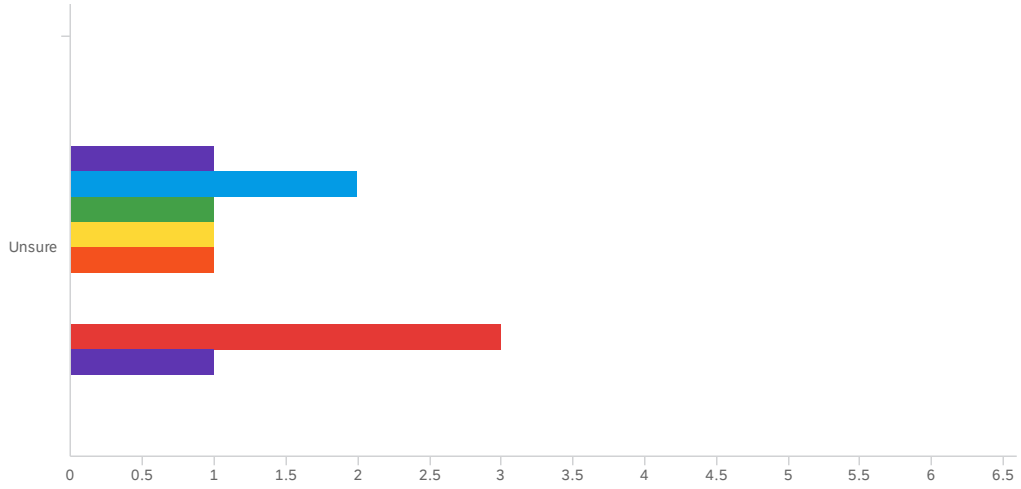


#	Field	Choice Count	
1	Definitely Yes	30%	3
2	Probably Yes	70%	7
3	Probably No	0%	0
4	Definitely No	0%	0
5	Unsure	0%	0
			10

Showing rows 1 - 6 of 6

Q59 - What do you think is the greatest threat to the fishery in White Potato Lake in the next 10 years?





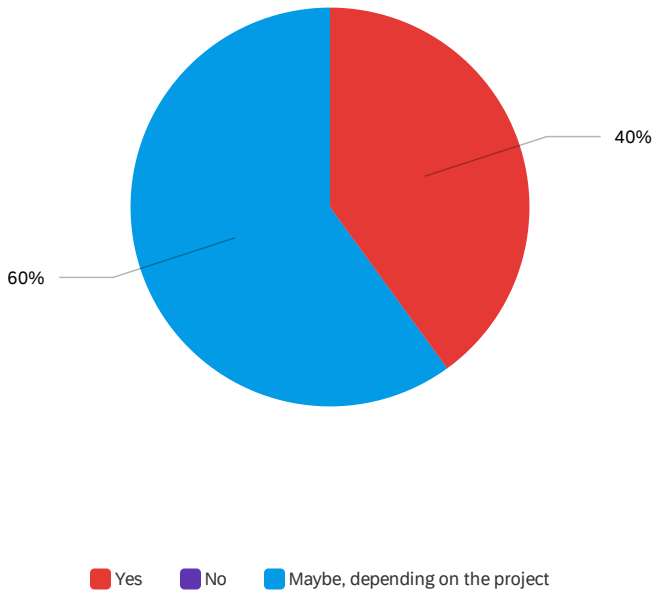
#	Field	Strongly Agree	Agree	Disagree	Strongly disagree	Unsure	Total
1	Loss of in-lake habitat	20% 2	40% 4	40% 4	0% 0	0% 0	10
2	Loss of shoreline habitat	10% 1	40% 4	30% 3	10% 1	10% 1	10
3	Overfishing	11% 1	22% 2	44% 4	0% 0	22% 2	9
4	Soil erosion/sedimentation	0% 0	60% 6	20% 2	10% 1	10% 1	10
5	Heavy recreational use	0% 0	40% 4	30% 3	20% 2	10% 1	10
6	Too many aquatic plants	40% 4	40% 4	10% 1	0% 0	10% 1	10
7	Invasive species	40% 4	50% 5	10% 1	0% 0	0% 0	10
8	Algae	22% 2	33% 3	33% 3	11% 1	0% 0	9
9	Agricultural chemicals	10% 1	50% 5	10% 1	0% 0	30% 3	10
10	Winter fish kill	10% 1	30% 3	30% 3	20% 2	10% 1	10

Showing rows 1 - 10 of 10

Q61 - Do you have any additional comments regarding White Potato Lake?

Do you have any additional comments regarding White Potato Lake?
I love this lake so much but I feel that it could use a little work on weeds and invasive species.
Make the property owners that have a yard that looks like a junk yard and dump, clean it up
I am actively involved with the Sportsmen's Club and the Lake sweet Association and would like to see more active members and would like to see a Lake District formed.
Fertilizers, invasive species and runoff are WPL greatest threats in my opinion.

Q63 - Would you be interested in volunteering on a project on your lake (such as shoreland restoration planting, invasive species monitoring/removal, water quality monitoring, highway cleanup, etc.)?



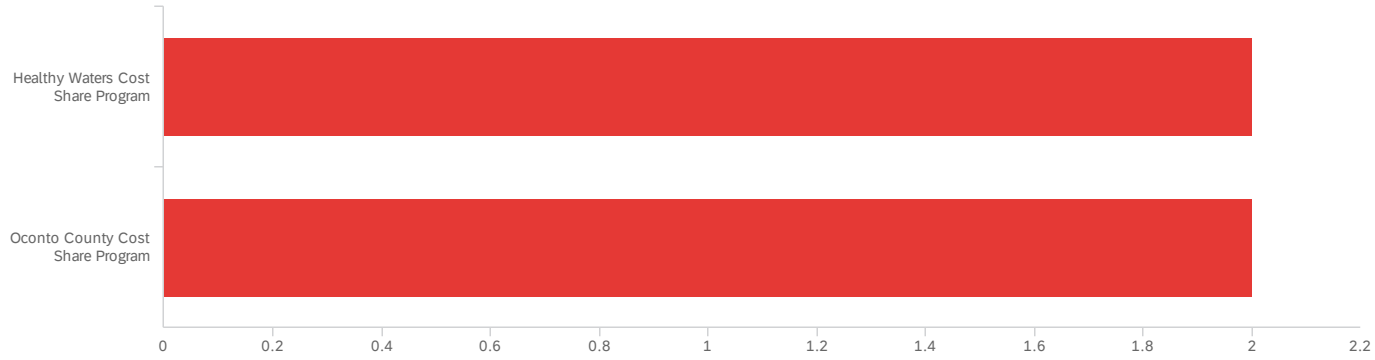
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Would you be interested in volunteering on a project on your lake (such as shoreland restoration planting, invasive species monitoring/removal, water quality monitoring, highway cleanup, etc.)?	1	3	2	1	1	10

#	Field		Choice Count
1	Yes	40%	4
2	No	0%	0
3	Maybe, depending on the project	60%	6
			10

Showing rows 1 - 4 of 4

Q64 - Are you aware of the following programs available to you from Oconto County?

(Check all that apply)



#	Field	Choice Count
1	Healthy Waters Cost Share Program	50% 2
2	Oconto County Cost Share Program	50% 2
		4

Showing rows 1 - 3 of 3

Q65 - Are you a member of either of the following organizations (check all that apply)?

End of Report