

# Fairchild Pond Management Plan



Village Board Approval – August 18, 2022

## **Acknowledgements**

guided by the:

**Fairchild Area Sportsmen's Club**

and

**Fairchild Area Community Members**

facilitated & compiled by:

**Chris Straight**

with technical assistance from:

**Jodi Lepsch, WDNR Lakes Biologist**

**Joseph Gerbyshak, WDNR Fisheries Biologist**

**Buzz Sorge, retired WDNR Lakes Biologist**

**Mike Rogne, WDNR Dam/Water Management Engineer**

**Patrick Oldenburg, WDNR Water Resources Engineer**

**Greg Leonard, Eau Claire County Land Conservation**

**Gaylord Olson II, Jackson County Land Conservation**

**West Central WI Regional Planning Commission (mapping)**

# Table of Contents

<b>I.</b>	<b>Background .....</b>	<b>1</b>
	A. Plan Purpose .....	1
	B. Plan Scope .....	1
	C. Planning Process.....	1
	D. Public Participation and Input .....	2
	E. Plan Adoption .....	2
<b>II.</b>	<b>Location.....</b>	<b>3</b>
	A. General Location.....	3
	B. Adjacent and Nearby Uses.....	4
	C. Recreational Activities and Access.....	7
<b>III.</b>	<b>Recent Pond Management Efforts .....</b>	<b>9</b>
	A. Water Quality Monitoring and Management .....	9
	B. Fisheries Management .....	9
	C. Shoreland Management.....	10
	D. Recreational Access and Improvements .....	10
<b>IV.</b>	<b>Existing Conditions.....</b>	<b>11</b>
	A. General Description.....	11
	B. Pond Depth and Sedimentation.....	11
	C. Water Quality .....	14
	D. Aquatic Plants.....	17
	E. Fisheries and Fish Habitat.....	19
	F. Aquatic Invasive Species .....	20
	G. Shoreland Conditions & Stability .....	21
	H. Fairchild Pond Dam.....	24
<b>V.</b>	<b>Management Strategy .....</b>	<b>25</b>
	A. Issues and Opportunities.....	25
	B. Vision, Goals, and Objectives.....	26
	C. Alternatives Considered.....	28
	D. Action Plan .....	29
	E. Plan Implementation .....	35
	F. Plan Monitoring, Evaluation, and Update .....	38
	<b>Appendix A: History of Fairchild Pond.....</b>	<b>40</b>
	<b>Appendix B: Watershed Context .....</b>	<b>46</b>
	<b>Appendix C: Related Plans .....</b>	<b>55</b>
	<b>Appendix D: 1995 and 2020 Aquatic Plant Survey Reports .....</b>	<b>59</b>
	<b>Appendix E: 2022 Fisheries Survey Summary .....</b>	<b>65</b>
	<b>Appendix F: Fishing Regulations for Fairchild Pond .....</b>	<b>69</b>

# I. Background

## A. Plan Purpose

This planning effort was initiated by the Fairchild Rod & Gun Club (dba Fairchild Sportsmen's Club) in partnership with the Village of Fairchild. The Sportsmen's Club recognized that long-term solutions were needed to address water quality challenges at Fairchild Pond prior to or in conjunction with additional investment in fish stocking. As such, the Sportsmen's Club and Village desired to create this basic water quality management plan for Fairchild Pond for the following purposes:

- consolidating and analyzing available water quality data and identifying any additional data needs;
- engaging in a community discussion on water quality data, issues, opportunities, and goals;
- exploring alternatives to addressing existing water quality challenges (e.g., algae blooms, sedimentation);
- creating an achievable action plan with prioritized water quality improvement strategies and other management next steps, including potential available resources; and,
- helping to build the capacity of the local community to achieve the management plan goals and nurturing partnerships to make positive change.

The creation of the management plan will also be helpful (and is often required) for pursuing Wisconsin Department of Natural Resources (WDNR) surface water grant funding for implementation of the plan recommendations should resources allow.

## B. Plan Scope

This plan includes most components of the Lake Management Plan Checklist in Appendix B of the WDNR's 2020 *Surface Water Grants Program Guidance*. Given Fairchild Pond's relatively small size, limited historical data, and fairly good water quality as well as the local community's limited resources, it was determined after consultation with the regional WDNR Lakes Biologist that the plan did not need to include as much assessment or detail (e.g., shoreline/woody habitat survey, aquatic plant management plan) that might be found in a larger lake with more complicated challenges. This plan's goals, objectives, and recommendations emphasize protection with limited restoration efforts. And the upstream nutrient- and sediment-loading challenges within the Fairchild Pond Basin are largely addressed through the Eau Claire River Watershed's 9-Key Element Plan, rather than being addressed herein.

Perhaps most importantly, this planning effort brought community members together to develop a shared understanding of local water quality challenges and a consensus on goals, objectives, and next steps. As such, this planning effort is an important organizational-development and capacity-building tool to foster positive change.

## C. Planning Process

The Village of Fairchild secured a small-scale WDNR Lake Management Planning Grant in 2020 and the project began in earnest in 2021. The planning effort and development of the plan document was facilitated by local resident Chris Straight who volunteered his time toward the local grant cost share. Mr. Straight obtained input from a variety of technical resources throughout the project, most notably the WDNR's regional Lakes Biologist and Fisheries Biologist, and the Eau Claire County Land



Conservation Division. The grant funding was used to obtain the services of former WDNR lakes specialist Buzz Sorge, who provided technical advice on the plan's strategy alternatives and recommendations.

## **D. Public Participation and Input**

The following highlights public participation and input during the planning process:

- At a regular monthly meeting of the Sportsmen's Club on November 5, 2021, Mr. Straight provided an update on the planning effort and obtained input from attendees on activities at the Pond, past monitoring and management activities, the state of the fishery, and water quality trends and concerns. Approximately 25 Club members were in attendance.
- On March 23, 2022, over 16 community members attended a well-advertised discussion meeting facilitated by Mr. Straight that included a presentation on the Pond's history, water quality, and general conditions, which was followed by discussions on current management activities, why the Pond is important to the community, and a vision and goals for the Pond.
- On April 27, 2022, an ad hoc community work group met to finalize the Plan's vision statement, goals, and objectives as well as begin discussion on strategy recommendations; the WDNR Lakes Biologist and Buzz Sorge provided guidance during this meeting. A second work group meeting occurred on May 25, 2022, during which the draft recommendations and action plan were finalized.
- On June 23, 2022, the Village of Fairchild invited public comment on the plan via the Village's Facebook page and through a notice at the Fairchild Post Office and Public Library. Copies of the draft plan were made available at the Village Office and Fairchild Public Library. Anyone with comments were invited to send them to the Village Clerk or attend the July 14, 2022, Village Board meeting. No public comments were received.

## **E. Plan Adoption**

On August 18, 2022, the Fairchild Village Board approved by motion the Fairchild Pond Management Plan during a publicly noticed meeting.

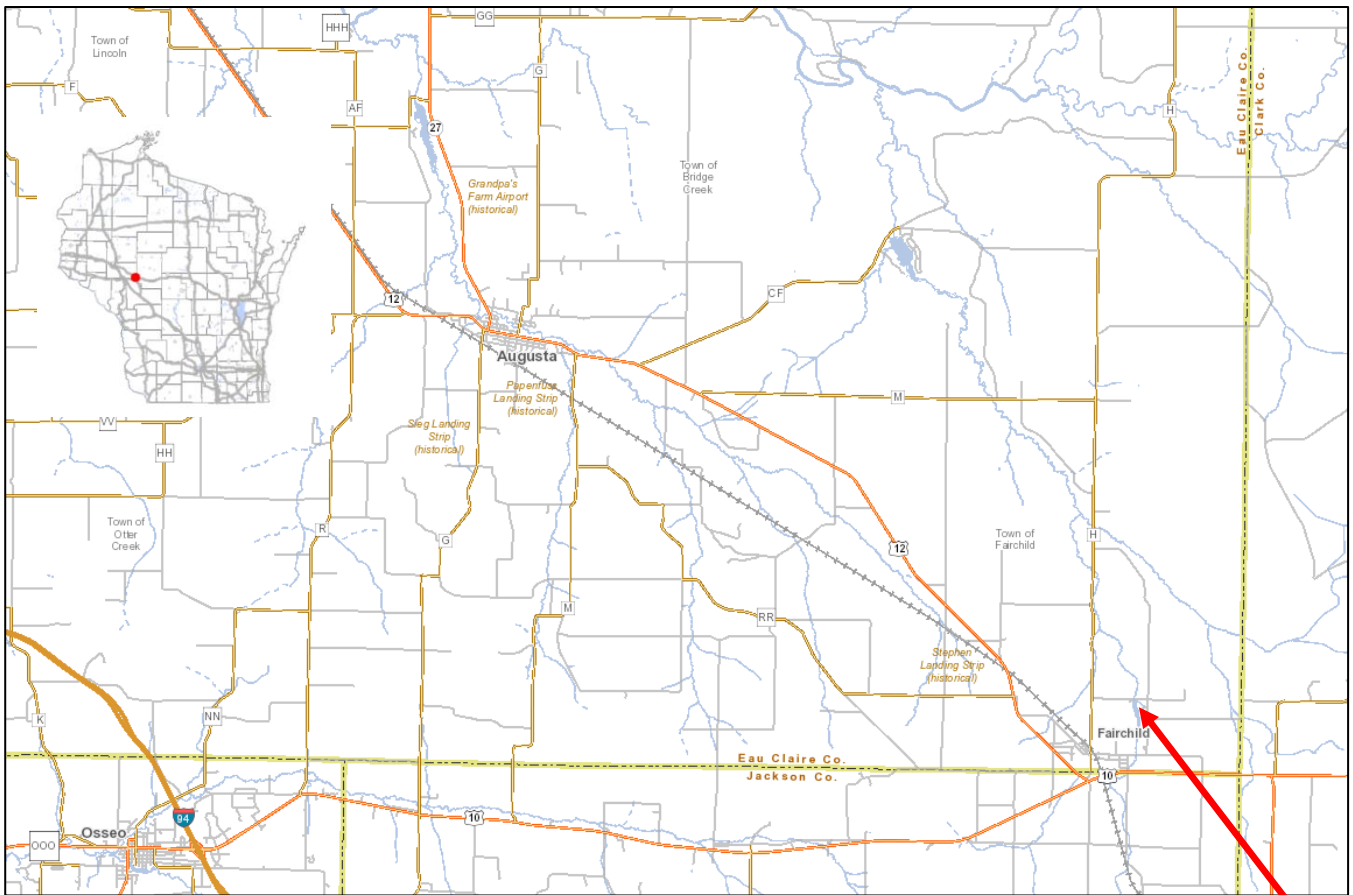
## II. Location

### A. General Location

Fairchild Pond is an impoundment approximately 18 acres in size on Schoolhouse Creek within Section 35 of Township 25 North, Range 5 West, in southeastern Eau Claire County as shown in **Figure 1**. Upstream of the Pond to the south and west, agriculture dominates the landscape, while forest (primarily county-owned land) is the dominant landscape downstream to the north and east.

The Pond is entirely located within the boundaries of the Village of Fairchild. According to the 2020 Wisconsin Department of Administration official estimate, the Village has a population of 535, which is a decrease of 15 persons since the 2010 Census. It is also notable that the Village's 2017 median household income of \$29,261 was nearly half of the State median income (2017 Census estimates). This has potential implications for lake management. In particular, the Village has limited revenues to financially support expensive management activities at the Pond. However, as a low-income community, the Village may be in a position to access grant funding for such activities that would not be available to communities with higher median incomes. A robust history of Fairchild Pond is provided in **Appendix A**. **Appendix B** includes a description of the Fairchild Pond Drainage Basin, the streams of the basin, and the Eau Claire River Watershed, including related water quality challenges.

**Figure 1. Location of Fairchild Pond**



Source: Map excerpt from WDNR Surface Water Quality Viewer, 9/15/21

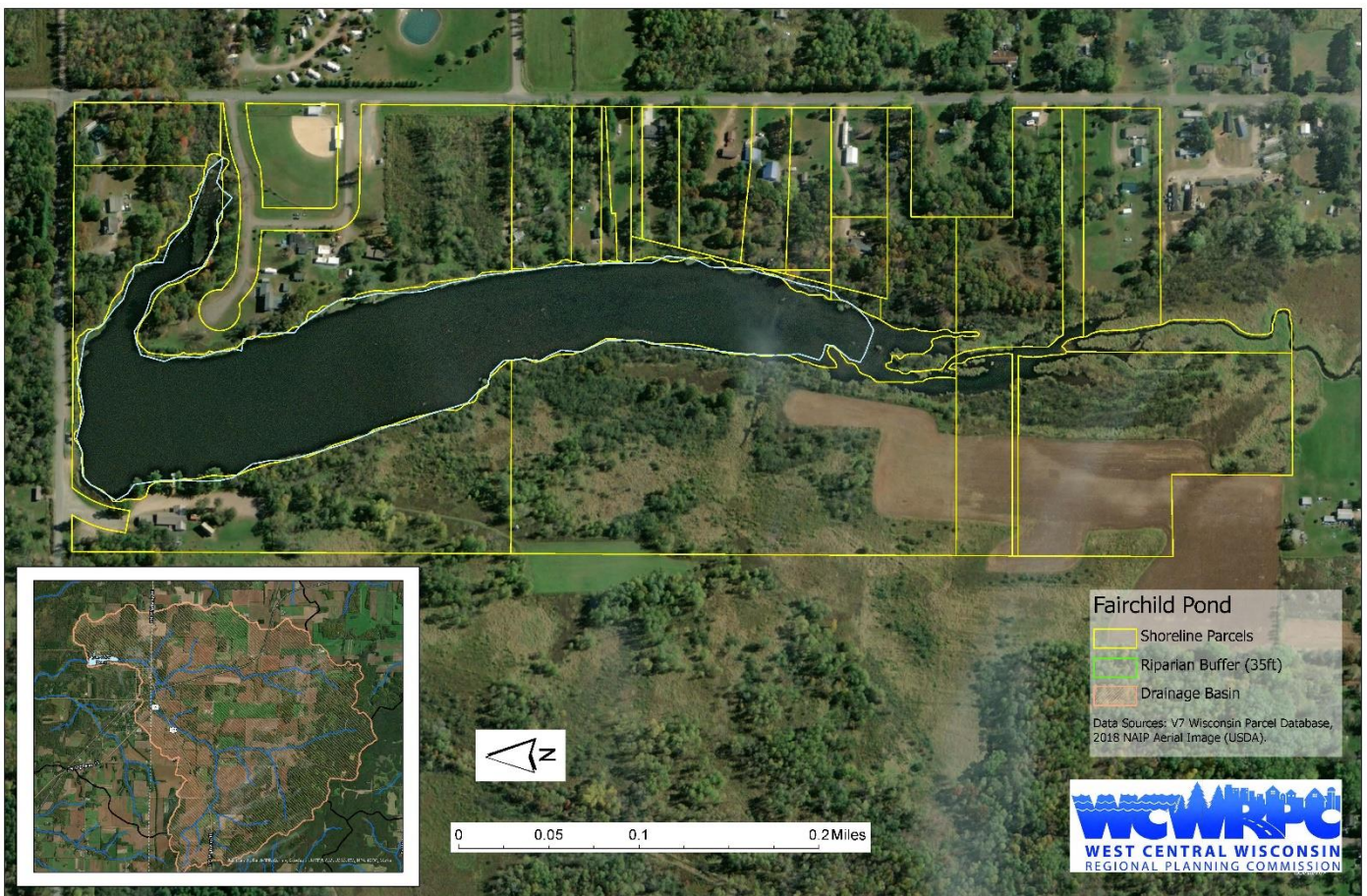
**Fairchild  
Pond**

## B. Adjacent and Nearby Uses

**Figure 2** shows the real estate parcels and land cover surrounding and near Fairchild Pond. The light blue line is the approximate boundary of the Pond in 2018 as delineated by WDNR staff; this does not include some areas that may be open water or semi-open water at times immediately to the south (i.e., Schoolhouse Creek delta).<sup>1</sup>

There are 15 parcels within 50 feet of the Pond boundary (light blue line) totaling 77.74 acres.<sup>2</sup> Nearly half of this acreage is owned by the Village of Fairchild on a single parcel extending on both sides of the Pond. A second privately owned 25-acre parcel is located along the west shore of the Pond south of the Village’s land; this parcel includes a small area about 0.13 acres extending across the Pond on its east bank. Altogether, Fairchild Pond has roughly 1.3 miles of shoreline; these two properties constitute about 72% of this shoreline.

**Figure 2. Fairchild Pond Parcel Map**



<sup>1</sup> Data in this section is from the Eau Claire County GIS Database and Wisconsin Parcel Database as of 1/1/21 and using the 2020 tax year.

<sup>2</sup> There are two additional very small parcels that were created due to differences between the deed boundary description and the meander line (water’s edge) of the Pond. These small areas were not given an owner within the Eau Claire County GIS system as of August 2021.



The 13 remaining parcels are all privately owned by 10 different landowners. Three of these landowners do not have a Fairchild address. The 13 parcels averaged 1.35 acres in size according to deed acreages. As shown on the map, many of these parcels are longer lots along Camp Road with relatively smaller waterfront.

As shown on **Figure 3** on the following page, most of the land area along the Pond is undeveloped.

The Village's land outlined in purple is tax-exempt and includes:

- The clubhouse of the Sportsmen's Club and related amenities are located on the northwest side of the Pond, including archery range, picnic area, fishing docks, parking area, and a small boat ramp. Amish will typically park their horses and buggies just north of the clubhouse along the tree line where a metal hitching post has been installed. The Club's shooting range is located just across Pond Road to the north.
- The dam is located on Village property on the north side of the Pond. A dry hydrant for fire protection is located just east of the dam.
- There are four private homes on the Village's land on the east side of the Pond.
- The municipal ballfield is also located on the Village property east of the Pond, while the remaining Village property is open space.
- The map shows the location of the former beach area that has silted in and is now used for shore fishing.



The larger 25-acre parcel to the south is undeveloped and assessed as a mix of agricultural, agricultural forest, and undeveloped. The 13 thirteen smaller parcels to the northeast and east are all assessed residential. Six of the parcels had assessed improvements greater than \$44,300 and three parcels had no assessed improvements.

Just east of the ballfields is the privately owned Little Creek Campground, which has over 50 seasonal sites, about a dozen weekend sites, and three cabins. The Campground has a small pond for swimming, with some campers using Fairchild Pond for fishing and boating.

ATV/UTV use is a very popular recreational activity in the area with many miles of trails to explore in the Clark and Eau Claire County forests nearby. The roads near the Pond and the public trail just west of the Pond receive heavy ATV/UTV use during the summer and fall seasons; the trail was closed in 2021. ATVs will sometimes stop by the Clubhouse when open or the picnic area and porta-potties at the Pond.



**Figure 3. Fairchild Pond Area**





## C. Recreational Activities and Access

Fairchild Pond is an important social and economic asset to the community and larger area and is the community's central gathering place for outdoor recreation. As shown previously in Figure 3, the Pond is easily accessible by the public, with adjacent public roads and Village-owned land surrounding most of the north-half of the Pond.

Fishing is the most popular outdoor recreation activity at Fairchild Pond. Its main fishery is largemouth bass and panfish. Schoolhouse Creek immediately upstream of the Pond is a locally popular Class I trout stream. The fisheries of the Pond are discussed in Section IV.E.

The previous map shows that there are ample opportunities for shoreland fishing, including two fishing docks. An unimproved boat ramp is also available as well as picnic tables, grills, portapotty, ATV trailhead, and informational signage.

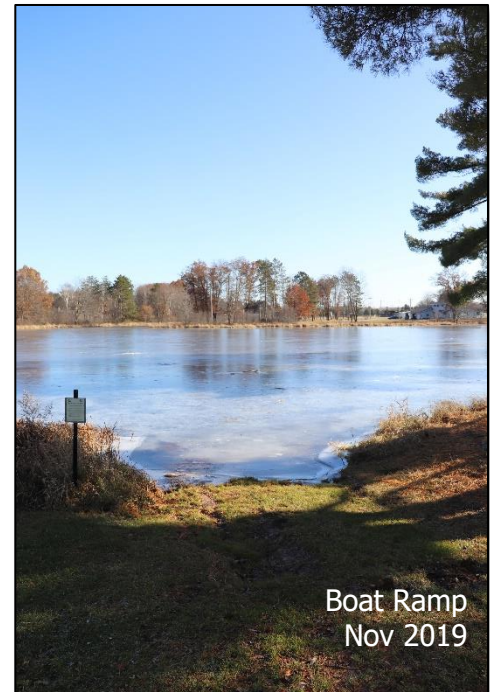
There are currently no unique rules or limitations regarding boating or fishing at the Pond. The standard WDNR fishing limits apply and since the Pond is less than 50 acres, the entire waterbody is designated as "slow, no wake" under State law. Tent camping has been allowed on east side of the pond, but not near the clubhouse. As will be discussed in **Appendix A**, the Pond has a long history of winter-time use, including ice skating and hockey, with ice fishing continuing to be very popular. While the Pond once had a beach, there are no swimming amenities today and little swimming occurs. The Pond was once popular for hunting and trapping. Trapping at the pond is still allowed as well as duck and goose hunting with a Village permit.

Given the significant amount of undeveloped riparian area and limited development in the area, Fairchild Pond is aesthetically beautiful and quite peaceful on most days. The lake edge provides nesting habitat for waterfowl (e.g., Mallards, Wood Ducks) and other critters, and the Pond is also a stopping place for a variety of avian species.



These assets make the Pond very popular for active and passive recreation (e.g., fishing, boating, picnicking), with 12-24 persons visiting the Pond on an average, nice summer day, according to local residents. The Pond's recreational amenities have also become very popular among the area's sizable Amish population.

The Sportsmen's Club has a clubhouse on the west side of the Pond and manages other facilities located along the west bank of the Pond in addition to the shooting range on the north side of Pond Road. Just south of the clubhouse is the only permanent, elevated archery platform in Wisconsin. Local community groups host events at the Pond and adjacent Sportsmen's Clubhouse that attract visitors from throughout the region.





In 2019, events hosted by the Sportsmen's Club, in partnership with the Fairchild Lions Club and other community organizations, attracted over 2,450 visitors to Fairchild Pond from throughout west-central Wisconsin. The largest events are the Ice Fishing Derby in March with over 250 attendees, the Lion's Fishing Derby in April with about 250 attendees, and an educational Kids Fishing Derby each June with over 300 children attending, plus additional parents and adults.

Other events at the Pond include, but are not limited to: fundraising dinners and picnics/cookouts, open houses, hunting safety classes, archery/shooting contests, concealed carry classes, historical society meetings, parties, and memorial/funeral events.



**Kid's Fishing Derby  
June 2021**





## III. Recent Pond Management Efforts

**Appendix B** discusses monitoring and management efforts along Schoolhouse Creek and its tributaries farther upstream of Fairchild Pond and within its subwatershed. At Fairchild Pond, itself, there have been limit management efforts in recent history, primarily focused on water quality monitoring, occasional fish stocking, dam maintenance, and improvements to adjacent recreational amenities. **Appendix C** provides an overview of various plans related to Fairchild Pond.

### A. Water Quality Monitoring and Management

Since 1995, a variety of monitoring and survey efforts for water quality, aquatic plants, and invasive species have been conducted by volunteers and WDNR staff at Fairchild Pond and on Schoolhouse Creek, though these efforts have been at times sporadic and not guided by an overarching management plan. These include the following, the results of which are summarized in Section IV:

#### Water Quality and Clarity Monitoring

- May 1995 to May 1999 – Citizen Water Quality Monitoring at the Deep Hole
- 2000 to 2012 – Satellite Lake Clarity Monitoring
- May 2006 to Sept 2007 – Citizen Water Quality Monitoring at the Rod & Gun Club
- July-Sept 2019 – WDNR Water Quality Monitoring at the Deep Hole
- Aug-Sept 2020 – WDNR Phosphorus & Chlorophyll A testing

#### Plant and Aquatic Invasive Species (AIS) Surveys

- August 1995 – WDNR Fairchild Pond Aquatic Plant Survey (see **Appendix D**)
- July 2014 – WDNR AIS Survey at the Pond
- July 2019 – WDNR AIS Survey at the Pond
- August 2020 – WDNR Aquatic Plant Survey (see **Appendix D**)

#### Schoolhouse Creek Monitoring

- July 2004 – Temperature
- May 2006 to Sept 2007 – Citizen WAV Monitoring north of USH 10 just east of Humbird Street
- May 2006 to Sept 2007 – Citizen WAV Monitoring at Humbird Street
- June 2013 – Clean Water Act Impairment Assessment at Main Street

#### Coon Fork Lake Watershed BMPs Lake Protection Grant

This grant project included the monitoring of phosphorus, suspended solids, E. Coli, and Enterococcus at multiple locations on Fairchild Pond and Schoolhouse Creek in 2006 and 2007.

### B. Fisheries Management

**Appendix F** provides a synopsis of the WDNR fishing regulations pertinent to Fairchild Pond, there are no unique rules worth noting here.

The following fish stocking efforts have occurred at Fairchild Pond and upstream on Schoolhouse Creek:

- The State of Wisconsin has stocked Brook Trout on Schoolhouse Creek a number of times beginning in the late 1800s. From 1972-1995, WDNR stocked Schoolhouse





Creek within Eau Claire County with Brook Trout annually, typically with 500 yearlings averaging 7 to 9 inches. There have been no trout stocking on the Creek in Eau Claire or Jackson counties since 1995.

- In 1963, the Pond was chemically treated for carp removal and restocked with bass and bluegill.
- In September 2017, the Pond was stocked with 75 Northern Pike and 150 Largemouth Bass, in part to help address an overpopulation of Bluegills.
- In 2019, the Pond was stocked with Northern Pike, Largemouth & Smallmouth Bass, Yellow Perch, and Hybrid Bluegills.

There have been no significant fish habitat improvement projects in recent decades. Downed trees from flooding and storms upstream have provided some additional habitat.

### C. Shoreland Management

Shoreland management or erosion control projects at Fairchild Pond in recent history have been limited. After consultation with WDNR, the Sportsmen’s Club recently:

- Installed wooden posts at the edge of the parking lot so that vehicles can no longer drive up to the bank’s edge.
- Allowed additional plant growth along and near the bank, though some areas are mowed fairly close to allow for bank fishing.

Vegetative management is conducted at the dam as recommended for dam safety maintenance.

### D. Recreational Access and Improvements

Section II.C. discusses the recreational access and improvements at Fairchild Pond. Public access and recreational improvements are concentrated along the Village-owned land on the north end of the Pond, including ample opportunities for shoreline fishing, a small boat ramp, two fishing piers (one is portable & ADA accessible), porta-potties, and a picnic area with tables and grills. These recreational improvements are provided and maintained by the Fairchild Sportsmen’s Club. The permanent fishing pier is in need of repair or replacement and the boat ramp has filled in with sediment, which is impeding access for some watercraft. The Sportsmen’s Club was connected to Village sewer in Fall 2021.



### Volunteerism at Fairchild Pond

As reflected by the pond history in Appendix A and the discussion of management efforts in Section III, members of the Fairchild Sportsmen’s Club have volunteered many hours in support of activities at the Pond.

In 2019, the last “pre-COVID” year, the Club documented 1,326 volunteer hours. About 40% of these hours were directly tied to activities on the Pond, such as hosting the fishing contests and performing lake monitoring activities. Other past volunteer activities tied to the Pond include maintenance of the Clubhouse grounds, monitoring the dam, and fish stocking efforts.

This spirit of volunteerism is also reflected in the role of the Sportsmen’s Club as the primary local champion for the creation of this management plan.

## IV. Existing Conditions

### A. General Description

Fairchild Pond is an impoundment on Schoolhouse Creek located within the Village of Fairchild in Eau Claire County, Wisconsin. The following characteristics are from the WDNR Surface Water Data Viewer for Fairchild Pond:

<b>Waterbody ID (WBIC):</b>	2136200
<b>Size:</b>	Approximately 17 to 18 acres (varies by source)
<b>Maximum Depth:</b>	7 to 8.5 feet (varies by source)
<b>Mean Depth:</b>	3 feet
<b>Est. Volume:</b>	58 acre feet
<b>Water Residence:</b>	5 days (mean summer June-Sept, median estimate)
<b>Bottom:</b>	muck & sand mix with high turbidity
<b>S.D.F.:</b>	1.51 Shoreline Development Factor <sup>3</sup>
<b>Natural community:</b>	Impounded flowing water, given that it is relatively shallow, with the dam accounting for more than half of its maximum depth.
<b>Use Designations:</b>	Fish & Aquatic Life; Recreation; Public Health & Welfare; Fish Consumption; General
<b>OER Water:</b>	Not an Outstanding or Exceptional Resource (OER) water
<b>PNW Status:</b>	Priority Navigable Waterway as a lake less than 50 acres in size
<b>Impairments:</b>	None. Not 303d Listed.
<b>Known Pollutants:</b>	None.
<b>Fish Consumption:</b>	No special advisories. General limits due to mercury.

### B. Pond Depth and Sedimentation

The deepest part of the Pond (the deep hole) is located immediately upstream (or south) of the dam. As one moves south, the Pond's depth decreases. The southern third of the Pond is less than 2 feet deep. The delta where Schoolhouse Creek merges into the Pond has less open water and a marshy mix of submergent, emergent, and floating vegetation.

When discussing the need to create this management plan, community members identified sedimentation and excessive vegetation growth as the two primary water-quality challenges facing Fairchild Pond. According to local lake users, siltation at Fairchild Pond has significantly decreased water depths, to the extent that the existing boat ramp has become unusable for some watercraft. Siltation along shorelines has also impacted the landscape and vegetation within the riparian, emergent, and littoral zones. Over time, the beach area has silted in and is now overgrown with vegetation,

---

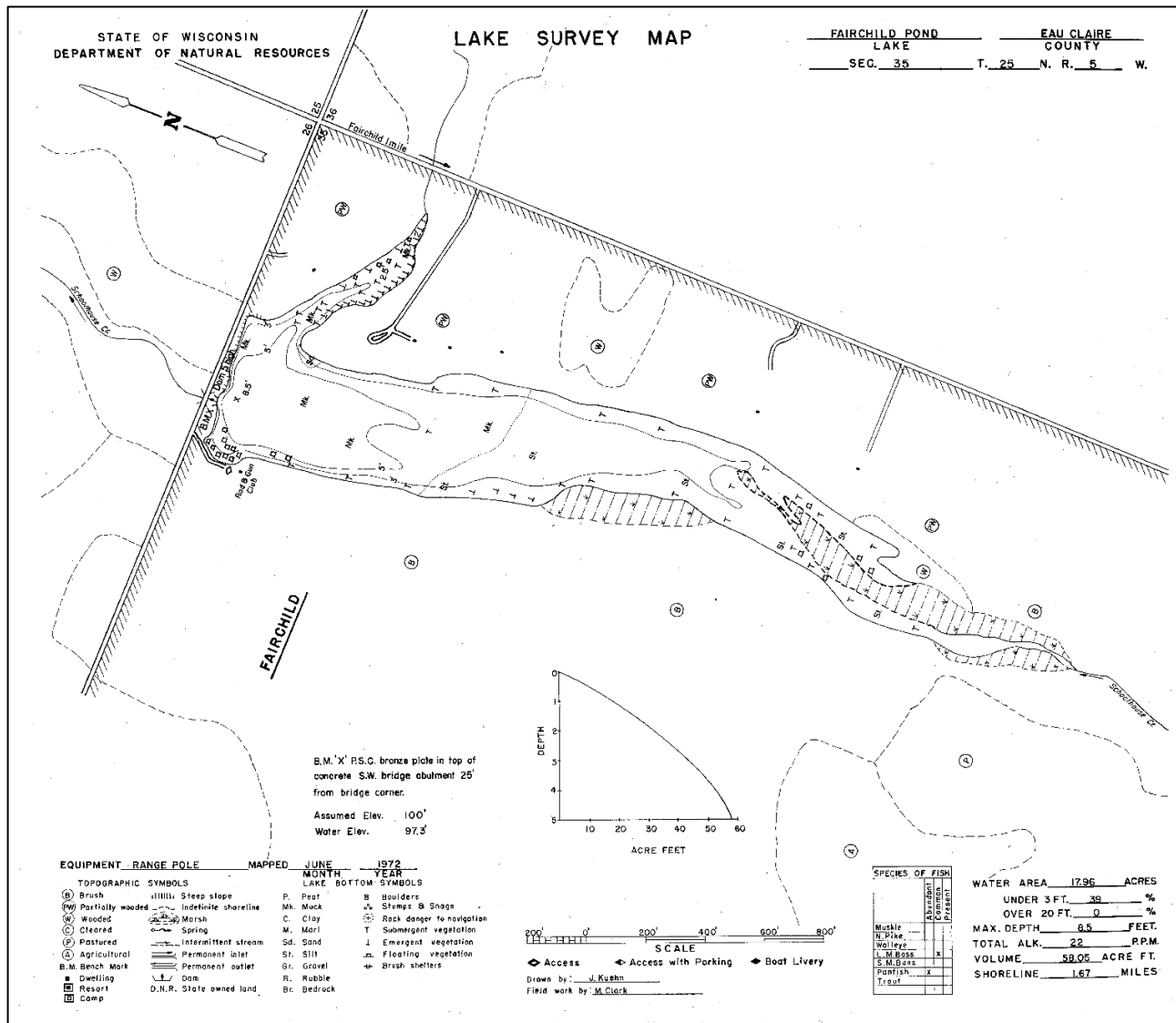
<sup>3</sup> S.D.F. is a measure of the irregularity of the shoreline. A perfectly round lake would have a S.D.F. of 1.0. Fairchild Pond is 51% longer or irregular than if the lake was perfectly round. Longer or irregular lakes (greater than 1.0) have the potential to support more development than a perfectly round lake.

thereby limiting public access. This siltation is impacting aquatic habitat, and water temperature is increasing as the Pond depth decreases; in turn, these changes may be contributing to increasing algae growth and decreasing water oxygen levels.

**Figure 4** is a 1972 bathymetric map showing the water depths of Fairchild Pond. A more recent bathymetric map is not available. According to WDNR staff correspondence in March 1996, "...the upper end of the pond is significantly silted in with the average water depth being only about two feet. I was surprised to find that much of the pond is deeper than 3 feet and that a good portion of the pond near the dam is 6 feet or deeper. I feel a relatively small dredging project could effectively enhance shore fishing opportunities around the lower end of the pond." This letter also commented that the depths on the 1972 bathymetric map were still relatively accurate at that time.

In November 2021, Sportsmen's Club members stated that sediment loading from heavy rain and flash flooding events since 1996 makes the bathymetric map no longer accurate, especially in the delta on the south end of the Pond, along the shoreline near the Sportsmen's Club, and near the boat ramp.

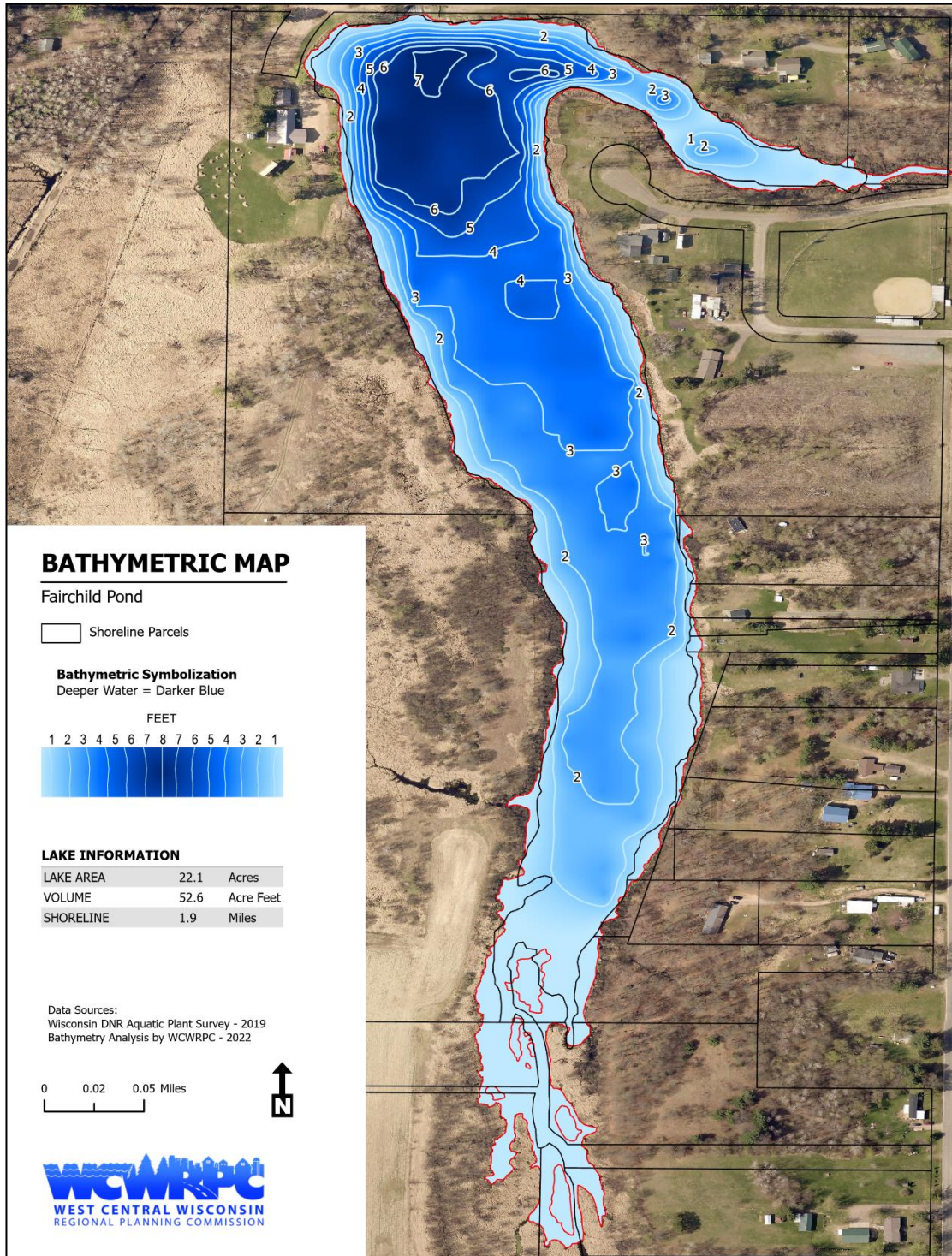
**Figure 4. Fairchild Pond Bathymetric Map (1972)**





WDNR staff performed some rough calculations using depth data from the 2019 Aquatic Plant survey to estimate a total volume of 57.23 acre feet, which is not that much less than the 58.05 acre feet estimated in 1972. This suggests that the rate of sedimentation may be near an equilibrium (i.e., there is not a net increase in sediment). Or, for practical purposes, what is coming in is going out. Using the 144 data points from the 2019 Aquatic Plant Survey, West Central Wisconsin Regional Planning Commission (WCWRPC) prepared the approximate bathymetric map update in **Figure 5** below.

**Figure 5. Fairchild Pond Approximate Bathymetric Map (2019)**





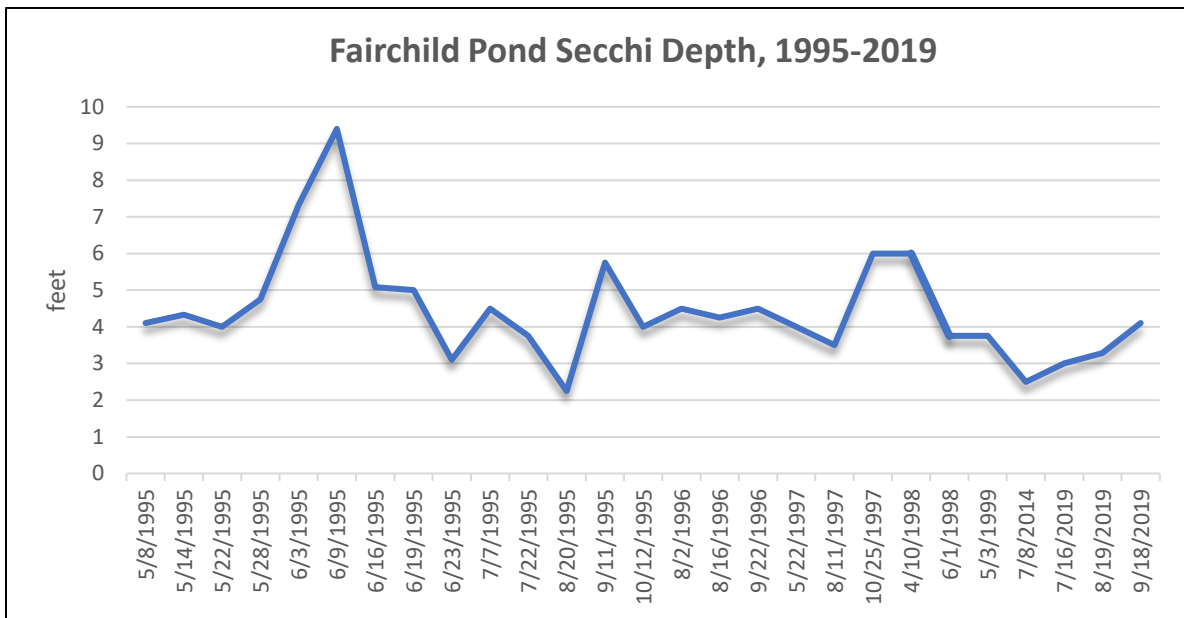
### C. Water Quality

Overall, Fairchild Pond has pretty good water quality. While the water can be turbid with suspended sediment, the water and fish habitat are not impaired and fishing has been good. The Pond is an impoundment with flowing water, so the potential for fish kills and large algae blooms are reduced, but the Pond does have high nutrient levels and some excessive plant growth, which can be a nuisance. There are no known chemical or heavy metal pollutants impacting water quality.

#### Water Clarity (Secchi Depth)

Water clarity or transparency is one measure of water quality. Plants need sunlight to grow. So, when suspended sediment, algae, or pollutants reduce clarity, the aquatic habitat can suffer. Water clarity is most reliably measured with a Secchi disk that is lowered into the water; then the depth is recorded when the disk can no longer be seen. It is also important to look at clarity trends over time, since transparency can change significantly day-to-day due to runoff from heavy rain events or algae blooms.

Between 1995 and 2019, there were 27 Secchi depths recorded at the “deep hole” for Fairchild Pond, that were not derived from satellite imagery. The following chart summarizes these results, noting that fourteen of the records were from 1995 and that there were no records available between 1999 and 2014.



source: WDNR Surface Water Integrated Management Systems (SWIMS). 2019

Water clarity averaged 4.5 feet and the Secchi disk did not hit bottom on any record. The 23 records from the 1990s included a description of the visual color of the water. Thirteen of these records describe the water as “brown”, likely reflecting turbidity from sediment upstream or the stirring up of the mucky bottom. Eight of the records describe the water as “green”, suggesting high Chlorophyll levels and a potential algae bloom may be occurring at that time. Two other records describe the water as “green

brown” and “yellow”. Overall, transparency is moderate or average, not poor; but it could potentially be improved.

**Phosphorus, Chlorophyll A, and Dissolved Oxygen**

WDNR recognizes that the nutrient phosphorus is the controlling factor (prime concern) in plant and algae growth in Wisconsin lakes and streams. Of those lakes and streams within the Eau Claire River Watershed that are on the 303d impaired list as not meeting Federal and State water quality standards, the far majority are on the list due to excess phosphorus levels (and the resulting algae blooms). Chlorophyll A is a measure of the amount of algae growing in a water body. As such, chlorophyll increases with nutrient levels and is also a measure of water clarity. As discussed previously, nutrient loading (excess phosphorus) and the resulting algae blooms can reduce oxygen levels to a harmful level for aquatic life. However, there have been no significant fish kills at Fairchild Pond in recent history, suggesting that oxygen levels are good.



The Pond is brown with suspended sediment the day following heavy rains in August 2021, though floating vegetation is also washed downstream.

A 1995 WDNR aquatic plant survey noted that the “...pond had some filamentous algae and abundant plant growth. This is probably due to high nutrient levels... If the nutrient levels are high, source of nutrient inflows need to be identified and solved.”

The 23 citizen lake monitoring records for 1995-1999 included the following user perceptions of water quality at Fairchild Pond:

- Very minor aesthetic problems on 7 dates
- Enjoyment somewhat impaired due to algae on 7 dates
- Would not swim, but boating okay due to algae on 9 dates

Recent water quality testing at the “deep hole” by WDNR staff yielded the following:

• <b>Total Phosphorus</b>	7/16/19	0.18 MG/L @ 0-2 meters		
	9/18/19	0.102 MG/L @ 0-2 meters		
	8/18/20	0.0306 MG/L @ 1-3 meters		
	9/10/20	0.0301 MG/L @ 1-3 meters		
• <b>Chlorophyll A</b>	7/16/19	45.5 ug/L		
	9/18/19	2.27 ug/L		
	9/10/20	1.25 ug/L		
	9/18/20	2.6 ug/L		
• <b>Dissolved Oxygen</b>	7/16/19	0.8 MG/L @ 2meters	6.85 @ 1m	10.38 @ 0m
	9/18/19	2.96 MG/L @ 2meters	8.31 @ 1m	8.33 @ 0m

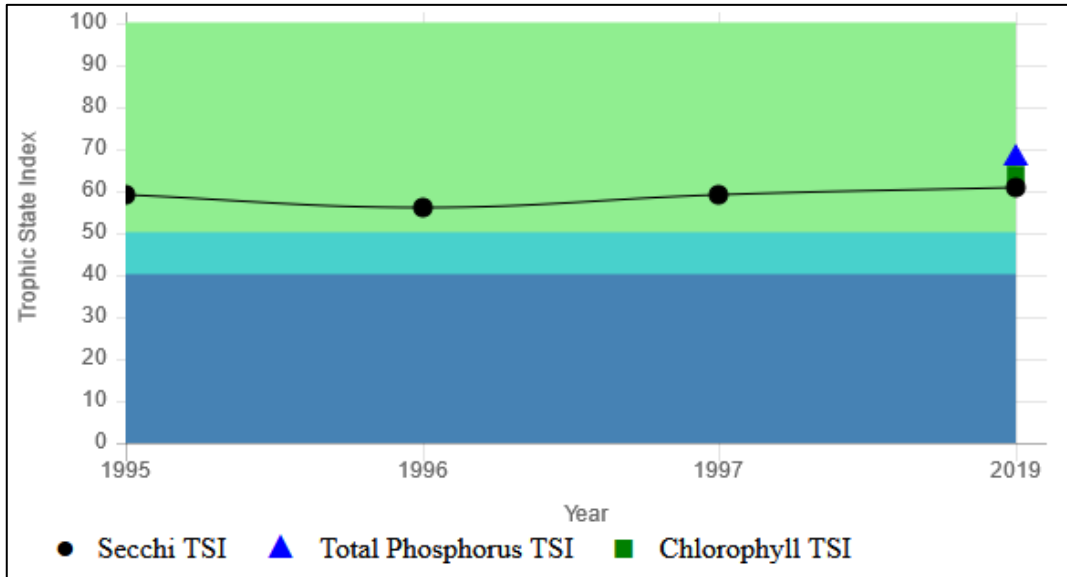
The above numbers suggests that an algae bloom may have occurred on 7/16/19. And both of the 2019 Total Phosphorus numbers exceed the water quality standard of 0.075 MG/L (or 75 micrograms/liter) for an impounded flowing water (not a reservoir). The above dissolved oxygen (DO)

levels are relatively good and the Pond has not experienced a significant fish kill in recent years. A DO measurement below five at all depths would be a concern for aquatic life.

As a hypothetical, the 2019-2020 Total Phosphorus average at Fairchild Pond was 86 ug/l. To achieve the 75 ug/l standard, a 13% reduction in Total Phosphorus would be needed.

These numbers can be used to further analyze and classify the overall health and biological productivity of a lake. Below is a chart of the Trophic State Index (TSI) summer month averages for Fairchild Pond at the “deep hole” based on available data.

**Fairchild Pond Trophic State Index**



source: WDNR. <https://dnr.wi.gov/lakes/waterquality/Station.aspx?id=183089>

With TSI numbers in the sixties, Fairchild Pond is considered eutrophic or having excess nutrients. Algae and extensive plant overgrowth problems are possible. It is notable that the phosphorus TSI is higher than the chlorophyll TSI and Secchi TSI. While phosphorus (nutrient) levels at the Pond may at times be elevated, there is not necessarily an equivalent corresponding elevation in Chlorophyll or a decrease in water clarity since the Pond is a flowing water and the residence time of water is relatively short compared to many impoundments. In other words, the Pond has significant nutrient loading and good aquatic vegetation growth, but this is not resulting in large or extended algae blooms.

With only four data points for Total Phosphorus and Chlorophyll A, there is insufficient data available to make a definitive determination on the extent to which Fairchild Pond is meeting or exceeding water quality standards. Three or more additional years of data over the summer months is recommended in order to have a better understanding of water quality conditions at Fairchild Pond and for related modelling of land practices.

**Macroinvertebrates**

The presence (or lack thereof) of macroinvertebrates is another water quality indicator. Unfortunately, has not been such a survey at Fairchild Pond itself. WAV Citizen Monitoring reported the following Macroinvertebrate Biotic Index results upstream of the Pond on Schoolhouse Creek:

**Macroinvertebrate Biotic Index Records on Schoolhouse Creek**

Date/Time	Index Result
5/30/2006 12:15 PM	2.8
8/30/2006 11:45 AM	2.2
6/12/2007 12:45 PM	2.2
9/10/2007 12:30 PM	2.4
Average	2.4

source: WDNR Surface Water Integrated Management Systems (SWIMS). 2019

Low numbers, such as those above, suggest that the Creek’s water quality is good with no organic pollutants or toxic chemicals.

**Bacteria and Pathogens**

The 2004 Coon Fork Lake Management Plan states that the Eau Claire City-County Health Department found excessive levels of fecal coliform on 6/4/96 and 6/18/96 in both Schoolhouse Creek and at Fairchild Pond. Testing suggested that the animal waste was the source in Schoolhouse Creek, while domestic waste was the possible source in Fairchild Pond. Shoreline areas without taller grassy vegetation are attractive to geese, which can contribute to fecal coliform level and nutrient loading. Geese do congregate in the grassy shoreline area in the front of the Clubhouse, but this is primarily limited to Spring months during migration.

Beach closures due to bacteria, such as E. Coli, are not uncommon in the Eau Claire River Watershed, especially in the summer months following heavy rains and runoff events. This needs to be kept in mind should the community wish to expand swimming opportunities or establish a beach at Fairchild Pond.

**D. Aquatic Plants**

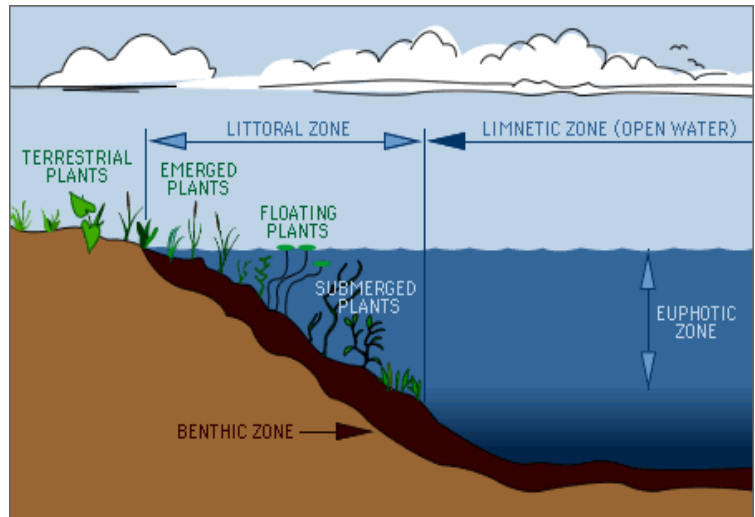
Local residents have expressed concerns over plant growth at the Pond, which tends to accumulate near the boat ramp and in the northeast part of the Pond during the summer months. Sportsmen’s Club members stated that the filamentous algae and other growth can be so thick that it hinders trolling motors and can restrict fishing. According to members, the plant growth is primarily below the surface, but will break loose and float on top where the odor can become a nuisance as the aquatic plants die. Small fish (2”-3” fry) can also be caught in the floating vegetative mats and die. One resident expressed that you “can’t find a place to put a hook in” from the shoreline at times during the summer.

Aquatic plant surveys for Fairchild Pond were conducted by WDNR staff in August 1995 and August 2020. The reports from these surveys are included in **Appendix D**. Overall, the 2020 survey suggests that the quality of the Pond’s aquatic plant community is pretty good for a relatively shallow impoundment:

- Overall, the aquatic plant community of Fairchild Pond is below average compared to all Wisconsin Lakes, but above average when compared to other impoundments.



- The 2020 survey found submerged vegetation in about 76% of the lake. The 1995 study noted that Pond had a large littoral zone (see **Figure 6**) as compared to the volume of water.<sup>4</sup> Without this large littoral zone, the algae problem could be worse. Most plant growth was submerged; few emerged species were found in 2020.



**Figure 6. Lake Biological Zones**

Source: [waterontheweb.org](http://waterontheweb.org)

- A total of eleven species were found in 2020, while the average is nine species for impoundments in the State. However, the Pond has less plant biodiversity compared to the average impoundment.
- The greatest depth at which rooted aquatic plants were found in 2020 was seven feet, which is a reflection of good water clarity.
- In 2020, Common Waterweed, Coontail and Small Pondweed were the most common species found in 51%, 37%, and 29% of the Pond, respectively. The large presence of Small Pondweed is an indicator of good water quality.
- Both surveys noted that the Pond has abundant filamentous algae and plant growth indicating an excess of nutrients. But the clear water state of Pond indicates that the vegetation and filamentous algae are working to uptake those nutrients. Filamentous algae (sometimes called "pond scum") can be a nuisance, but it is not toxic like blue-green algae. While it is often found floating in clumps, filamentous algae in large amounts can form dense, hair-like mats that can be a nuisance, inhibit the growth of submerged plants, and can be unsightly and foul-smelling. The flowing waters of Fairchild Pond has helped to prevent large blooms of filamentous algae.
- Curly-Leaf Pondweed was the only invasive aquatic plant noted in the 2020 survey. The 1995 survey added that the Reed Canary Grass was rooted in the water in very few locations, but formed dense stands around the Pond.
- The 1995 survey report noted that the Pond had an extremely simple plant community, indicating a high level of past disturbance. While the Pond's aquatic plant community is significantly disturbed compared to a natural state, the plant community is closer to a pre-settlement condition than the average of all Wisconsin impoundments. The 2019 WDNR Aquatic Invasive Species (AIS) survey noted that there were "lots of native aquatic macrophytes" [plants] present at the boat launch, though native plants were sparse in some other locations.

The 1995 survey report suggested that planting other plant species should be explored to increase the diversity of habitats. However, it can be very difficult to establish new aquatic plant species and, as previously stated, the Pond's plant community is doing better than most impoundments.

<sup>4</sup> The littoral zone is near the shore where sunlight penetrates all the way to the sediment and allows aquatic plants (macrophytes) to grow. The littoral zone not only provides important aquatic habitat and feeding areas, but is important for oxygen production and helps to prevent shoreline erosion.

The 2020 survey report suggests a goal of maintaining a healthy balance of vegetation and open water given the excess nutrients. The report goes on to suggest that “a harvesting program that creates an open water area with lanes to the shore to increase fishing opportunities would be an appropriate management action.



## E. Fisheries and Fish Habitat

The WDNR has rated the water quality of Fairchild Pond as *FAIR* for fish and aquatic life, though this is based on limited samples and the Pond is not without its challenges as mentioned previously. Fairchild Pond’s main fishery is Largemouth Bass and Northern Pike as gamefish and a panfish community consisting of Bluegill, Yellow Perch, and Black Crappie.

In support of this planning effort, the region’s WDNR Fisheries Biologist completed a fisheries survey on May 23, 2022. The survey showed that there are healthy and well-balanced Largemouth Bass and Bluegill populations along with a supplemental Yellow Perch population. Highlights from the 2022 fish survey summary report in **Appendix E** include:

- Largemouth Bass and Bluegill are well suited for the Pond’s habitat and have high reproductive rates with multiple year classes. Catch rates of these species were relatively high for such a small water body. Stocking of these species may not be necessary unless there are large-scale habitat or environmental changes at the Pond.
- Several nice Yellow Perch were captured and only a few young ones, suggesting that they do not seem to be reproducing sufficiently to sustain the population. Stocking is likely necessary; a stocking rate of 50/acre during alternate years is suggested. Natural reproduction of the species could also benefit from additional woody habitat.
- Two Black Crappie and one White Sucker were also captured during the survey.

Sportsmen’s Club members report that this fishing is good. For example, a 32” Northern Pike was recently caught, almost twice the length of the 14” Pike that were stocked in 2019, suggesting a fast growth rate, which is a good sign that there is ample forage and, perhaps, more predators were needed to balance the fish community. Since stocking the Pike, there has not been an overabundance of panfish, which was a problem in the past<sup>5</sup>. Carp has not been an issue since the 1960s and are no longer believed to be in the Pond.

The Pond is a warmwater fish community. The slowing of the flow and surface area of the Pond, in addition to the Pond’s relatively shallow depth, raises water temperature and makes the impoundment unattractive to colder water species such as Walleye and Brook Trout. This rise in temperature has made Schoolhouse Creek downstream of the Pond unsuitable for trout.

A woody habitat inventory has not been performed for Fairchild Pond. The Rod & Gun Club has expressed interest in considering additional fish stocking and fishery habitat improvements, though the Club has reservations about making such investments until the action plan (Section V.C.) is agreed

---

<sup>5</sup> WDNR discourages the future stocking of N. Pike because, based on the 2022 Fisheries Survey (Appendix E), there appears to be poor survival of stocked Pike and, thus, a poor return on investment. Additionally, Pike are known to run upstream to spawn and the juveniles could have negative effect on the Brook Trout population in Schoolhouse Creek.

upon. Updating the bathymetric map and periodic monitoring of depth would also provide insight into how much habitat is available for fish.

Tree drops and fish cribs are options to add more nearshore habitat to the impoundment. Tree drops provide spawning, refuge, and foraging habitat for many fish species. They also offer resting and loafing habitat for reptiles, amphibians, and birds. Nearshore woody habitat can also be used to attract fish nearshore so anglers can be more successful at catching them from shore. Wisconsin DNR has a checklist to ensure a tree drop is exempt from needing a permit. A similar practice is called “fish sticks”, when one or more trees are brought from outside the riparian area, placed in the water, and anchored to the shoreline. Fish sticks projects are eligible for Healthy Lakes grant funding.

## F. Aquatic Invasive Species (AIS)

Fairchild Pond does not have a significant AIS concern requiring active management. Wisconsin Department of Natural Resources staff performed AIS surveys at Fairchild Pond on July 8, 2014, and July 25, 2019. During both surveys, two invasives were verified as being in the Pond — Curly-Leaf Pondweed and Chinese Mystery Snails. These are two of the most common AIS in Wisconsin lakes. Given the limited options to control these two species, it may be more effective to place a greater emphasis on preventing the introduction of new invasive species to Fairchild Pond.



**Chinese Mystery Snail**

*Photo credit: University of Wisconsin Sea Grant*

The 2019 AIS survey describes “lots of Chinese Mystery Snails present at the boat launch.” As its name suggests, **Chinese Mystery Snails** are native to Asia. Their large size (1.5-3 inches tall), hard operculum (a trap door cover that protects the flesh inside), and thick, hard shell make them less edible by predators.

It appears that they have a negative effect on native snail populations by competing for food and can adversely affect aquatic food webs. They can also invade the nests of native game fish (e.g., Largemouth Bass) and can die-off in large numbers that foul beaches and shorelands. Chinese Mystery Snails can also clog water-intake pipes and may transmit diseases and parasites to

fish and other wildlife. At this time, there are no known effective actions to control or eradicate Chinese Mystery Snails once they are established.

**Curly-Leaf Pondweed** (CLP) is a perennial, submerged aquatic herb that is native to Eurasia and is tolerant to low light and low water temperatures. CLP may outcompete other underwater plants and become dominant, which causes problems due to the formation of dense mats that interfere with recreational activities. It can also cause an increase in phosphorus concentrations, resulting in an increase in algae blooms and a pile-up of dying CLP along the shore.

While harvesting offers some control of Curly-Leaf Pondweed, it is very unlikely that it could be totally eradicated at Fairchild Pond since this invasive has likely also established itself in Schoolhouse Creek. However, given that the Pond is an impoundment with flowing water, it is not expected that CLP will become a significant problem at Fairchild Pond.



**Curly-Leaf Pondweed**

*Photo credit: Wisconsin DNR*

There are also large areas of the **Reed Canary Grass** nearby, including in surrounding wetlands and along Schoolhouse Creek upstream. Though not considered an aquatic species, Reed Canary Grass prefers wetlands, moist meadows, and riparian areas. Growing up to 9 foot tall, Reed Canary Grass can form dense, monospecific stands that choke-out more desirable native plants. While there are some potential methods for elimination and control, they are time-consuming; and this invasive is very widespread.

## **G. Shoreland Conditions & Stability**

No significant shoreland erosion or stability concerns at the Pond were identified during the creation of this plan, except for floating grassy “bogs” that occasionally separate or break away from the Schoolhouse Creek delta at the south end of the Pond. These bogs can sometimes be quite large and get hung-up on the dam, fishing piers, or along the Pond’s shoreline to the north. When they become “stuck” to the shoreline, they can create a very dangerous situation for shoreline fishing due to their instability while also degrading the emerged aquatic plant habitat.

A lake shoreland assessment or woody habitat survey in accordance with WDNR field protocols have not been performed for Fairchild Pond. In lieu of a formal shoreland assessment, site visits and 2020 aerial photography were used to provide the following general picture of existing shoreland conditions.

### **West Shoreline (approx. 2,515 feet or 0.48 miles)**

The west shoreline consists of two parcels—the Village property on which the Sportsmen’s Clubhouse lies and an undeveloped private parcel. Except for the north approx. 530 feet, the remainder of the west shoreline is undeveloped with a mix of taller grasses, shrubs, and trees. The north 530 feet include a small boat ramp, two docks (one portable), and the picnic grounds within the riparian buffer. The Club has discontinued mowing up to the edge of the water and maintains a grassy buffer of 1 to 5 feet along the bank that stretches into the littoral zone with emergent vegetation.



### **North Shoreline & Little Creek Bay (approx. 1,780 feet or 0.34 miles)**

The north shoreline with the bay to the northeast includes the dam, two parcels with private homes, and unimproved Village property that is used for public fishing. Vegetation is controlled at the dam as a maintenance measure. A dry hydrant for fire department use is located immediately east of the dam. Otherwise the remainder of the shoreline is a mix of grasses, shrubs, and trees with no improvements, except Pond Road, within the 35-foot riparian buffer.



**East Shoreline (approximately 2,330 feet or 0.44 miles)**

There are twelve parcels along the east shoreline, including a Village-owned parcel with open space (primarily used for public access for shore fishing) and three homes. There are three private docks along the east shore and older aerial imagery suggest that 1-2 additional docks or swimming platforms may also be used on occasion. Grasses and woody vegetation dominate most of the shoreline except in 3-6 locations where residents may be mowing an area for lake access or shore fishing. Most areas where mowing is occurring within the riparian zone, a 10-to-30-foot vegetative buffer of taller grasses is being maintained.

**Estimate of Predominant Land Cover within Riparian Zone (35' from OHWM)**

	Structures & Improvements	Limited grassy buffer	10'+ buffer; some mowing	Taller grasses & woody vegetation
<b>West Shoreline</b>	Boat ramp, 2 fishing piers, mowed picnic area	21% (528 ft)		79% (1,987 ft)
<b>North Shoreline &amp; Bay</b>	Pond Road, Dam, Dry Hydrant	26% (463 ft)		74% (1,317 ft)
<b>East Shoreline</b>	3-5 docks; 1 possible swimming platform	24% (559 ft)	53% (1,235 ft)	23% (536 ft)
	<b>Totals</b>	23% (1,550 ft)	19% (1,235 ft)	58% (3,840 ft)

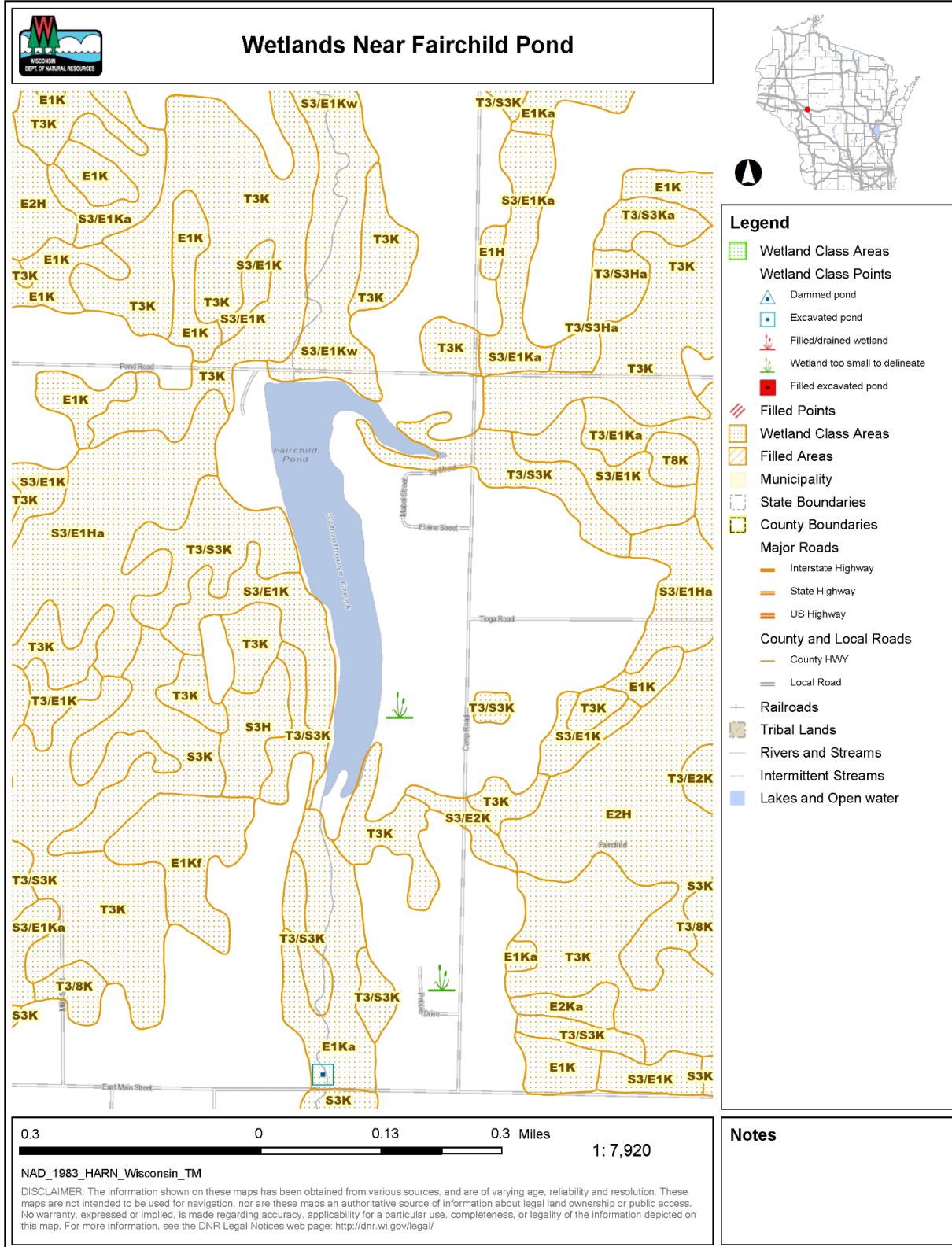
The previous table roughly estimates the predominant land cover within the riparian zone (or within 35' of the ordinary high water mark), but has not been field verified. Outside of the dam, there are no large, principal structures (e.g., homes, businesses) located within the riparian zone. Even though about one-quarter had limited grassy buffer, there are very places in which mowing occurs right up to the bank. Well over half of Fairchild Pond's shoreline is undeveloped with a mix of taller grasses and woody vegetation that is not managed or maintained.

Overall, the area near Fairchild Pond has a relatively high water table and a noteworthy interaction between groundwater and surface water likely exists. The Pond's edge also provides nesting habitat for mallards, wood ducks, turtles, and other wildlife. As mentioned previously, there are significant areas of WDNR-mapped wetlands near Fairchild Pond, which are shown on **Figure 7**. These wetland areas not only provide wildlife habitat, but also help protect the water quality of the Pond by filtering excess nutrients and reducing runoff.

Even though Fairchild Pond does not have any tall banks, there are no 100-year floodplains delineated for areas adjacent to the Pond; and no properties adjacent to the Pond have a recent history of overbank flooding. Mapped 100-year floodplain does exist along Schoolhouse Creek immediately north of Pond Road. Flooding has been a problem upstream of the Pond within the Pond's drainage basin, however, including washouts of area roads. Flash flooding from heavy rains has been increasing since 1993, when many streams in the Eau Claire River Watershed flooded that had no previous flood history. For Eau Claire County alone, flood damage in 1993 was over \$10 million, including damage to over 250 homes and 50 businesses. Road damage was extensive, Highway 10 at Fairchild was washed-out, and about one-half of reported damages were agricultural losses. According to the University of Wisconsin-Madison, heavy rain days (>2") per decade are projected to about double for the area between 2010 and 2040. These heavy rain and flash flood events are believed to account for a large proportion of the upland runoff of sediment and nutrients to surface waters as well as bank erosion with the Eau Claire River Watershed.

At Fairchild Pond, overbank flooding has not been a problem for any structures, though flood waters have topped Pond Road during recent years. After heavy rain events, Sportsmen Club members inspect the dam for any washouts or other damage. Sedimentation and woody debris has been a larger flood-related concern at the Pond. Club members stated that the "last flood brought in a lot of material."

Figure 7. Wetlands near Fairchild Pond





## H. Fairchild Pond Dam

The Fairchild Pond Dam is owned by the Village of Fairchild. Dam owners have a legal obligation to maintain a dam in a safe and reasonable condition. Owners may be responsible for injuries, death, or damages caused by their dams.

Today, the Fairchild Pond Dam is maintained for recreational purposes. It is classified as a large dam, with a structural height of approximately 9-feet, and maximum storage of 80 acre-feet. The dam features a

44-foot long concrete section, containing a 9-foot wide stop log overflow spillway. The stop log section is divided into two bays with a center support. The left bay, referenced from left to right looking downstream, contains a 12-inch high stop log and the right bay contains a 10-inch high stop log.

Fairchild Pond Dam is estimated to be a low-hazard dam based on the potential impacts to development within the dam shadow should a failure occur. Owners of low-hazard, large dams must have their dams regularly inspected every ten (10) years, including all parts of the dam from the spillway to the embankments from upstream to downstream and side to side.

Dam owners also have a responsibility for maintaining the pool elevation behind the dam within authorized levels. The WDNR Water Management Engineer in the Eau Claire Service Center provides management support to dam owners.

The last major repairs at the dam were in 1990, involving resurfacing of the concrete section of the dam. The last formal inspection occurred in September 2018. The WDNR inspection concurrence letter dated August 7, 2019, identified a number of recommendations and past-due compliance items:

- The dam does not have an Emergency Action Plan (EAP) or an Inspection, Operation & Maintenance Plan (IOM) on file with WDNR, which are requirements for large dams.
- A dam failure analysis has not been completed and approved by WDNR.
- Repair concrete on the left groin of the dam where seepage is occurring.
- Replace spillway flashboard/stop logs.
- Install benchmarks for making survey measurements. It was also recommended that a gauge be installed for monitoring water elevation.
- Remove woody vegetation on the dam, then maintain, which has been completed.

Regularly and following a rain event of 2+ inches, a Sportsmen's Club member visually inspects the dam and provides an inspection report to the Village for submittal to WDNR. WDNR has requested that the Village provide a timeline for completion of the remaining above compliance items.

In April 2022, the Village and Sportsmen's Club requested a small 2023 Lake Rehabilitation Grant from Eau Claire County to assist with funding of an updated dam inspection, the IOM Plan, establishing the benchmark, and obtaining recommendation regarding the type and placement of a staff gage; a decision on this grant request will be forthcoming later in 2022. As a possible opportunity to assist with the remaining costs, the community would be eligible to pursue a WDNR Municipal Dam Grant, which would cover 50% of the first \$1 million of the eligible costs.



## V. Management Strategy

### A. Issues and Opportunities

After consideration of the existing conditions during the March 2022 community meeting, community members identified the following key issues and opportunities they felt should be addressed in this management plan:

- **Sedimentation/Siltation**
  - In “delta” area; can’t access shallows at the south end of the Pond
  - Boat ramp to channel is silted in and too shallow for many boats
  - Some shorelines are silting in and impacting fishing
  - High turbidity; boating speeds can “stir up” silt
- **Excess Aquatic Plant Growth & Algae**
  - Very abundant filamentous algae (“pond scum”)
  - Especially near boat ramp and north half of Pond in summer
  - Curly-Leaf Pondweed can be a nuisance at times, but not too bad
- **Bacteria/Pathogens and their implications for swimming/beach; no recent tests**
- **External Factors impacting sediment-loading and nutrient-loading**
  - Increasing heavy rains, flash flooding, & increasing temperatures
  - Shoreline development & land practices
  - Upstream land use practices
- **Preventing Introduction of New Aquatic Invasive Species**
- **Floating “Bogs”**
- **Fisheries & Aquatic Habitat**
  - Restocking & Ongoing Fisheries Management
  - Improving/Adding Shoreline Fishing Opportunities
  - Limited Aquatic Plant Diversity
- **Limited Water Quality Data/Trends & Outdated Bathymetric Map**
- **Capacity & Resources**
  - No Formal Lake Group
  - Strong Sportsmen’s Club as Lake Advocate
  - Low-Income, Small Community with Limited Financial Resources
  - “Can Do”, Self-Sufficient Spirit of Community
  - Strong Community & Historical Ties to the Pond
  - Good Partners (e.g., County Conservation Offices, WDNR, School, Watershed Coalition)

## **B. Vision, Goals, and Objectives**

### **Vision Statement**

The following long-term vision is aspirational and reflects why Fairchild Pond is important and what is most hoped for by the community:

**Fairchild Pond is core to the community's history, identity, and tourism economy, while continuing to be a year-round community gathering place. The Pond's healthy water, balanced ecosystem, wildlife habitat, and beautiful, peaceful setting make Fairchild Pond a great place for family and community activities, such as fishing, swimming, low-intensity water recreation, picnicking, and gatherings at the Sportsmen's Club.**

### **Water Quality Goal and Objectives**

**Goal 1**                    **Similar to conditions before 1990, Fairchild Pond will have good water quality and clarity, with reduced nutrient loading, filamentous algae growth, and sediment loading, while being swimmable throughout the summer.**

#### **Primary Objectives**

- Objective 1.1**        Decrease sediment delivery into Fairchild Pond from upstream and near shorelands.
- Objective 1.2**        Participate in Eau Claire River Watershed Coalition efforts to improve surface water quality and reduce nutrient-loading into streams and lakes as guided by the Eau Claire River Watershed's 9-Key Element Plan.
- Objective 1.3**        Landowners near the Pond, including the Village of Fairchild and the Fairchild Sportsman's Club, will be aware of shoreland conservation, wetland protection, and Healthy Lakes practices and encourage practices that reduce runoff, mitigate bank erosion, encourage natural vegetation, and preserve wetland areas.
- Objective 1.4**        Maintain a safe swimming environment at Fairchild Pond.
- Objective 1.5**        Strengthen the capacity of the Sportsmen's Club to advocate for improving water quality at Fairchild Pond and to take the lead role in the coordination and implementation of the recommendations within this management plan.

### **Aquatic Plant Management Goal & Objectives**

- Goal 2**                    **The aquatic plant community of Fairchild Pond will be healthy and balanced, while not impairing recreational enjoyment and navigation.**
- Objective 2.1**        A healthy aquatic plant community and water quality are related; implement the plan recommendations that support Goal 1.
- Objective 2.2**        With Filamentous Algae and, potentially, Curly Leaf Pondweed as the primary targets, very selectively harvest aquatic plants, taking care to only harvest what is needed for navigability, primary public shoreline fishing areas, the public swimming area (once re-established), and aquatic invasive plant control based on annual growth and plant density.

- Objective 2.3** At least once every 5-10 years, work with Wisconsin Department of Natural Resources to conduct an aquatic plant survey to monitor the plant community and update the aquatic plant management strategy if needed.

### **Fisheries Goal & Objectives**

- Goal 3** **Fairchild Pond will continue to have great year-round fishing, with a healthy, balanced fishery and excellent bass and panfish populations.**
- Objective 3.1** A healthy aquatic plant community, water quality, and aquatic plant management are related; implement the plan recommendations that support Goal 1 and Goal 2. Improved water quality and clarity may also impact aquatic vegetation, water temperature, and turbidity, which would impact the fisheries.
- Objective 3.2** Work cooperatively with Wisconsin Department of Natural Resources to continue the regular stocking of Fairchild Pond as needed to supplement natural reproduction so that the Pond is a balanced, productive, and attractive fishery.
- Objective 3.3** Maintain sufficient coarse woody habitat for game fish species that depend on this habitat, which can also help prevent or reduce bank erosion.
- Objective 3.4** In 2022 and at least every 8-10 years thereafter, conduct a fish inventory survey to monitor changes in species distribution, size, and health.

### **Invasive Species Goals and Objectives**

- Goal 4** **Prevent the introduction of new invasive aquatic plant and animal species into Fairchild Pond so that the water quality, ecosystem, fisheries, and enjoyment of the Pond is not degraded.**
- Objective 4.1** Sportsmen's Club members and Pond users are knowledgeable of aquatic invasive species threats and the actions they can personally take to prevent the introduction of new invasive species.
- Objective 4.2** Monitor Fairchild Pond for aquatic invasive species and work with Wisconsin Department of Natural Resources to take appropriate action(s) should a new invasive species be located or if currently existing invasive species become a severe nuisance.

### **Pond Use & Recreation Goal and Objectives**

- Goal 5** **Fairchild Pond will continue to be a year-round, family-friendly outdoor recreation destination with outstanding public fishing opportunities.**
- Objective 5.1** Improve shoreline fishing and boating access on the northwest side of Fairchild Pond as envisioned in the 2022 *Eau Claire County Outdoor Recreation Plan*.
- Objective 5.2** Re-establish a beach and swimming area on the northeast side of Fairchild Pond as envisioned in the 2022 *Eau Claire County Outdoor Recreation Plan*.
- Objective 5.3** Fairchild Dam should be properly maintained and monitored, including required planning and reporting.



## **C. Alternatives Considered**

A wide-range of management alternatives were considered to address the water quality, aquatic plant, aquatic invasive species, and fisheries goals and objectives of this plan, including but not limited to:

- Phosphorus-reduction, algae-mitigation, and aquatic plant management alternatives were discussed, including aeration, the use of aquatic plant harvesting equipment, planting native aquatic plants, and strategies and key partners to address nutrient-loading upstream.
- No feasible alternatives were identified to eliminate or manage the established aquatic invasive species.
- Alternative approaches and locations regarding sediment-loading and dredging, including whether a drawdown is necessary or would be cost-feasible.
- Shoreline stabilization options and various shoreland best practices.
- Additional educational and outreach strategies, such as additional studies and water quality monitoring, education regarding boating and fishing regulations, clean boat/AIS inspection programs, and engaging youth and the community in plan implementation.
- Various ideas to improve recreational opportunities and shoreline access.

During the March 2022 community discussion meeting, the alternative of removing the dam and converting the Pond back to Schoolhouse Creek was considered; there was strong community opposition to this alternative.

The selected strategy alternatives in the following action plan were recommended based on feasibility (e.g., cost vs. benefits, technical barriers, appropriateness) and likely effectiveness. However, a few of the recommended strategies require additional study or analysis prior to full implementation.

## D. Action Plan

Strategy	Cost Estimate (if avail.)	Suggested Resources	Notes
<b>Short-Term Strategies (1-3 years)</b>			
<p><b>1. Sediment Trap &amp; Dredging Plan</b> - Conduct a study and develop a plan for an upstream sediment trap on Schoolhouse Creek and selective dredging of 4 to 6 near shoreline areas for fishing and boating improvements, including any required soil testing and the preparation of a related permit application.</p> <p>Two locations for a potential sediment trap were identified: (1) just upstream of the delta on the south side of the Pond and (2) at the “fishing hole” on the north side of the Main St. bridge. The latter may be preferable in terms of access and possibility of maintaining the trap from the street/bridge.</p> <p>Discuss with the engineer the feasibility and effectiveness of a second sediment trap on Little Creek is necessary. Potentially include as part of the permit.</p>	<p>\$10,000-\$25,000; more if a 2<sup>nd</sup> trap on Little Creek is desired</p>	<p>WDNR Small-Scale Lake Planning Grant (up to 67% of costs)</p>	<p>Prepare a WDNR lake grant application for Fall 2022 submittal by the Village for the study and application preparation. Study should include analysis, any soil testing, and recommendations regarding siting, depth, access, disposal of soils, “fishing hole design” and anticipated trap maintenance. Also determine if a partial drawdown by the removal of stop logs would assist with dredging. Less than 3,000 cubic yards should be removed under any single permit and mechanical dredging from shore is anticipated. If possible, include all activities as part of a single 10-year permit, though the construction/dredging work could occur in phases.</p> <p>It is important that the dredging of the “fishing holes” and boat ramp be performed in a manner that does not isolate these holes from the main channel during the winter freeze; this may limit where such dredging can occur and the extent/depth of said dredging. Max. rooting depth is 7’, so would be nice if the holes were at least 8’ to keep them from becoming “clogged” with vegetation, but this may not be possible.</p> <p>Fall Creek District is also interested in selective dredging for shoreline fishing “holes”; may be an opportunity to partner on design and/or construction for grants and bidding.</p>
<p><b>2. Continue Fish Stocking</b> – As guided by the May 2022 fish inventory, conduct a Spring 2023 stocking of yearling Yellow Perch, then continued stocking every 1-2 years thereafter. Initial stocking recommendation is 50 fish/acre (or 850-900 fish). Can supplement with additional species (e.g., Hybrid Bluegills) at the discretion of the community.</p>	<p>\$750-\$1,000 per stocking for Perch</p>	<p>Purchase from a WNDNR-approved private hatchery</p>	<p>Requires submittal of WDNR Form 9400-060 Fish Stocking Permit Application to regional Fisheries Biologist. May want to avoid future stocking of N. Pike. Adjust the stocking plan based on the next regular fish inventory scheduled for 2029. If concerns with fish populations are identified in the interim, contact the Fisheries Biologist and consider an interim shoreline fish survey to monitor numbers, growth, and species diversity. <a href="https://www.wisconsinaquaculture.com/fish-farm-search">https://www.wisconsinaquaculture.com/fish-farm-search</a></p>
<p><b>3. Size Limit &amp; AIS Signage</b> – Collaborate with partners to install aquatic invasive species and Clean Boats signage near the boat launch. Also, work with WDNR to install new, more visible signage regarding fish size limits and potential fines.</p>	<p>Minimal</p>	<p>WDNR likely can provide signage</p>	<p>Resources may already be available to install such signage. If not, partner with Eau Claire County Land Conservation and/or Beaver Creek Reserve to pursue Clean Boats, Clean Waters grant funding for signage and, potentially, other educational outreach at multiple boat launches in Eau Claire County.</p>

<p><b>4. Create Family-Fishing “Pods”</b> – After the location of the “fishing holes” in the previous Strategy #1 are determined, create additional family-fishing areas on Village-owned land around the Pond, including related amenities, and, potentially, the installation of a trail/boardwalk south of the Clubhouse for additional shoreline access. <i>(Included in Outdoor Rec Plan)</i></p>	<p>\$5,000-\$30,000; costs will depend on extent of trail &amp; amenities</p>	<p>Knowles-Nelson Stewardship Programs, FishAmerica Foundation. Volunteer, in-kind labor.</p>	<p>The fishing areas would be located at dredged fishing holes; minimal amenities or improvements are envisioned (e.g., a bench or picnic table).</p> <p>From the end of the Clubhouse parking lot south to the end of Village-owned property is approximately 0.15 miles. Though the majority travels through wetlands, the north half is an old, built-up road bed and could be more easily (and affordably) be restored as a trail as an initial phase. Special permits or approvals for the trail/boardwalk and shoreline fishing in the wetlands area may be needed.</p>
<p><b>5. Lake Association</b> – Explore the formation of a qualified lake association. In the interim, the Village of Fairchild would likely need to be the applicant for any Surface Water Grants for Pond-related projects.</p>	<p>\$35 to incorporate at nonprofit</p>	<p>Extension Lakes Program for guidance</p>	<p>Qualified lake associations must meet the qualifications under Wis. Stats. 281.68 (3m). A qualified lake association must be incorporated under Wis. Stats. 181 for at least 1 year. Must have at least 25 members. Membership is voluntary. Must allow residents or landowners on or within 1 mile of the Pond to be a member. 501(c)(3) status is optional for future.</p>
<p><b>6. Dam Planning (Phase I)</b> – Complete an updated dam inspection. Prepare a dam inspection, operation, &amp; maintenance (IOM) plan. Establish a permanent survey benchmark and identify style and location of staff gauge.</p>	<p>\$12,600</p>	<p>WI Municipal Dam Grant. ECCo Lake Rehab Grant</p>	<p>ECCo Lake Rehab Grant for 50% of project costs applied for by Village in April 2022 for these activities; the Club agreed to provide \$4,150 of the community’s cost share. If funded, to be implemented in 2023.</p>
<p><b>7. Dam Planning (Phase II)</b> – Hire an engineer to prepare in accordance with applicable WDNR guidelines: (a) recommended design specifications for needed repairs; (b) a dam failure analysis, and (c) an emergency action plan.</p>	<p>\$50,000-\$70,000</p>	<p>WI Municipal Dam Grant. ECCo Lake Rehab Grant</p>	<p>Timing of implementation would be contingent upon the availability of grant funding. An April 2022 estimated cost was: \$35,300 for the design/repair plans, \$20,500 for the DFA, and \$7,500 for the EAP. The Village could potentially use the County grant as part of the match for the State grant.</p>
<p><b>8. Economic Analysis</b> – Collaborate with the Eau Claire River Watershed Coalition to analyze the economic value of Fairchild Pond.</p>	<p>unknown</p>	<p>ECR Watershed Coalition</p>	<p>Similar analysis under consideration by Watershed Coalition.</p>
<p><b>Mid-Range Strategies (3-5 years)</b></p>			
<p><b>9. Update Bathymetric Map</b> – Prepare an updated bathymetric map. Once the sediment trap and selective dredging is completed, periodically spot check the map to monitor changes in Pond depth and the rate of sedimentation.</p>	<p>Uncertain</p>	<p>Eau Claire County Land Conservation; ECR Watershed Coalition</p>	<p>It may be beneficial to complete this prior to installation of the sediment trap to assist with monitoring. The County Land Conservation office recently partnered with other lake organizations in the County to acquire bathymetric equipment that may be available to assist at little or no cost. Use of the equipment has been discussed as part of the Watershed Coalition and its Technical Committee.</p>



<p><b>10. Install Sediment Trap</b> - Following the plan and permit (see Short-Term #1), conduct mechanical dredging from shoreline to install the sediment trap on Schoolhouse Creek. May occur sooner than 3 years if funding resources available.</p> <p>Once installed, establish and support a fund for future sediment trap maintenance.</p> <p>A second sediment trap on Little Creek may be needed in the future.</p>	<p>\$20,000- \$30,000 + maint- enance fund</p>	<p>ECCo Lake Rehab Gran.</p> <p>WDNR rarely funds most sediment trap &amp; dredging projects.</p>	<p>This strategy could be included within the same 10-year permit for the selective dredging of “fishing holes” (#2 below), with the sediment trap installed first. Fall Creek’s spring 2022 dredging of its sediment trap removed about 2,500 cubic yards at a cost of \$25,000. <u>Cost savings may be possible if work occurs when ground is frozen and if local community can provide some equipment or labor.</u> If dredged spoils allow, explore opportunities to market as fill.</p> <p>An adaptive management approach is necessary —monitor the trap and Pond depth to evaluate changes and see how quickly the dredged areas fill back in. Some head-cut is expected in the first 1-3 years as the bottom adjusts to the trap. Modify the maintenance schedule as needed.</p>
<p><b>11. Conduct Selective Dredging of “Fishing Holes”</b> - Following the plan and permit (see Short-Term #1), and after installation of the sediment trap, conduct mechanical dredging from shoreline for selective dredging of 4-6 shoreline areas to improve shore fishing.</p>	<p>\$20,000- \$40,000</p>	<p>ECCo Lake Rehab Grant; maybe FishAmerica Foundation Grant for fishing holes.</p>	<p>Could be conducted in conjunction with and immediately following the installation of the sediment trap, including as part of the same permit and/or grant application. A temporary, <u>partial</u> drawdown by removal of the stop logs may assist with this dredging. Again, costs may be less if ground is frozen and if community can provide some in-kind labor or equipment.</p> <p>As mentioned previously, Fall Creek is also planning to dredge “fishing holes”, so there may be an opportunity to coordinate this activity for grants and/or cost savings in design or construction.</p>
<p><b>12. Boat Ramp Dredging &amp; Improvements</b> - Increasing the depth from the boat ramp to the main channel should be conducted as part of the selective dredging plan, permit, and contracts for the “fishing holes.” Installing a boat dock and making other ramp improvements can be part of a future phase. <i>(Included in Outdoor Rec Plan)</i></p> <p>Explore the creation of a second public boat landing on the northeast side of the Pond.</p>	<p>\$15,000- \$50,000</p>	<p>Rec Boating Facilities Grant, Knowles-Nelson Stewardship Programs, Eau Claire County Lake Rehab Grant</p>	<p>While the dredging would likely be performed as part of the previous action plan strategy, this is included as a separate strategy given that it may involve alternative grant funding sources related to boating improvements.</p> <p>Improvements of the boat ramp and installation of a boat dock could be addressed as a future phase after dredging is completed. Since it serves the boat ramp, improving the driveway may also be eligible under one or more of these grants.</p>

<p><b>13. Fish Sticks/Cribs and Healthy Lakes &amp; Rivers Projects</b> – Inform Pond shoreland owners of the availability of Healthy Lakes &amp; Rivers grant funding and educate on the benefits of the grant-eligible projects. If there is interest in eligible shoreland projects or fish sticks projects, submit a joint grant application on behalf of multiple shoreland owners.</p> <p>The installation of fish cribs may be a good alternative to fish sticks for Fairchild Pond if appropriate locations for tree drops/fish sticks are not available.</p> <p>If possible, engage the high school class at the Fairchild School in implementation of such projects.</p>	<p>Healthy Lakes Projects can range from \$50 to \$10,000, with \$1,000 in grant funding available per practice.</p>	<p>Healthy Lakes &amp; Rivers grants.</p> <p>Lake Eau Claire may be a good partner re: fish cribs.</p> <p>O-F School District High School Class at the school.</p>	<p><a href="https://healthylakeswi.com/">https://healthylakeswi.com/</a></p> <p>Healthy Lakes Grants due on November 1<sup>st</sup> of each year. The Village and/or Club could assist any interested private landowners with some of their costs.</p> <p>Fish sticks &amp; fish crib projects should be delayed until after or in conjunction with the selective dredging of shoreline fishing areas, since it would be valuable to place some habitat structures in shallow areas near the fishing holes. If cribs are desired, it may be a good time to install if a partial drawdown occurs as part of shoreline dredging.</p> <p>Lake Eau Claire has completed many fish crib projects and their volunteers may be willing to help. Cribs typically cost in the \$100-\$500 range per crib, but are not an eligible Healthy Lakes grant project.</p>
<p><b>14. Dam Repairs</b> – Use the engineering specifications to obtain competitive bids for needed repairs at the dam. The Village should consider establishing a maintenance fund for future dam inspections, plan updates, and repairs.</p>	<p>Unknown until specs completed</p>	<p>WI Municipal Dam Grant. ECCo Lake Rehab Grant</p>	<p>The Village could potentially use the County grant as part of the match for the State grant.</p>
<p><b>15. Bacteria Testing</b> – Once a firmer timeline towards establishing a beach is determined, partner with Eau Claire City-County Public Health to conduct E.coli bacteria/pathogen testing at the beach site to evaluate the safety of establishing a public beach.</p>	<p>City-County Public Health to assist</p>	<p>Eau Claire City-County Public Health</p>	<p>Once advertised and used as a public beach, County would be willing to add this site to their beach monitoring program with weekly sampling during summer months, and more regular sampling during periods of E. coli levels. This may also help confirm whether the 1996 elevated fecal coliform levels were possibly related to the abandonment of the wastewater treatment system. Also, it may be valuable to monitor progress of the testing pilot project at Lake Altoona to determine the sources of E.coli.</p>
<p><b>16. Create “Beach Park”</b> - Establish a beach and swimming area on the northeast side of the Pond, with bathhouse/restrooms and picnic area. <i>(Included in Outdoor Rec Plan)</i></p>	<p>Knowles-Nelson Stewardship Programs</p>	<p>\$50,000 - \$90,000</p>	<p>May be a long-term strategy, unless funding available. The outdoor recreation plan also envisions the installation of an ADA-accessible fishing pier and potentially adding a floating raft for swimmers as part of “Beach Park” in 5+ years. In the interim, improve fishing access in the beach area.</p>
<p><b>Long-Term Strategies (5+ years)</b></p>			
<p><b>17. Updated Fish Survey &amp; Stocking Plan</b> - In 2030-2032, conduct a comprehensive fish inventory survey and update the fish stocking plan.</p>	<p>WDNR provided</p>	<p>WDNR Fisheries Biologist</p>	<p>Partner with WDNR Fisheries Biologist to conduct periodic fish inventories, to assist with modifications to the fish stocking plan, and monitor the Fairchild Pond fishery.</p>

Ongoing or Continuing Strategies			
<p><b>18. Watershed Coalition Participation</b> - Identify a liaison(s) from the Sportsmen’s Club or community to participate in Eau Claire River Watershed Coalition meetings and support projects and activities of the Coalition and the Land Conservation offices of Jackson and Eau Claire counties that benefit Fairchild Pond.</p>	<p>No cost to participate, but could assist with occasional project costs</p>	<p>Various projects of the Coalition are grant supported.</p>	<p><a href="http://www.eauclaireriverwatershedcoalition.org">www.eauclaireriverwatershedcoalition.org</a> The Coalition’s Technical Committee largely focuses on in-lake or in-river studies and projects, which may be of particular interest to Fairchild Pond. Periodically the Coalition and the County land conservation offices pursue grants or projects for which a lake groups may provide a cash or in-kind cost share. The liaison(s) should give periodic (quarterly?) updates at Club meetings on Coalition activities.</p>
<p><b>19. Aquatic Plant Management &amp; Floating Bogs</b> - Hand harvest Filamentous Algae using a hoop fishing net when it becomes a nuisance to boat navigability, shore fishing, and public swimming. Floating “bogs” that become hung-up on the shore may be removed <u>before</u> they become re-established or re-rooted. Conduct periodic aquatic plant surveys.</p>	<p>No significant costs, unless it is decided to install a pumping device in future.</p>	<p>Club volunteers for management.  WDNR <u>may</u> help with aquatic plant surveys.</p>	<p>No special permits or approvals are required for described management activities. The previous aquatic plant surveys were performed in 1995 and 2020.  If this approach to Filamentous Algae control is untenable and it continues to be a significant nuisance at the bay near the boat ramp, explore the installation of pumping device to move the water out of the area and help prevent algae accumulation.</p>
<p><b>20. Lake Monitoring</b> – Club and/or community volunteers are encouraged to receive Citizen Lake Monitoring Network (CLMN) training and to conduct regular water quality and invasive species monitoring at the Pond.</p>	<p>No cost to participate</p>	<p>Volunteers and a boat. Beaver Creek Reserve may provide training.</p>	<p>Should significant changes or concerns be found in water quality, depth, aquatic plants, AIS, etc., the WDNR Lakes Biologist should be contacted. Water Action Volunteer monitoring on Schoolhouse Creek upstream may also be beneficial.</p>
<p><b>21. Plan Monitoring &amp; Update</b> -Annually review progress towards this Action Plan and amend the plan if needed. A full review and update of the plan should be completed by 2032, or sooner if warranted.</p>	<p>No cost for plan monitoring</p>	<p>WDNR and/or County land conservation staff, if needed</p>	<p>The Sportsmen’s Club (or Lake Association once established) should facilitate this meeting and invite the community to participate in a plan review meeting annually. The review committee should have broad local representation. The WDNR Lakes Biologist should be invited to the review meetings as well as be consulted and/or informed regarding any plan amendments.</p>



### Recommended Implementation Schedule

The following is a summary of the action plan with *hoped for* timeframes. [Blue text](#) denotes projects for which grant assistance may be eligible.

Strategy	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Notes
1. Create Sediment Trap & Dredging Plan, and submit permit application												Apply for WDNR Lake Grant in Fall 2022 for this work.
2. Continue Fish Stocking Beginning Spring 2023												\$750-\$1,000/stocking for Yellow Perch
3. Install Size Limit & AIS Signage												installing w/ WDNR-provided signs
4. Create Additional Family-Fishing "Pods" w/ trail extension												May be approached in phases. Possibly grant-eligible.
5. Explore/Form a Qualified Lake Association												Would allow for submittal of WDNR grants directly
6. Implement Dam Planning - Phase I, when funded												ECCo Lake Rehab Grant applied for in April 2022
7. Pursue Grant Funding for Dam Planning - Phase II, then implement												Potential Municipal Dam Grant & ECCo Grant in 2023
8. Partner with Watershed Coalition for Economic Analysis of Pond's Value												Likely, no local funding required for this activity.
9. Update Bathymetric Map												Equipment thru ECCo may be available
10. Install Sediment Trap (part of permit under #1)												likely not grant eligible
11. Conduct Selective Dredging of "Fishing Holes" (part of permit under #1)												likely not grant eligible, unless private charity
12. Boat Ramp Dredging & Improvements (part of permit under #1)												consider Rec Boating and/or WDNR Knowles-Nelson Grant
13. Consider Fish Sticks/Cribs and/or Healthy Lakes Projects												Healthy Lakes Grants. Can implement over time.
14. Complete Dam Repairs, based on plans from #7												if WDNR Municipal Dam Grant & other funding avail
15. Conduct Bacteria Testing, if a beach/swimming area is planned												would be ongoing once beach established
16. Create the "Beach Park", as funding allows												WDNR Knowles-Nelson grants available
17. Update the Fish Survey & Adjust Stocking Plan as needed												Update w/ WDNR assistance
18. Participate in Watershed Coalition activities												identify a liaison to report to Sports Club/Lake Association
19. Address Filamentous Algae & Floating Bogs as needed												to be performed by Sportsmens Club
20. Identify Volunteers for regular CLMN Lake Monitoring												reach out to Beaver Creek for related training
21. Annually Review Plan & Update by 2032												establish a review committee

## E. Plan Implementation

The previous recommended action plan is a guide and will be implemented as resources allow. In some cases, a strategy may require further study or analysis, which may necessitate modification or fine-tuning prior to implementation. Timelines for implementation may also change due to resource availability, shifting priorities, or changes in opportunities, such as new grant funding programs.

The action plan will be implemented through a partnership between the Village of Fairchild, the Sportsmen’s Club, and the Lake Association (if created), with financial and technical support for other community organizations, County land conservation offices, WDNR, and others.

It is anticipated that the Sportsmen’s Club will primarily be responsible for leading and coordinating most action plan strategies, including plan monitoring, unless a separate Lake Association is formed. Likewise, it is anticipated that the Sportsmen’s Club and Lake Association will provide the local funding and cost share (cash or in-kind) for most strategies, with the Village taking the lead role in contributing to costs related to the dam and Beach Park in particular. It may be necessary or prudent for the Club and Village to establish special accounts for larger projects, related grant awards, and maintenance funds as well as incorporate such projects into their respective program budgets and capital improvement plans



If/when a Lake Association is formed, the Association will take the lead in implementing most of the actions and local funding responsibilities in the action plan instead of the Sportsmen’s Club. Whether led by the Club or a new Lake Association, an effective lake organization has high levels of capacity. As represented by the diagram to the left, an effective lake organization is founded upon an active and informed **membership** that is committed to the organization’s mission. An effective lake group must also have a strong **internal organization** with lake leaders who can guide, coordinate, and manage all aspects of the group. Fairchild Pond already benefits from strong **external relationships**; it is important to maintain and grow such external collaborative partnerships within the local community and the larger watershed. It is when these three foundational aspects of capacity are achieved can a lake organization provide **programs** most efficiently and effectively.

Given the role of Fairchild Pond as a valued recreational resource for the local area and a gathering place for other organizations, it is hoped that nearby towns (e.g., Town of Fairchild, Town of Cleveland) and other community organizations (e.g., Lions Club) will assist the Sportsmen’s Club/Lake Association with project funding and conducting fundraising events.

## **Key Funding Sources for Lakes**

The following grant resources are most commonly used by qualified lake organizations and municipalities for water quality, habitat, and recreational improvements. This list does not include the many additional upstream/watershed, urban/municipal stormwater, or flood mitigation grant and financial programs such as: WDNR Targeted Runoff Management (TRM) Grants, WDNR Urban Nonpoint Source Stormwater Management Grants, WDNR Municipal Flood Control Grants, FEMA hazard mitigation grants, Community Development Block Grants-Public Facilities, U.S.F&WS Fishers & Farmers Partnership, and other agricultural conservation grants (e.g., CREP, CSP, EQIP, ACEP). WDNR and county land conservation staff can assist in navigating these various grant programs and their applicability to the area.

Grant Program	Eligible Activities	Funding	Deadlines
WDNR Surface Water Education Grants	A wide-range of educational, capacity building, & data collection projects	Up to \$5,000/project; 67% of total project costs	Pre-applications by Sept 2; Nov 1 deadline
WDNR Surface Water Planning Grants (small-scale & large-scale)	Assessment and planning. No more than 20% of funding may support education & outreach.	Up to \$10,000/project; 67% of total project costs	Pre-applications by Sept 2; Nov 1 deadline
WDNR Comprehensive Management Planning for Lakes & Watersheds	Creating a management plan. No more than 20% of funding may support education & outreach.	Up to \$25,000/project; 67% of total project costs	Pre-applications by Sept 2; Nov 1 deadline
WDNR Management Plan Implementation (projects must be consistent with an approved management plan)	Broad range of projects, including nonpoint source pollution control, habitat restoration, water quality improvements, management staffing, studies, and landowner incentives.	Up to \$200k for lakes & wetlands; \$50k for rivers; 75% of total project costs	Pre-applications by Sept 2; Nov 1 deadline
WDNR Healthy Lakes & Rivers	Fish sticks, native plantings, diversion practices, rain gardens, & rock infiltration installed by shoreland owners.	\$1,000 per practice up to \$25,000/application; 75% of total project costs	Pre-applications by Sept 2 for 1 <sup>st</sup> time; Nov 1 deadline
WDNR Surface Water (Wetland & Shoreline Habitat) Restoration	Shoreland protections, in-water habitat structures, culverts, wetland restoration, & ordinance development. Wetland incentives of \$10k also available.	Up to \$50k for lakes & wetlands; \$25k for rivers; 75% of total project costs	Pre-applications by Sept 2 for 1 <sup>st</sup> time applicants; Nov 1 deadline
WDNR Clean Boats, Clean Waters	Boater education and AIS prevention, including CBCW inspections. Some additional AIS programs are available.	Up to \$24,000/project; 75% of total project costs. \$4,000 per landing or pair of landings.	Pre-applications by Sept 2 for 1 <sup>st</sup> time applicants; Nov 1 deadline
WDNR Recreational Boating Facilities Grants There is a separate boating grant program (BIG) for marinas & other facilities for larger (26'+) recreational boats.	Dredging of boating channels, boating support facilities (e.g., ramps, docks, parking lots, sanitary facilities, lighting), navigation aids,	50% of total eligible costs; no hard maximum funding limit. Applications over \$250k require longer review.	Apply at any time if <\$250k. Applications reviewed quarterly.



	locks, trash skimming equipment, weed harvesting equipment.		Dredging limited to 1x every five years.
WDNR Municipal Dam Grant	Dam repair, reconstruction, or modification. Will cover 100% of first \$1 million of dam abandonment and removal costs.	50% of the first \$1 million, then 25% of next \$2 mil.	2022 deadline was March 4 <sup>th</sup>
Eau Claire County Lake Rehabilitation Grants	Potentially a wide range of eligible projects, including dredging, sediment traps, and construction and disposal basin costs.	50% of total eligible costs; no hard maximum funding limit.	2022 deadline was April 15 <sup>th</sup>
WDNR Knowles-Nelson Stewardship Programs Includes Land & Water Conservation Fund (LAWCON) & the Recreational Trails Program (RTP). There is a separate Motorized Stewardship Program for ATV & snowmobile trail aids.	A variety of public outdoor recreational improvements, including beaches, fishing piers, riverfront/lakefront trails, boardwalks, park & picnic amenities, restrooms, signage, ADA accessibility, boat or canoe/kayak launches, viewing platforms, scuba diving platforms, lake access staircases, & land acquisition.	50% of total eligible costs, though RTP may be up to 80% grant funded. Project should be in an adopted Outdoor Rec Plan.	May 1 <sup>st</sup> except March 15 <sup>th</sup> for NCO acquisition projects
Army Corps of Engineers Planning Assistance to Tribes & States	Local governments can request assistance for a wide variety of water-related planning and studies.	Provides technical assistance, not grant funding. Typically, value of assistance must be matched 50%.	None.
WDSPS Wisconsin Fund	Provides grants to eligible homeowners and small commercial businesses to help offset a portion of the cost for the repair, rehabilitation, or replacement of existing failing septic systems.	Not all counties participate. Amount of funding varies by type of system and the size of the home or business.	Last funding period ended 1/31/22; uncertain if more funding will be available in future.
FishAmerica Foundation <a href="https://www.fishamerica.org/">https://www.fishamerica.org/</a>	Various projects that enhance fisheries and fishing opportunities, including stream restoration, AIS removal, aquatic habitat, aquatic vegetation, debris removal, etc.	The four awarded projects in 2021 were \$10k and \$15k	Monitoring their website for announcements

Many of the WDNR surface water grants in the above list allow in-kind contributions to be used as part of the local cost share. Many of these grant programs also have an annual funding limit per waterbody or grantee.

## **F. Plan Monitoring, Evaluation, and Update**

As identified in the previous *Ongoing or Continuing Strategies*, the Sportsmen's Club should facilitate an annual review of this management plan at least once a year starting in 2023 and fully update this plan by 2023. Representatives from the Village Board, other community organizations, Town governments, WDNR lakes programs, and Eau Claire County Land Conservation should be invited to participate in this meeting. So this becomes an annual routine, it may be valuable to request specific appointments from many of these entities. If a Lake Association is formed, the Association would be responsible for facilitating the annual review and plan updates, with continued Sportsmen's Club representation.

The action plan also includes additional monitoring recommendations, including encouraging continued lake monitoring, monitoring of aquatic invasive species, and periodic fish survey updates.

# APPENDICES



# APPENDIX A. HISTORY OF FAIRCHILD POND

This appendix was provided by the Fairchild Area Historical Society and appeared in the Summer 2021 issue of the Society’s newsletter (Volume 3, Issue 2). For more information on the Historical Society, visit their website at [www.fairchildhistory.org](http://www.fairchildhistory.org).

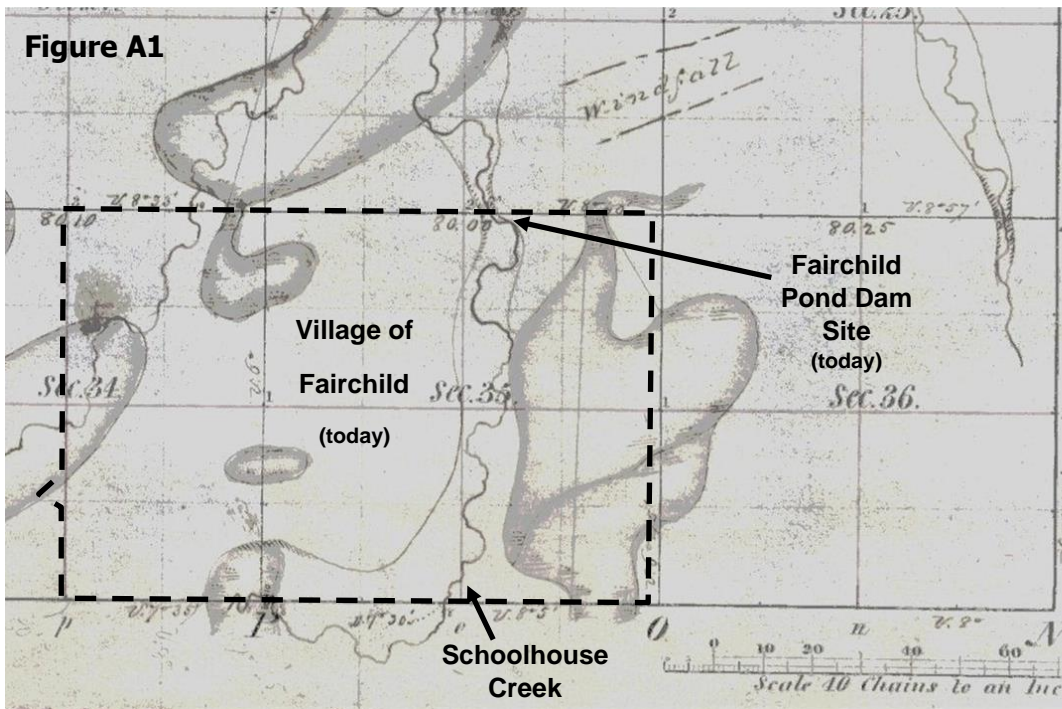
For well over a century, the Fairchild Pond has played a significant role in the economic and recreational life of the Fairchild area. Its history is inextricably linked to the N.C. Foster lumber enterprises and the Fairchild Rod & Gun Club, now known as the Fairchild Sportsmen’s Club.

Today, Fairchild Pond is approximately 18 acres in size and is a popular recreational destination for fishing, boating, and picnicking. With the Sportsmen’s Club located along its western bank, it has also become a community gathering place at which many local groups host various events throughout the year. However, as one gazes out at this scenic gem, enjoying the wind through the pines and the sounds of waterfowl, it is easy to forget that Fairchild Pond was not always a recreational destination. In fact, it is a manmade feature and did not exist 150 years ago.

## I. Pre-European Settlement—Before the Pond

Records for the Fairchild area prior to European settlement are few. Native people populated the area long before Europeans arrived, and artifacts show that they lived and/or hunted along Schoolhouse Creek and its tributaries. This important part of our area’s history will be explored in a future newsletter. In September 1853, U.S. Deputy Surveyor Edgar Sears completed the original survey for what would become the Town of Fairchild (Township 25N, Range 5W). At the time, Eau Claire County had not yet been formed and was still part of Chippewa County.

According to the 1918 *History of Clark County, Wisconsin*, Mr. Sears had a team of about a half-dozen men, including those running the chains, axemen, and a teamster with an ox. **Figure A1** below is part of the original survey for the Fairchild area.



This map is an excerpt of the original public land survey map filed in 1854. We have added the approximate boundary for the Village as it is today. The surveyor’s notes describe a large tamarack swamp along the section line to the east of the Creek, shown by the large shaded area on the east side of the Village.

source:  
Public Land Survey System Map:  
Wisconsin T25N, R5W  
filed on January 17, 1854.

Mr. Sears' survey notes provide a glimpse of the area that would become Fairchild Pond. At the time, Sears measured a north-northwesterly flowing stream, which was 20 links (13.1 feet) wide at what today is the current location of the dam on Pond Road.

Mr. Sears describes "bottoms" on each side of the Creek. These bottoms are likely relatively flat, low-lying areas or floodplain, perhaps with shrubby growth and marshy grasses. The map excerpt on page 1 includes a line showing that the bottoms were only about 3 chains (198 feet) wide at the current dam site, but widened to the north and south. This narrowing of the bottoms at this location made it a good spot for a dam.

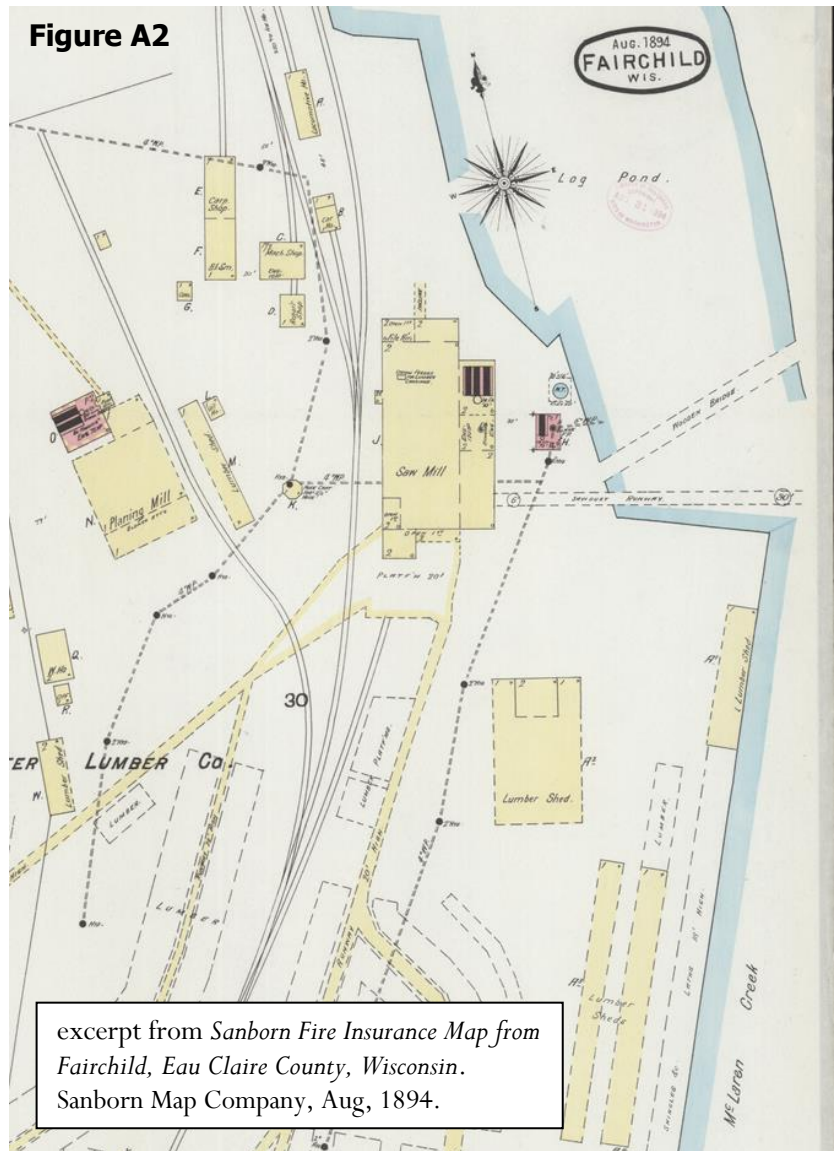
The large, shaded area to the east of the stream bottom land was described by Mr. Sears as "uncultivable tamarack swamp," which includes most of Camp Road within the Village today. Outside the bottoms and tamarack swamp, Mr. Sears described the area as having second-rate sand soils, with a mix of White Pine, Black Oak, Aspen, and Hazel with thick and high undergrowth.

## II. The Dam is Built and Pond Created

The first dam creating Fairchild Pond was likely built in late 1876 or early 1877 at its current location. On November 27, 1876, N.C. Foster of Fort Howard, Wisconsin, purchased 150 acres at a cost of \$1,200 from the West Wisconsin Railway Company, which included the 80 acres on which the Fairchild Pond is now located. The railway had received the land from the Federal government as an incentive to construct a rail line from the Tomah area to Lake St. Croix near Hudson.

One newspaper article states that in 1876, N.C. Foster moved his sawmill from Shawano County to the Pond. This would actually be the first of three sawmills operating at this location, with the first two sawmills destroyed by fire in 1881 and 1887. An 1878 plat map and 1894 Sanborn Fire Insurance Map (**Figure A2**) confirm that the sawmill was located along the west bank of the Pond roughly one-quarter mile south of the dam.

Fairchild Pond was a log pond that was essential to the mill's operation. The Pond was used for the storage of logs as they awaited milling. The



1894 Sanborn Map in Figure A2 notes that the mill was steam-powered. Given the dam's distance from the mill, plus the lack of elevation change, it seems unlikely that the dam was ever used as a source of power like the waterwheel at Dells Mill north of Augusta. Water from the Creek was likely used for the steam as well as for the sprinkler system and, perhaps, for cooling sawblades and equipment.

The Sanborn Map also shows that there was a wooden bridge and sawdust runway across the Pond; support pylons from the bridge still exist in the Pond today. The straight shorelines on the map have an unnatural feel and reinforce that the Pond existed primarily as a place of industry, not as a recreational resource.

### III. Wait...What Was the Creek's Name Again?

Did you notice on the Sanborn Map that the stream that feeds into the Pond is named **McLaren Creek**? On this map, the Creek was probably named for Robert McLaren, who was one of two early partners of N.C. Foster until March 1882 when Foster bought out McLaren's share. However, the Creek has had a number of names.

The 1896 Wisconsin Journal of the Senate included a Fish Commissioner's report stating that 8,000 Brook Trout fingerlings were planted at **Scotts Creek** in Fairchild due to an application by N.C. Foster's son, Gilbert Foster. Additional fingerlings were planted in 1905 (and maybe other years); the Creek has a long history as a popular trout stream. We know this is the same stream shown on the Sanborn Map given that a 1941 plat map uses the label "Scotts Creek" and some property legal descriptions along the stream still reference Scotts or Scott's Creek.

During the 1940s -1960s, the stream was often locally called **Rosenbaum's Creek**. On that same 1941 plat map, we can see that Louis Rosenbaum owned the land on both sides of the Creek on the north side of East Main Street. Years before, a creamery was located to the west of the Creek where the Rosenbaum home once sat. Some might also recall the past tradition of the short walk from the Cemetery to the bridge to toss a wreath of flowers in the stream as part of the Memorial Day service.

In 1969, the stream was officially named **Schoolhouse Creek** by action of the USGS Board on Geographic Names; the related minutes from the Wisconsin State Geographic Names Service do not include details on who nominated this name and why. We suspect that the "schoolhouse" name may have come from a small school that once existed along the Creek at the corner of Braemer and Town Hall roads in the Town of Cleveland upstream of the Village to the southwest.

### IV. The End of the Logging Era

The *Fairchild Observer* reported that at 3 o'clock on Tuesday, May 9, 1905, "the last log was sawed in the N.C. Foster Lumber Co mill, and the industry that was begun twenty-eight years ago, and built Fairchild from a way station to a thriving town, came to an end forever. The prolonged whistling gave notice to the community of the stopping of the machinery, and it caused many a pang."

Just over 11 years later, in September 1916, N.C. Foster sold the 40 acres that included the dam and north half of Fairchild Pond to Henry Barney and Walter Olson for \$2,000.00. The 40 acres that included the south half of the Pond were also sold by Foster to other parties.



From November 1933 to June 1935, the area east of the Pond was the site of the 1605<sup>th</sup> Company of the Civilian Conservation Corps (CCC) named Camp Fairchild; the Camp's first home was about eleven miles north on the Eau Claire River. The men of Camp Fairchild worked on public works improvements, erosion control projects, reforestation efforts, and forest fire mitigation and suppression as part of the Federal work relief program during the Great Depression.



source: "Fairchild...When You and I Were Young" by Gene Miller.  
Photo by Ruby Hobart Miles. Used with permission by Eugene Miller, Jr.

After changing hands a number of times since 1916, the north 40 acres were fully owned by the Village of Fairchild in June 1936. A 1938 aerial photo shows that little remained of the many buildings at the mill site and Camp Fairchild, and the bridge had also been removed.

Over time, two parcels totaling about 4.9 acres of the 40 acres near the corner of Pond Road and Camp Road would later be sold. Today, the Village continues to own the remainder of the acreage surrounding the north end of the Pond.

## V. Dam Breaks

Maintaining a dam is not without challenges. On September 3, 1883, the Fairchild correspondent to the *Augusta Eagle* reported, "The dam at N.C. Foster's Mill, or a portion of it, was washed out Saturday afternoon. A full force of men are at work, and the break will be mended in a day or two more."

In 1933, the men of Camp Fairchild rebuilt a log dam that was soon washed out in early spring 1934 by heavy rains. In 1934, the 2618<sup>th</sup> CCC Company at Camp Globe, which was located about 11 miles northeast of Fairchild, began work on a new dam built of stone and reinforced with concrete with a wooden spillway gate, which was completed by Camp Fairchild.

In summer 1935, the dam washed out again, after Camp Fairchild's closure. The men of Camp Globe completed dam repairs in spring 1936. The May 12, 1936, issue of the *Globe Trotter*, the camp's official newspaper, reported, "The style and strength of this structure has been made considerably more practical. It is contended that any amount of water will not wash it out again. The crew is still working on the beautification of the site."



## VI. From Mill Pond to Community Gathering Place

After the Pond was no longer a place for the storage of logs, its role began to change to a place of recreation and community gatherings. This change was happening even before the Village took ownership in 1936. The January 1935 Camp Fairchild newsletter describes hockey and ice-skating races at the Pond with the ice rink being “one of the best in the District” that would “perhaps be the center of skating carnivals in the coming months.”



**Figure A3**  
Aerial photo of  
the Pond in  
Fall 1965

A 1951 aerial photo shows only two homes near the Pond, but by 1965, shown in **Figure A3**, a beach with dock would be created along the eastern shoreline, along with a changing house, pavilion, and outhouse; these buildings no longer exist; and sediment and grasses have since reclaimed the beach. In his Fairchild book, Gene Miller reminisces about skating, swimming, fishing, and duck hunting at the Pond; the trees overhanging the bank to the east of the dam were used as diving platforms.

It is interesting to note that much of the land south of Sportsmen’s Club that is owned by the Village today was largely cut over by or in the 1950s, likely for hay or grazing.

Fishing has become the most popular water sport at the Pond. The Fairchild Rod & Gun Club started to host ice fishing contests in the 1950s, a tradition that continues today.

The first annual Fairchild Fishing Contest was held on March 4, 1956, and had about 2,000 attendees. This first event had some added excitement when a front-runner was disqualified after it was discovered he had a large crappie in a plastic bag beneath the bib of his

overalls; he had already entered two good-sized crappies earlier. The outboard motor first prize went to a fisherman with a 14.75 ounce crappie, and about 500 fish were caught on the day. By the 7th annual contest on March 3, 1962, the prize list had grown to include a boat, clothes dryer, electric roaster, rifle, and many other prizes. It is notable that the advertisement for the 1959 contest was still calling the location the “Fairchild Mill Pond” as a vestige of the Foster lumber era.

In 1963, the Pond was “retreated...and restocked with bass and bluegill.” A 1965 fish survey reported “a good bass population was found and the bluegills are coming along well. A number of 14 and 15-inch bass are being caught. These fish are two years old.” Those bluegills certainly did come along

well. In September 2017, the Pond was stocked with 75 Northern Pike and 150 Largemouth Bass, in part to help address an overpopulation of bluegills.

As discussed in the Society News on page 2 [of the Summer 2021 FAHS newsletter], the clubhouse of the Fairchild Sportsmen's Club (Rod & Gun Club) was built along the western shoreline in 1969; and various other improvements near the clubhouse have also been made, such as the docks, boat launch, picnic area, and shoreline plantings, which enhance the Pond as a recreational resource. Together, these amenities, the events hosted at the clubhouse by many community organizations, and the natural beauty of the lake continue Fairchild Pond's legacy as a community gathering place.

*- article submitted by  
Nancy Watenphul and Chris Straight, FAHS members*

**History of Fairchild Pond Sources:**

*The Daily Telegram, Eau Claire, March 6, 1956, p. 11; February 28, 1959, p. 11; March 3, 1962, p. 12.*

*Eau Claire Leader Telegram, November 19, 1933, p. 7.*

*Eau Claire County Register of Deeds, Deed Books (Volume, Page): vEntry, 18; v18, 1, 3-4, 16-17, 85-90; v21, 207-208; v29, 558-559; v30, 336-368; v52, 478-481; v103, 495; v126, 463-464; v142, 344; v169, 374.*

*Fairchild Correspondence dated September 3, 1883, as printed in the Augusta Eagle, Augusta, Wisconsin, September 8, 1883.*

*The Globe Trotter, Official Paper of Co. 2618, Camp Globe, Vol. 1, No. 7, May 31, 1936, p.7.*

*Miller, Gene. "Fairchild...When You and I Were Young", 1989.*

*The Reveille, Official Paper of Co. 1605, Camp Fairchild, Vol. 1, No. 1, November 29, 1934, p.4.*

*The Reveille, Official Paper of Co. 1605, Camp Fairchild, Vol. 1, No. 4, January 16, 1935, p.6.*

*Sanborn Fire Insurance Map of Fairchild, Eau Claire County, August 1894 from the U.S. Library of Congress, [www.loc.gov/item/sanborn09546\\_001](http://www.loc.gov/item/sanborn09546_001).*

*U.S. Department of Agriculture Aerial Photograph, Eau Claire County, Image 3-101, August, 1, 1938, from the Wisconsin State Cartographer's Office.*

*U.S. Department of Agriculture Aerial Photograph, Eau Claire County, Image #1H-106 July 6, 1951 and Image #1FF-119 October 1, 1965, from the Arthur H. Robinson Map Library.*

*WEAU 13 website, "Fairchild Pond Stocked with Bass, Pike" Sept 20, 2017.*

*Wisconsin Public Land Survey Records: Original Field Notes and Plat Maps Public Land Survey System Map: Wisconsin T25N, R5W filed on January 17, 1854. maintained by the Wisconsin Board of Commissioners of Public Lands*

*Wisconsin State Geographic Names Service Minutes, November 11, 1968.*

## APPENDIX B. WATERSHED CONTEXT

A watershed (or drainage basin) is an area of land that drains all the streams and rainfall to a common outlet, such as the outflow of a reservoir or the confluence with a larger river. Watersheds or basins come in different sizes. For instance, the drainage basin for Fairchild Pond falls within the Black-Hay Creek subwatershed (HUC 12) and the larger Eau Claire River Watershed (HUC 8), which drains to the Chippewa River (HUC 4) and, eventually, the Mississippi River (HUC 2). The HUCs or Hydrologic Unit Codes are used to classify watersheds within the United States, with higher-numbered HUCs contributing surface water to lower-numbered HUCs downstream.

### I. Fairchild Pond Drainage Basin

The drainage basin (or sub-watershed) that drains into Fairchild Pond is approximately 7,184 acres or 11.23 square miles. As shown by **Figure B1** on the following page, the majority of the basin lies within the Town of Cleveland in northern Jackson County. Perhaps surprising to some, most of the Village of Fairchild does not naturally drain to Fairchild Pond; instead, much of the Village drains to the northwest to McGaver Creek.

The sub-watershed is in a physical geography and ecologic transition zone. The headwaters of most streams feeding Fairchild Pond to the south and west lie within the hills of the Western Uplands or Driftless Area; this more rugged, hilly region avoided being covered by recent glaciers and extends along much of the western edge of the State. This is why forest dominates much of the southern and southwestern parts of the basin. As one moves northeast across the basin, the Western Uplands slope towards the Central Plains, which is generally flatter with sandier soils and sizable areas of wetlands.



Based on USDA-NRCS Soil Survey data<sup>6</sup>, about 32% of the soils in the Fairchild Pond basin are prime farmland soils and an additional 13% of soils are designated farmland of statewide importance.

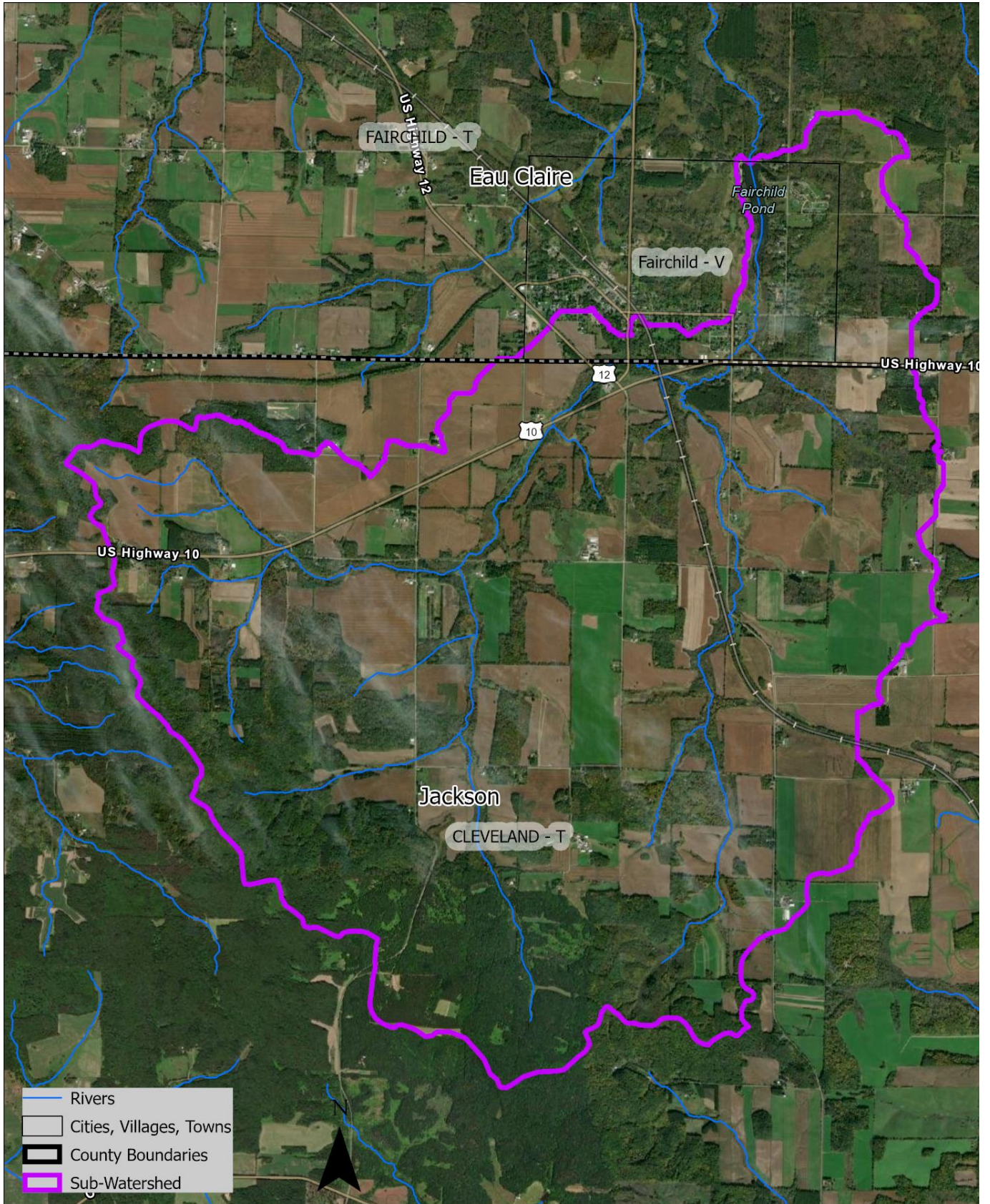
The USDA-NRCS Soil Survey also rates soils based on their susceptibility to degradation or fragility. Fragile soils tend to be highly susceptible to erosion and can have a low capacity to recover after degradation occurs. Soils that are low in organic matter, low aggregate stability, and a weak structure are more fragile. This index can be used for conservation and watershed planning

purposes. About three-quarters of the soils in the Fairchild Pond basin are rated as moderately fragile. As shown in **Figure B2**, the flatter area closer to the Pond tend to have less fragile soils, while the areas of higher sloping ground tend to be relatively more fragile. However, no soils within the Fairchild Pond basin fell into the USGS index ratings of "Very Fragile" or "Extremely Fragile".

<sup>6</sup> U.S. Department of Agriculture, Natural Resource Conservation Service. Web Soil Survey. <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

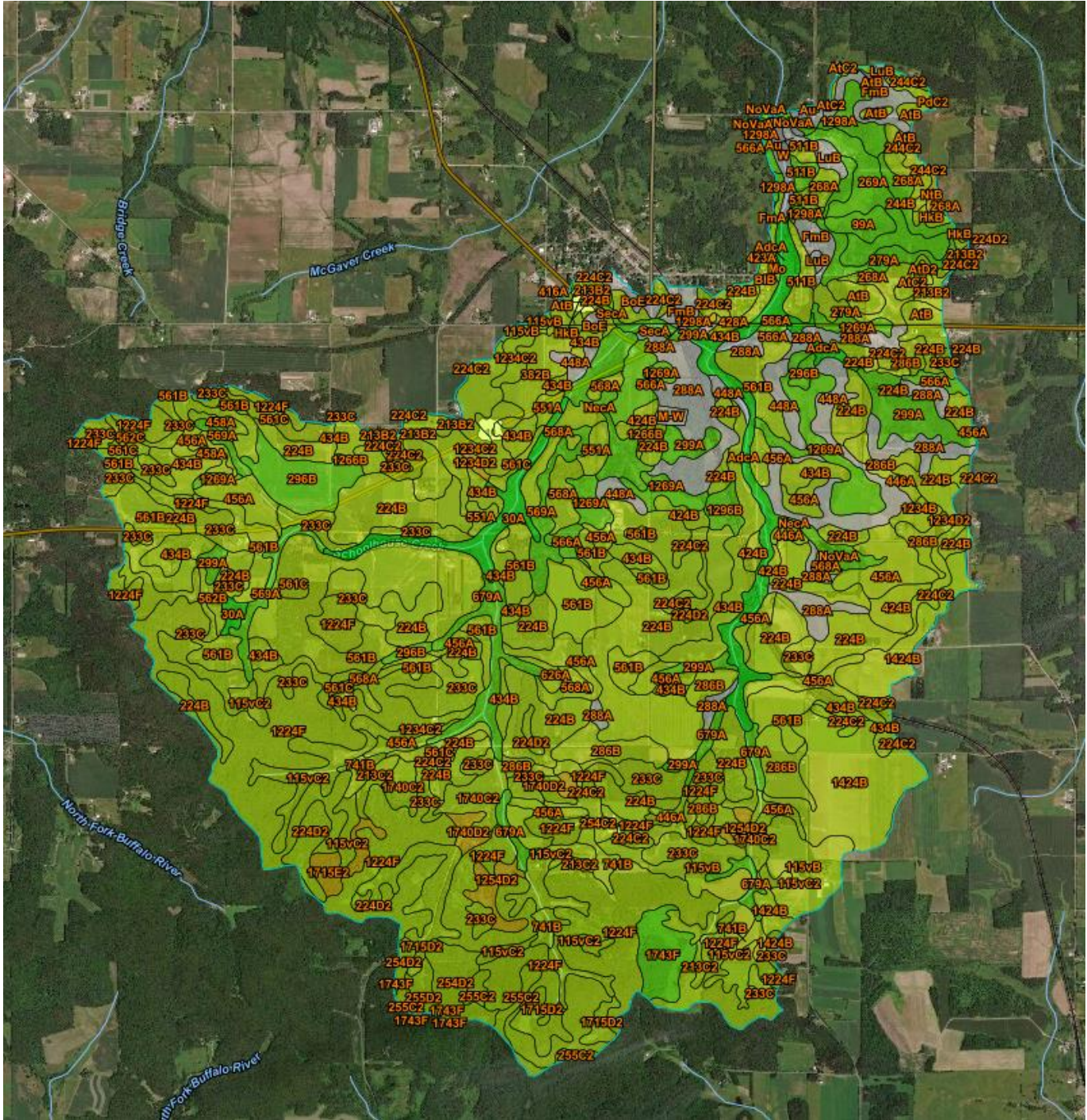


Figure B1. Fairchild Pond Drainage Basin





**Figure B2. Fairchild Pond Drainage Basin – USGS Fragile Soil Index**



**Darker Green – Not Fragile (2.7%)**  
**Lighter Green – Slightly Fragile (13.1%)**  
**Yellow – Moderately Fragile (76.1%)**  
**Gray – Not Rated (6.7%)**

This map reflects common characteristics based on dominant soil types and should be used for general planning purposes only. Actual soil characteristics and fragility will vary by location and can be influenced by many other factors, including land cover and land use.

**Figure B3** shows the predominant land cover within the basin as of 2014. Nearly half (about 47%) of the landscape was forested and over one-third in agriculture.

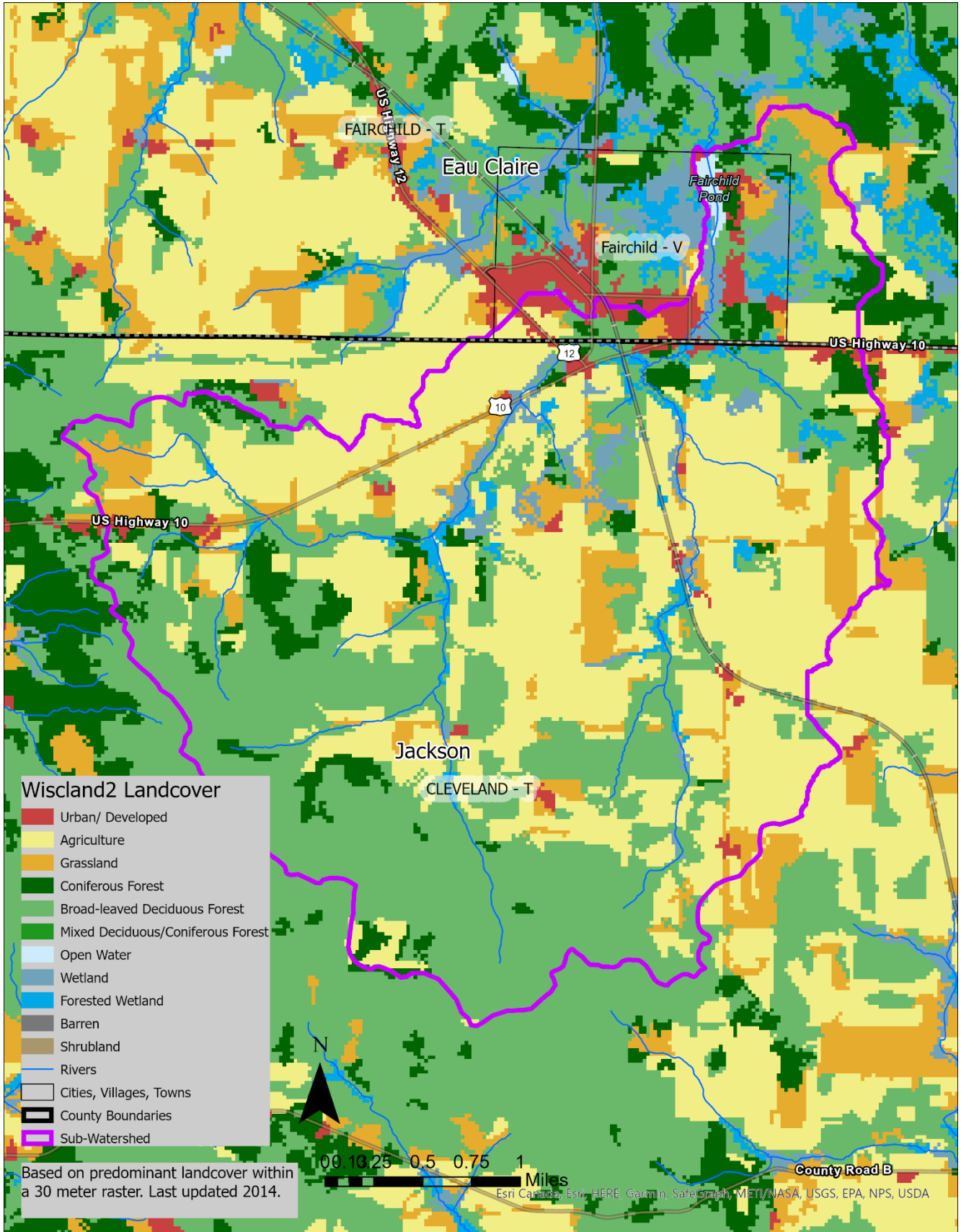
**2014 Land Cover within the Fairchild Pond Drainage Basin**

Land Cover	Approx. Acreage	% of Acreage
Broad-leaved Deciduous Forest	2763.9	38.5%
Agriculture	2751.5	38.3%
Grassland	626.5	8.7%
Coniferous Forest	435.9	6.1%
Wetland	217.9	3.0%
Urban/Developed (e.g., homes, farms)	189.5	2.6%
Forested Wetland	176.1	2.5%
Open Water	21.1	0.3%

These acreages do change over time as development occurs, crops are rotated, timber is harvested, and new croplands are opened up. For example, between 2015 to 2020, the Town of Cleveland had, in total, an increase of 346 acres of assessed agricultural land. This trend is consistent with the increasing cropland trends in the larger Eau Claire River Watershed.



Figure B3. Fairchild Pond Drainage Basin Land Cover



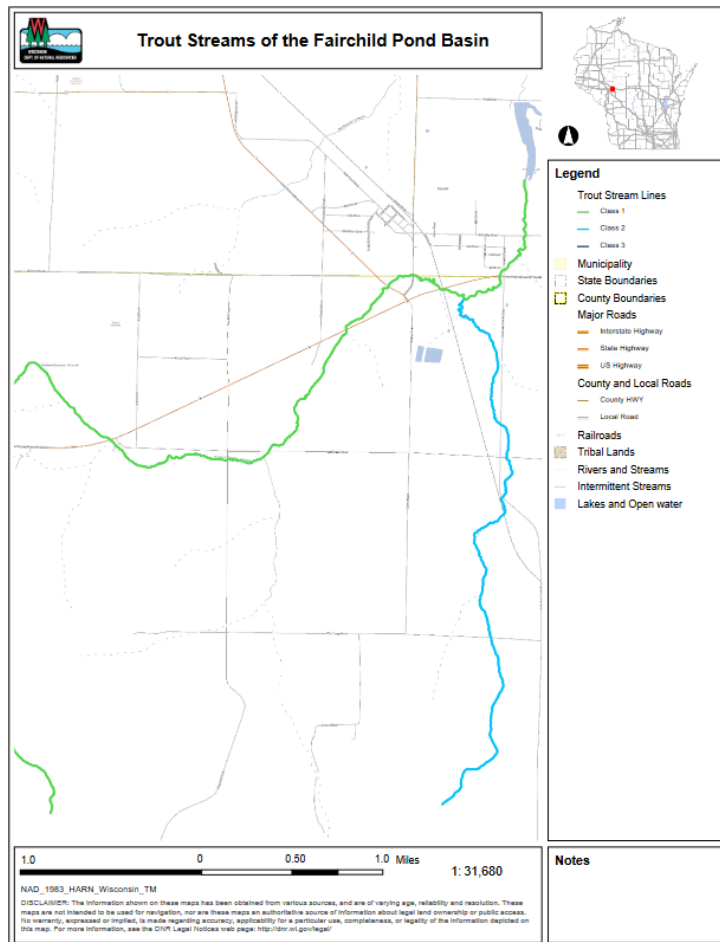
## II. Streams within the Fairchild Pond Drainage Basin

Fairchild Pond is fed by Schoolhouse Creek, which is the principal stream located within the sub-watershed. None of the tributaries to Schoolhouse Creek within the Pond’s sub-watershed are officially named.

Schoolhouse Creek (WBIC 2135900) is a nine-mile-long, cold water stream that originates in Jackson County and flows north to Black Creek; Fairchild Pond is roughly midway between the headwaters and mouth of the Creek. Wetlands are commonplace immediately adjacent to Schoolhouse Creek, its tributaries, and some natural drainage areas feeding these streams.

The water quality of Schoolhouse Creek and its tributaries has been assessed and these water bodies are not 303(d)-listed impaired waters under the Clean Water Act, suggesting that they meet water quality standards for regulated pollutants. A 2018 WDNR assessment found that the fish and aquatic life and the fish consumption on Schoolhouse Creek to be good; recreational factors were unrated.

**Figure B4. Trout Streams**



While these streams do not rise to the level of Outstanding or Exceptional Resource Waters (OERWs), Schoolhouse Creek and its longest tributary are designated as Priority Navigable Waterways—Areas of Special Natural Resources Interest (PNW-ASNRI) as trout streams.

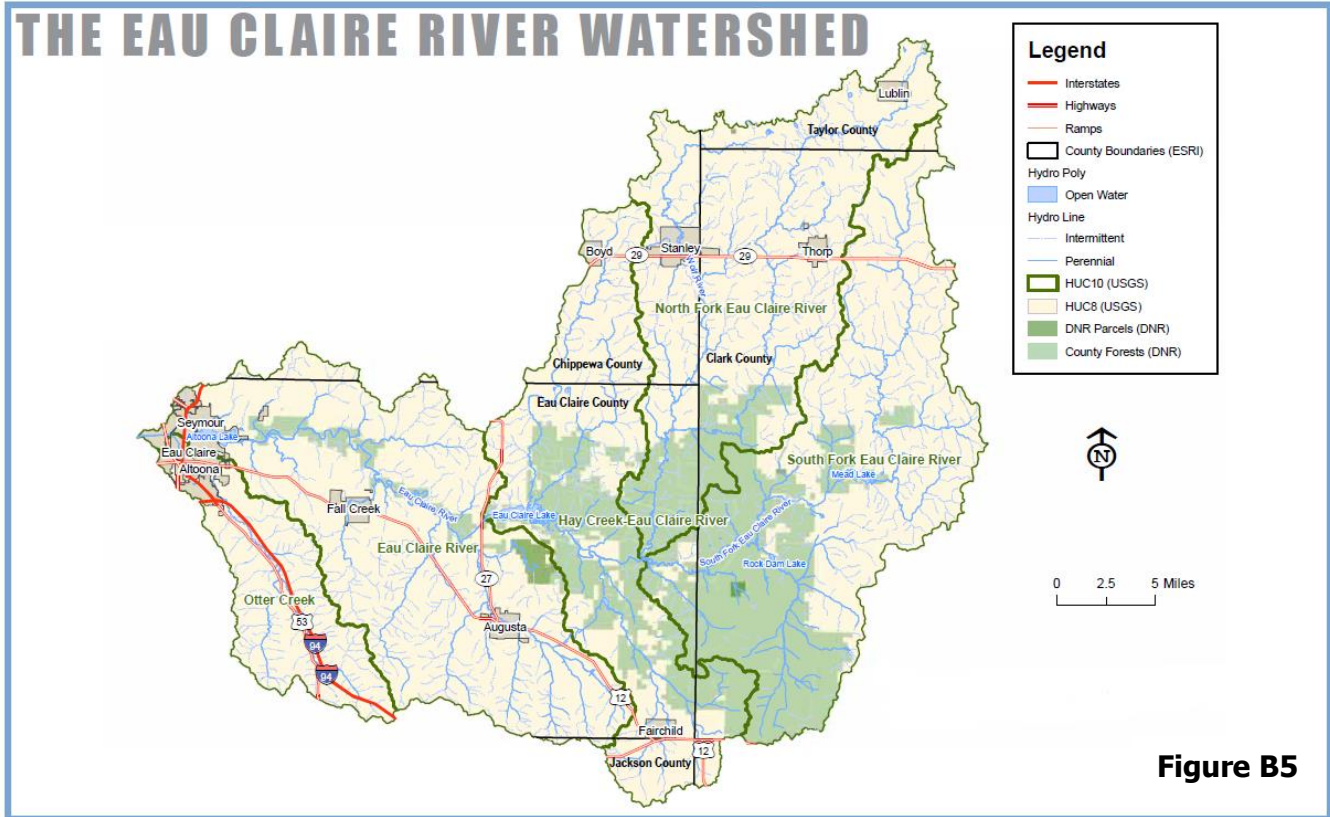
As shown in **Figure B4**, Schoolhouse Creek is designated as a Class I trout stream, while the tributary is Class II. Class I streams are high-quality trout waters that have sufficient natural reproduction to sustain populations of wild trout, at or near carry capacity. Consequently, streams in this category require no stocking of hatchery trout. These streams or stream sections are often small and may contain small or slow-growing trout, especially in the headwaters. Class II streams may have some natural reproduction, but not enough to utilize available food and space. Therefore, stocking is required to maintain a desirable sport fishery. These streams have good survival and carryover of adult trout, often producing some fish larger than average size.

The Fairchild wastewater treatment plant once discharged to a tributary to Schoolhouse Creek. WDNR reports that the plant currently discharges to groundwater but may return to a surface water discharge in the future as part of a planned facility upgrade.



### III. Eau Claire River Watershed

Fairchild Pond is part of the larger Eau Claire River Watershed shown in **Figure B5**. Schoolhouse Creek dumps into Black Creek just over three miles north of the dam. Black Creek eventually feeds into Coon Fork Flowage where it merges with Coon Fork Creek and, eventually, its confluence with the Eau Claire River.



The Eau Claire River Watershed covers an area of 882 square miles or approximately 564,536 acres. The Watershed encompasses parts of five counties: Eau Claire County (47 percent), Clark County (38.5 percent), Chippewa County (9 percent), Taylor County (3.8 percent) and Jackson County (1.5 percent). As part of the larger Lower Chippewa River Basin, the Eau Claire River Watershed flows into the Chippewa River at the confluence of the Eau Claire and Chippewa Rivers in downtown Eau Claire.

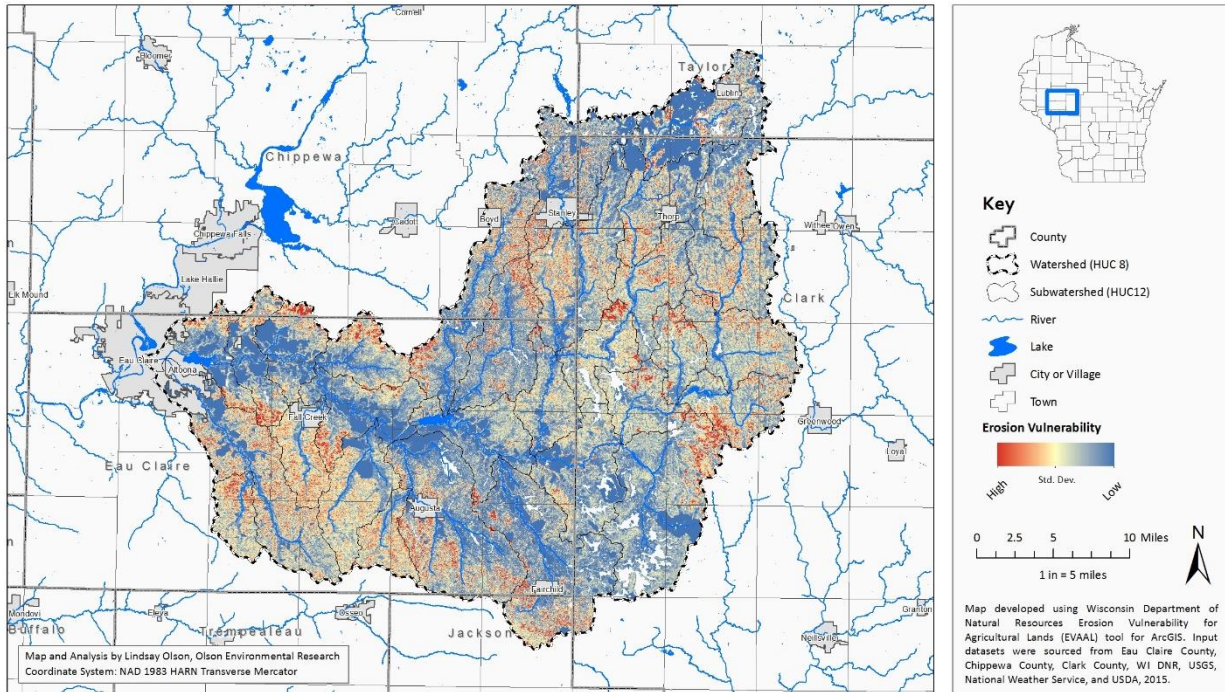
While the Watershed has some great fishing and natural beauty, over 141 miles of the rivers/streams and 535 acres of lakes do not meet water quality standards (303d listed) due to phosphorus and degraded habitat largely due to excess sediment loading. **Phosphorus** (common in fertilizers, manure, and sewage) is required for plants like algae to grow. However, too much can cause algae blooms that can be a health hazard and use up oxygen in the water making it difficult for fish and other aquatic inhabitants to survive. **Sediment** that comes from erosion and runoff can further degrade habitat through silt/sand build-up in lakes and result in further pollutant loading due to the phosphorus it carries. Nutrient loading and sedimentation are challenges also facing Fairchild Pond.

According to the Eau Claire River Watershed’s 9-Key Element Plan discussed in **Appendix C**:

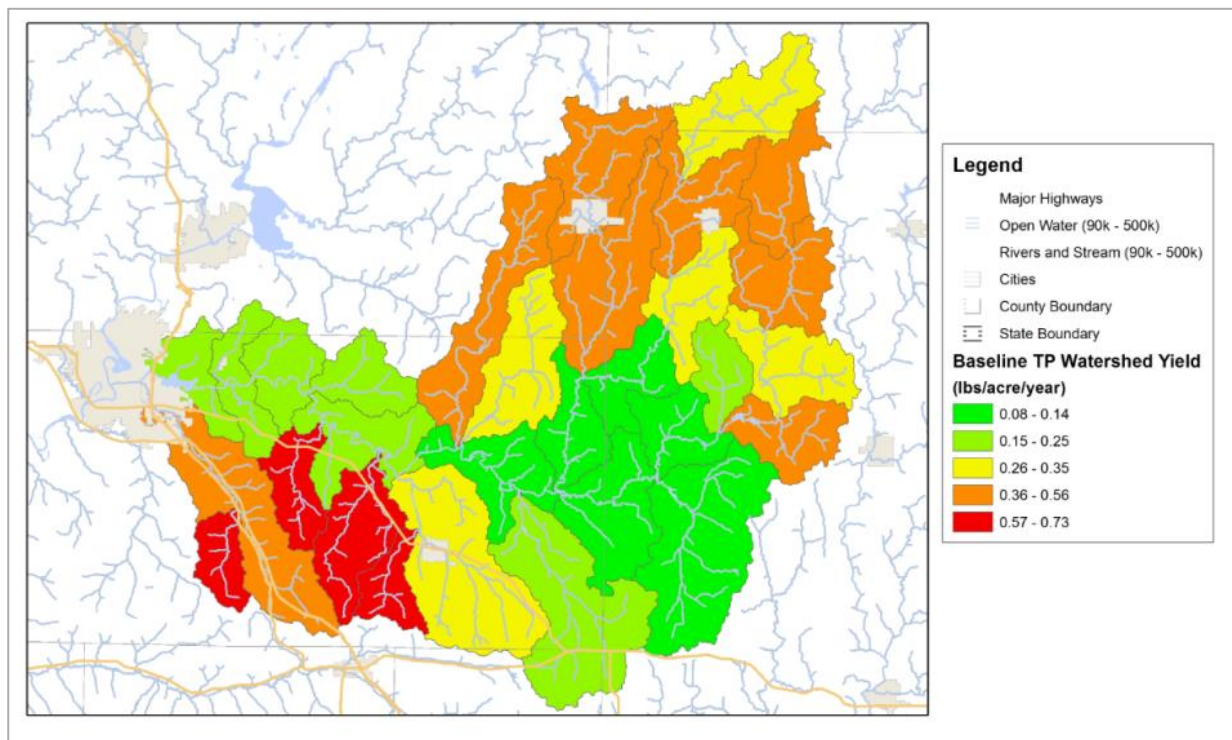
- In 2015, the WDNR estimated that 35% of the land cover in the Eau Claire River Watershed was in row crops. Yet, row crops accounted for about 76% of the phosphorus load to surface waters from upland sources.

- **Figure B6** shows that erosion vulnerability can vary significantly throughout the watershed. Much of Fairchild Pond’s drainage basin has moderate-to-high erosion vulnerability.
- In comparison, **Figure B7** shows that annual phosphorus yields from the Black Creek sub-watershed, which includes Fairchild Pond, has relatively lower phosphorus-loading as a whole.

**Figure B6. Erosion Vulnerability in the Eau Claire River Watershed**



**Figure B7. Estimated Annual Phosphorus Yields in the Eau Claire River Watershed**





## WHY IS EXCESS PHOSPHORUS A CONCERN?

Phosphorus is essential to all living organisms. Typically, phosphorus is scarce in surface water under natural conditions. However, small increases in phosphorus or other nutrients can fertilize or fuel substantial increases in aquatic plant and algae growth (called eutrophication). This algae growth can degrade our waters and negatively impact recreational use, property values, and public health.

Too much algae can reduce sunlight to native plants and reduce oxygen levels for aquatic plants and animals. And when algae dies and sinks to the bottom, its decomposition further consumes oxygen. These low oxygen (or hypoxic) conditions can cause illness and death in aquatic organisms (e.g., fish kills). This algae growth not only can degrade fisheries, but can become toxic to humans, pets, and other animals. While not all algae blooms are toxic, they can still promote bacteria growth, be an unattractive green scum, and create a disagreeable odor.

However, to meet phosphorus water quality standards on the lakes downstream of Fairchild Pond (e.g., Coon Fork, Lake Eau Claire, Lake Altoona), the 9KE Plan suggests that a 46% reduction in phosphorus loading was needed in the Black Creek sub-watershed, with the majority of this reduction coming from agricultural lands (i.e., a 70% reduction from ag lands in the sub-watershed).

When considering Figure B7 and the reduction goals, the differences in land cover within the Black Creek sub-watershed should be remembered. Given that the land cover north of Fairchild Pond is predominately forested, it would likely have a lower annual phosphorus yield like the darker green areas of county forest lands farther north. Meanwhile, it would be expected that the Fairchild Pond's basin would have a higher annual phosphorus yield given that about one-third of its land cover is in agriculture. Likewise, the largest proportion of the phosphorus loading reductions needed to meet the Black Creek sub-watershed goals would likely come from upstream of Fairchild Pond.

But while good soil health, septic system maintenance, and nutrient management practices in both shoreland and upland areas can help achieve these reductions, such efforts can potentially be offset by land use changes and increases in crop lands.



## APPENDIX C. RELATED PLANS

### I. Eau Claire River Watershed 9-Key Element Plan

In 2015, stakeholders from throughout the Eau Claire River Watershed began meeting to identify strategies to address the phosphorus, sedimentation, and other water quality challenges facing the surface waters of Eau Claire River Watershed discussed previously in Appendix B. This effort resulted in the creation of an EPA-approved, 9-Key Element Plan (9KE Plan) entitled: *Healthy Soils & Healthy Waters: A Community Strategy for the Eau Claire River Watershed*.

This 9KE Plan includes a wealth of data about surface water quality in the Watershed as well as a range of soil health and water quality, fisheries and habitat, and education and civic leadership goals and strategies. The Plan recognizes that much of the phosphorus-loading that is polluting area surface waters is coming from upland, non-point sources, not within or immediately adjacent to the streams and lakes themselves. As such, good soil health practices by landowners and farmers are crucial to reducing runoff (and sedimentation) and improving water quality.

Further, the P9KE Plan emphasizes that these practices can be profitable, resilient to weather/climate changes, and help conserve farmland soils for future generation. Most 9KE Plan recommendations are watershed-wide or suggest sub-basins to prioritize based on water quality, land use, potential for erosion, estimated pollutant loading, etc. There are no recommendations in the 9KE Plan specific to Fairchild Pond.



Since the 9KE Plan's completion, stakeholders have formed the Eau Claire River Watershed Coalition and continue to meet on a near-monthly basis to share information, coordinate resources, and champion the implementation of the Plan's recommendations. The Coalition is not a formal, incorporated organization, but is a network of Watershed residents, lake groups, governmental bodies, and other stakeholders. The Coalition has undertaken a number of projects, including the creation of a website with information about the 9KE Plan as well as an interactive story map in which one can explore the Watershed. Visit the website at [www.eauclaireriverwatershed.org](http://www.eauclaireriverwatershed.org). Representatives from the Fairchild Pond area are welcome to participate in the Coalition meetings.

Given that Fairchild Pond is within the Eau Claire River Watershed, which has an EPA-approved 9KE Plan, projects within the Pond's basin may have a competitive advantage for grant funding compared to other areas without such a plan. This is especially true when it comes to Federal Clean Water Act Section 319 grant dollars for projects addressing non-point source pollution.

### II. Other Related Plans

#### **Coon Fork Lake Management Plan (November 2004)<sup>7</sup>**

Fairchild Pond is located within the larger drainage basin of Coon Fork Lake to the north. As such, some of the data and recommendations within the Coon Fork Lake Management Plan are pertinent to Fairchild Pond.

<sup>7</sup> This plan integrated the results of a 2002 WDNR report titled *Predicting Sediment & Phosphorus Loads to the Coon Fork Flowage Using SWAT*.



In 2004, Coon Fork Lake was not experiencing significant sedimentation, but was considered eutrophic (elevated nutrient loading) with phosphorus and chlorophyll levels resulting in algae blooms. The Plan identifies agricultural lands as the primary source of phosphorus loading. The Fairchild Pond sub-basin is about 21% of the Coon Fork Lake watershed. However, in 2002, it was estimated that the Pond's sub-basin accounted for the following yields within the Coon Fork Lake watershed:

- 25% of the sediment
- 35% of the organic Phosphorus
- 62% of the soluble Phosphorus
- 57% of the sediment Phosphorus

The Plan strives to reduce nutrient loading in the Coon Fork Lake watershed by 30%, largely through the implementation of agricultural best management practices and nutrient management planning for farmlands. The Plan also recommended the preservation of wetlands, additional water quality monitoring, and educational efforts. The above results suggest that addressing phosphorus and sediment loading from the Fairchild Pond Basin (as well as the sub-basin to the east) are key to having a long-term solution for the algae bloom problems at Coon Fork Lake.

However, it can be speculated that Coon Fork Lake also benefits from Fairchild Pond, since Fairchild Pond is capturing some phosphorus and sediment that would otherwise continue to flow downstream, similar to a sand trap. Likewise, the very small "pond" upstream of Fairchild Pond on the north side of E. Main Street near the cemetery may be performing a similar function for Fairchild Pond itself.

Elevated fecal coliform bacteria levels, primarily from agricultural runoff after 1-3 inch rainfalls, have also resulted in beach closures at Coon Fork Lake during the summer months.<sup>8</sup> The Coon Fork Plan also states that the Health Department found excessive levels of fecal coliform on 6/4/96 and 6/18/96 in both Schoolhouse Creek and at Fairchild Pond.

## COON FORK LAKE



Volunteers from the Fairchild area have a long history of advocating for water-based outdoor recreation. Coon Fork Lake, located about 7 miles north of Fairchild Pond, is the result of such advocacy.

As stated on the "In Recognition" sign at the Coon Fork Lake dam: "Coon Fork Lake was a vision of the Fairchild Rod and Gun Club in the early 1960's. The Club cleared much of the land that was planned to be flooded and worked with Eau Claire County to consolidate land ownership. The Augusta Rod and Gun Club joined with the County and Fairchild Club to contribute labor and financial support."

Eau Claire County built the dam in 1963 and created the 62-acre Coon Fork Lake, which continues to be the centerpiece of this beautiful, peaceful place to fish, canoe/kayak, camp, hike, play, and enjoy nature.

<sup>8</sup> The Eau Claire River Watershed 9KE Plan reported that algae blooms occurred on 60% of summer days at Coon Fork Lake, and the Lake experienced up to 12 beach closures annually in most years between 2008-2015.

Based on the Coon Fork Lake Management Plan, a multi-year lake protection grant was secured in 2006, which included the implementation of best management practices, nutrient management and conservation planning, and additional water quality monitoring. Related monitoring results for Fairchild Pond are included in Section IV.C.

**Village of Fairchild Comprehensive Plan (April 2012)**

The Village's Comprehensive Plan notes the following concerns potentially related to Fairchild Pond, though no specific recommendations or actions are identified:

- Pond needs dredging
- Wetlands (mosquito issues)
- Need to promote the Pond

The Plan does have some more general policies for the Village including:

- Supporting programs to improve the quality of local water resources by reducing non-point and point source pollution.
- Using Eau Claire County's zoning and subdivision ordinances to protect waterways, shorelines, wetlands, steep slopes and floodplain areas within the Village's extraterritorial area. This is of great importance in guarding against unnecessary erosion as land gets developed.
- Working with surrounding communities to preserve environmental corridors. Buffer new development from sensitive environmental areas.
- Natural drainage patterns are preserved and protected whenever possible. Developers will be responsible for erosion control and stormwater quality and quantity control. Encourage the use of stormwater management devices.
- Much of the area near the Pond is identified as a Resource Protection Area in the future land use map. The primary intent of these areas is to retain sensitive natural areas for the benefit of maintaining fish and wildlife habitat; to prevent and control water pollution; to prevent erosion and sedimentation; to prevent property damage caused by flooding; to preserve areas of natural beauty; and to provide areas for outdoor recreation. The Plan suggests that development in these areas shall be limited.

The Village of Fairchild has not adopted general zoning regulating land uses. However, all villages are required to adopt shoreland-wetland zoning ordinances to regulate activities within the shoreland zone. For Fairchild Pond, the shoreland zone is land within 1,000 feet of the ordinary high water mark. The wetlands near Fairchild Pond are discussed further in Section IV.G.

**County Land and Water Resource Management Plans**

Wisconsin law requires each county to have a 10-year land and water resource management plan (LWRM Plan) that has been approved by the Wisconsin Department of Agriculture, Trade and Consumer Protection. These plans assess water quality and soil erosion conditions, establish conservation goals, and identify local conservation priorities. Maintaining an approved LWRM Plan ensures eligibility for grant funding for county conservation staff and cost-sharing for conservation practices.

The Eau Claire County LWRM Plan was last updated in 2012, and Jackson County's Plan was last updated in 2013. As county-level plans, the Jackson and Eau Claire County LWRM Plans do not include specific recommendations regarding Fairchild Pond or Schoolhouse Creek. Instead, the Plans identify actions and strategies that are important to conserving and rehabilitating all surface waters.

However, these LWRM Plans do include strategies that can be essential to addressing water quality concerns at Fairchild Pond, including programming related to water quality, soil health, erosion control, sediment loss, nutrient management, manure storage, and stormwater management in both urban and rural settings. Implementation activities identified in these plans include, but are not limited to:

- Providing technical assistance and cost-sharing to landowners and farmers to meet performance standards and implement best practices
- Data collection and monitoring
- Education and outreach

As reflected by these LWM Plans, the land and water conservation offices of Jackson and Eau Claire counties are important partners to addressing the water quality challenges facing Fairchild Pond and its basin.

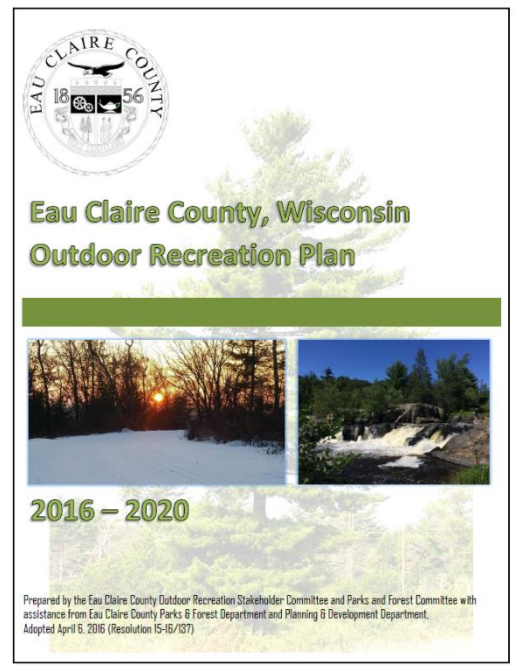
### **Eau Claire County Outdoor Recreation Plan (April 2016)**

Municipalities must have a comprehensive outdoor recreation plan (CORP) updated within the past five years in order to qualify for certain WDNR grant programs for outdoor recreation development and conservation land purchases. These federal and state funding sources can be important for the improvement of recreational amenities at lakes and other surface waters, such as fishing piers, canoe/kayak launches, trails/trail amenities, and waterfront park amenities (e.g., park shelters, restrooms, picnic areas).

The Village of Fairchild participated in the County's 2016 CORP, with action plan recommendations primarily focused on Fairchild Pond and the adjacent Rod & Gun Club Park, including:

- Improve the quality of the Pond for both fishing and swimming by dredging the sediment that has accumulated over the years and by renovating the swimming beach. (High Priority)
- Add a park on the northeast corner of the Mill Pond. (Second Priority)
- Install a floating raft for swimmers.
- Consider constructing a bathhouse/changing room on the site.

As of Fall 2021, Eau Claire County, with the assistance of the West Central Wisconsin Regional Planning Commission, is updating the 2016 CORP. The Village of Fairchild is invited to participate in the County's CORP update in order to maintain eligibility for the related WDNR grant programs.





# APPENDIX D. 1995 & 2020 AQUATIC PLANT SURVEYS



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor  
George E. Meyer, Secretary  
Donald R. Winter, District Director

Western District Headquarters  
1300 W. Clairemont Avenue  
PO Box 4001  
Eau Claire, Wisconsin 54702-4001  
TELEPHONE 715-839-3700  
FAX 715-839-6076/1605  
TTY 715-839-2786

March 5, 1996

IN REPLY REFER TO:

Mr. Larry Hakey  
317 Oak Street  
P.O. Box 46  
Fairchild, WI 54741

SUBJECT: Fairchild Pond Plant Survey

Dear Larry:

I am enclosing the results of the aquatic plant survey that we conduct in Fairchild Pond on August 21, 1995. The survey results confirmed what would be expected to be found in a relatively shallow impoundments aquatic plant community. As you are well aware the upper end of the pond is significantly silted in with the average water depth being only about two feet. I was surprised to find that much of the pond is deeper than 3 feet and that a good portion of the pond near the dam is 6 feet or deeper. I feel a relatively small dredging project could effectively enhance shore fishing opportunities around the lower end of the pond. I have also enclose a lake map for the pond, we found the depths to still be relatively accurate.

I would be happy to come a discuss these results with the Rod and Gun Club if they are interested. Please contact me at 715-839-3794.

Sincerely,

A handwritten signature in cursive that reads 'Buzz'.

Buzz Sorge  
Lake Management Planner

c. Deb Konkel



## AQUATIC PLANTS OF FAIRCHILD POND

Water Resources personnel of the Wisconsin Department of Resources conducted a survey of the aquatic plants in Fairchild Pond on August 21, 1995. The aquatic plants in Fairchild Pond had not been previously studied by the Wisconsin Department of Resources.

Fairchild pond is an impoundment on Schoolhouse Creek.

### METHODS

Periodic rake samples of the vegetation were taken at various depths around the lake. At the deeper north end, periodic rake samples were taken across the lake. Species were identified and the sediment was characterized. Voucher specimens were collected.

### RESULTS

**SEDIMENT** - The bottom of the pond has a firm base composed of fine silt overlain with organic material.

**LAKE MORPHOLOGY** - Fairchild pond is a long, narrow impoundment. There is a small area behind the dam that is 8 feet deep, but the south third of the pond is less than 2 feet deep. Therefore the pond has a long shoreline and large littoral zone as compared to the volume of water.

**MAXIMUM ROOTING DEPTH** - The greatest depth at which rooted aquatic plants were found was 6.5 feet.

### **SPECIES PRESENT**

#### Submergent Species

*Ceratophyllum demersum* L. - coontail

*Elodea canadensis* Michx. - common waterweed

#### Floating-leaf Species

*Lemna minor* L. small duckweed

*Spirodela polyrhiza* (L.) Schleid. - great duckweed

*Wolffia columbiana* Karst. - watermeal

#### Emergent Species

*Impatiens capensis* Meerb. - spotted jewelweed, touch-me-not

*Phalaris arundinacea* L. - reed canary grass

Filamentous algae is also common.

*Ceratophyllum demersum* is the dominant species. It is found throughout the littoral zone, usually at high densities. At the south end of the pond, it is coated with filamentous algae. There is a shallow area halfway between the north and south end in which *Ceratophyllum demersum* was not found. Half of that area was not vegetated and half supported a dense stand of *Elodea canadensis*.

*Elodea canadensis* is also abundant in the pond. It was found with *Ceratophyllum demersum* at most sites

*Lemna minor*, *Spirodela polyrhiza*, and *Wolffia columbiana* were common, but not abundant. High flows during the previous week may have caused the outflow of the duckweeds from the pond.

*Impatiens capensis* is sparsely scattered along the shoreline, submersed in a few sites.

*Phalaris arundinacea* formed a dense band of vegetation around the pond. However, it was found rooted in the water in very few locations. It was more commonly a terrestrial plant overhanging into the water.

### CONCLUSION

This survey was conducted after a high water event. This could have flushed out algae and duckweeds that may be more prevalent at times. At the time of the survey Fairchild pond had some filamentous algae and abundant plant growth. This is probably due to high nutrient levels. Water analysis should be conducted to determine the nutrient levels. If the nutrient levels are high, sources of nutrient inflows need to be identified and solved.

Because the pond is shallow and narrow, the littoral zone comprises the majority of the pond. Without this large littoral zone, the algae problem could be worse.

Like most impoundments, it has a very simple plant community (only two submersed species were found). However, this community is extremely simple and may indicate a high level of disturbance in the past. Planting other plant species in Fairchild pond should be explored in order to increase the diversity of habitats.

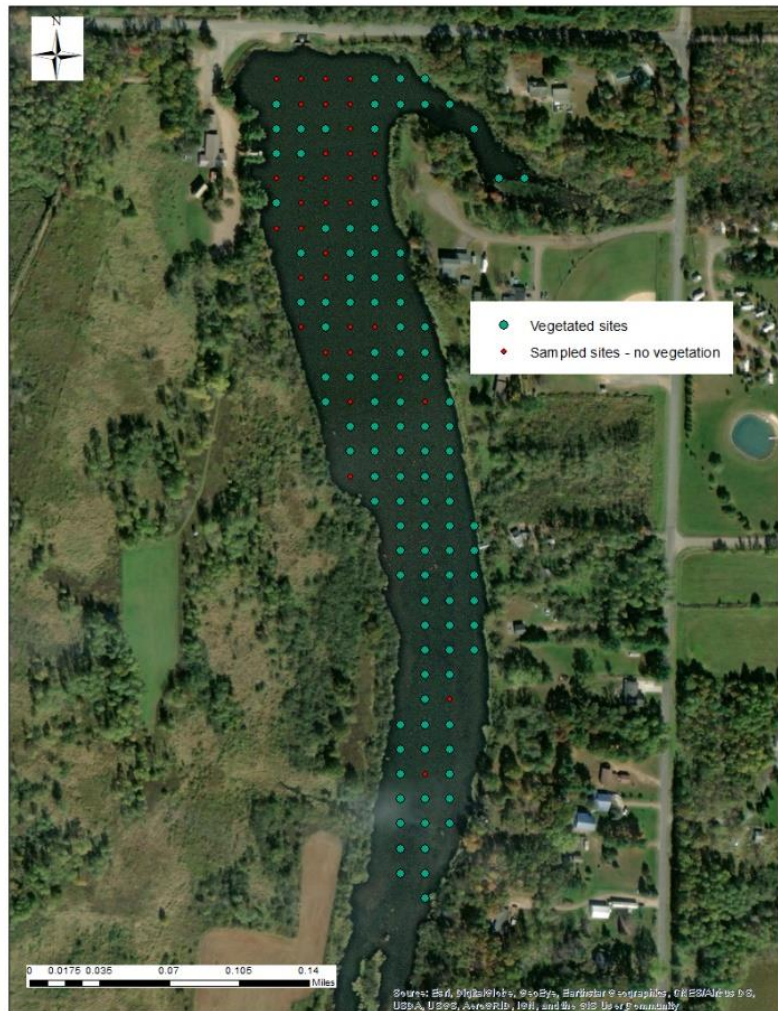
Aquatic plants provide shelter and spawning habitat to other aquatic life and start the food chain on which all other aquatic life depends. They are important members of the aquatic community that deserve protection.

## Aquatic Plant Community of Fairchild Pond Eau Claire County, Wisconsin

The aquatic plant community of a lake is full of complex interactions that contribute to the overall health of an aquatic ecosystem. Every level of the aquatic food chain from bacteria and invertebrates to fish and waterfowl are dependent upon aquatic plants to some degree for their survival. Photosynthesis and respiration are important in maintaining clear waters. Aquatic plants stabilize sediments and absorb wave action which in turn prevents turbidity caused by suspended sediments. Light penetration, excess nutrients from run-off, wave action and lake morphometry all affect the plant community. The importance of aquatic plants in an aquatic ecosystem creates the need to study the diversity, density and distribution of the aquatic plant community as well as an examination of the factors impacting the plant community. An aquatic plant survey was conducted on Fairchild Pond in August 2020 by water resources staff at the Wisconsin Department of Natural Resources.

Fairchild Pond is a 17- acre lake located in Eau Claire County in Wisconsin. The pond has 1.3 miles of shoreline and a maximum depth of 8 feet.

The plant survey was conducted according to the Wisconsin Department of Natural Resources Guidelines using the Point-Intercept method. A 67-meter grid of 144 points was established for Fairchild Pond. At each Point-Intercept point one sample was collected using a steel thatching rake. The aquatic plant species present on the rake were identified and recorded. Each species was given a density rating based on the total coverage of the plant on the rake (1 – few, 2 – moderate, 3 – abundant). Visual inspections were done between points to record the presence of any species that did not occur at the sampling sites. Depth and sediment data were recorded at each sample site. The map shows the grid points and indicates which sites had vegetation.





Eleven species of vegetation were found during the 2020 survey. One aquatic invasive plant species was found, *Potamogeton crispus*, curly-leaf pondweed.

SCIENTIFIC NAME	COMMON NAME	Fairchild
<i>Ceratophyllum demersum</i>	Coontail	53
<i>Ceratophyllum echinatum</i>	Spiny hornwort	26
<i>Elodea canadensis</i>	Common waterweed	74
<i>Lemna minor</i>	Small duckweed	3
<i>Nitella sp.</i>	Nitella	19
<i>Nymphaea odorata</i>	White water lily	1
<i>Potamogeton crispus</i>	Curly-leaf pondweed	22
<i>Potamogeton pusillus</i>	Small pondweed	42
<i>Spirodela polyrhiza</i>	Large duckweed	4
<i>Stuckenia pectinata</i>	Sago pondweed	9
<i>Wolffia borealis</i>	Northern watermeal	1
Filamentous algae		91

The Aquatic Macrophyte Community Index (AMCI) was used to define the quality of the aquatic plant community based on seven parameters: the maximum rooting depth, the percentage of the littoral zone vegetated, the relative frequencies of submerged species, sensitive species and exotic species, Simpson’s Diversity Index and the total number of taxa. Each parameter was scaled from 1-10 with 10 representing the most desirable condition. The scaled values were then summed to obtain the AMCI.

The Floristic Quality Index (FQI) was used to assess each community’s resemblance to an undisturbed condition. Coefficients of conservatism are values assigned to plant species based on their ties to a pre-settlement condition. Plants are given a value on a scale of 1 to 10 based on the probability that a species will occur in a disturbed habitat with higher values given to plants that are less likely to occur in a disturbed habitat. Coefficient of conservatism values are assigned only to native species that would normally be found in a lake environment.  $FQI = \text{Average Coefficient of conservatism} * \sqrt{\text{Number of species}}$ .

Simpson’s Diversity Index (SDI) was used to measure the diversity of the plant community. The formula measures the probability that two individuals from the same community will be the same species. Values for SDI range from 0-1 where a value of 0 indicates two individuals will always be the same species (less diversity) and a value of 1 indicates two individuals will always be different species (high diversity).  $SDI = 1 - (\text{Sum (frequency of occurrence of one species/sum frequency of all species)})$ .

The values for Fairchild pond were compared to the average of all Wisconsin Lakes and to the average of impoundments. Those results are in the table below.

	Fairchild Pond	Wisconsin	Impoundments
Number of Species	11	18	9
Average C	5.33	6	5
Percent sites vegetated	76	83	52
Max depth of vegetation	7	10	6
AMCI	37	51	37
FQI	16	22.2	14.3
SDI	0.67	0.86	0.76

The aquatic plant community of Fairchild Pond is below average when compared to all Wisconsin lakes but above average when compared to other impoundments. Filamentous algae were found at 91 sites indicating an excess of nutrients. The abundance of vegetation and the relatively clear water state of the pond indicate that the vegetation and filamentous algae are working to uptake those nutrients. Any aquatic plant management plan should strive to maintain a healthy balance of vegetation and open water. A harvesting program that creates an open water area with lanes to the shore to increase fishing opportunities would be an appropriate management action.

## APPENDIX E. 2022 FISHERIES SURVEY

### Fairchild Pond Fisheries Survey Summary

The Fairchild Pond is a 17-acre impoundment of Schoolhouse Creek with a max depth of 8.5 feet. A fisheries survey was conducted on the Fairchild Pond on May 23, 2022 via daytime electrofishing of the shoreline and mid-lake woody habitat. The water temperature during the survey was 61 degrees, and the weather conditions were 65 degrees and sunny. The survey covered approximately one mile in distance and lasted for 40 minutes. The purpose of the survey was a to evaluate the health of the fish community for future planning purposes.

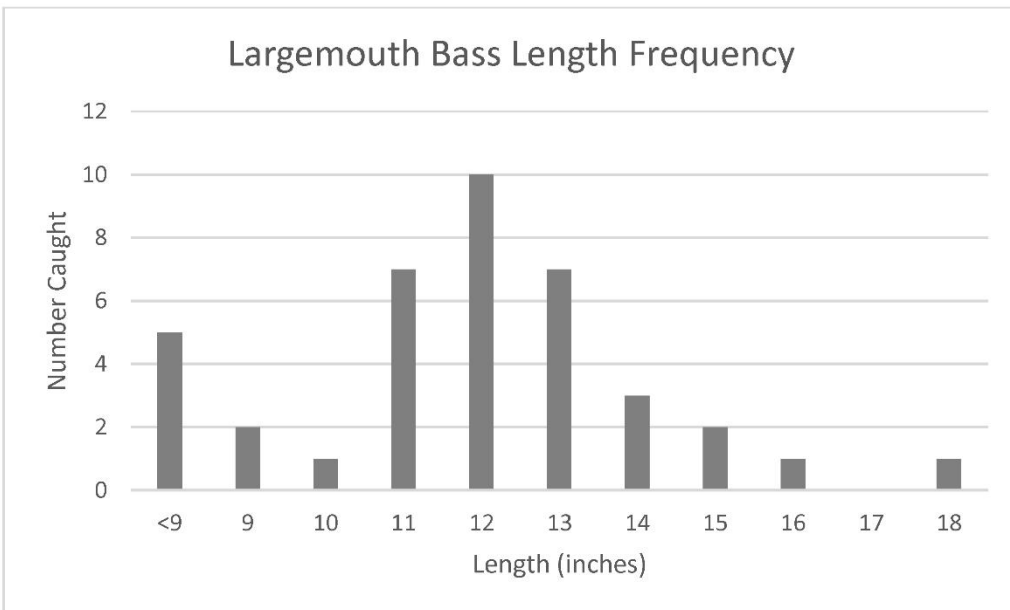
The survey showed healthy and well-balanced largemouth bass and bluegill populations along with a supplemental yellow perch population. Given the various sizes of bluegill and largemouth bass caught, there are multiple year classes present, which indicates consistent natural reproduction with adequate survival of these year classes. Catch rates of largemouth bass (39/mile) and bluegill (77/mile) were relatively high for a small waterbody. Size structure of these populations is good given the size of the waterbody and reports high fishing pressure. Largemouth bass greater than 18 inches were captured with a good proportion over the legal size limit. A relatively good percentage of bluegill topped the 8 inch mark which is an indication that slow growth or “stunting” is not an issue. Largemouth bass and bluegill are the best fit for the available habitat in the Fairchild Pond and will continue persist as the “bread and butter” of the Fairchild Pond fish community given there is no largescale habitat/environmental changes. Considering largemouth bass and bluegill have high reproductive rates, stocking of these species is not necessary.

Several very nice sized yellow perch were captured in the survey, with fish greater than 14 inches caught. The habitat seems to allow the growth of these fish to large sizes. It is unlikely that there will be a high density of quality sized yellow perch, but these fish provide somewhat of a “bonus” for anglers to complement the other species. Perch have been stocked in the past, and due to the low catch of juvenile perch, they do not seem to be reproducing at a rate to sustain the population. To maintain angling opportunities for yellow perch, stocking is likely a necessary tool. Stocking of yearling yellow perch at a rate of 50/acre on an alternate year basis would likely sustain angling opportunities of yellow perch. Stocking of yellow perch is purely elective, and in the absence of stocking, a quality largemouth bass and bluegill fishery would persist.

Habitat improvements could help yellow perch natural reproduction. Perch lay their eggs in ribbon like structures and often use tree branches to drape their eggs. Downed trees also provide feeding and refuge habitat for yellow perch and many other species as well. A fish stick or tree drop project could increase habitat for all fish species, including yellow perch.

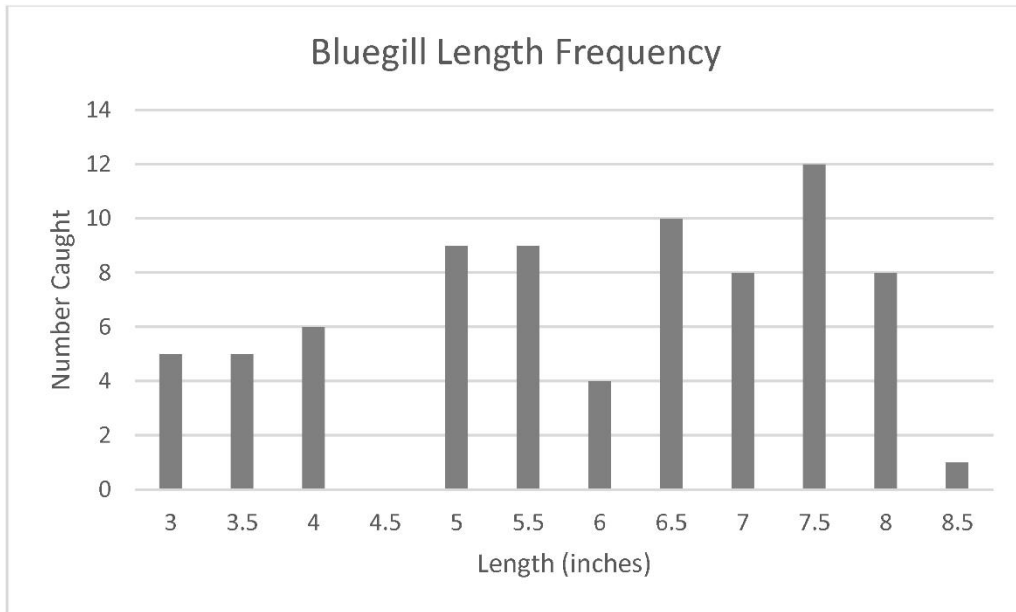
Joseph Gerbyshak  
Fisheries Biologist  
Eau Claire, WI  
715-461-0191  
[Joseph.gerbyshak@wi.gov](mailto:Joseph.gerbyshak@wi.gov)

**Largemouth Bass:** 39 largemouth bass were captured. The average size was 11.9 inches (range 3.5"-18.2").

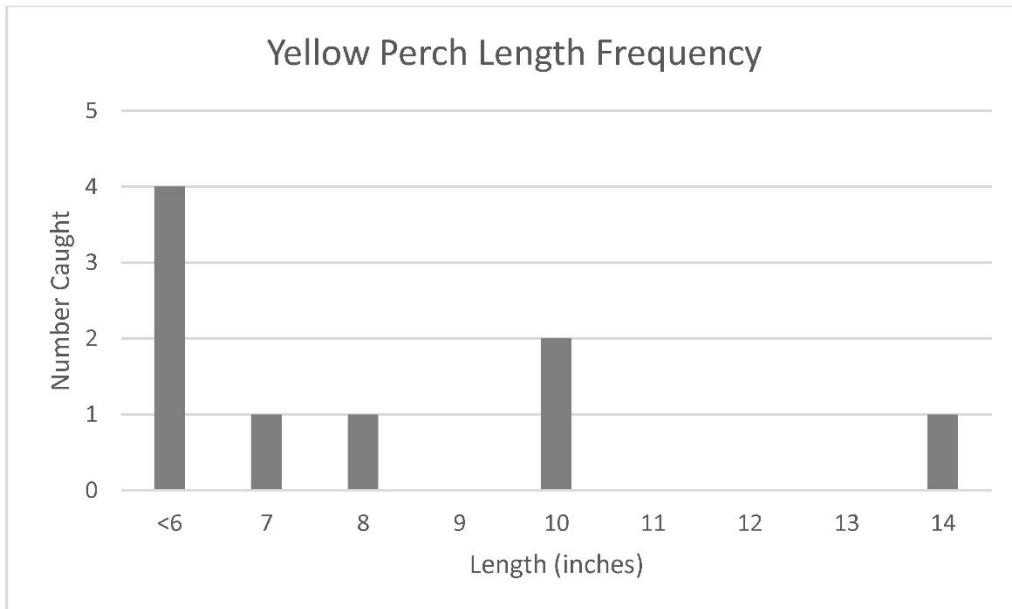




**Bluegill:** 77 bluegill were capture. The average size was 6.2 inches (range: 3"-8.6").



**Yellow Perch:** 10 yellow perch were captured. The average size was 7.6" (range: 4.1"-14.1").



**Additional fish species:** 2 black crappie (9.6", 9.3") and 1 white sucker were captured.

# APPENDIX F.

## FISHING REGULATIONS FOR FAIRCHILD POND

Taken directly from the WDNR website, the following WDNR fishing regulations for Fairchild Pond are fairly standard compared to other similar surface waters. Not all of the species listed (e.g., Lake Sturgeon, Walleye) are found at Fairchild Pond.

### Fishing Regulations for Fairchild Pond

#### General Waterbody Restrictions

Catch and release fishing for largemouth and smallmouth bass is open year round unless otherwise noted.  
Motor Trolling is allowed with up to 3 hooks, baits, or lures, per angler.

#### Fishing Regulations

NOTE: Regulations listed below may not reflect fish species actually found in the lake. See Fairchild Pond's [WDNR Lake Page](#) for more information on this lake's characteristics.

Fish	Season	Regulation
Bullheads	Open All Year	No minimum length limit and the daily bag limit is unlimited.
Catfish	Open All Year	No minimum length limit and the daily bag limit is 10.
Cisco and whitefish	Open All Year	No minimum length limit and the daily bag limit is 10.
Lake sturgeon	Closed	No fishing allowed.
Largemouth bass and smallmouth bass	May 1, 2021 to March 6, 2022	The minimum length limit is 14" and the daily bag limit is 5.
Muskellunge and hybrids	May 29, 2021 to December 31, 2021	The minimum length limit is 40" and the daily bag limit is 1.
Northern pike	May 1, 2021 to March 6, 2022	No minimum length limit and the daily bag limit is 5.
Paddlefish	Closed	No fishing allowed.
Panfish (bluegill, pumpkinseed, sunfish, crappie and yellow perch)	Open All Year	No minimum length limit and the daily bag limit is 25.
Rock, yellow, and white bass	Open All Year	No minimum length limit and the daily bag limit is unlimited.
Rough fish	Open All Year	No minimum length limit and the daily bag limit is unlimited.
Round goby	Open All Year	The daily bag limit is 0, one may be killed and possessed for transport to a wdnr office.
Ruffe	Open All Year	The daily bag limit is 0, one may be killed and possessed for transport to a wdnr office.
Shovelnose sturgeon	Closed	No fishing allowed.
Trout	See specific regulations	<a href="https://dnr.wi.gov/topic/fishing/trout/">https://dnr.wi.gov/topic/fishing/trout/</a>
Walleye, sauger, and hybrids	May 1, 2021 to March 6, 2022	The minimum length limit is 15" and the daily bag limit is 5.
White perch	Open All Year	The daily bag limit is 0, one may be killed and possessed for transport to a wdnr office.

**DISCLAIMER:** Information on this site is an interpretive summary of Wisconsin's fishing laws and regulations, and only applies to inland lakes. All other regulations, including those for trout and salmon, rivers, and border waters of the state (the Mississippi River or Great Lakes), can be found at <http://dnr.wi.gov/topic/fishing/regulations/index.html>. For complete fishing laws and regulations, consult the [Wisconsin State Statutes Chapter 29](#) and the [Administrative Code of the Department of Natural Resources](#). The regulations listed here may not reflect the exact species found in the lake or flowage. Please check to make sure there is public access and water available for fishing. Consult the Menominee Tribal Legislature for fishing regulations within the boundaries of the Menominee Reservation.