



2025 Shoreland and Shallows Habitat Monitoring Survey

Lake Ripley, Jefferson County, Wisconsin



Picture 1: Public boat launch of Lake Ripley on September 29, 2025.

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Summary

Lake Ripley has been a popular destination and tourist spot since the 1800s. The development of the shoreline has progressed over the years, and those disturbances contribute to the problems the lake currently faces. These disturbances can range from minor changes, such as the removal of trees for a better view of the lake, to major alternations, such as the construction of a large lakeshore home with concrete retaining walls. These disturbances can increase erosion, pollute the water with nutrients and sediments, destroy fish and wildlife habitat, ultimately degrading water quality and ecosystem function.

Lakes can be buffered from the effects of human disturbance in the watershed by establishing wide, native plant buffers in the riparian zones to filter runoff and stabilize banks. Healthy, intact vegetative cover in these riparian areas can help reduce nutrient and sediment runoff from the surrounding landscape, prevent bank erosion and provide shade to reduce water temperature. The vegetation can also provide leaf litter and large wood to serve as food, shelter, and habitat for aquatic organisms (EPA, 2025).

The shoreland and shallow areas of lakes are critical to a lake's health and need to be well-maintained and cared for. There have been two partial shoreland and shallows surveys completed on Lake Ripley in 1993 and 2012 and two full surveys completed during the summers of 2020 and 2025. This summer, our field crew team set out to complete the second full shoreland and shallows survey to determine the current health of our shoreline.

Introduction

The land adjacent to our lakes, and the shallow water next to the land, are important areas for many different reasons. These areas are where people use the waters for relaxing, fishing, bird watching, swimming, getting their boats out on the water, or simply sitting and enjoying the view. The shoreland area is a vital place for many species that are dependent on native habitat during part of their life cycle. In fact, as much as 90% of the living things in lakes are found in the shallow waters and shoreland areas!

How we manage our shoreland areas impacts our lakes positively or negatively. The 2007 National Lakes Assessment identified the loss of shoreland habitat as the number one stressor to our lakes in the nation and in Wisconsin. A shoreland area containing a native plant garden can prevent pollutants carried by rainwater from reaching our lakes and also prevent shoreline erosion. When comparing native shoreland habitat to lawns, areas with lawns contribute 7-9 times more phosphorus and 18 times more sediment to the water!

These phosphorus and sediment inputs to the water can reduce water clarity and increase algae blooms, which can cause a decrease in property values.

Development of our shorelands and shallow areas can negatively impact our lake's fish and other wildlife. Shorelines that contain seawalls and rock riprap impede the movement of turtles and other animals that need to access both the lake and the shoreland area. Increased development (lawns, impervious surfaces, bare ground, piers) has been linked to degraded aquatic plant habitat, decreases in green frog populations, decreases in uncommon bird populations, and a decline in fish species.

Many of the values lake front property owners appreciate and enjoy about their properties— natural scenic beauty, tranquility, privacy, relaxation—are enhanced and preserved with good shoreland management. Studies have shown that healthy lakes with good water quality translate into healthy lake front property values.

Methods

In 2025, the Lake Ripley Management District ('the District') performed a 'Lake Shoreland and Shallows Habitat Monitoring' survey to assess the current conditions of Lake Ripley's shoreland and near-shore shallow areas. The survey is intended to serve as a baseline so that future changes (improvements or declines) in conditions of the lake's shoreland and shallow areas can be measured. The protocols used were developed by the Wisconsin Department of Natural Resources (WDNR) and finalized in 2020. This protocol provides a standard methodology for surveying, assessing, and mapping habitat in lakeshore areas – including the riparian buffer, bank, and littoral zones.

The shoreland and shallows survey was performed on Lake Ripley on August 20-22nd, 2025, and finished on August 28-29th, 2025. There are two parts to this survey, completed during two separate loops around the lake. During the first loop, the crew conducts a shoreland habitat assessment for each individual parcel around the lake. During the second loop, the crew conducts the woody habitat assessment and a nearshore substrate inventory. This part of the survey does not need to be associated with parcels. The data collected provides important and useful information to the District, allowing us to evaluate trends in our lakeshore habitat over time and allowing the data to aid us in creating and updating lake management plans. The data collected for the surveys are listed below.

Shoreland and Shallows Data Collection

Riparian Zone Data Collected within 35 feet of the water:

- % cover of tree canopy – trees at least ~16 feet tall (0-100%)
- Presence/absence of shrubs and herbaceous plants
- % cover of each item that totals 100%: maximum of shrub or herbaceous plants, impervious surfaces, manicured lawn, agriculture, or other (including duff, mulch, bare ground, etc.)
- Human structures on land: buildings, boats on shore, fire pits, or other structures (retaining walls)
- Runoff Concerns in Riparian or Entire Parcel: point source, channelized flow, stairs/trails/road to lake, lawn/soil sloping directly to lake, bare soil, sand/silt deposits and other
- Bank Zone: vertical seawalls, riprap, artificial beach, and bank erosion (greater or less than 1ft face)
- Human structures in Littoral Zone: piers, boat lifts, swim-rafts/water trampolines, boathouses over water, marinas, and other
- Aquatic plants: floating, emergent, and plant removal presence

Coarse Woody Habitat Survey

Wood that is submerged in the water provides habitat for a variety of species that live in the lake including fish, aquatic insects, crayfish, and turtles. This survey documents the location and certain characteristics of wood. This survey should happen in the spring or fall to provide optimal conditions with clear water and few aquatic plants. The wood had to be at least 4 inches in diameter, at least 5 feet in the water, and in 2 feet or less of water to qualify for this part of the survey. The crew used a ‘wood calibration stick’ to determine whether or not the woody habitat was large enough to count.

The following characteristics were noted:

- Touch shore: whether the wood crossed the high-water level (so it is connected to shore)
- Branch: the amount of branches that the wood contained (no branches, a few branches, or a full tree crown)
- In water: less than 5ft of log is currently underwater, or at least 5ft of log is currently underwater

Nearshore Substrate Inventory

During this second loop, the crew was also tasked with taking an inventory of the nearshore substrate. The nearshore substrate inventory is designed to collect data on littoral substrates potentially available for fish spawning. During this survey, the crew records the predominant substrate class observed by taking a GPS waypoint as the boat driver is operating the boat slowly at the 2' depth contour, as close to the shore as possible. When the predominant substrate changes, another GPS waypoint is taken at the transitional point to identify the end of one substrate class and the start of another.

The following substrate classifications were used for the nearshore substrate inventory:

- Manmade/artificial: concrete, blacktop, artificial boat landing materials, etc.
- Inaccessible: too shallow, too densely vegetated, too much wood, artificial structure
- Organic matter: muck, silt, detritus (fine and coarse particles)
- Sand: 0.2-6.3mm (0.01-0.249in)
- Gravel: 6.4-76.0mm (0.25-2.99in)
- Cobble: 76.1-149.9mm (3.0-5.90in)
- Rubble: 150.0-303.9mm (5.91-11.96in)
- Boulder: >304mm (>11.97in)

Results

The Shoreland and Shallows data collection sheet was changed slightly compared to the 2020 data collection sheet. Due to this change, some of the results aren't compatible to compare to the 2025 data. The amount of shoreline assessed in the survey was 4.1 total shoreline miles (19,311 feet).

The crew was able to use a kayak to assess Vasby's channel, a non-motorized channel on the southwest side of the lake. The survey covered 184 tax parcels.

Shoreland and Shallows Survey

Herbaceous and Shrub Vegetation

The state and county standard is to have a permanent vegetated area that consists of shrubs, trees, grasses, and flowers to a depth of 35 feet from the water. This area is called a vegetated buffer or a buffer strip. These buffers are intended to intercept and slow runoff, subsequently benefiting water quality. A viewing and access corridor is

allowed to be 35 feet wide parallel to shore for a parcel that is 100 feet. Ideally, every lot would contain a vegetated buffer to protect the quality of the water.

In 2025 there were 184 tax parcels on the lake that were surveyed; this was ten more parcels than the 2020 survey. Shorelands that were reported as having $\geq 65\%$ cover of shrubs and herbaceous plants are the parcels that meet or exceed the state and county standard. The survey revealed that out of 184 tax parcels, Lake Ripley had 29 parcels that meet the state/county standard. Therefore only 15.7% of parcels meet the state standards for protecting the water quality of Lake Ripley.

	Average % Cover	Minimum Cover	Maximum Cover
Shrubs and/or Herbaceous Plants	23%	0%	100%

A whopping 22.8% of parcels had no shrub or herbaceous cover. In 2020, that number was lower at 14.3%. Within five years' time, an additional 8.5% of Lake Ripley's shoreline was converted to have fewer natural conditions. If this trend continues, Lake Ripley's water quality could suffer from runoff pollution.

Impervious Surfaces

Impervious surfaces are any hard, man-made surfaces such as rooftops, driveways, parking areas, and patios that change where precipitation travels and infiltrates. Instead of that water soaking into the ground and being filtered naturally, water runs downhill directly into our lakes and streams. Impervious surfaces wash pollutants such as sediments, nutrients, pesticides, bacteria, car fluids and other chemicals into our lakes and streams.

Of the 184 parcels sampled, 12.5% of the parcels had impervious surface $\geq 55\%$, a 3.9% increase from the 2020 survey. Increasing impervious surfaces around the lake will contribute to excessive aquatic plant growth and increased algae blooms. Fish populations decline as impervious surface coverage increases (Markham and Dunzik, 2012).

Impervious Surfaces					
Percentage:	0%	0%-25%	30-50%	55-75%	80-100%
Tax Parcels: (184 total)	93 parcels 50.5%	133 parcels 72%	28 parcels 15%	18 parcels 9.7%	5 parcels 2.7%

However, there was a 10% increase in number of parcels that had zero impervious surfaces! A small decrease in the number of parcels in the 0-25% impervious surface range, and a small increases in 30-50% and 55-75% impervious surface categories. Overall, average impervious surface increased by 3% since 2020.

Manicured Lawns

Manicured lawns are the culprits of over-applied nitrogen and phosphorous-based fertilizers, pesticides, herbicides, and other chemicals to ensure their lawn stays green and beautiful all season long. However, during storm events, runoff collects these chemicals and discharges them directly into the lake or any outlying streams. Discharge from a single property may not seem significant, but the combination of lawn areas in an entire watershed is! Creating more opportunities for homeowners to participate in the District’s cost-share program could hypothetically decrease the large percentage of manicured lawn cover.

The amount of parcels with 0% lawn cover decreased by two parcels in 2025. There were noteworthy changes that were seen in the 30-50%, 55-75% and 80-100% manicured lawn categories. The 30-50% category increased by 7% since 2020, the 55-75% category decreased by 9%, and the 80-100% category increased by 7%. Overall, the average manicured lawn increased by 3.8% since 2020.

Manicured Lawn					
Percentage:	0%	0%- 25%	30-50%	55-75%	80- 100%
Tax Parcels: (184 total)	25 parcels 13.5%	54 parcels 29%	32 parcels 17%	28 parcels 15%	70 parcels 38%

The percent cover of ground layers found within 35 feet of the lake was estimated. This information on all the parcels is summarized below. The “other” component included bare soil, sand, gravel, mulch, and duff.

The average canopy cover decreased from 32% in 2020 to 23.5% in 2025. This refers to tree cover within the 35-foot riparian zone. The shrub and herbaceous layer decreased by 7.5%. The average shrub and/or herbaceous layer also decreased by 7% since 2020.

	Average % Cover	Minimum Cover	Maximum Cover
Canopy Cover	23.5%	0%	100%
Shrubs and/or Herbaceous Plants	23.6%	0%	100%
Impervious Surfaces	18%	0%	95%
Lawn	54.8%	0%	100%
Row Crops	0%	0%	0%
Other (Duff, Soil, Mulch)	3.4	0%	95%

The average ‘other’ category also increased since 2020; this number increased by 1.4%.

Aquatic Plants

The presence of emergent aquatic plants and floating-leaf aquatic plants were noted in the survey. Areas with obvious aquatic plant removal were also noted. Aquatic plant removal areas are generally demarcated by straight lines of cleared vegetation that are perpendicular to shore and adjacent to plant beds. Plant rakes are another indication that plant removal is happening.

Aquatic plants are vital for maintaining ideal water quality and habitat conditions for aquatic organisms. The relative abundance, distribution and types of rooted aquatic plants can be used as an indicator of lake quality. Ideally, healthy lakes will have at least moderate levels of native plant growth that are characterized by high species diversity.

Emergent and floating leaf aquatic plants were noted as present if they appeared in front of the lots. The number of lots that had emergent or floating leaf aquatic plants in the water adjacent to the lots are shown in the table below. Additional information on the current status of Lake Ripley’s aquatic plants can be found in our [2025 PI Report](#).

This part of the protocol has changed slightly since the 2020 survey. Submerged plants were not noted in this updated protocol. Of 184 parcels, 61 parcels had emergent plants growing near their shoreline. Floating plants were found more often at 82 different parcels around the lake. With the proper education and resources, the District could potentially help that number rise with the same goal of continuing to protect the lake’s water quality.

Emergent and Floating Plants		
	Number of Lots Containing Aquatic Plants	% of Lots Containing Aquatic Plants
Emergent plants	61	33%
Floating-leaf plants	82	44%

Compared to the 2020 results, the amount of emergent and floating-leaf plants increased slightly. Emergent plants increased by 8 parcels (2.5%), and floating-leaf plants increased by 17 parcels (6.6%). This is interesting, as there were less sites with vegetation in 2025 compared to 2020.

Human Structures in Riparian Buffer Zone

The number of structures within 35 feet of the water were counted as part of the survey. Structures are often associated with impervious surfaces and can be sources of pollution.

There were 36 total buildings counted within the riparian buffer zone. Five parcels had two buildings within that zone. Buildings include residences, sheds, boathouses, garages and commercial buildings.

Structures in the “other” category included two bridges, a concrete ditch, Ripley Road, two sets of stairs leading into the lake, 18 sets of stairs, 21 retaining walls, 13 patios, and other miscellaneous items such as chairs, hammocks and pergolas.

Since 2020, seven additional buildings and eight additional fire pits have been installed in the riparian buffer zone. Reducing the number of structures on lands subsequently reduces the amount of impervious surfaces around the lake. This leads to positively impacting the water quality and the wildlife living within and around the lake.

Structure	Number of Structures	Number of Parcels Containing Structures
Buildings	36	30
Boats on shore	N/A	N/A
Fire Pits	25	24
Other	72	53

Human Structures in Littoral Zone

The number of human structures in the littoral zone (in the water near shore) were counted. Structures included in the “other” category include boat launches, mooring buoys, and stairs leading into the lake. Piers and boat lifts were counted to obtain an approximation of how many riparian owners were using the lake for boating recreation.

In 2025, 186 piers were counted on Lake Ripley over 154 parcels. That is seven more piers than the 2020 data. Eleven parcels had two piers, and four parcels had three piers. One parcel had a whopping 14 piers! This was one of the many homeowners’ associations found on the lake.

The items that were counted in the “other” category included four hoses in the water, two aqua thrusters, 8 boat launches and 9 mooring buoys.

Human Structures	Number of Structures	Number of Lots Containing Structures
Piers	186	154
Boat lifts	312	106
Swim Raft/Water Trampoline	26	20
Boathouses (over water)	4	4
Mooring buoys	9	7
Marina	1	1
Other	29	21

Throughout the years there has been an annual count of piers on Lake Ripley. This number is important because it gives an indication of the development of the near-shore water area. The number of piers on Lake Ripley during the summer of 2025 was 186. In 2020 that number was less, at 179 piers. Linked is the full [2025 Loop Around the Lake Report](#).

Runoff Concerns in Riparian Zone and Entire Parcel

Areas that have the potential to increase runoff into the lake were documented. These areas can be point-sources, such as culverts, drainpipes or rain gutters, that discharge directly to the lake. Issues like bare soil are capable of creating issues such as increased sedimentation and erosion. Pinpointing the exact locations of the point-sources makes it easier for the District to monitor those sites closely and offer resources and guidance to

the homeowner.

Runoff Concerns	Number Found	Inside RZ	Outside of RZ	Both Inside and Outside RZ
Point Sources	12	9	3	0
Channelized Flow	21	12	3	6
Stair/Trail/Road to Lake	98	14	10	74
Lawn/Soil Sloping to Lake	43	18	2	23
Bare soil	18	14	3	1
Sand deposits	1	1	0	0
Other	12	3	9	0

*RZ = Riparian Zone

Compared to the 2020 data, six less point sources were found, but 16 more channelized flows were documented. Significantly less bare soil parcels were documented, which is good news for water quality. Runoff concerns counted in the ‘other’ category consisted of slumping banks, undercut banks and decaying aquatic plant/leaf piles.

The largest decrease in the ‘Runoff Concerns’ categories was the stairs/trail/road to the lake category. In 2020 there were 130 stairs recorded and that number was reduced by 32 for a total of 98 in 2025! Linked is the [2020 Shoreland and Shallows Report](#).

[Bank Zone Modifications](#)

Bank zone modifications were documented in the survey. These modifications consist of vertical seawalls, rock riprap, artificial beaches, bank erosion, and any other type of erosion control structures.

The amount of seawall and rock riprap documented in the 2020 survey was 12,408 feet of shoreline, or 64%. That amount increased in 2025; 13,516 feet of seawall and/or rock riprap were recorded during this summer’s survey. This increase means that 65.8% of Lake Ripley’s total shoreline has some type of artificial erosion control.

Although erosion control methods can be beneficial to your shoreline, they also have negative impacts. For example, seawalls and rock riprap impede the movement of turtles and amphibians from getting in and out of the lake which can prevent them from migrating and/or reproducing.

	Length (feet or miles)	Number of Parcels
Vertical seawall	860 feet or 0.16 miles	14
Rock riprap	2.4 miles	139
Artificial beach	850 feet or 0.16 miles	7
Other erosion control	70 feet	2
Bank erosion < 1 ft face	30 feet	1
Bank erosion < 1 ft face	0	0
Totals:	14,482	163

There was 850 feet of artificial beach recorded, with Ripley Park having the largest artificial beach measuring at 500 feet long. In 2020, there was only 528 feet of artificial beach. Shoreplace has the second largest beach on Lake Ripley, with 100 feet of artificial beach along the shoreline. This beach had sand added to it in 2024 after securing the proper county permits. The Shoreplace Homeowners’ Association completed a cost-share project in 2024 consisting of a rain garden and a shrub installation. They completed this before adding more sand to their beach.

The ‘other erosion control’ noted was a boathouse whose base was in the water.

Coarse Woody Habitat

Wood in the lake can serve as habitat for many different organisms including fish and macroinvertebrates. Coarse woody habitat (CWH) in lakes is classified as trees, limbs, branches, roots and wood fragments at least 4-inches in diameter that enter a lake by natural or human means. CWH in the littoral zone serves many functions within a lake ecosystem including erosion control, as a carbon source, and as a surface for algal growth which is an important food base for aquatic macroinvertebrates (Engel and Pederson 1998; Sass 2009). The presence of CWH has also been shown to prevent suspension of sediments, thereby improving water clarity (Sass 2009). CWH serves as important refuge, foraging, and spawning habitat for fish (Hanchin et al 2003, Lawson et al. 2011), aquatic invertebrates, turtles, birds, and other animals (Engel and Pederson 1998; Sass 2009).

The wood in the lake that was at least 4 inches in diameter, at least 5 feet in the water, and within 2 feet of depth was recorded. Overall, the CWH found in Lake Ripley since 2020 has decreased by roughly half. In 2020 there were 37 suitable pieces of coarse woody habitat; this year there were only 20 pieces of CWH that were recorded.

Of the 20 pieces of CWH, 13 were “connected” to shore, in that they cross the high-water mark of the lake. The level of ‘branchiness’ of each piece of wood found is noted below. In 2020, 11 tree trunks had ‘full crowns’ and in 2025 there was only one remaining tree with a full crown.

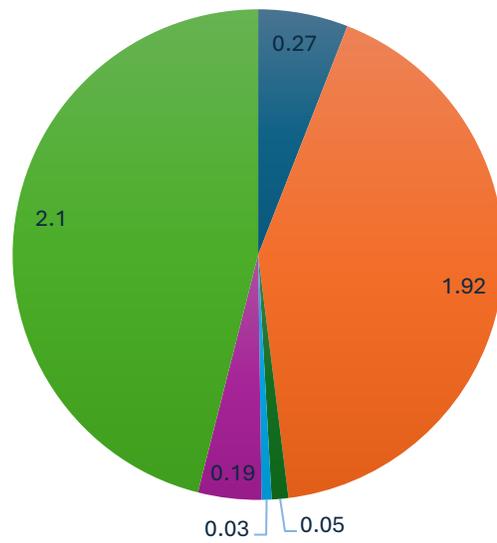
Level of Branchiness	Number
No branches	11
A few branches	8
Tree trunk has full crown	1

Nearshore Substrate Inventory

Each time the substrate changed a GPS waypoint was taken and the predominant substrate class observed was recorded. There were fourteen times the substrate changed while making the second loop around Lake Ripley. The most dominant substrate recorded was sand with 2.1 miles of shoreline, followed by organic matter with 1.92 miles of shoreline. The other substrate classes were all observed, but were less prevalent than sand and organic matter.

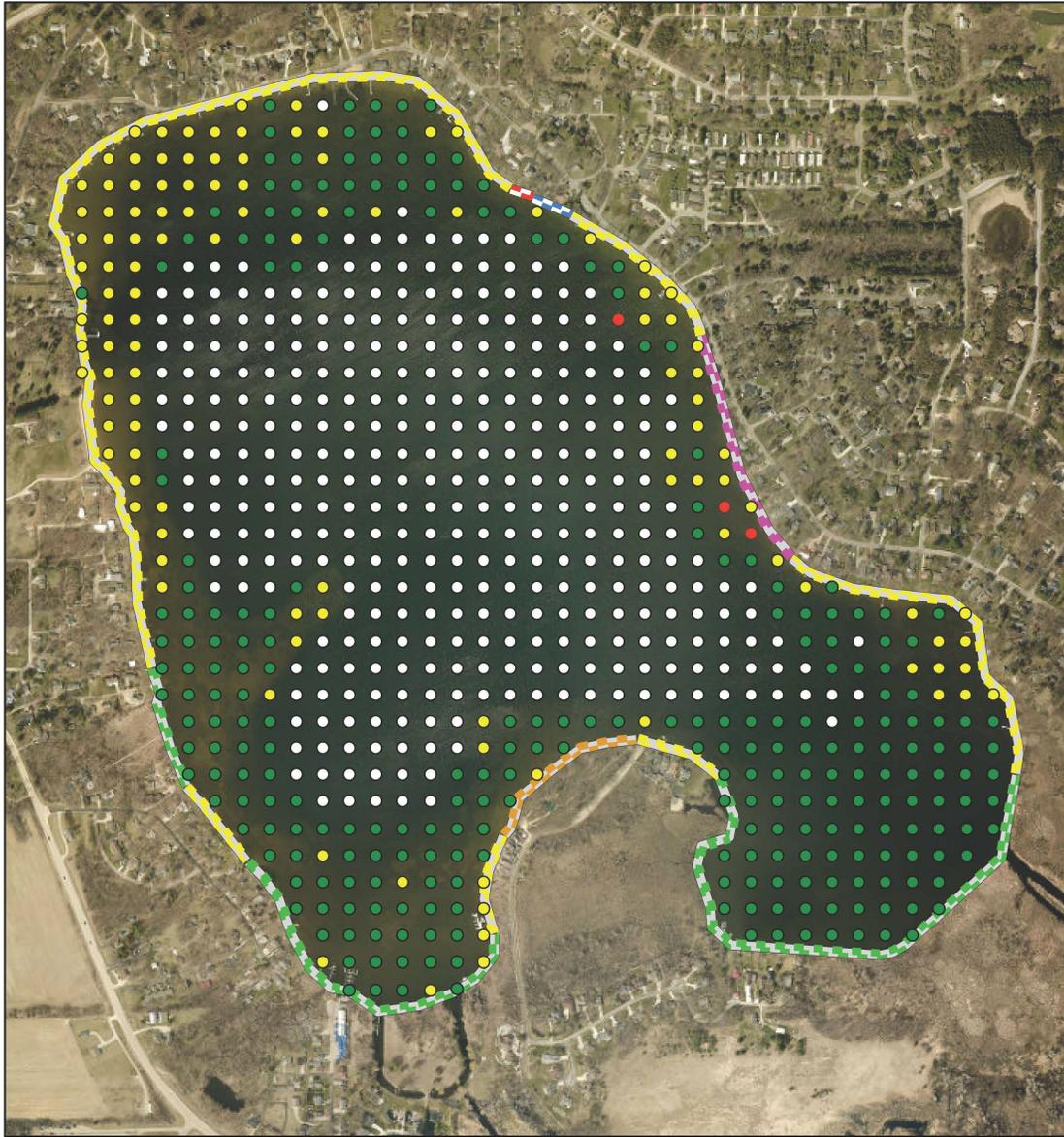
Substrate Type	Length of Shoreline (Miles)
Sand, Rubble Cobble	0.27
Organic Matter	1.92
Rubble	0.05
Cobble	0.19
Sand	2.1

Substrate Type on Lake Ripley

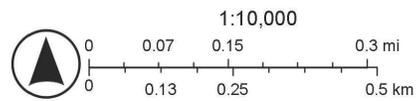


■ Sand, Rubble, Cobble ■ Organic Matter ■ Cobble, Rubble ■ Rubble ■ Cobble ■ Sand

Lake Ripley Nearshore Substrate and Lake Sediment Type



- | | |
|----------------------------------|---------------------------------|
| Lake Bottom Sediment Type | Nearshore Substrate Type |
| ● Muck | — Sand |
| ● Sand | — Organic Matter |
| ● Rock | — Cobble |
| ○ Not Sampled | — Cobble and Rubble |
| | — Rubble |
| | — Sand, Rubble and Cobble |



Prepared By: Jefferson County LWCD
2026

Nearshore substrate type shown on this map of Lake Ripley.

Discussion

Habitat Assessment

Completing the Shoreland and Shallows Habitat survey provides the District with the most current data on Lake Ripley's shorelines; this information helps to guide specific management decisions the District makes relating to the health of the lake. This survey should be repeated every 5 years to document and track any changes made to Lake Ripley's shoreland and shallow areas.

Shrub and herbaceous cover decreased, canopy cover decreased, impervious surfaces of $\geq 55\%$ increased, and manicured lawns increased (all average percentages). The riparian buffer zone has become less vegetated. Our tree canopies have decreased meaning more trees around the shoreline have been removed. Our shrub and herbaceous layer has decreased, meaning less roots to hold any runoff from entering the lake. The shrub and herbaceous layer has been replaced with manicured lawns and impervious surfaces, such as patios and driveways. Generally, as the amount of impervious surfaces increase, water quality decreases. This trend threatens to affect the water quality of Lake Ripley over time.

Having manicured lawns decreased in the 55-75% category and seeing rises in the 30-50% and 80-100% categories, respectively, is interesting. There is a possibility that our educational efforts are reaching our permanent residents and they could be reverting some of their manicured lawn to native shrub and herbaceous cover. However, the 80-100% category also went up by 7%. The District has become aware that Lake Ripley is home to more than ten rental houses (Air B&Bs, Vrbo's, etc.), which could be affecting the way homeowners treat their landscape.

Since 2020, parcels have seen an overall increase in buildings (including boathouses and sheds) and fire pits. These structures are included in the impervious surfaces percentage. Piers and swim rafts have also increased; this can cause areas of the lakebed to be shaded out affecting aquatic plant growth and therefore fish habitat.

Emergent and floating-leaf plants increased slightly in all parcels. This could be, in part, due to eight Critical Habitat Areas being designated in 2024. These areas are protected from any aquatic plant management. Additionally, the District has changed our weed harvesting practices since 2020, which may have affected this result.

Shoreline hardening fragments the land-water interface, interrupting reptile and amphibian life cycles. It also negatively impacts aquatic species' spawning, nursery, refuge, and feeding, subsequently reducing the habitat complexity (EGLE, 2026). Riprap,

seawalls, and artificial beaches all saw slight increases. Seawalls increased by one, but that was likely due to human error and it not being spotted in the 2020 survey. (No seawalls were permitted on Lake Ripley between 2020-2025). Ten more parcels added riprap to their shoreline. Riprap does not slow water running off the landscape, allowing it to go directly into the lake. This can negatively impact water quality.

Point sources decreased from 18 in 2020 to 12 in 2025. This is good news! Stairs, including trails and roads, that lead directly to the lake decreased by 32; there were 130 in 2020, down to 98 in 2025. This is large decrease within five years that we don't have an explanation for.

Coarse Woody Habitat

The coarse woody habitat saw a decline; in 2020 there were 37 pieces of wood and that number was reduced by 17, leaving 20 pieces of wood remaining. Over time wood will decompose and with 17 of those 37 pieces having 'no branches' in 2020, it is no surprise that those trees are now gone.

Nearshore Habitat

The nearshore habitat has never been recorded before, making the 2025 data the baseline data set. Sand is currently the majority, leading only by 0.18 miles. Protecting and preserving aquatic plant beds will help

Recommendations

The important information collected during the Shoreland and Shallows survey allows the District to gather information and create statistics such as: percent cover of impervious surface, mowed lawn, or plants in the Riparian Buffer Zone, number of parcels with erosion concerns, total length of modified banks, density of human structures (piers, buildings, etc.), general distribution of floating and emergent aquatic plants, and density of coarse woody habitat.

The survey helps to identify parcels that could possibly benefit from our Cost-share Program. With this information, we could contact the landowners whose property would benefit from improvements in their shoreland habitat such as a shoreline buffer. These projects could potentially be funded through the District's own Cost-share Program or the state's Healthy Lakes Program. Lots that demonstrate a healthy lakeshore could potentially be used as a part of an educational garden tour to educate homeowners on what a healthy lake-loving garden can look like.

The amount of shoreland vegetation along the lake should be increased in order to achieve more water quality protections and to increase habitat for fish and other

wildlife. The DNR's Healthy Lakes grant and the District's cost-share agreement program should be used to help interested landowners with some of the costs. The District is dedicated to educating property owners about the benefits of installing native plants in the shoreland area.

The District will continue to use our newsletter *Ripples*, our website, and our Facebook page to educate the public about the benefits to the lake of good shoreline buffers, and as a reminder about our cost-share program. The District also partners with Agrecol every year to provide wholesale native plant prices to our residents. This is a great way to get discounted plants to install a shoreline buffer, reducing the harmful runoff into our lake.

The District should try new ways of educating and convincing property owners to plant shoreline buffers. One way could be arranging "open house" visits to really beautifully landscaped shoreline buffers in July when most of the vegetation will be in bloom. We will ask for a variety of buffers and properties to visit with some of the following buffer examples: trees, shrubs, short plants, taller plants, and "no-mow" grass.

References

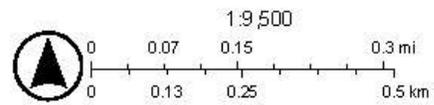
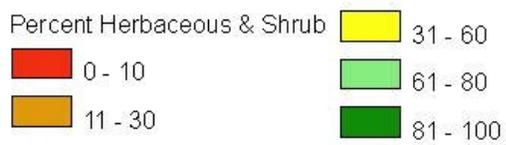
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Appendix A

Herbaceous & Shrub Cover within 35 Feet of Lake Ripley



1/21/2026

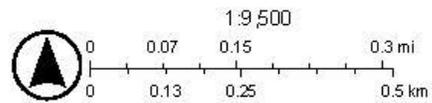
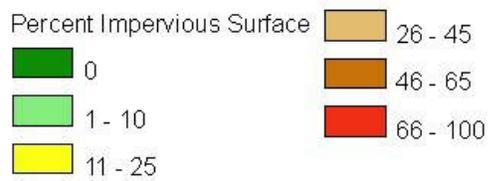


Jefferson County UNICD
2026

Impervious Surfaces Cover within 35 Feet of Lake Ripley



1/21/2026

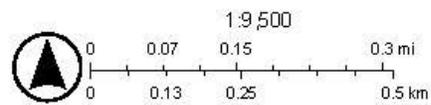


Jefferson County UNICD
2026

Manicured Lawn within 35 Feet of Lake Ripley



1/21/2026



Jefferson County LWCD
2026

Human Structures around Lake Ripley

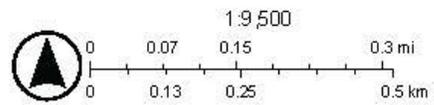


Structure Type

- Boat Lift Count
- Piers Count
- Swim Raft Count

Count

- > 18
- 13
- 9
- 4
- < 0



Jefferson County UNCO