Apple Canyon Lake

BOARD OF DIRECTORS MEETING
February 21, 2026
9:00 A.M. – ACL CLUBHOUSE, 14A157 CANYON CLUB DR, APPLE RIVER, IL 61001
& VIA ZOOM

AGENDA

1.0 CALL TO ORDER – 8:00 A.M.

2.0 EXECUTIVE SESSION – 8:00 A.M

3.0 RETURN TO OPEN SESSION – 9:00 A.M.

4.0 PLEDGE OF ALLEGIANCE

5.0 COMMITTEE/COMMISSION REPORTS

6.0 TREASURER'S REPORT

7.0 GENERAL MANAGER'S REPORT

8.0 PRESIDENT'S REPORT

9.0 ANY ADDITIONS TO THE AGENDA

10.0 CONSENT AGENDA

11.0 UNFINISHED BUSINESS
- 11.1 XII. MOTORIZED VEHICLES – RECREATIONAL – 2nd Reading

12.0 NEW BUSINESS
- 12.1 XXIII. RENTAL HOMES – 1st Reading
- 12.2 WATERSHED PLAN – UPDATE OF 5-10 YEAR GOALS
- 12.3 EMPLOYMENT OF PERSONNEL – HIRING OF A GM
- 12.4 ZEBRA MUSSEL RFP
- 12.5 LAKE SHOCKING RFP
- 12.6 SUBMERGED VEGETATION RFP

13.0 PROPERTY OWNER COMMENTS (3 MINUTES PER MEMBER)

14.0 ADJOURN

10.0

Memorandum

To: Board of Directors

Date: February 21, 2026

From: ACLPOA

Memo: 2026-06

Topic: February Consent Agenda

Recommendation: To approve/adopt the Minutes from the January 17, 2026, Board meeting.

To accept Mary Bluhm resignation from the Campground Commission.
To accept Chris Szczypta resignation from the Campground Commission.
To accept Mike Cammack resignation from the Conservation, Dam Advisory Ad-Hoc, and Safety & Emergency Planning Commissions.

Apple Canyon Lake Property Owners Association
Board of Directors Meeting Minutes
January 17, 2026

UNAPPROVED

1.0 Call to Order

Meeting **called to order** by President Nolan Mullen at 8:13 am. Brian Holt in attendance as secretary. All Directors were present, with Bob Ballenger, Carmel Cottrell, Deb McNamee, and Mike Ward attending via Zoom. Interim General Manager Mike Harris was also present.

2.0 Executive Session

Mark Kosco **moved to proceed to executive session** made at 8:13 am.

Seconded by Brian Holt.

Motion carried unanimously.

3.0 Return to Open Session

Mark Kosco **moved to return to open session** at 9:09 am.

Seconded by Crystal Erdenberger.

Motion carried unanimously.

4.0 Pledge of Allegiance

After the Pledge of Allegiance, a quorum was present with the following Directors in attendance: Nolan Mullen, Bob Ballenger (via Zoom), Carmel Cottrell (via Zoom), Crystal Erdenberger, Brian Holt, Mark Kosco, Brett Livengood, and Mike Ward (via Zoom). Interim General Manager Mike Harris was also present. Deb McNamee left the meeting.

5.0 Committee/Commission Reports

Conservation Commission

Pam Opyd made a report, but it was not recorded due to technical difficulties.

Nominating Committee

Mike Yorke reported that the Committee has identified six qualified candidates for the 2026 board election: Bob Cook, Carmel Cottrell, Mike Hodge, Brian Holt, Deb McNamee, and Darren Wellman.

6.0 Treasurer's Report

The Treasure's Report is available on the website at https://www.applecanyonlake.org/group/pages/treasurer-s-report.

7.0 Interim General Manager's Report

Mike Harris reported campground playground will be open during the day. Bids will be solicited for zebra mussels and weed control. Boat dock rentals were very popular.

8.0 President's Report

The President's Report will be in The Apple Core.

9.0 Any Additions to the Agenda

None

10.0 Consent Agenda

Mark Kosco **moved to approve** the Consent Agenda, which included the following items:

1. Approve minutes from the December 20, 2025, Board meeting.

Seconded by Crystal Erdenberger.

Motion carried unanimously.

11.0 Unfinished Business

There was no unfinished business.

12.0 New Business

12.1. Greenway Stewardship Application: 8A239 Washington Lane

Crystal Erdenberger **moved to approve** the Greenway Stewardship Application for 8A239 Washington Lane for this applicant to proceed per the terms and recommendations agreed to in the application.

Seconded by Mark Kosco.

Motion carried unanimously.

12.2. Golf Course Fines

Crystal Erdenberger **moved to increase** the fine for noncompliance with golf course rules from $25 to $100.

Seconded by Mark Kosco.

Crystal Erdenberger **moved to send this back to the Golf Commission** for expansion.

Seconded by Brian Holt.

Motion carried unanimously.

12.3. Clarification of Language Regarding Operation of Motorized Vehicles

Brian Holt **moved to amend the language of the Rules & Regulations Fine Schedule** to change "Operating a recreation vehicle on a [sic] private property" to be "Operating a recreational vehicle on private property, including (but not limited to) green space."

Seconded by Crystal Erdenberger.

Mark Kosco **moved to send this back to the Rules & Regulations Commission** for clarification.

Seconded by Crystal Erdenberger.

Motion carried unanimously.

12.4. Trail Rule Updates: 1st Reading

Board discussed the proposed changes and asked for clarifications from both the Trails and Rules and Regulation commissions.

13.0 Property Owner Comments

The Board received comments from several property owners.

14.0 Rules & Regulations Workshop on Lake and Boat Safety

Mark Kosco **moved to suspend Robert's Rules of Order.**

Seconded by Brian Holt.

Motion carried unanimously.

Brett Livengood **moved to reinstate Robert's Rules of Order.**

Seconded by Brian Holt.

Motion carried unanimously.

15.0 Adjourn

Mark Kosco **moved to adjourn** at 11:14.

Seconded by Crystal Erdenberger.

Motion carried unanimously.

Memorandum

To: Board of Directors

Date: February 21, 2026

From: Rules & Regulations Committee

Memo: 2026-05

Topic: XII. Motorized Vehicles – Recreational – 2nd Reading

Issue: Rule changes brought forth by Trail Committee.

Rules & Regulations recommends the following updated rules to read:

Section XII. Motorized Vehicles - Recreational:

A. Definitions:

7. "All-Terrain Vehicle" (ATV) - Any motorized off-highway machine, maximum horsepower of 101 or less, traveling on four low pressure tires, designed for one rider per manufactured seat with no more than two seats allowed. Seats are designed to be straddled for operator use, and handlebars or steering wheel for steering control. ATVs are permitted on our trail system, subject to compliance with all other regulations contained herein.

8. "Utility Task Vehicle" (UTV)/ "Side by Side Vehicle" Any motorized off-highway- device, net weight 900 to 1,999 pounds, All motorized recreational vehicles shall be 66" or less measured from the outside tires. All machines must be measured by Association personnel. Maximum number of riders is 6 if UTV is equipped with manufactured installed seat belts. (Max dry weight of 2400 pounds and max horsepower of 101 as determined by manufactures published information.) not a golf- cart or low speed vehicle. Vehicle travels on four or more low pressure tires, with seating for at least two passengers in non-straddle type seats, designed with a steering wheel, brake lights, taillights, and two headlights. Four and six-wheel UTVs/Side by Sides are permitted on our trail system, subject to compliance with all other regulations contained herein

9. "Golf Cart" - A small vehicle primarily designed or manufactured for transportation of persons for golfing. Golf carts are permitted on our trail system, subject to compliance with all other regulations contained herein. Golf carts have a maximum number of riders of 6 with appropriate seating.

12 "Other Authorized Trail Vehicles" - Include snowmachines, (see Section XII Snowmachines for regulations) pedal bikes and Class 1 E-Bikes which have no throttle.

E. Equipment:

3. ATVs/UTVs and golf carts are required to always have headlight(s) and tail lamps(s) turned on, if equipped, during operation.

F. Operation Limitations

7. Motorized recreational vehicles are permitted on trails between the hours of 6:00 a.m. and 10:00 p.m. or one hour after the conclusion of an ACL sanctioned event. Use of headlights and taillights is required if equipped.

15. Remove - All motorized recreational vehicles shall be 66" or less in overall width. After any modifications to a vehicle, it must be re-measured at the Association Office prior to use on the properties.

Memorandum

Apple Canyon Lake

To: Board of Directors

Date: February 21, 2026

From: Rules & Regulations Committee

Memo: 2026-09

Topic: XXIII. Rental Homes – 1st Reading

Issue: Strain on ACL resources by short-term rentals and follows results of the long-range planning survey.

A motion was made in committee by Kevin Smith, seconded by Lynnette Swedberg to forward the changes and additions listed below. Motion carried unanimously.

Rules & Regulations recommend the following updated rules to read:

Section XXIII. Rental Homes

Renting: Property owners wishing to rent their homes as short-term rentals, as defined by Jo Daviess County, must register annually with the ACLPOA office and conform wit hall registration and licensing requirements as required by Jo Daviess County, including Guest Accommodations Ordinance with pertains to transient rentals. ACLPOA will not register a short-term rental property until it has been certified by Jo Daviess County.

1. **(New)** Home rentals to anyone other than immediate family, per definition, will be no less than 30 days. Immediate family is limited to spouses, domestic partners, parents, stepparents, grandparents, step grandparents, biological, step and adopted children, biological, step and adopted grandchildren, siblings and step siblings.
2. **(Was #1)** The yearly registration fee, as determined by the association, per rental property, paid to the association on or before March 1st. Late fees will apply.
3. Each short-term rental property without registration will result in a fine. Fine for the first occurrence is ~~**$600**~~ **$1000**. Subsequent violations will follow the fine escalation schedule as described in Section 5.
4. **(New)** ACLPOA limits the number of home rentals to 20 properties per year. Prospective rentals will be placed on a waiting list.

Memorandum

To: Board of Directors

Date: February 21, 2026

From: Conservation Commission

Memo: 2026-08

Topic: Watershed Plan – Update Of 5-10 Year Goals

Issue: The Watershed milestones we use to measure progress toward meeting those goals for the 5-10 year period were reviewed by the Conservation Commission and it was determined that an update was needed to better address the current conditions of the ACL property and our ability to meet these goals.

Recommendation: The Conservation Commission would like to present a general summary of the Watershed Plan (specific sections of the plan attached) to familiarize the Board with the general requirements and 5-10 goals of the plan and our recommendations to update the milestones we use to measure the progress toward meeting those goals at the January Board meeting and to request approval to formalize our recommendations. The recommended changes are attached for your reference.

Revised 5-10 Year Goal Milestones (7/21/2025)

Goal 1 – Improve Water Quality

Continue budgeting for rip rap and update the map every two years for areas of concern and those that have been finished until all areas are stabilized.

The medium priority areas are being worked on and should be finished by the end of 2027.

Finance at least one project a year that encapsulates a BMP (best management practice).

Continuing and expanding the greenway stewardship program to improve the riparian buffer zone

Change the way we measure Phosphorous from pounds per year to ppm (parts per million) with the goal of reducing ppm at Presidents and Hawthorne Bays, our biggest offenders, by 10% a year using suggested BMP's

Monitor expenses related to aquatic plant, mollusk and algae control and make recommendations to BOD based on fiscal responsibility and scientific facts

Continue working on forest management by establishing ACL areas best suited for converting to a savanna and/or prairie.

Goal 2 – Reduce Algal Blooms and Excessive Plant Growth

Annually map and photograph coverage and diversity of aquatic plants in Apple Canyon Lake

4 or more additional acres of the 16.6 acres of critical areas converted to riparian buffer (6.6.5)

Monitor zebra mussel and other aquatic invasive invertebrate infestation and control efforts

Goal 3 – Mitigate Existing Flooding Problems

Stream reaches PB 1, ID 1 and HW 1 are evaluated for potential reconnect hydrologically to adjacent flood plain (6.6.7 & 6.6.8)

Implement projects at WC1, PB1, ID1 and HW1 (6.6.7 & 6.6.8)
Identify problem trail and path culverts on ACL property and repair as needed

Encourage new home builds to incorporate high infiltration best management practices (6.6.4)

Goal 4 – Educate Watershed Community

Complete and distribute through the building department an information sheet for new and remodeled construction showing suggestions for reducing runoff.

Continue to hold an annual spring clean-up in conjunction with International Earth Day with 50 or more participants each year.

Continue to utilize the ACL Watershed Facebook page to inform the community about all aspects of the watershed including the flora and fauna.

Increase Watershed Facebook following by 10% (current following is 340)

Print at least four articles per calendar year in the *Apple Core* directly addressing issues and information about the watershed.

Sponsor a watershed information table at least once per calendar year at an ACL community event.

2016

Jo Daviess County Soil and Water Conservation District

APPLE CANYON LAKE WATERSHED BASED MANAGEMENT PLAN

6.0 MANAGEMENT GOALS

The collaborative Apple Canyon lake watershed planning group set several management goals which support the overarching target of improving water quality in Apple Canyon Lake and its watershed to meet established water quality standards for lakes and surface water as identified by the Federal and Illinois EPA. The underlying management goals provide a road map to reach the target. The underlying management goals were identified as follows:

(1) Improve water quality.
(2) Reduce algal blooms and excessive aquatic plant growth.
(3) Mitigate existing flood problems.
(4) Educate the watershed community.

Each of these goals was given a set of objective achievements in order to reach these goals.

6.1 Goal 1: Improve Water Quality.

Objectives:

a) Prioritize and stabilize stream banks in the watershed.
b) Stabilize eroded shoreline on the lake.
c) Improve the riparian buffer throughout the watershed.
d) Expand water quality database through continued monitoring.
e) Continue RiverWatch monitoring.
f) Develop cost-sharing program for BMP implementation in the watershed.
g) Improve the septic inspection policy at the property owners association.

6.2 Goal 2: Reduce algal blooms and excessive aquatic plant growth.

Objectives:

a) Map current extent of plant coverage.
b) Develop a management plan for controlling aquatic plants.
c) Identify critical areas in the watershed.
d) Perform a study to reduce nutrient loading in North Bay.

6.3 Goal 3: Mitigate existing flooding problems.

Objectives:

a) Increase connectivity between streams and floodplains.
b) Create green infrastructure plan for developed areas.
c) Create a zero-runoff policy for new construction in the property owners association.
d) Encourage zero-runoff adherence for existing properties.

6.4 Goal 4: Educate watershed community.

Objectives:

a) Increase public participation in the watershed planning and implementation process.
b) Continue quarterly watershed meetings.
c) Demarcate watershed boundaries on major roads.
d) Publish educational articles in local news sources and online resources.
e) Host educational events.
f) Increase participation in the RiverWatch program.

6.5 Management Action Plan

The resource inventory and water quality analysis identify watershed impairments based on cause and source. This plan identifies potential areas of redress in order to reverse the downward trend in water quality. This section includes a Management Action Plan developed through stakeholder meetings which specifically address objectives directly related to plan goals. These management measures are first presented at a general scale and shall be implemented as opportunity and funding are available. For each action item, the classification of "High", "Medium", and "Low" is assigned based on feasibility, cost, and impact on goals. High priority action items should be carried out in the near future (1-5 years). Medium and Low action items will have a lower impact on overall plan success and are encouraged to be achieved during a longer time frame 6-10 years for Medium priority action items and 11-25 years for Low priority action items. Table 6-1 identifies the key stakeholders and partners in the watershed. To address these management goals, the subwatersheds were prioritized based on size and loading rates. For Association dollars spent, projects will be focused on these prioritized areas to achieve maximum benefit from implementation efforts. See the following sections 6.5.1 – 6.5.4 for management measures corresponding to each goal.

Table 6-1. Apple Canyon Lake Watershed stakeholders and partners.

Apple Canyon Lake Watershed Stakeholder/Partner	Acronym/Abbreviation
ACL-POA Architectural Committee	AC
ACL-POA Conservation Committee	CC
Apple Canyon Lake Property Owners Association	ACL-POA
Consultant	Consultant
Illinois Department of Natural Resources	IDNR
Illinois Environmental Protection Agency	IEPA
Illinois Farm Bureau	IFB
Jo Daviess County Soil and Water Conservation District	SWCD
Land owners in the watershed	Landowners
Members of the Apple Canyon Lake Property Owners Association	PO
National Great Rivers Research and Education Center	NGRREC
Townships	TWP
University of Illinois Extension	UIE
University of Wisconsin Platteville, Dept. of Environmental Engineering	UWP
U.S. Fish and Wildlife Service	FWS
U.S. Forest Service	USFS
USDA Natural Resources Conservation Service	NRCS

6.5.1 Goal 1: Improve Water Quality.

	Management Measures	Priority	Primary Objective	Responsible Stakeholder	Technical Assistance
1	Stabilize stream reaches with high levels of erosion.	High	1a	All Stakeholders	Consultant
2	Stabilize high erosion areas around lakeshore.	High	1b	ACL-POA, PO	Consultant
3	Improve the riparian buffer around the lake.	High	1c	Landowners	ACL-POA SWCD/NRCS
4	Identify critical areas affecting water quality in the watershed.	High	1c	ACL-POA, SWCD	SWCD, UWP
5	Improve riparian buffer in the watershed.	High	1c	ACL-POA, Landowners	Consultant
6	Continue water quality monitoring for tributary streams.	High	1d	ACL-POA	Consultant, Volunteers, IEPA
7	Continue Tier III VLMP monitoring.	High	1d	ACL-POA	Volunteers, IEPA
8	Develop cost-sharing program for BMP implementation on private lands in the watershed.	High	1f	ACL-POA	SWCD, Consultant
9	Improve septic system operation at Apple Canyon Lake.	High	1g	ACL-POA, Conservation Committee	Conservation Committee
10	Provide annual analysis of water quality data.	High	1d	ACL-POA	Consultant
11	Apply gypsum to cropland in watershed.	High	1f	Landowners, ACL-POA	SWCD
12	Apply cover crops to cropland in watershed.	High	1f	Landowners, ACL-POA	SWCD
13	Install a demonstration tile gate on a tiled crop field.	High	1f	Landowners, ACL-POA	SWCD
14	Stabilize stream reaches with medium levels of erosion.	Medium	1a	All Stakeholders	Consultant
15	Stabilize medium erosion areas around lakeshore.	Medium	1b	ACL-POA, PO	Consultant
16	Continue to develop RiverWatch database.	Medium	1e	Volunteers	NGRREC, SWCD
17	Stabilize stream reaches with low levels of erosion.	Low	1a	All Stakeholders	Consultant
18	Stabilize low erosion areas around lakeshore.	Low	1b	ACL-POA, PO	Consultant

6.5.2 Goal 2: Reduce algal blooms and excessive aquatic plant growth.

	Management Measures	Priority	Primary Objective	Responsible Stakeholder	Technical Assistance
1	Map current extent of aquatic plant species coverage.	High	2a	ACL-POA	Consultant
2	Develop a management plan for aquatic plants.	High	2b	ACL-POA	Consultant
3	Identify critical areas in the watershed where restoration has the greatest impact on water quality improvement.	High	2c	ACL-POA	Consultant, UWP
4	Perform feasibility study for storm retention in North Bay.	High	2d	ACL-POA	Consultant, UWP
5	Reduce nutrient and sediment loading in lake (refer to Goal 1).	High	Goal 1	All Stakeholders	All Stakeholders

6.5.3 Goal 3: Mitigate existing flooding problems.

	Management Measures	Priority	Primary Objective	Responsible Stakeholder	Technical Assistance
1	Increase connectivity between streams and floodplains.	High	3a	All Stakeholders	SWCD
2	Create green infrastructure plan for developed areas.	High	3b	ACL-POA	Consultant
3	Create a zero-runoff policy for new construction in the property owners association.	High	3c	ACL-POA	AC
4	Encourage zero-runoff adherence for existing properties.	Medium	3d	ACL-POA	AC, CC

6.5.4 Goal 4: Educate watershed community.

	Management Measures	Priority	Primary Objective	Responsible Stakeholder	Technical Assistance
1	Increase public participation in watershed planning and implementation process.	High	4a	All Stakeholders	All Stakeholders
2	Continue quarterly watershed meetings.	High	4b	All Stakeholders	All Stakeholders
3	Publish educational articles in local news sources and online resources.	High	4d	CC	SWCD, Consultant
4	Host educational events.	High	4e	CC	SWCD, Consultant
5	Increase participation in the RiverWatch program.	High	4f	CC	NGRREC, SWCD
6	Demarcate watershed boundaries on major roads.	Medium	4c	ACL-POA	Consultant

6.6 Management Measures to Achieve Goals

Through stakeholder meetings in the watershed planning process as well as through the resource inventory portion of plan development multiple best management practices (BMP) were identified to reach the goals of this plan. These BMPs were analyzed to estimate individual load reductions expected from BMP implementation as well as cost. These BMPs are in the form of stream stabilization, riparian buffers, shoreline stabilization, agricultural BMPs (cover crops, saturated buffers, gypsum application, tile discharge control, etc.), and policy recommendations.

6.6.1 Cover Crops

Cover crops have come to the forefront in the effort to reduce nutrient loads in agricultural watersheds. Cover crops are included in the Illinois Nutrient Load Reduction Strategy (NLRS) as an important practice that farmers can use to reduce nonpoint source pollution. Historically, producers have been reluctant to plant cover crops because of the time and money involved.

Producers typically grow cover crops to provide living cover on farm fields during times when cash crops are not grown, usually during late fall and early spring. While farmers usually do not harvest cover crops for profit, they provide many economic and environmental benefits. First, cover crops recycle nutrients and help prevent them from entering waterways. They help water infiltrate soil, preventing nutrient-heavy runoff from entering waterways. This increased soil infiltration also provides some flood mitigation. Additionally, cover crops absorb excess nitrogen, reducing nitrogen leaching into the groundwater or drainage systems. In one field study, a cereal rye cover crop reduced nitrate concentration in drainage water by 48 percent, and oats reduced nitrate concentration by 25 percent. Although results will vary depending how much the cover grows, this means that widespread use of cover crops can significantly improve water quality and recycle valuable nutrients back to our soil.

Second, cover crops help to retain topsoil. When farmland is left without any living cover topsoil is lost through erosion. An Iowa study found that using rye cover crop following no-tillage soybeans reduced sheet erosion by 54 percent and rill erosion by 90 percent compared to no-tillage fields without cover crops. An oat cover crop produced about one-half the benefit of a rye cover crop. In addition to providing soil cover, the cover crops also helped to anchor residues and prevented them from moving with flowing water. This is especially important with the frequent high intensity rainfall events observed in the last decade.

Not only do cover crops help retain soil, but they also improve soil health. Cover crops recycle nutrients that would otherwise end up in waterways and redeposit those nutrients into the soil where they will eventually be available for future crops. Legume cover crops can also fix atmospheric nitrogen and deposit it into the soil. Cover crops can also improve soil health by increasing soil organic matter and increasing earthworm populations. They can help to control weeds and increase plant diversity by improving habitat for beneficial microbes, insects, and wildlife. While cover crops require additional financial input, labor, and crop management, they are an important long-term investment for securing the future success on farms.

Recent farmer surveys have reported that effectively managed cover crops do not significantly affect cash crop yields and recent reports find that cover crops increase cash crop yields during periods of weather volatility. In drought-stricken areas, farmers reported that corn yields were 11 percent higher and soybean yields were 14 percent higher than yields for corn and soybeans not planted after cover crops.

The Illinois Department of Agriculture's cover crop cost-share assistance program, the Conservation Practices Program, has set a state-wide maximum average cost of $40 per acre to

purchase seed and apply cover crops. Based on land-use statistics identified in the resource inventory, there are approximately 3014.1 acres of cropland in the watershed (30.8%) which could benefit from cover crop implementation. This equates to a maximum cost of seed purchase and establishment of approximately $120,564 annually to establish cover crops in the watershed.

6.6.2 Education Activities

Numerous educational activities have been identified through the planning process. Many of these activities have since been implemented during plan development. Monthly educational articles are published in the Apple Core and local area newspapers circulated in the watershed. At the onset of the planning process the Conservation Committee began printing a Conservation Page in the ACLPOA newspaper, the Apple Core. This page is conservation focused, though not always directly watershed related. The Conservation Page contains a number of articles, some contributed by the Conservation Committee, some by residents, and some by the Jo Daviess County SWCD. The objective is to have at least one article that is watershed related each month. Further education is needed to educate private property owners, land managers, agricultural producers, septic system owners, streamside land owners, lake management, and youth.

The Conservation Committee has planned two educational field days each year, as well as a lake clean-up event on earth day. Topics for the educational field days are watershed oriented and intended to increase watershed awareness and stewardship. Although these events target members of the property owners association, all events are open to the public.

The National Great Rivers Research and Education Center (NGRREC) hosts the RiverWatch program. The Illinois RiverWatch Network is a volunteer stream monitoring program that seeks to engage Illinois citizens by training them as Citizen Scientists. Each year at adopted stream sites in their communities, Citizen Scientists conduct habitat and biological surveys, including the collection and identification of small stream organisms called macroinvertebrates that serve as bioindicators of water quality. The program strives to collect consistent, high-quality data on the conditions of local streams and provides citizens with a hands-on opportunity to be better stewards of our watersheds. RiverWatch was initiated in 1995 as part of the Critical Trends Assessment Project (CTAP), and Illinois Department of Natural Resources (IDNR) project designed to conduct a long-term comprehensive assessment of the environment in Illinois. In 2006, responsibility for RiverWatch was officially transferred to NGRREC. Two stream sites were adopted under the RiverWatch Program in 2001 (Hells Branch above Apple Canyon Lake R0117901, and Hells Branch below the Apple Canyon Lake Spillway, R0117902). In 2014, four additional sites were adopted to correspond to water monitoring data collected as part of this watershed planning effort. A RiverWatch training was held at the Property Owners Club at Apple Canyon Lake in 2015 to educate, garner more volunteers, and expand the RiverWatch mission. This program will continue to monitor the Apple Canyon Lake streams in perpetuity.

Additionally, a Kids Camp is held for three days every summer. This camp is open to all people regardless of property ownership and targets children aged 6-11. Kids Camp has been conducted during the planning process and shall continue on in perpetuity. Activities range from demonstrating a watershed model, describing nutrients and water pollution, visiting streams and taking water samples, and learning some of the RiverWatch curriculum.

Finally, quarterly watershed planning meetings will continue once the watershed plan is completed. The quarterly watershed meetings are necessary to review plan implementation, continue to induct participants into stakeholder discussions, address milestones and fallacies in planning as well as updating the watershed plan as necessary. Watershed planning meetings may be changed to a single meeting quarterly or to a different time and/or location as deemed necessary. The planning meetings will also develop future presenters, topics, issues to be addressed at the meetings. Partnerships will enrich these events, such as presentations by University of Illinois Extension staff, and USDA staff.

6.6.3 Gypsum Application

During the watershed planning process the application of gypsum to cropland acres was embraced by the agricultural community. Gypsum application to crop fields has been shown to reduce phosphorus transport as well as benefit crop yields making this best management practice attractive to producers to benefit production and help achieve nutrient reduction goals.

Gypsum is a relatively common mineral that is widely available in agricultural areas and has a number of specialized agronomic uses, principally as a calcium source on legumes and as a soil conditioner on sodic soils (Shainberg et al., 1989). Research by Stout et al. (1999) showed the reduction of water soluble phosphorus as much as 60% with the use of a 10 g/kg gypsum treatment. Applying this research to the Apple Canyon Lake watershed, approximately 3000 acres of cropland exists which could be treated with gypsum. Gypsum is typically applied in the fall after crops are out of the fields. There are no apparent restrictions on field application, and no detriment to streams or waters systems if it is transported prior to incorporation into soil systems. Quotes from local agriculture service companies result in the cost of approximately $40 per acre to purchase and apply gypsum to a field. Using this information the derived annual cost to treat crop fields in the watershed with gypsum is $120,000. This treatment could produce as much as a 30% reduction in aquatic phosphorus levels (Sharpley et al., 1994).

6.6.4 Policy

During the watershed planning process the stakeholder group identified a number of policy changes that are desired to be implemented into the covenants of the Apple Canyon Lake Property Owners Association. Policy initiatives include (1) a zero-runoff policy for new construction, (2) zero-runoff best management practice encouragement for existing construction, (3) the inclusion of a septic drainfield inspection in addition to the existing septic tank inspections, (4) the inclusion of a green-infrastructure component for Association property improvements, such as pervious pavement for parking lots, and (5) allocating funding into next year's budget for plan implementation. These policies will only be applicable to Association properties, which contain the density of development in the watershed. Prior to implementing a septic drainfield inspection policy, a study should be performed on the existing septic practices. Results from this study will dictate septic policy needs in the property owners association. Due to the varied nature of these policies, estimating actual nutrient reductions expected from these policies is not possible.

6.6.5 Riparian Buffer Improvements

This plan is calling for 4,622 linear feet of riparian area improvement. North Bay, Association, Winchester, President's Bay, Independence, and Hawthorne were all assessed to determine areas next to streams on existing cropland flowing into Apple Canyon Lake could be

improved by converting cropland to a buffer zone. This was done using methodology developed by Storm et al. (2006). Installation of these buffers could be beneficial for preventing nutrients and sediment from entering the water and also help with erosion control. A total of 16.63 acres of potential buffer areas were identified; areas that were 0.1 acre or smaller were not considered. Nutrient load and erosion reduction predictions were made based on if buffers were installed in these areas (*see Table 6-3*). These 16.63 acres equate to approximately 14,488 linear feet of riparian stream area. Many of these areas are eligible for the USDA's Conservation Reserve Program where landowners could receive a rental payment on these areas if they implement the buffer area. It has also been identified that a student project could be associated with this to develop a more sophisticated identification of key areas in the watershed which would strategically protect water quality in the watershed. This project will be solicited through the University of Wisconsin, Platteville, and environmental engineering department as available. Detailed listings for areas currently identified follow by sub-watershed.

During the water quality assessment a variety of modeling techniques were used and checked with known data for accuracy. The STEP-L model was particularly beneficial in identifying efficacy of best management practice implementation techniques. Of these, riparian buffers and vegetated field borders were most effective at reducing loading rates. These practices apply primarily to agricultural land higher in the watershed and off of ACLPOA properties. Incentives will likely be necessary for these practices to be implemented. However, studies of tile drained agricultural lands in Illinois have shown that buffers alone are not adequate to override nutrient export from subsurface tile drainage (Lemke et al., 2011) and therefore will not be a high priority for implementation.

Table 6-3. Consolidated totals of identified potential buffer plots in North Bay, Association, Winchester Bay, President's Bay, and Independence Bay Subwatersheds (Data from Tables 6-4 thru 6-8).

Acres	Drainage Acres	Sediment Reduction (t/yr)	Nitrogen Reduction (lb/yr)	Phosphorous Reduction (lb/yr)	Sheet & Rill Erosion (t/ac/yr)
16.63	**567.32**	**453.9**	**1358**	**730**	**291.2**

6.6.5.1 North Bay Subwatershed

Areas in the North Bay sub-watershed which have been identified as key areas for implementation of a riparian buffer using protocol developed by Storm et al. (2006) are listed in the following table.

Table 6-4. Identified potential buffer plots in North Bay and the acreage of each plot. The 'Buffer ID Number' corresponds with the plot labels in Figure 6-2.

Buffer Number	Acres	Drainage Acres	Sediment Reduction (t/yr)	Nitrogen reduction (lb/yr)	Phosphorous reduction (lb/yr)	Sheet & Rill (t/ac/yr)
2	0.09	1.4	0.3	1	0	16.2
3	0.1	2.4	3.7	11	6	7.9
4	0.1	0.9	2.5	6	3	14.2
8	0.11	19	19.7	62	33	5.3
10	0.11	1.3	2.5	7	4	9.8
11	0.12	3.2	3.3	10	6	5.3
12	0.12	1.3	1.3	4	2	5.3
13	0.13	2.8	2.9	9	5	5.3
14	0.14	1.6	2.5	7	4	8.1
15	2	20.32	11.9	42	22	3
19	1.24	3	4.4	15	8	3
20	1.1	164	4.6	19	10	1.4
21	0.27	9.26	17.6	49	26	9.8
22	0.18	1.4	1.7	5	3	6.1
23	0.9	8.27	11	33	18	6.9
24	0.2	13.07	13.6	43	23	5.3
25	0.23	1.3	2.6	7	4	10.2
26	0.23	1.5	0.9	3	2	3
29	0.28	0.6	2	5	3	17.6
30	0.29	5	9.5	26	14	9.8
32	0.29	3.6	2.2	8	4	3.1
33	0.3	68	26.3	100	54	2
34	0.32	3	7.8	20	11	13.3
37	0.35	6.2	40.1	87	47	33.3
38	0.41	3.2	4.9	14	8	7.9
39	0.55	12.6	13.1	41	22	5.3
40	4.26	83	143.6	406	218	8.9
Total	14.42	441.22	356.5	1040	560	227.3

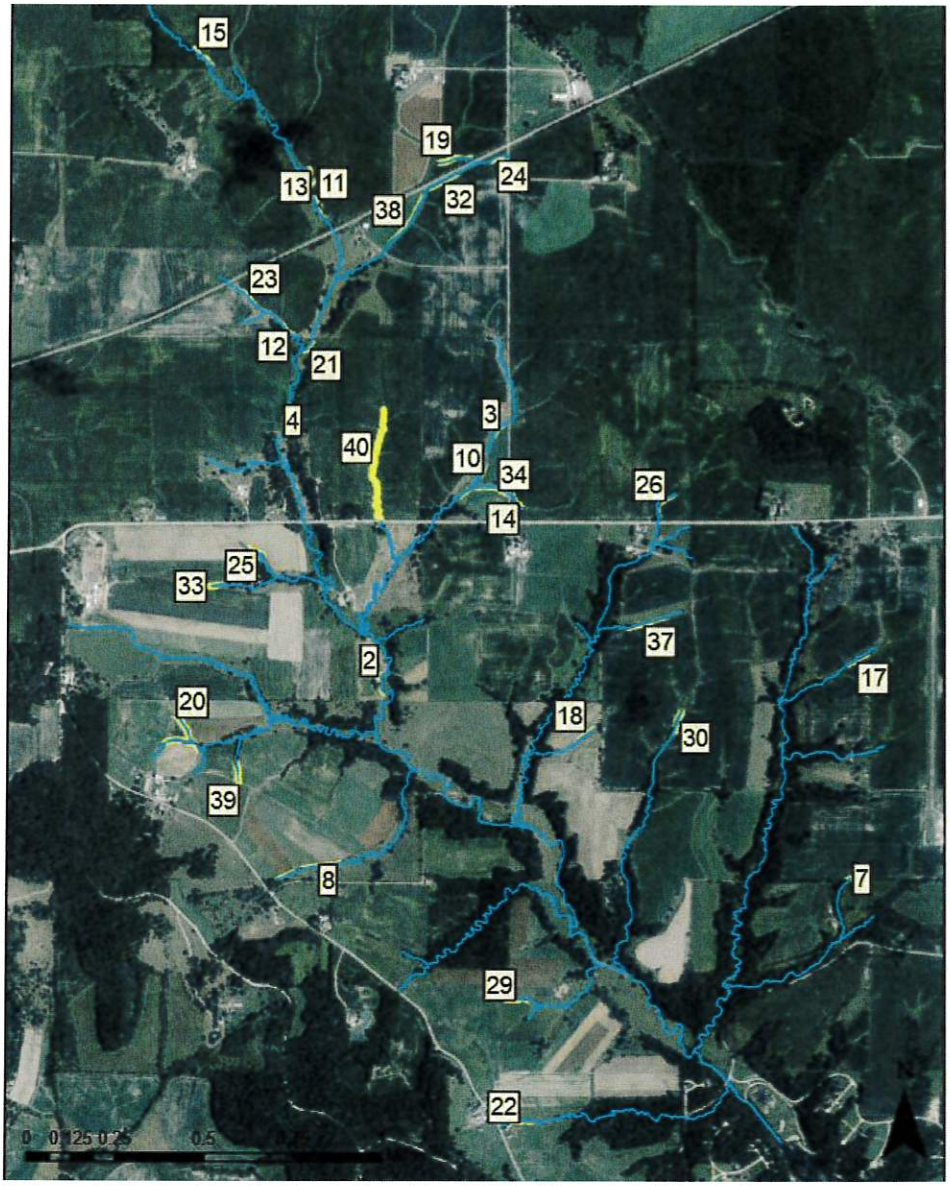


Figure 6-2. Areas in North Bay subwatershed within a 50ft buffer zone of stream that are currently used for cropland and have been identified as potential plots to convert to buffer.

6.6.5.2 *Association Subwatershd*

Areas in the Association sub-watershed which have been identified as key areas for implementation of a riparian buffer are listed in the following table.

Table 6-5. Identified potential buffer plots in Association and the acreage of each plot. The 'Buffer ID Number' corresponds with the plot labels in Figure 6-3.

Buffer Number	Acres	Drainage Acres	Sediment Reduction (t/yr)	Nitrogen reduction (lb/yr)	Phosphorous reduction (lb/yr)	Sheet & Rill
9	0.11	1	1.6	5	2	8.3
Total	**0.11**	**1**	**1.6**	**5**	**2**	**8.3**

Figure 6-3. Identified buffer areas in the NE portion of the Association sub-watershed.

6.6.5.3 Winchester Bay Subwatershed

Areas in the Winchester Bay sub-watershed which have been identified as key areas for implementation of a riparian buffer are listed in the following table.

Table 6-6. Identified potential buffer plots in Winchester and the acreage of each plot. The 'Buffer ID Number' corresponds with the plot labels in Figure 6-4.

Buffer Number	Acres	Drainage Acres	Sediment Reduction (t/yr)	Nitrogen reduction (lb/yr)	Phosphorous reduction (lb/yr)	Sheet & Rill
1	0.09	0.7	1.6	4	2	11.7
6	0.11	7.6	12	34	18	8.1
28	0.26	9.9	7.8	26	14	4.0
Total	**0.79**	**18.8**	**21.4**	**64**	**34**	**23.8**

Figure 6-4. Greater than .1 acre areas within a 50ft buffer zone of stream that are currently used for cropland and have been identified as potential plots to convert to buffer.

6.6.5.4 Presidents Bay Subwatershed

Areas in the Presidents Bay sub-watershed which have been identified as key areas for implementation of a riparian buffer are listed in the following table.

Table 6-7. Identified potential buffer plots in Presidents Bay and the acreage of each plot. The 'Buffer ID Number' corresponds with the plot labels in Figure 38.Greater than .1 acre areas within a 50ft buffer zone of stream that are currently used for cropland.

Buffer Number	Acres	Drainage Acres	Sediment Reduction (t/yr)	Nitrogen reduction (lb/yr)	Phosphorous reduction (lb/yr)	Sheet & Rill (t/ac/yr)
16	0.15	3.2	7.1	19	10	11.4
27	0.25	4	4.2	13	7	5.3
36	0.33	0.7	1.1	3	2	8
Total	**0.73**	**7.9**	**12.4**	**35**	**19**	**24.7**

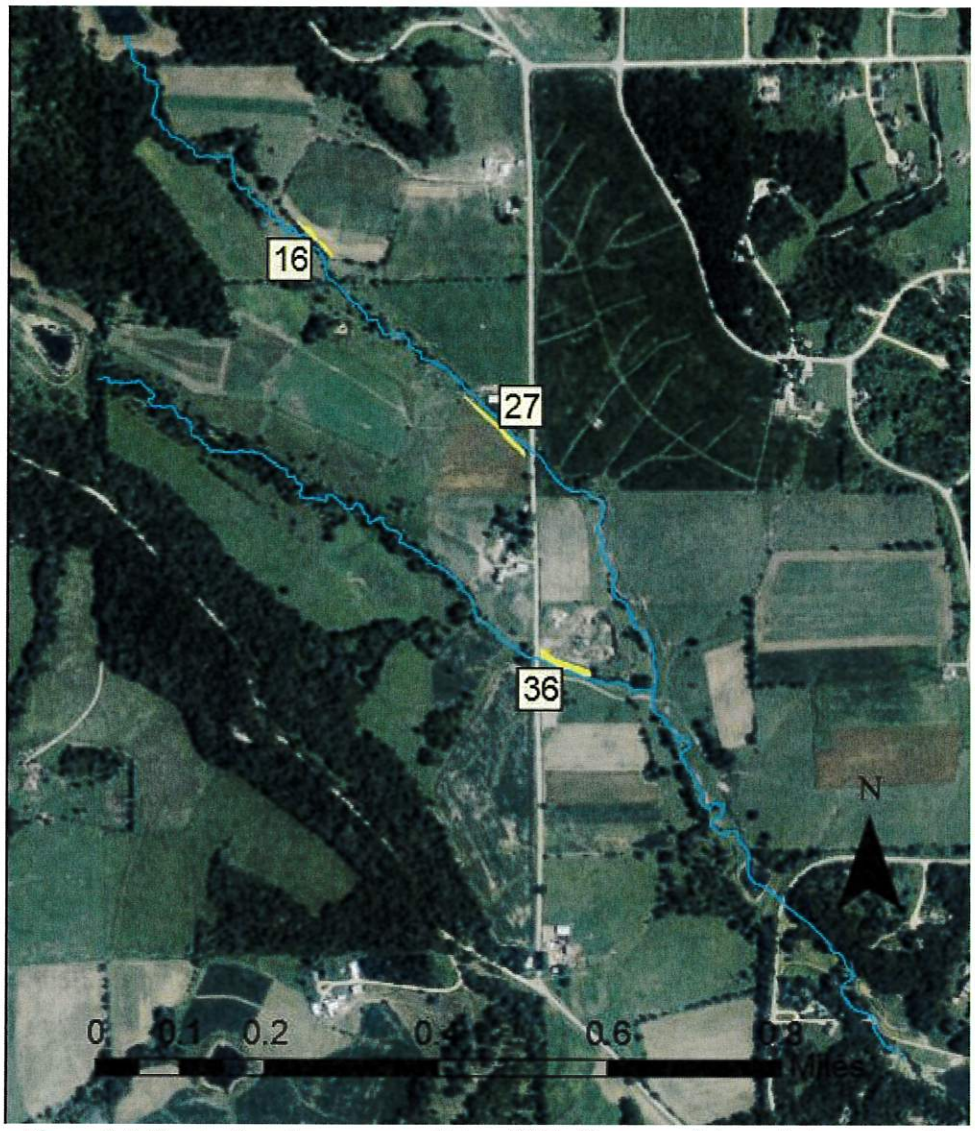


Figure 6-5. Greater than .1 acre areas within a 50ft buffer zone of stream that are currently used for cropland and have been identified as potential plots to convert to buffer.

6.6.5.5 Independence Bay Subwatershed

Areas in the Independence Bay sub-watershed which have been identified as key areas for implementation of a riparian buffer are listed in the Table 6.8, and graphically depicted in Figure 6.6.

Table 6-8. Identified potential buffer plots in Independence and the acreage of each plot. The 'Buffer ID Number' corresponds with the plot labels in Figure 6-6.

Buffer Number	Acres	Drainage Acres	Sediment Reduction (t/yr)	Nitrogen reduction (lb/yr)	Phosphorous reduction (lb/yr)	Sheet & Rill (t/ac/yr)
31	0.29	32	27.2	89	48	4.4
5	0.62	67	34.8	125	67	2.7
Total	**0.91**	**99**	**62**	**214**	**115**	**7.1**

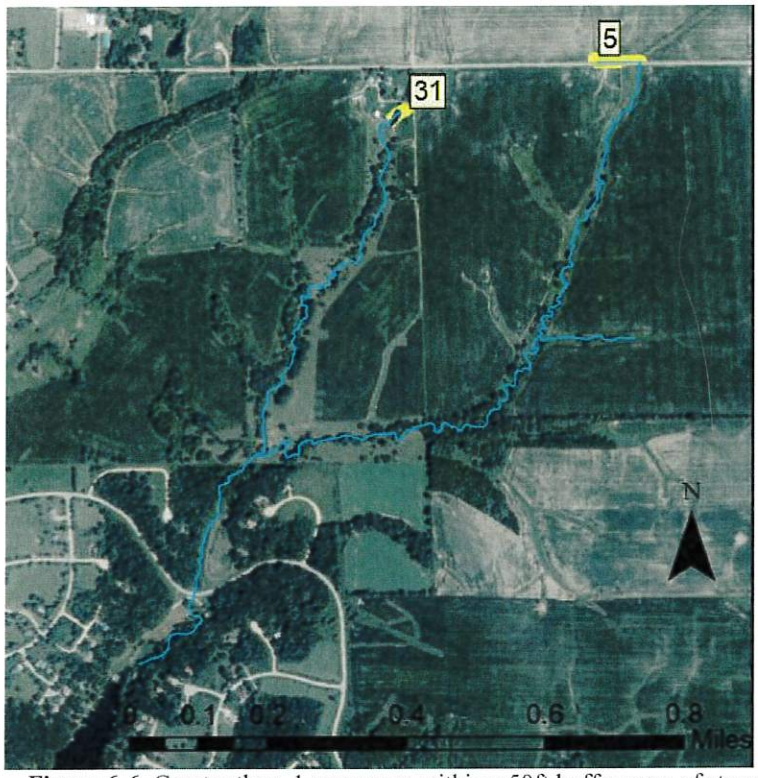


Figure 6-6. Greater than .1 acre areas within a 50ft buffer zone of stream that are currently used for cropland and have been identified as potential plots to convert to buffer.

6.6.6 Saturated Buffer

Agricultural tile drainage systems provide a direct conduit for agricultural nutrients to enter waterways (Mitsch et al., 2001). Due to the cost of nutrient applications, it is at the producer's advantage to conserve nutrients on the field for personal gain as well as environmental benefit. Several opportunities exist for controlling subsurface drainage on agricultural lands, such as treatment wetlands, bio-reactors, saturated buffers, blind inlets, improved waterways, tile outlet terraces, dry dams and diversions, and drainage water management. It is at the producer's discretion which practices are appropriate for a specific property. These Best Management Practices (BMP) are known as "edge of field" practices.

The total number of acres drained by tile in the watershed is unknown. The shale soils of the watershed are known to be actively tile drained to facilitate agricultural production. This ranges from pre-1900 clay tile that was hand dug to new plastic perforated tile that can be laid mechanically. Given the high number of acres in row crop production in the watershed there is likely a high degree of tile drainage, but no data exists to provide an educated guess. Water quality impairment due to Tile drainage has historically been focused on nitrogen loss, although recent research has hinted that more phosphorus can be present in tile drainage water than was previously anticipated (Dils & Heathwaite, 1999; Gentry, et al., 2007; Schelde, et al., 2006). The Illinois Nutrient Loss Reduction Strategy (IEPA, 2015) identifies that in-field BMPs can achieve 10 – 30% nitrogen reductions and 10 – 50% phosphorus reductions. Edge-of-field BMPs can achieve 40 – 90% nitrogen reductions and 25 – 50% phosphorus reductions. Once the nutrients make it to the field edge they are no longer available to the crops, making application of in-field practices more desirable to producers. Jaynes, et al. (2008) have found drainage water management, denitrification bioreactors, and saturated buffers to be most effective edge of field practices for nitrogen loss, and blind inlets for phosphorus loss. Due to average slope on agricultural fields in the watershed, there are few places where these practices are possible. However, there are suitable locations available in the watershed on some fields in the northernmost headlands of the watershed and their adoption is encouraged. In-field nutrient management is the best place to start, and working in-field and edge-of-field practices together can reduce runoff by 50 – 100%.

6.6.7 Shoreline Stabilization

As identified in the resource inventory (*see section 4.6*), shoreline stabilization has been identified as an area to improve erosion extent. Apple Canyon Lake contains 14.83 miles of shoreline. Of this area, 8.90 miles are owned by the property owners association, and 5.93 miles are privately owned by members. Stabilization of the lakeshore has a large potential for load reductions. Table 6-9 summarizes the cost and load reduction potential covered in Section 4.6.

Shoreline can be stabilized using rock rip rap corresponding to NRCS shoreline and streambank stabilization practice standards.

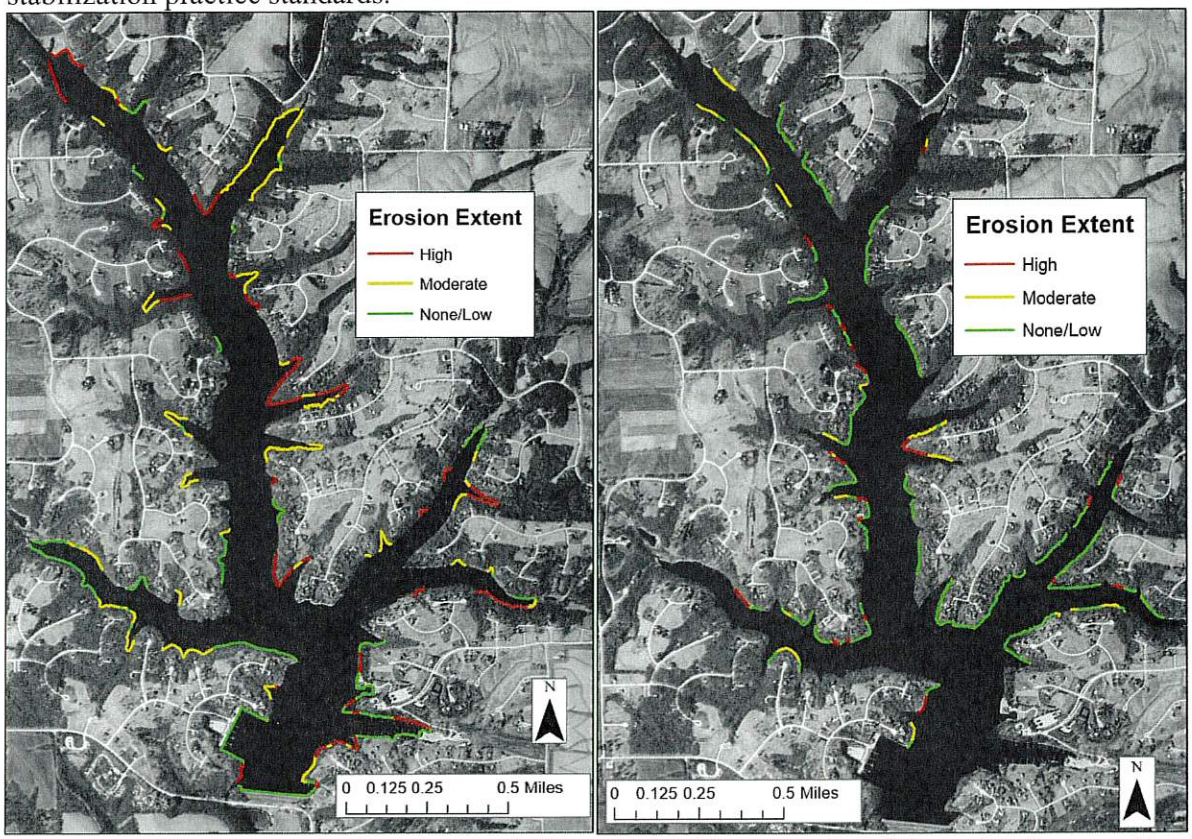


Figure 6-7. Shoreline classifications along Apple Canyon Lake. The map on the left shows shoreline owned by ACL-POA and the map on the right shows shoreline owned by private landowners.

Table 6-9. Shoreline stabilization needs and associated costs.

Lake Name	Shoreline Length Assessed (ft)	Total Erosion (ft.)	Estimated Cost ($40/ft.)
POA Shoreline	47,010	31,356	$1,254,240
Private Shoreline	31,258	8,526	$341,040
Totals	**78,268**	**39,882**	**$1,595,280**

Table 6-10. Shoreline erosion designations and load reduction estimates.

Shoreline Erosion Extent	Shoreline Length (ft)	Soil Saved (tons/yr)	Sediment Load Reduction (tons/yr)	Nitrogen Load Reduction (lb/yr)	Phosphorous Load Reduction (lb/yr)
None/Low Erosion	38,387	171	171	343	171
Moderate Erosion	22,948	683	683	1,365	683
High Erosion	16,934	1,259	1,259	2,519	1,259
Total	**78,269**	**2,113**	**2,113**	**4,227**	**2,113**

6.6.8 Stream Restoration

The stream assessment identifies 22,945 linear feet (4.35 miles) of streams contributing to loading in the watersheds. The estimated cost of this restoration is $997,800 using traditional estimation methods used by the NRCS. The cause of much of this degradation is top soil which has migrated from hill tops in the watershed and down into the floodplain. This has created a situation where the floodplain has become elevated and stormwater no longer has access to spread over the floodplain and dissipate energy. BMPs necessary to address this will primarily be creating secondary benches or rock riffles to connect streams with flood control. Armoring of stream bends will be necessary in some situations to protect sinuous corners. The topography of the watershed is such that vegetative bank protection does not work, and past implementation of rock bank protection also has not worked if flood capacity is not increased. Table 6-11 outlines the anticipated costs of stream stabilization needs in the watershed identified through field surveys conducted in 2014. Costs include survey and design, construction costs, and construction oversight and certification. These costs were based on Jo Daviess County SWCD standard rates. Engineering fees from outside entities could be considerably higher. Also included in table 6-11 are load reduction estimates which correspond to the individual projects. These loading rates were estimated using Illinois Department of Agriculture standards (Steffen, 1982).

Additionally, an analysis of the drainages on the Association Subwatershed area needs to be completed. While major stream corridors were assessed in the resource inventory, numerous contributing drainages were identified which accommodate very small drainages but collectively contribute an estimated 2,690 pounds of nitrogen and 966 pounds of phosphorus into Apple Canyon Lake each year. Individually, none of these sites are a high priority, but a study is needed to investigate these sites and develop a prioritization schedule for fixing the deteriorating conditions in each.

Table 6-11. Stream reaches, associated load contributions, and estimated restoration costs.

TRIBUTARY/STREAM	REACH	Estimated Cost	Stream Bank Length Protected (ft)	Soil Saved (tons/yr)	Sediment Load Reduction (tons/yr)	N load Reduction (lb/yr)	P load Reduction (lb/yr)
Hell's Branch/North Bay	NB1	$40,320	908	47.29	47.29	94.58	47.29
Hell's Branch/North Bay	NB1	$61,240	1431	96.87	96.87	193.74	96.87
Hell's Branch/North Bay	NB2	$56,480	1312	65.56	65.56	131.11	65.56
Hell's Branch/North Bay	NB3	$73,160	1729	157.95	157.95	315.89	157.95
Hell's Branch/North Bay TOTAL		**$231,200**	**5380**	**367.66**	**367.66**	**735.32**	**367.66**
Winchester	WC1	$133,160	3229	201.19	201.19	402.38	201.19
Winchester	WC Trib 1	$36,200	805	50.80	50.80	101.61	50.80
Winchester	WC2	$129,520	3138	178.32	178.32	356.64	178.32
Winchester	WC2	$50,520	1163	49.93	49.93	99.86	49.93
Winchester TOTAL		**$349,400**	**8335**	**480.24**	**480.24**	**960.49**	**480.24**
President's	PB1	$46,480	1062	63.67	63.67	127.33	63.67
President's	PB1	$27,920	598	34.52	34.52	69.03	34.52
President's	PB Trib 1	$25,840	546	26.00	26.00	52.01	26.00
President's	PB Trib 2	$67,240	1581	90.25	90.25	180.51	90.25
President's TOTAL		**$167,480**	**3787**	**214.44**	**214.44**	**428.88**	**214.44**
Independence	ID 1	$27,680	592	33.34	33.34	66.67	33.34
Independence	ID 1	$34,760	769	37.53	37.53	75.06	37.53
Independence	ID 1	$15,360	284	13.16	13.16	26.31	13.16
Independence	ID Trib 1	$27,640	591	36.82	36.82	73.64	36.82
Independence	ID 2	$44,600	1015	44.95	44.95	89.91	44.95
Independence TOTAL		**$150,040**	**3251**	**165.79**	**165.79**	**331.59**	**165.79**
Hawthorne	HW1	$55,600	1290	83.39	83.39	166.78	83.39
Hawthorne	HW2	$37,600	840	57.36	57.36	114.72	57.36
Hawthorne	HW Trib 1	$6,480	62	5.27	5.27	10.54	5.27
Hawthorne TOTAL		**$99,680**	**2192**	**146.02**	**146.02**	**292.05**	**146.02**
	Total	**$997,800**	**22,945**	**1,374**	**1,374**	**2,748**	**1,374**

Multiple intermittent and perennial drainages exist in the Association subwatershed and are beyond the scope of this analysis; subsequently not included in Table 6-11. These areas are the lowest in priority only because when considered for remediation it was determined by the SWCD that these areas would require the highest dollar amount to complete, with the lowest amount of sediment reduction.

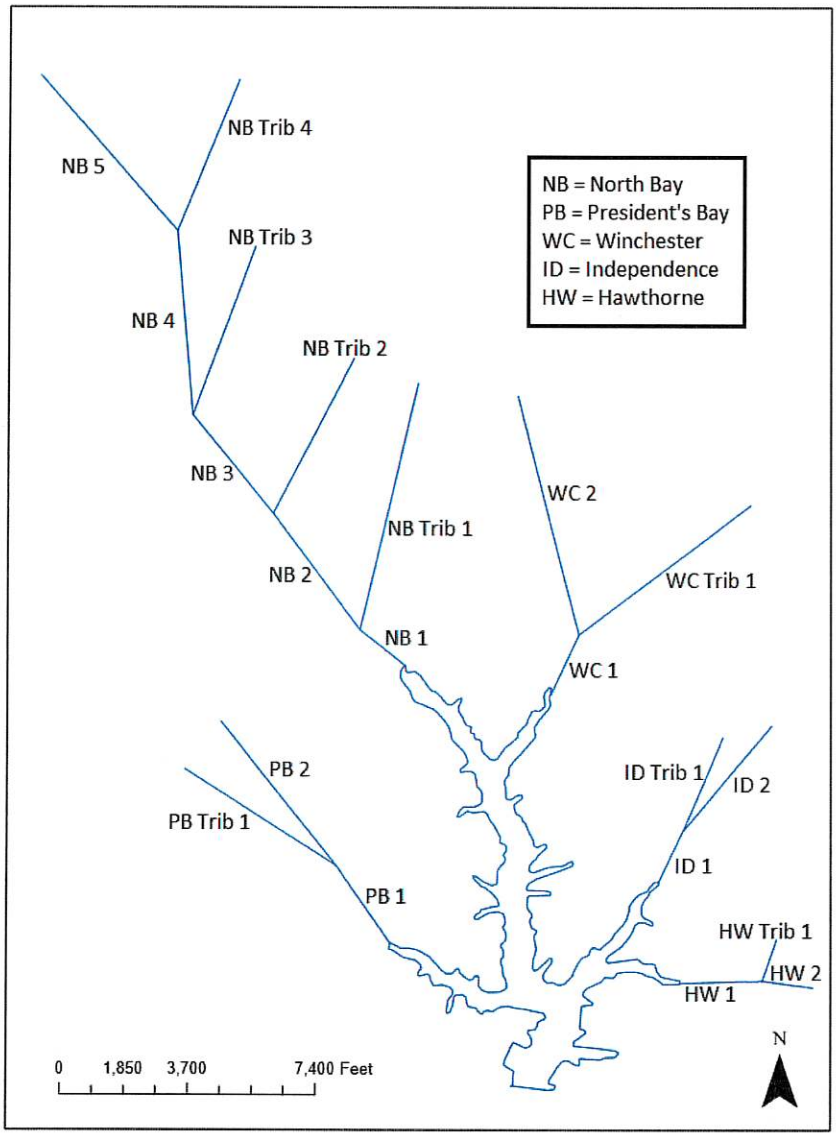


Figure 6-8. Designated stream reaches in the Apple Canyon Lake watershed.

6.6.8.1 Stream Reach NB 1

For the section of stream on ACLPOA property where Hells Branch feeds Apple Canyon Lake, 908 feet of stream needs to be stabilized. This stabilization should occur across the property boundary and encompass approximately 2300 ft. A detailed analysis will need to take place in order to take the best approach to restoration. A feasibility study should be performed in order to assess the possibility of installing a retention structure or constructed wetland in the area upstream from the lake. This may require purchase of land by ACLPOA and will require funding allocations in addition to current allocations to create a reserve for funding land acquisitions.

Figure 6-9. Downcutting and bank erosion in Stream Reach NB1

6.6.8.2 Stream Reach WC 1

Approximately 3200 ft. of stream at Winchester Bay feeding Apple Canyon Lake on Association property is extremely eroded. This erosion process continues up stream into WC 1 and WC Tributary 1. A significant cause of this erosion through this section is channelization of the stream caused by the road and incorrect installation of the road culvert where the stream crosses. A detailed study will be required to determine the needs and costs associated with a bridge to replace this culvert.

Figure 6-10. Elevated floodplain in WC1 leads to increased flow velocities.

6.6.8.3 Stream Reach PB 1

This section of stream has had a great deal of work installed on it in the past with only minor areas needing some repair. Through the Illinois Dept. of Agriculture's Stream Stabilization and Restoration Program three rock riffles have been installed along with several sections of streambank protection. There are still some minor sections of exposed soil where installed practices have been damaged by high storm flows as well as a heavily scoured area at the outlet of the culvert under Northwest Apple Canyon Rd. The upstream side of the culvert receives a regulated flow from a retention pond which already acts as a barrier to fish passage and culvert replacement is not likely to be necessary. In most cases, fish passage barriers are a concern. However, in this watershed migration of lacustrine species such as largemouth bass can impact native smallmouth bass fisheries in the streams of the watershed. Barriers preventing lacustrine species spread is a benefit in the Apple Canyon Lake watershed.

6.6.8.4 Stream Reach ID 1

Independence Bay has received significant stabilization work in the past with minor touch-ups being needed on existing projects as well as improvements in riparian vegetation. Significant scouring has occurred around the outlet of the culvert under East Apple Canyon Road. The stream is extensively channelized throughout this area and needs to be reconnected with a floodplain (*a culvert and dry dam inventory and report was completed by the University of Wisconsin, Platteville, Environmental Engineering Department in December 2015).*

Figure 6-11. Erosion and bank condition in ID 1. Former bank is evident in these photos, however, spot treatment has not remedied larger issues.

6.6.8.5 Stream Reach HW 1

The stream segment directly feeding Hawthorne Bay is highly channelized with the primary cause being the culvert which supports the recreational trail. The grade of the stream needs to be raised and the culvert design must accommodate more capacity. Similarly, the culvert under East Apple Canyon Road causes similar channelization. In the restored prairie segment between the two culverts the stream condition is improved and the stream is able to access the floodplain under storm conditions (*a culvert and dry dam inventory and report was completed by the University of Wisconsin, Platteville, Environmental Engineering Department in December 2015. See Appendix 7).*

6.6.9 Other Best Management Practices

In addition to the tasks outlined in Sections 6.6.1 – 6.6.8, it has been noted throughout this planning process that some additional studies are still needed. These studies include an inventory of the culverts and bridges in the watershed, a study of septic system functionality, an assessment and remediation prioritization of drainages in the Association subwatershed, and an analysis to determine whether road salt has any impact on the watershed. These studies were beyond the scope of this watershed plan, and/or determined to have a minimal or lower priority than the larger projects addressed in this plan to meet the goals and objectives. Still, these tasks are important and can benefit some of the higher priority tasks.

Other upland best management practices (BMP) identified as beneficial for the watershed but not specifically allocated for implementation or quantified for nutrient benefits at this time are listed below:

- Nutrient management (rate, timing, placement, and form).
- Residue & Tillage management; no-till/strip-till.
- Grassed waterways.
- Water and sediment control basins.
- Grade stabilization structures.
- Terraces.
- Pasture/grassland management; prescribed grazing.
- Anaerobic digester.
- Wetland restoration.
- Pond development.
- Fencing livestock from streams.
- Additional individual stream stabilization projects not listed in 6.6.8.1 – 6.6.8.5.
- Stream crossings.

These BMPs are encouraged to improve water quality throughout the watershed, however they were not identified in the resource inventory as high priority projects due to cost, potential benefit, and/or stakeholder willingness to participate. There are many references available for identifying and evaluating practices. The following list is taken from the Jo Daviess County Water Resource Management Workbook (LWV, 2016). This list is not complete, and efforts to identify and evaluate additional practices should be ongoing. It should also be noted that some stormwater management problems may require multiple practices to create an effective solution. Where available, technical job sheets relating these practices have been included in Appendix 4.

The following definitions have been created primarily by referencing the following resources:

- Natural Resource Conservation Service (NRCS) Field Office Technical Guide (FOTG) as applicable in Illinois (https://efotg.sc.egov.usda.gov/treemenuFS.aspx), http://www.nrcs.usda.gov/wps/portal/nrcs/detail/il/home/?cid=nrcs141p2_031327
- Association of Illinois Soil Water Conservation Districts' "Illinois Urban Manual" (www.aiswcd.org/illinois-urban-manual),
- The "Illinois Nutrient Loss Reduction Strategy" (http://www.epa.illinois.gove/Assests/iepa/water-quality/watershed-management/nlrs/nlrs-final-revised-083115.pdf),

- The Illinois Council on Best Management Practices (http://illinoiscbmp.org/), and
- The U.S. Green Building Council's Leadership in Energy and Environmental Design certification program (LEED) (www.usgbs.org/leed)
- University Extension (Illinois: http://extension.illinois.edu/lcr/stormwater.cfm, Wisconsin: http://www4.uwm.edu/swec/publications/cabinet/p2/Wisconsin%20Storm%20Water%20and%20Run-Off%20Information%20and%20Resources.pdf)

Bioswales

"Grassed Waterway": A shaped or graded channel that is established with suitable vegetation to convey surface water at a non-erosive velocity using a broad and shallow cross section to a stable outlet (NRCS Conservation Standard 412).

"Grass-Lined Channels": Natural or constructed channel vegetated to convey water (AISWCD Code 840).

"Infiltration Trench": Pits or trenches designed to hold water to increase infiltration (AISWCD Code 847).

"Vegetated Treatment Area": An area of permanent vegetation used for agricultural wastewater treatment (NRCS Conservation Standard 635).

Cisterns/tanks/rain barrels

A rain barrel is a system that collects and stores rainwater from your roof that would otherwise be lost to runoff and diverted to storm drains and streams (Jo Daviess County SWCD).

Larger tanks and underground cisterns can also be used to store greater quantities of rainwater.

Composting

A mixture of decayed or decaying organic matter used to fertilize soil. Compost enhanced and amended soils reduce runoff, soil erosion, and unwanted transport or chemicals and residues. University of Wisconsin offers a master composter resource guide: http://www4.uwm.edu/shwec/publications/cabinet/composting/Master%20Composter%20Resource%20Guide.pdf

Conservation Tillage

"Reside and Tillage Management, No-Till": Limiting soil disturbance to manage the amount, orientation, and distribution of crop and plant residue on the soil surface year round (NRCS Conservation Standard 329).

Cover Crops

"Cover Crop": Grasses, legumes, and forbs planted for seasonal vegetative cover (NRCS Conservation Standard 340).
Farmer and Landowner Greg Thoren, working with John Musser (Stephenson Farm Service), Mike Malon (Jo Daviess Count Soil & Water Conservation District), Jay Solomon (University of Illinois Extension), and Art Scheele (Agnetic, LLC), is conducting a five-year experiment with

10 cover crop mixes on acreage on Rte. 78 immediately south of Stockton. The study is investigating cover crop implementation strategies that are successful in northern Illinois to improve soil health, nutrient management, fertility, and water quality. The Farm Bureau has awarded an $8,000 grant to support soil sampling being done by the Stephenson FS. Field days are being offered to showcase and share the information gathered during the experiment. Those wishing to be notified of field days at the cover crop plot should contact the Jo Daviess County Farm Bureau Manager at jdcfbmgr@blkhawk.net

Detention/Retention Basins

"Sediment Basin": A basin constructed with an engineered outlet, formed by an embankment or excavation or a combination of the two (NRCS Conservation Standard 350).

"Shallow Water Development and Management": The inundation of lands to provide habitat for fish and or/wildlife (NRCS Conservation Standard 646).

"Structure for Water Control": A structure in a water management system that conveys water, controls the direction or rate of flow, maintains a desired water surface elevation, or measures water (NRCS Conservation Standard 587).

"Water and Sediment Control Basin": An earth embankment or a combination ridge and channel constructed across the slope of minor watercourses to form a sediment trap and water detention basin with a stable outlet.

The University of Wisconsin, Platteville, Environmental Engineering students designed detention basins for the City of Galena.

Filter/Buffer Strips

"Filter Strips": A strip or area of permanent herbaceous vegetation situated between cropland, grazing land, or disturbed land and environmentally sensitive areas (NRCS Conservation Standard 393).

"Filter Strips": Vegetated filter zone to remove pollutants (AISWCD Code 835).

"Contour Buffer Strips": Narrow strips of permanent, herbaceous vegetative cover established around the hill slope, and alternated down the slope with wider cropped strips that are farmed on the contour (NRCS Conservation Standard 332).

"Conservation Buffers": Conservation buffers are strips of permanent vegetation that are meant to capture nutrients and sediment carried by surface water. They do that by slowing down surface water and allowing plants to take up and use the water and nutrients (C-BMP).

"Riparian Buffers": Riparian buffers are vegetated areas next to water resources that protect water resources from nonpoint pollution and provide bank stabilization and aquatic and wildlife habitat.
http://www.soil/ncsu.edu/publications/BMPs/buffers.html

Green Roofs
A green roof, or "living roof" is a roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. It may also include additional layers such as a root barrier and drainage or irrigation systems.

Native Perennial Plantings
Perennial crops are crops that live for years and can be harvested many times before they die. Plants such as apples and alfalfa are perennials that are commercially grown and harvested, as are biofuel crops such as miscanthus and switchgrass. Perennial crops have been shown to reduce nutrient losses (C-BMP).

"Conservation Cover": Establishing and maintaining permanent vegetative cover (NRCS Conservation Standard 327).

"Critical Area Planting": The establishment of permanent vegetation on sites with high erosion rates and on sites that have physical, chemical, or biological conditions that prevent the establishment of vegetation with normal practices (NRCS Conservation Standard 342).

Nutrient Management
In the Science Assessment portion of the "Illinois Nutrient Loss Reduction Strategy", the Northern Mississippi Valley Area (USDA Major Land Resource Area 105) is assumed to be primarily non-tiled land, and using available information, 31.3 lbs. of Nitrate-N is estimated to be lost per row crop acre per year. This is the highest rate of loss shown in the state for non-tiled areas (the next highest is 11.8 lbs. lost). The Science Assessment also notes that "The largest manure phosphorous rate was . . . in northwestern Illinois, where there was a high density of livestock." (INLRS p. 3-22)

The agricultural community in Illinois is actively pursuing best practices to reduce the loss of nutrients from the field to reduce input costs, maximize yields, and improve water quality. Efforts have focused on the "4 Rs" of Nutrient Stewardship: Right Source, Right Rate, Right Time, and Right Place.

"Nutrient Management": Managing the amount (rate), source, placement (Method of application), and timing of plant nutrients and soil amendments (NRCS Conservation Standard 590).

"Drainage Water Management": Drainage water management is the practice of using a water control structure in a main, submain, or lateral drain to vary the depth of the drainage outlet. *http://www.extension.umn.edu/agriculture/water/publications/pds/highreswq44rev.pdf*

"Denitrifying Bioreactor": A structure containing a carbon source, installed to reduce the concentration of nitrate nitrogen in subsurface agricultural drainage via enhanced denitrification (NRCS Conservation Standard 747).

"Saturated Buffer": A saturated buffer is a riparian buffer in which the water table is artificially raised by diverting subsurface drainage along the buffer, accomplished by installing a water

control structure in the main drainage outlet.
https://efotg.sc.egov.usda.gov/references/public/IA/Saturated_Buffer_739_FS_2015_01.pdf

Permeable Surfaces
"Permeable Pavement": Pavement having interspersed sod, gravel, or sand areas (AISWCD Code 890).

The City of Dubuque has been implementing a permeable paver program:
http://cityofdubuque.org/1818/Green-Ally-Reconstruction

Rain Gardens
Small, shallow, flat-bottomed, depressions constructed to temporarily hold and infiltrate stormwater close to where the stormwater is generated (Under NRCS "Stormwater Runoff Control, Code 570).

Streambank Stabilization
"Streambank and Shoreline Protection": Treatment(s) used to stabilize and protect banks of streams or constructed channels, and shorelines or lakes, reservoirs, or estuaries (NRCS Conservation Standard 580).

"Vegetative Streambank Stabilization": Vegetation to control streambank erosion (AISWCD Code 995).

"Structural Streambank Stabilization": Structure to control streambank erosion (AISWCD Code 940).

Terraces
"Terrace": An earth embankment, or a combination ridge and channel, constructed across the field slope (NRCS Conservation Standard 600).

Wetland Protection/Restoration/Creation
A wetland is a marsh-type area with saturated soils and water-loving plants. Wetlands can be constructed for the purpose of removing nutrients because they filter nutrients, chemicals, and sediment from runoff or tile water before water moves . . . into streams and rivers. Because wetlands slow overland flow and store runoff water, they reduce both soil erosion and flooding downstream. Many wetlands release water slowly into the ground which recharges groundwater supplies (C-BMP).

"Constructed Wetland": An artificial ecosystem with hydrophytic vegetation for water treatment (NRCS Conservation Standard 656).

"Wetland Creation": The creation of a wetland on a site location that was historically non-wetland (NRCS Conservation Standard 658).

"Wetland Enhancement": The augmentation of wetland functions beyond the original natural

conditions on a former, degraded, or naturally functioning wetland site: sometimes at the expense of other functions (NRCS Conservation Standard 659).

"Wetland Restoration": The return of a wetland and its functions to a close approximation of its original condition as it existed prior to disturbance on a former or degraded wetland site (NRCS Conservation Standard 657).

"Bioretention": Constructed wetland to improve stormwater quality (AISWCD Code 800).

6.6.10 Woodland Management

Throughout the resource inventory invasive species were frequently encountered. Section 3.4 documents the Emerald Ash Borer's impact as well as the impact of invasive plant species such as bush honeysuckle (*Lonicera sp.*), autumn olive (*Elaeangus sp.*), multiflora rose (*Rosa multiflora*), and garlic mustard (*Alliaria petiolata*). These species form dense canopies which provide so much shade that little growth occurs underneath these species. This factor, along with their shallow root system, cause a condition which leads to rapid erosion beneath the plants, as well as undermining plant diversity.

Improved woodland management is inherently necessary. Woodland accounts for 1405.3 acres (14.4% of the watershed), and has the potential to have a notable improvement in stormwater runoff, if managed correctly. There are many public programs available to manage woodlands, such as programs created through the NRCS, IDNR, and not-for-profit conservation groups. A majority of the forestland in the watershed can be enrolled in these programs to provide management plans and implementation to profitably manage these forests. For assessment of these activities, percentage of plans created can be divided by total number of forested acres to determine achievement level.

7.0 OVERALL WATERSHED MANAGEMENT

7.1 Plan Logistics

The planning committee represents those parties who are affected or have vested interest in the outcome of the watershed planning process. At the first watershed meeting it was decided by the attendance that in order to keep a democratic planning process everyone's comments would be heard and all participants would have an equal share in arriving at goals and strategies for the planning process. The Jo Daviess County Soil and Water Conservation District has led the planning meetings and has performed most organizational, survey, and analysis work. The Apple Canyon Lake Property Owners Association (ACLPOA) management and residents were heavily involved in the planning process and devising goals for the watershed. The ACLPOA Conservation Committee has been instrumental with making budget recommendations to the ACLPOA board of directors. The agricultural community, which owns or operates a majority of land in the watershed, has been extremely active in the planning process and was well represented. Additional planning assistance was received by the Jo Daviess County Health Department and the Jo Daviess County Building and Zoning Office. The townships of Scales Mound, Thompson, and Apple River represent interest in road projects.

The Jo Daviess County SWCD will continue to lead the implementation of the plan as outlined in this document. The Apple Canyon Lake Watershed Plan is written using an adaptive management approach. Adaptive management is a systematic process for continually improving management policies and practices by learning from the outcomes of implemented management strategies. For this reason, monitoring is highly important to the success of the implementation practices advocated in this plan. Monitoring results are evaluated and adjustments can be made to ensure that all actions are effective. At five year intervals this entire plan will be assessed to assure adherence to the planning framework, outline additional funding needs, and to make revisions to the plan, as needed. The monitoring component will be utilized annually to identify shortcomings in planning estimates.

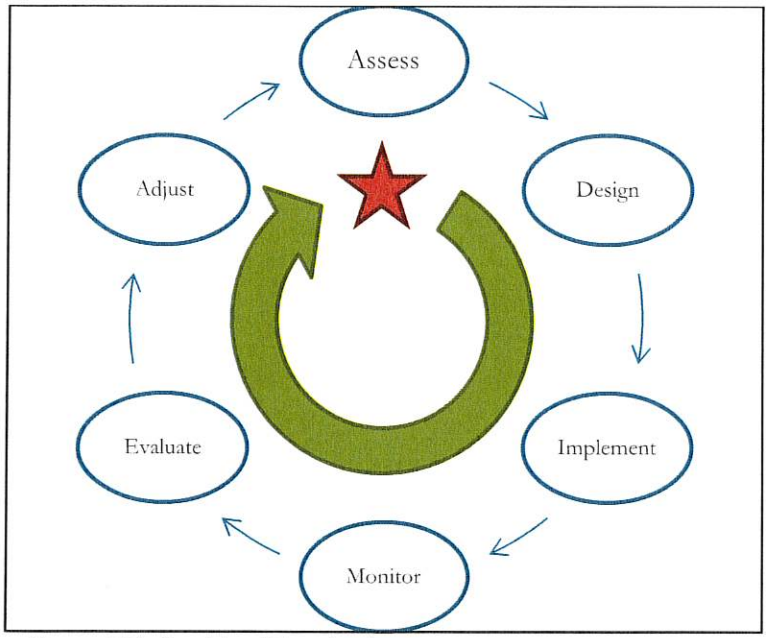


Figure 7-1. Graphic of the adaptive management process.

7.2 Apple Canyon Lake Property Owners Association

Apple Canyon Lake Property Owners Association (ACLPOA) has been the leading entity in the watershed planning process. ACLPOA initiated watershed planning and has provided the backing funds to complete the watershed plan. ACLPOA oversees enforcement of the covenants on their property, creates rules and regulations, and provides the organizational framework for the Conservation Committee, Architectural Committee, volunteers, and educational events. Within the governing board of ACLPOA, the annual budget allocates significant funding towards the implementation of the planning strategy contained in this document. Finally, the ACLPOA oversees the implementation of their budget and ensures that projects are completed in a timely manner, as designed, and in accordance with all necessary state and federal regulations.

7.3 Agricultural Areas

During the planning process the agricultural community which owns and operates a majority of the land outside of the property owners association has been extremely involved in participating in plan creation. These individuals know their lands better than anyone and also know what will work on their specific conditions. Although experts can make recommendations for projects to implement on these private farm lands, the individuals are the final decision makers when it comes to BMP implementation. While BMP practices may be optimized for water quality, the planning group understands that land owners have to justify expenses within their own business and land constraints, often requiring compromises on both parts. While this plan recommends the adoption of many BMPs on private agricultural lands the landowner is ultimately responsible for specific practices on their own land.

8.0 IMPLEMENTATION FRAMEWORK

Plan implementation is primarily led through the Property Owners Association, as the largest control of land in the watershed is under their ownership. Implementation is based on priority with milestones identified to track steps towards completion and identification of critical control points.

Project priority is given towards the largest subwatersheds first, with smaller areas receiving lower priority. For ACLPOA properties and projects, implementation begins with a stream corridor restoration approach to the largest subwatershed, North Bay, followed by Winchester Bay, Presidents Bay, Independence Bay, and Hawthorne Bay. Allocated ACLPOA funding will address restoration to the stream sections on ACLPOA property before it enters the lake.

The Association subwatershed surrounding the lake comprises nearly 25% of the total watershed size, though 4% of the watershed area is the lake. This area contains little to no perennial streams but is composed of many steep, highly eroded drainage ditches with only ephemeral flow. During dry years these areas have very little contribution to nutrient and sediment loading but may become significant during periods of flash storm events and heavy rainfall. These areas were not prioritized directly, but funding will be shifted to address these areas after the priority implementation schedule has been completed. The methods to address these areas will be assessed at that time. Minor spot treatment within these areas will be addressed on an individual basis as needed and as funding becomes available.

Because the water in Apple Canyon Lake is the lowest point in the watershed, it becomes one of the best areas for assessing the success of water quality improvement projects and best management practice implementation. However, the water in Apple Canyon Lake has an estimated residence time of 16 months. Given this time period, results from practice implementation will not be immediately evident. Stream water quality monitoring is more useful to track specific loading contributions. The following sections outline the implementation framework which will lead to the success of the identified goals and objectives.

8.1 Measuring Plan Implementation Progress

8.1.1 Monitoring

A monitoring strategy is essential for the success of a comprehensive watershed management plan. The monitoring strategy provides the ability to evaluate plan implementation progress and success over time. Monitoring the implementation of this plan involves reviewing all of the activities associated with the goals and objectives, and can be grouped into (1) water quality monitoring, (2) BMP implementation monitoring, and (3) education monitoring.

Further monitoring will take place in revisions made to the watershed plan made at five-year intervals. At this time, land-use statistics will be re-evaluated to document fluctuations. Flow data and weather statistics will also be evaluated to consider environmental changes which affect the efficacy of planning efforts. Using the checklists at the end of this plan (*see section 8.4*), will provide a feedback loop for determining monitoring success.

8.1.1.1 Water Quality Monitoring

Monitoring the tributaries which feed Apple Canyon Lake began in 2014 under an Illinois Environmental Protection Agency (IEPA) approved Quality Assurance Project Plan (QAPP). This adds to baseline data dating back to 1999 collected under the IEPA's Volunteer Lake Monitoring Program. Used together, this data provides a basis for trend identification and efficacy of implementation of best management practices installed as part of this plan. The water

in Apple Canyon Lake has an estimated residence time of 16.1 months. Given this figure, reliance on periodic data from the VLMP program is not enough. VLMP program data is extremely important, however, for overall analysis of lake water quality and must be continued. Individual tributary monitoring gives more precise data for particular loading factors from the subwatersheds. The dataset for this information is currently very small as opposed to the VLMP dataset. Ongoing tributary monitoring will help to establish this expanded dataset which will provide more detailed information on changes in water quality relating to plan implementation as opposed to changes caused by physical conditions.

8.1.1.1.1 Tributary Stream Monitoring

Tributary streams began being monitored in 2011 by private homeowners at Apple Canyon Lake. In 2012, monitoring was done on tributaries through a partnership with the University of Dubuque. A student tested nine sites and an improved testing regimen was conducted. Unfortunately, quality assurance procedures were not in place and samples were held well past allowable holding times. The samples were eventually processed in the fall of the year but were not able to be used for sampling. A sampling protocol was started at the onset of the watershed planning process and follows a quality assurance project plan (QAPP) approved by the Illinois Environmental Protection Agency (*see Appendix 5*). Under this QAPP, nine sites were selected to monitor water around the watershed (*see figure 8-1*). One site (MNEAA-01) is not located in the watershed but was selected to monitor the water coming off of the Apple Canyon Lake golf course. MNEA-02 monitors the water flowing out of Apple Canyon Lake, and is assumed to be the final outflow of surface waters from the watershed. MNEAG-02 monitors the water coming in to Koester's pond in President Bay subwatershed. This site was selected to compare the efficacy of the retention pond for improving water quality in that subwatershed. The remaining sites were all selected to sample waters at the terminus of their respective subwatershed and as they enter Apple Canyon Lake. After two years of monitoring, MNEAA-01 and MNEAB-01 have been removed due to very low flow making testing and discharge measurements physically impossible in many months, resulting in inconsistent results. MNEAG-02 is also removed for cost savings to the Property Owners Association because the Presidents Bay subwatershed is also monitored at a MNEAG-01 which is consistent with the other subwatershed testing sites.

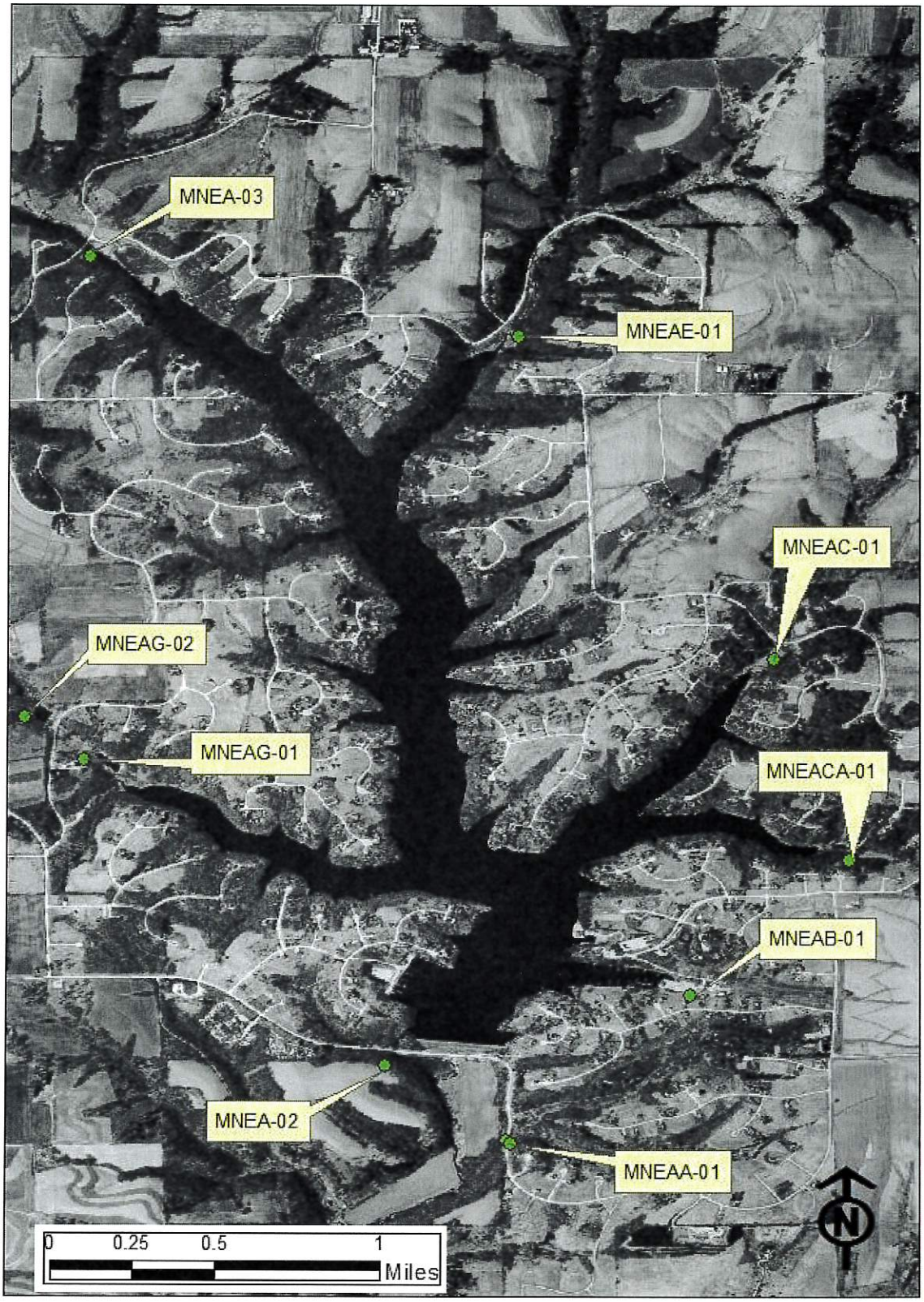


Figure 8-1. Sampling locations for tributary water sampling and discharge measurements.

8.1.1.1.2 Volunteer Lake Monitoring Program Monitoring

In 1981, the Illinois Environmental Protection Agency established the Volunteer Lake Monitoring Program (VLMP). The program provides a service to the Agency by harnessing the time and talent of citizen volunteers to help gather fundamental information on more Illinois' inland lakes than could otherwise be possible with existing staff. This program also serves its volunteers and the general public by opening a path for citizen involvement with the environment and providing environmental education and outreach opportunities for Illinois citizens to learn about lake ecosystems. This program also serves as a cost-effective method for gathering fundamental information on inland lakes, which ultimately leads to making better lake management decisions.

VLMP data is available for Apple Canyon Lake as far back as 1994. Although levels of testing have varied over the years with funding, a basic consistent database is available for most of this time period. Testing at the Tier III level, which includes chemical lab analysis, has been performed alongside stream monitoring which creates consistency between both testing programs and allows correlation between stream and lake water quality. It would be beneficial if VLMP testing would remain at Tier III to continue with the Property Owners Association efforts to continue stream monitoring. Figure 8 – 2 shows locations for the samples taken for the VLMP program.

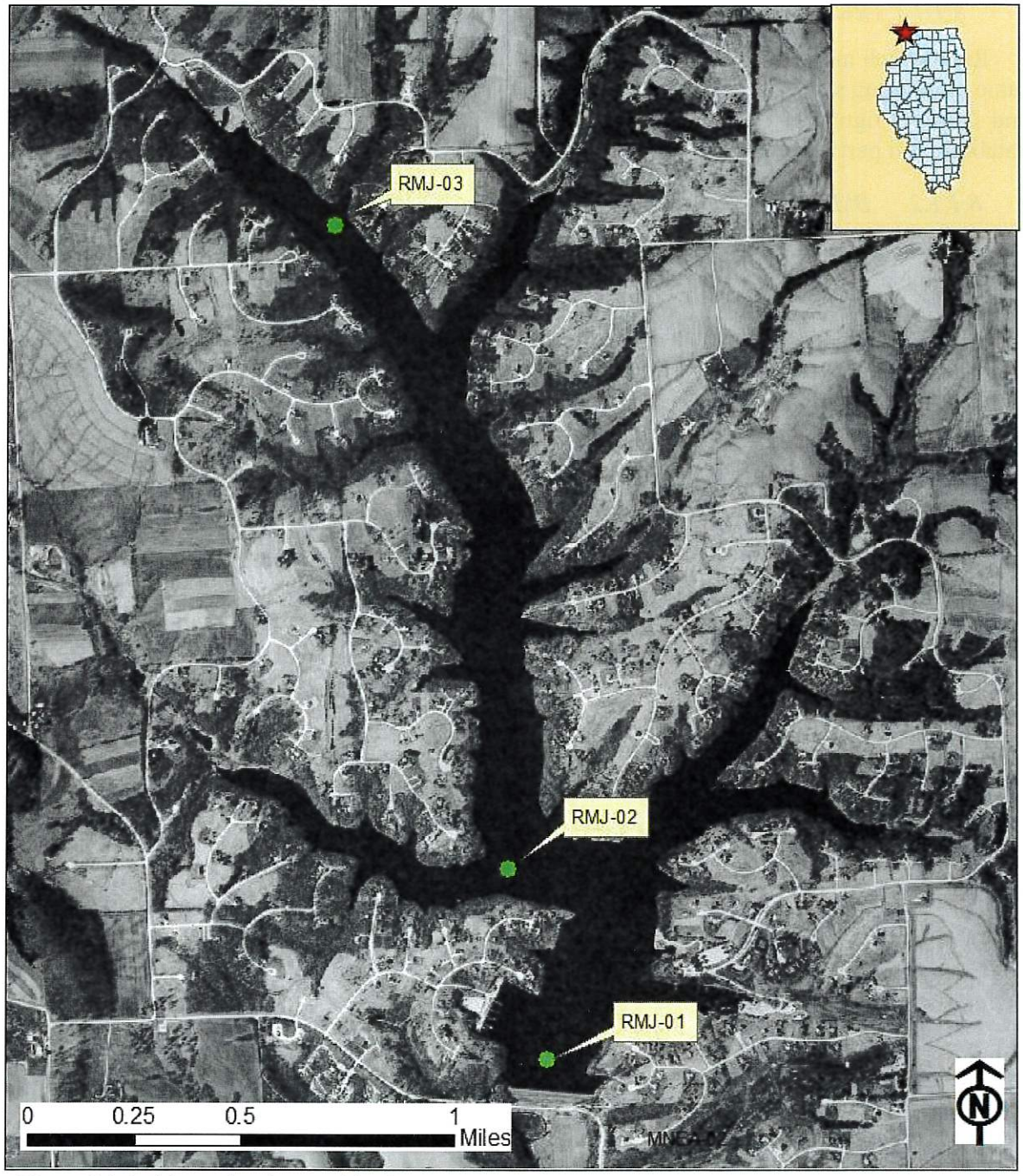


Figure 8-2. In-lake testing sites used for the VLMP program.

8.1.1.1.3 RiverWatch Monitoring

RiverWatch monitoring (*described in section 6.6.2*) will continue to be performed at the same monitoring sites as used for chemical and discharge monitoring, described in section 8.3.1 and shown in figure 8 – 1. This program adds to both our monitoring database, the statewide database, and part of the education strategy of the watershed planning effort.

8.1.1.2 BMP Implementation Monitoring

BMP implementation monitoring will take place on a regular basis. Formally, at five year intervals the plan will be reviewed and updated. Less formally, the plan will be reviewed annually using the checklists in Section 8.4. There is a wide variety of BMP practices and applicable entities recommended to complete the implementation plan in this document. These tasks can easily be lost if management is not active. The overall scope of these tasks is also large, requiring multi-year coordination among multiple entities. In order to stay on track with the timeline a frequent review of the implementation schedule is necessary.

8.1.1.3 Education Monitoring

Tracking educational events is an important part of the monitoring process. Conducting the educational activities is not enough to ensure that the events are themselves effective. By monitoring readership numbers and attendees at events and meetings the efficacy of educational activities can be reviewed and future events can be tailored to ensure that activities continue to engage and educate the target groups.

8.2 Implementation Schedule

Goal 1 - Improve Water Quality		Phase 1			Phase 2			Phase 3			Phase 4 & 5		
		Years 1 - 4			Years 5 - 8			Years 9 - 12			Years 13 - 20		
Task	Objective	Units	N Reduction (lbs)	P Reduction (lbs)	Units	N Reduction (lbs)	P Reduction (lbs)	Units	N Reduction (lbs)	P Reduction (lbs)	Units	N Reduction (lbs)	P Reduction (lbs)
Stabilize erosive stream reaches.	1a	5,791 ft.	690	345	4,124 ft.	531	266	6,059 ft.	677	338	6,971 ft.	849	424
Stabilize erosive lakeshore.	1b	7,976 ft.	1,186	593	7,976 ft.	1,186	593	7,976 ft.	562	281	15,953 ft.	1,292	646
Improve the riparian buffer around the lake.	1c	3.79 ac. / 3,298 ft.	451	242	3.79 ac. / 3,298 ft.	451	242	3.79 ac. / 3,298 ft.	451	242	7.57 ac. / 6,595 ft.	1,726	925
Identify critical areas affecting water quality in the watershed.	1c	Perform Study.	*	*	As study indicates.	*	*	As study indicates.	*	*	As study indicates.	*	*
Improve riparian buffer in the watershed.	1c	3.3 ac.	272	146	3.3 ac.	272	146	3.3 ac.	272	146	6.7 ac.	543	292
Continue water quality monitoring for tributary streams.	1d	28	0	0	28	0	0	28	0	0	56	0	0
Continue Tier III VLMP monitoring.	1d	12	0	0	12	0	0	12	0	0	24	0	0
Develop cost-sharing program for BMP implementation on private lands in the watershed.	1f	1	0	0	0	0	0	0	0	0	0	0	0
Perform study on septic systems at ACL.	1g	Perform Study.	*	*	As study indicates.	*	*	As study indicates.	*	*	As study indicates.	*	*
Improve septic inspection policy at the Property Owners Association.	1g	1	0	0	0	0	0	0	0	0	0	0	0
Provide annual analysis of water quality data.	1d	4	0	0	4	0	0	4	0	0	8	0	0
Apply gypsum to cropland in watershed.	1f	6,000 ac.	0	215	6,000 ac.	0	215	6,000 ac.	0	215	11,000 ac.	0	394
Apply cover crops to cropland in watershed.	1f	6,000 ac.	22,885 lb.	11,446 lb.	6,000 ac.	22,885 lb.	11,446 lb.	6,000 ac.	22,885 lb.	11,446 lb.	11,000 ac.	275,086 lb.	137,369 lb.
Install a demonstration tile gate on a tiled crop field.	1f	1	100	25	0	0	0	0	0	0	0	0	0
Continue to develop RiverWatch database.	1e	4	0	0	4	0	0	4	0	0	8	0	0
Review watershed plan annually and amend as necessary.		4	*	*	4	*	*	4	*	*	8	*	*

IMPLEMENTATION FRAMEWORK

Goal 2 - Reduce algal blooms and excessive aquatic plant growth.		Phase 1			Phase 2			Phase 3			Phase 4 & 5		
		Years 1 - 4			Years 5 - 8			Years 9 - 12			Years 13 - 20		
Task	Objective	Units	N Reduction (lbs)	P Reduction (lbs)	Units	N Reduction (lbs)	P Reduction (lbs)	Units	N Reduction (lbs)	P Reduction (lbs)	Units	N Reduction (lbs)	P Reduction (lbs)
Map current extent of plant coverage.	2a	1	NA	NA	1	NA	NA	1	NA	NA	2	NA	NA
Develop a management plan for aquatic plants.	2b	1	NA	NA	1	NA	NA	1	NA	NA	2	NA	NA
Identify critical areas in the watershed.	2c	1	NA	NA	1	NA	NA	1	NA	NA	2	NA	NA
Perform feasibility study for storm retention in North Bay.	2d	1	NA	NA	1	NA	NA	1	NA	NA	1	NA	NA

Goal 3 - Mitigate existing flooding problems.		Phase 1			Phase 2			Phase 3			Phase 4 & 5		
		Years 1 - 4			Years 5 - 8			Years 9 - 12			Years 13 - 20		
Task	Objective	Units	N Reduction (lbs)	P Reduction (lbs)	Units	N Reduction (lbs)	P Reduction (lbs)	Units	N Reduction (lbs)	P Reduction (lbs)	Units	N Reduction (lbs)	P Reduction (lbs)
Increase connectivity between streams and floodplains.	3a	Accomplished through stream stabilization (see Goal 1)	*	*	*	*	*	*	*	*	*	*	*
Create green infrastructure plan for developed areas.	3b	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Create a zero-runoff policy for new construction in the property owners association.	3c	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Encourage zero-runoff adherence for existing properties.	3d	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Goal 4 - Educate watershed community.		Phase 1			Phase 2			Phase 3			Phase 4 & 5		
		Years 1 - 4			Years 5 - 8			Years 9 - 12			Years 13 - 20		
Task	Objective	Meetings	Articles	Events	Meetings	Articles	Events	Meetings	Articles	Events	Meetings	Articles	Events
Continue quarterly watershed meetings.	4a, 4b	16	*	*	16	*	*	16	*	*	32	*	*
Publish educational articles in local news sources and online resources.	4a, 4d	*	48	*	*	48	*	*	48	*	*	96	*
Host educational events.	4a, 4e	*	*	8	*	*	8	*	*	8	*	*	16
Increase participation in the RiverWatch program.	4a, 4f	*	*	4	*	*	4	*	*	4	*	*	8
Demarcate watershed boundaries on major roads.	4a, 4c	NA	NA	5	NA	NA	Maintain as needed	NA	NA	Maintain as needed	NA	NA	Maintain as needed

8.2.1 Milestones

This comprehensive watershed management plan has been written to cover a 20-year timeframe and is broken down into five phases. Total water quality improvements for each phase are shown in Table 8-2 and can be used to track progress towards reaching the overall project goals. The water quality milestones are specifically for total nitrogen, total phosphorus, and total sediment delivery into the lake. The anticipated reductions are largest (25%) during the Phase 1 (2017-2021) and equally spaced afterwards. Specific implementation of practices may occur during different phases of the watershed plan timeframe. A higher proportion of identified practices will be targeted for implementation in Phases 1 and 2 (2017-2024). Due to the 16 month residence time in the lake, surface water monitoring results may not be apparent in the lake monitoring immediately. As phosphorus primarily moves with sediment delivery, it is assumed that phosphorus reduction would be the result of a reduction of sediment. Due to the large reserve of phosphorus in the lake bottom sediments lake water quality may require a significantly longer period to clear. These reduction goals are based on flow conditions in the 2015 sample year. Actual anticipated results will be analyzed based on flow and the flow duration curve created in this plan. High rain events and high rainfall years are expected to deliver more nutrient runoff than low seasonal events and low rainfall years.

Table 8-1. Milestones for total nitrogen, total phosphorus and sediment delivery in the watershed.

Apple Canyon Lake Watershed Load Reduction Scenarios*			
Scenario	**Total Nitrogen Load (lb/yr)**	**Total Phosphorus Load (lb/yr)**	**Total Sediment Load (ton/yr)**
2015 Estimates	28,263	6,974	6,974
Phase 1 Reduction	24,840	5,737	5,737
Phase 2 Reduction	22,272	4,808	4,808
Phase 3 Reduction	19,705	3,880	3,880
Phase 4 Reduction	17,137	2,952	2,952
Phase 5 Reduction	14,570	2,024	2,024
Target	14,570	2,024	2,024

* Reduction scenarios are based on 2015 rainfall. Actual reduction goals will correspond to conditions.

8.3 Potential Funding Sources

Funding for implementation of the watershed plan will come from many sources. In order to accommodate plan implementation, the Apple Canyon Lake Property Owners Association (ACLPOA) will need to reserve in its annual budget the following items:

(1) **$50,000 per year for shoreline stabilization.** This amount will be used annually to address shoreline stabilization needs until all Association property shoreline is stabilized. Prioritization will be given to areas of high wave action or high erosion (*see section 6.6.7*). Prior to annual implementation, private lake property owners will be notified and given the opportunity to pay for private lots to be stabilized while the stabilization contractor is on site. This reduces private landowner costs as mobilization fees associated with stabilization work will be absorbed by ACLPOA.

(2) **$50,000 per year for stream stabilization.** The annual budget shall address stream stabilization needs on ACLPOA property. Stream stabilization needs are outlined in Table 6-11 and Figure 6-8, and subwatersheds have been prioritized from top to bottom in the table based on order of decreasing discharge. Once all outlined Association properties have been treated, allocations will address new areas identified in revisions to the watershed plan made at five year intervals.

(3) **$10,000 per year for watershed erosion control projects**. ACLPOA shall establish a cost-sharing program available to landowners and tenants in the watershed to assist with costs of implementation of best management practices (BMPs) in the watershed. This funding will be available annually until the funds are depleted. ACLPOA shall determine the rate of reimbursement for projects to make the best use of the funding. Funding shall be available to all applicants at the same reimbursement percentage rate.

(4) **$12,000 per year for monitoring.** ACLPOA will continue to fund the existing QAPP approved monitoring program to facilitate assessment of plan implementation as well as successes and shortcomings.

These amounts correspond to the prioritization and implementation schedule identifying priority projects to implementation, as well as correspond to milestone reduction goals set by the planning group.

Further funding sources have been identified by the stakeholder group, including cost-sharing assistance and technical assistance available from the USDA-NRCS, Illinois Department of Agriculture, Illinois EPA, and U.S. Fish and Wildlife Service. Table 8-1 lists programs which were identified and will be utilized to partially fund identified projects.

Table 8-2. Overview of potential funding sources.

Funding Program	Funding Agency	Payment Type	Payment Cap	Project Types (not exhaustive)
C-2000/Conservation Practices Program (CSP)	Soil and Water Conservation District (SWCD)	Cost-share	60%	Well sealing, tile outlet control, cover crops
Streambank Stabilization and Restoration Program (SSRP)	Soil and Water Conservation District (SWCD)	Cost-share	75%	Riprap, bendway weirs, rock riffles
319 Grant	Illinois Environmental Protection Agency (IEPA)	Cost-share	60%	Non-point source pollution reduction practices identified in watershed plan
Environmental Quality Incentives Program (EQIP)	Natural Resources Conservation Service (NRCS)	Flat payment	$450,000/contract	Nutrient management plans, composters, tile outlet control, manure storage, erosion control
Conservation Reserve Program (CRP)	Farm Service Agency (FSA)	Cost-share Yearly rental rate	50% $50,000/year	Takes marginal cropland out of production for conservation
Conservation Stewardship Program (CSP)	Natural Resources Conservation Service (NRCS)	Yearly rental rate	$200,000/contract through 2018	Energy savings, drift reduction, innovative conservation techniques
Fishers & Farmers	Fishers & Farmers Partnership, US Fish & Wildlife Service	Cost-share	60%	Fish habitat creation and restoration, monitoring

8.4 Goal Checklists

A successful watershed plan involves volunteer stakeholder participation to get projects completed, and must include a feedback mechanism to measure progress toward meeting goals. Watershed "Checklists", developed specifically for each goal in this plan, provide this information. Each checklist provides:

1. Summaries of current conditions for each goal to better understand what efforts are needed.
2. Most important performance criteria related to goal objectives.
3. Milestones to be met for various time frames.
4. Monitoring needs and efforts required to evaluate milestones.
5. Remedial actions to take if milestones are not met.
6. A "notes" section.

Goal checklists were developed for each of the four plan goals. The milestones are based on "Critical Term" (1 - 5 years, 2017 – 2021), "Short Term" (1 - 10 years, 2017 – 2026), and "Long Term" (10 – 20 years, 2027 – 2036) objectives. Grades for each milestone term should be calculated using the following scale: 80% - 100% of milestones met = A; 60% – 79% of milestones met = B; 40% - 59% of milestones met = C; and < 40% of milestones met = failed. These grades are calculated quantitatively in all possible cases where the percentage is calculated by dividing the amount completed by the amount listed in the goals and objectives (ex. 2,000 feet of stream stabilization completed ÷ 2,200 feet goal = 91%).

Goal checklists are meant to be used for the watershed as a whole, and should be used annually by the planning group to identify and track plan implementation to ensure that progress is being made towards achieving the plan goals and to make corrections as necessary. In addition to annual use, a final grade shall be determined at the end of each planning phase (1-5 years, 5-10 years, etc.). Lack of progress could be demonstrated in factors such as monitoring that shows no improvement, new environmental problems, lack of technical assistance, or lack of funds. In these cases the check lists user should explain why other factors resulted in milestones not being met in the notes section of the check list. Adaptive management should be implemented accordingly by referencing the adaptive management recommendations on each check list then developing a strategy to either change the milestone(s) or decide how to implement projects or actions to achieve the milestone(s).

Goal 1 Checklist: Improve Water Quality

Historic and Current Condition:

- Historic watershed conditions contained prairies, wetlands, and savannas prior to European settlement.
- Water quality in Apple Canyon Lake watershed is generally fair based on collected data. All parameters tested meet recommended standards during base flow conditions. However, total phosphorus and total suspended solids exceed recommended standards following significant storm events just upstream of Apple Canyon Lake; streambank erosion is a major contributor.
- Apple Canyon Lake is not listed as impaired but shows a negative trend in water quality.

Criteria to Meet Goal Objectives:

- Linear feet of restored streambank and lake shoreline.
- Acres of riparian buffer restored around ACL.
- Water quality monitoring taking place; chemical water quality standards: <12 mg/L TSS, <0.05 mg/L TP in ACL.
- Cost sharing program developed for BMPs in the watershed.
- Implement septic field inspection policy at ACLPOA.
- Reduced labor and expenses operating hydraulic dredge, weed harvestor, and maintaining dredge ponds.
- Acres of forest land with management plans created and management plans implemented.

Goal Milestones:		**Score**
1-5 Yrs. (*Critical*)	1) Construction plans developed for high priority streambank and shoreline stabilization (§6.6.7 & §6.6.8). 2) Annual monitoring completed at the six primary monitoring sites (§5.0 & §8.1.1.1). 3) Funding secured to implement projects (§8.3). 4) Septic study and Association Subwatershed stream analysis completed (§6.6.4 & §6.6.8). 5) Water quality results analyzed (§8.1.1.1). 6) Cropland acres treated with gypsum and cover crops (§6.6.3). 7) Water quality results indicate 25% reduction in phosphorus loading (§8.2.1). 8) Enroll Property Owners Association greenspace into forest management programs (§6.6.10).	
5-10 Yrs. (*Short*)	1) All critical and high priority areas stabilized (§6.6.7, §6.6.8). 2) Construction plans developed for medium priority streambank and shoreline stabilization (§6.6..7, §6.6.8). 3) Demonstration tile gate installed (§6.5.1, §6.6.6). 4) ACL policy adjusted to address results of study (§6.6.4, §7.1). 5) Water quality monitoring results indicate phosphorus reduction to 4,808 lbs./yr. (§8.2.1). 6) ≥33% reduction in aquatic plant and algae management expenses (§8.2). 7) Forest management plans created and implemented (§6.6.10).	
10-20 Yrs. (*Long*)	1) Construction plans developed for lower priority streambank and shoreline stabilization (§6.6.7, §6.6.8). 2) All medium priority areas stabilized (§6.6.7, §6.6.8). 3) Funding secured for remaining BMPs (§8.3). 4) Water quality monitoring results indicate phosphorus reduction to 2,024 lbs./yr. (§8.2.1). 5) ≥70% reduction aquatic plant and algae management expenses (§8.2). 6) Forest management plans created and implemented (§6.6.10).	

Monitoring Needs/Efforts:

- Water chemistry will need to continue indefinitely to track changes in water quality.
- RiverWatch monitoring will continue indifinitely to track changes in water quality.
- Track number of streambank, shoreline, wetland and detention projects implemented.

Remedial Actions:

- Quantify number of projects and actions that have been implemented versus waterquality changes and determine if projects are effectively removing pollutants.
- Review watershed plan and update for necessary changes.
- Review policy changes for consistency with watershed plan.
- Re-evaluate goals and BMP options to determine feasibility.

Notes:

Grade Evaluation: 80%-100% met = A; 60%-79% met = B; 40-59% met = C; and < 40% = failed.

Goal 2 Checklist: Reduce Algal Blooms and Excessive Plant Growth

Historic and Current Condition:

- The historic watershed landscape consisted of prairies, savannas, and wetlands prior to European settlement in the 1800s.
- Historic land use limited nutrient production and encouraged storage and filtration of nutrients.
- VLMP data indicates a downward trend in water quality and secchi depth clarity.
- Aquatic plant coverage is heavily treated making nutrients available to algal growth.
- Harmful algal blooms (HAB) are monitored in Apple Canyon Lake. Only one HAB has been detected, occuring in 2013.

Criteria to Meet Goal Objectives:

- Number of new prairies, savannas, wetlands, and retention basins implemented.
- Number of critical areas treated with riparian buffer.
- Meeting water quality goals and objectives (Goal 1).
- Number of years in database monitoring aquatic plant, invertebrate, and algal population.
- Reduced labor and expenses operating weed harvestor.
- Reduced incidence of harmful algal blooms.

Goal Milestones:		Grade
1-5 Yrs. (*Critical*)	1) Map coverage and diversity of aquatic plants in Apple Canyon Lake (§6.5.2). 2) Create management plan for aquatic plants in Apple Canyon Lake (§6.5.2). 3) ≥ 4 acres of the 16.6 acres of critical areas converted to riparian buffer (§6.6.5). 4) Perform feasibility study for North Bay subwatershed (§6.6.8.1). 5) ≥33% reduction in aquatic plant and algae management expense (§8.2). 6) No incidence of harmful algal blooms (§5.0).	
5-10 Yrs. (*Short*)	1) Reduced complaints about excessive plant growth in lake (Yes/No) 2) ≥ 50% reduction in aquatic plant and algae management expense (§8.2). 3) ≥ 4 additional acres of the 16.6 acres of critical areas converted to riparian buffer (§6.6.5). 4) Monitor invertebrate population to determine trends with lower food chain ecology (§6.6.2).	
10-20 Yrs. (*Long*)	1) Aquatic plant and algae stable, providing recreational opportunities and fish habitat (Yes/No). 2) ≥70% reduction in aquatic plant and algae management expense (§8.2). 3) ≥ 4 additional acres of the 16.6 acres of critical areas converted to riparian buffer (§6.6.5). 4) Monitor invertebrate population to determine trends with lower food chain ecology and	

Monitoring Needs/Efforts:

- Assess aquatic plant coverage and secchi depths and adjust implementation plan to meet objectives.
- Monitor invertebrate population determine trends with lower food chain ecology.
- Monitor for harmful algal blooms.

Remedial Actions:

- Review aquatic management plan and adjust to meet management goals.
- Allocate funds and submit grant proposals to implement goal objectives.
- Reevaluate goals and BMP options to determine feasibility.

Notes:

Grade Evaluation: 80% -100% met = A; 60% -79% met = B; 40-59% met = C; and < 40% = failed.

Goal 3 Checklist: Mitigate Existing Flooding Problems

Historic and Current Condition:

- The historic watershed landscape consisted of prairies, savannas, and wetlands prior to European settlement in the 1800s.
- Channelization has increased stream velocity and down cutting prevents streams access to the flood plain.
- Increased storm variability causes erosion and channelization throughout the watershed.

Criteria to Meet Goal Objectives:

- Number of feet/stream miles of stream restoration projects that reconnect the stream channel to the adjacent flood plain.
- Number of retention basins installed in the watershed.
- % of new and redevelopment that incorporates high infiltration best management practices.
- Number of existing homes retrofitted with high infiltration best management practices.
- Number of restored wetlands.

Goal Milestones:		Grade
1-5 Yrs. (*Critical*)	1) Stream reaches NB1 and WC 1 are evaluated for potential to reconnect hydrologically to adjacent flood plain (§6.6.7 & §6.6.8). 2) ACLPOA adopts zero runoff policy for new development (§6.6.4). 3) Implement project at NB1 (§6.6.7 & §6.6.8). 4) Assess culverts and bridges in watershed to allow greater stream capacity and connectivity (§6.6.9). 5) Retrofit ≥ 5 homes with high infiltration best management practices (§6.6.4).	
5-10 Yrs. (*Short*)	1) Stream reaches PB 1, ID 1, and HW 1 are evaluated for potential to reconnect hydrologically to adjacent flood plain (§6.6.7 & §6.6.8). 2) Work with stakeholders outside of the POA to reconnect problem stream areas (§6.6.7). 3) Implement projects at WC1, PB1, ID1, and HW1 (§6.6.7 & §6.6.8). 4) Replace ≥ 1 road bridge and ≥ 50% of identified problem culverts in watershed (§6.6.9). 5) Retrofit ≥ 10 homes with high infiltration best management practices (§6.6.4)	
10-20 Yrs. (*Long*)	1) Reconnect minor drainages on Association property leading to lake (§6.6.9). 2) Replace ≥ 1 road bridge and ≥50% of identified problem culverts in watershed (§6.6.9). 3) Retrofit ≥ 10 homes with high infiltration best management practices (§6.6.4).	

Monitoring Needs/Efforts:

- Annually survey stream corridors to determine efficacy of actions and note changes in hydrologic systems.
- Monitor sediment delivery to Apple Canyon Lake.
- Review green infrastructure policy and certify that it is being enforced.

Remedial Actions:

- Increase budgeting to implement more critical projects.
- Seek larger funding pools to fund project implementation.
- Investigate student and volunteer opportunities to achieve objectives.
- Re-evaluate goals and BMP options to determine feasibility.

Notes:

Grade Evaluation: 80%-100% met = A; 60%-79% met = B; 40-59% met = C; and < 40% = failed.

Goal 4 Checklist: Educate Watershed Community.

Historic and Current Condition:

· Apple Canyon Lake Property Owners Association, along with the Jo Daviess SWCD, is leading the watershed planning process. Watershed residents and various other stakeholders are involved.

· The watershed stakeholders currently promote appreciation and stewardship of the watershed through many education and volunteer activities. Meetings typically have approximately 20 attendees and volunteer events average 10 attendees.

Criteria to Meet Goal Objectives:

· Number of ways taken to inform the general public that a watershed plan has been developed.
· Number of people that attend watershed education campaigns.
· Number of participants in Kids Camp.
· Number of demonstration projects implemented.
· Number of Boy/Girl Scout service projects.
· Number of Earth Day volunteers.

Goal Milestones:		Grade
1-5 Yrs. (*Critical*)	1) Watershed partners inform public about the watershed plan via media and watershed activity campaigns and track the engagement of audience (§6.6.2). 2) ≥2 demonstration projects are implemented (§6.5.1 & §6.6.6). 3) A watershed tour is conducted focused on agricultural BMPs (§6.6.2). 4) ≥ 30 children attend each Kid's Camp (§6.6.2). 5) ≥ 25 people attend each watershed meeting (§6.6.2).	
5-10 Yrs. (*Short*)	1) ≥ 20 people attend each educational event (§6.6.2). 2) ≥ 50 people volunteer for the Earth Day event each year (§6.6.2). 3) ≥ 10 school or youth projects are supported by watershed partners per year (§6.6.2). 4) ≥ 4 demonstration projects are implemented (§6.5.1 & §6.6.6). 5) ≥ 25 people attend each watershed meeting (§6.6.2).	
10-20 Yrs. (*Long*)	1) ≥ 20 people attend each educational event (§6.6.2). 2) ≥ 50 people volunteer for each Earth Day event (§6.6.2). 3) ≥ 10 school or youth projects are supported by watershed partners each year (§6.6.2). 4) ≥ 4 demonstration projects are implemented (§6.6.2). 5) ≥ 25 people attend each watershed meetings (§6.6.2).	

Monitoring Needs/Efforts:

· Track number of ways taken to inform general public that a watershed plan has been developed.
· Track number of people attending each educational event.
· Track number of agencies participating in educational presentations.
· Track number of school or Boy/Girl Scout projects supported and completed by watershed partners.
· Track number of demonstration projects implemented.
· Track number of watershed meeting attendees.
· Survey engagement or changes in practices as a result of efforts.

Remedial Actions:

· Seek program guidance and increased participation from state, county, and government agencies.
· Reevaluate education strategy.
· Gain new partners to assist in education campaign strategies.
· Increase access and signage for watershed improvement projects to promote them as demonstrations.

Notes:

Grade Evaluation: 80%-100% met = A; 60%-79% met = B; 40-59% met = C; and < 40% = failed.

9.0 CONCLUSION

The Apple Canyon Lake watershed has experienced a great deal of change from European settlement to the creation of the lake in 1969. Since the creation of the lake and the Apple Canyon Lake Property Owners Association, land use in the watershed has remained fairly consistent. The area feeding Apple Canyon Lake is dominated by agriculture and forest, with the area immediately surrounding the lake classified as low-density urban development. The rugged topography typical of the driftless region amplifies storm water runoff, carrying pollutants typical of these land uses downstream through the watershed.

The lake acts as a large sediment retention basin, collecting a majority of the phosphorus which is transported through the watershed. Although Apple Canyon Lake and its watershed are not impaired there has been a consistent decline in water quality since approximately 2001. The Illinois EPA's Volunteer Lake Monitoring Program has large database on water quality information taken over the years from the lake, and stream monitoring beginning in 2014 has been added to complement the existing database. This information, along with a resource inventory of the watershed, has been presented to the watershed stakeholder planning group over a two year planning process. This process has taken input from multiple sources and perspectives in the watershed and collaboratively developed the comprehensive watershed plan contents. Through this collaboration it has been recognized that the farmlands, forests, streams, and lake are all valuable resources which provide the variety of benefits to the residents and users of the watershed.

As creation of this plan comes to a close, the planning process is just beginning. The creation of a plan is the start of the much larger task of implementation which will ultimately determine if the plan is a success. The planning group is now tasked with putting this plan into action and achieving the goals and objectives set forth. The watershed planning group has determined to see a 25% attainment of their water quality goals in five years. This is a realistic achievement but will be only be half determined by plan implementation and half determined by weather related factors. The residence time of water in the lake can delay water quality impacts by as much as a year and a half. As the plan is completed the real work now begins. This is not the time to relax but instead the time to get moving! Within the Apple Canyon Lake Property Owners Association there is policy to be created, mandating green infrastructure, septic drain, zero-storm water runoff, and enforcing the existing buffer area policy around the lake. A study must be completed on the existing septic systems and small water drainages at the lake. In the whole watershed there are numerous best management practices which can be implemented to help with the overall goals and objectives of this plan while simultaneously improving crop production and economic returns. Cover crops can have a tremendous impact on water quality. Terminating field drain tile outlets into a vegetated retention basin is also useful in meeting nutrient reduction goals. Stabilizing field soils with gypsum applications is another option, in addition to overall good nutrient management. Ultimately, meeting reduction goals in the watershed cannot be achieved by any one practice, but rather must be a combination of many practices which are right for each landowner and will collectively add up to meet the goals.

CONCLUSION

A major part of the ultimate success of this endeavor is engaging and educating the public. Through newspaper articles, field days, public meetings, and public participation in watershed monitoring, watershed residents and users will learn more about and better understand the functions of a watershed, and make more informed decisions in their day-to-day lives which affect water quality. The success of this education relies just as heavily on recruiting participants as it does in programming.

It is believed by the individuals involved with drafting this plan that the contents of this comprehensive watershed based plan have the potential to meet the planning group's goals and objectives as expressed through the planning meetings. This belief comes not just on faith but rather on sound science. By the nature of watershed function, the attainment of the planning group's goals will not only improve the water quality in Apple Canyon Lake and the surrounding watershed, but also in the Apple River, the Mississippi River, and the Gulf of Mexico. Let's get started!

Memorandum

Apple Canyon Lake

To: Board of Directors **Date:** February 21, 2026

From:

Memo: 2026-10

Topic: Employment of Personnel – Hiring of a GM

Issue:

Recommendation:

Memorandum

To: Board of Directors

Date: February 21, 2026

From: Conservation Commission

Memo: 2026-12

Topic: Zebra Mussel RFP – Proposal Recommendation

Issue: An RFP was issued and we received two proposals to provide chemical treatments for the control of Zebra Mussels. Both contractors use EarthTec QZ. Attached are the two proposals along with a simple comparison of the proposals.

Recommendation: The Conservation Commission recommends awarding the contract to McCloud Aquatics for 1 treatment to be performed early in the season at a cost of $19,450.00. We recommend that McCloud be required to provide at least a 1 week notice prior to the treatment to allow our Lake Monitoring Team to test the water prior to the treatment, and that the Dissolved Oxygen level must be at least 8mmp and the treatment is done in the early afternoon. These terms need to be incorporated in their proposal prior to execution. ACL volunteers will monitor the Zebra Mussel population to determine if another treatment later in the season is warranted for an additional cost of $19,450.00.

AQUATIC CONTROL
Est. 1966

Apple Canyon Lake Zebra Mussel Treatment Proposal

PREPARED BY:
AQUATIC CONTROL

To: Apple Canyon Lake Property Owners Association
14A157 Canyon Club Dr.
Apple River, IL 61001

Dear Selection Committee,

Thank you for the opportunity to submit a proposal for a Zebra Mussel Control Treatments for Apple Canyon Lake. In this proposal, you will find information about Aquatic Control, Inc., our team's qualifications, references to our prior and present projects that are similar in scope, and our proposed scope of work for Apple Canyon Lake. Aquatic Control, Inc. is a business in the midwestern US, based out of Seymour, IN., with satellite offices in Davenport, IA; Elkhart, IA; Williamsville, IL; Truesdale, MO; Valparaiso, IN; Evansville, IN; Elizabethtown, KY; Jackson, TN; and Knoxville, TN. Thank you for your time and consideration.

Sincerely,

Tim Holt
Regional Manager – Northern Territory
Aquatic Control, Inc.
105 N Old Route 66
Williamsville, IL 62693

Apple Canyon Lake Zebra Mussel Control Treatment Proposal

Prepared By:

Timothy Holt, B.S., Regional Manager – North Territory
Nathan Long, B.S., Executive Vice President
Adam Charlton, B.S., Vice President of Satellite Operations
Ciera Baird, Ph.D., Aquatic Ecotoxicologist: Specializing in HAB Management
Leif Willey, M.S., Lake and Special Project Supervisor
Wes Goldsmith, B.S., Fisheries Management Specialist
Blake Cottrell, B.S., Davenport, IA Office Manager

Aquatic Control, Inc., 501 W 76th St, Davenport, IA 52806

Overall Objective:

The overall objective of the treatrment plan is to control Zebra Mussels along the entire perimter of Apple Canyon Lake (20' perimeter). To meet this overall objective, Aquatic Control will apply EPA registered Earthtec QZ to a 20 foot perimeter along the entire shoreline.

1. **Company Overview**

Aquatic Control is an Indiana S-Corporation that has been providing high quality products, services, and staff for managing lakes, ponds, reservoirs, and other water resources for both public and private entities since 1966. Aquatic Control was officially incorporated on December 15, 1971. Aquatic Control's corporate headquarters is in Seymour, IN and has 9 branch offices in Iowa, Illinois, Indiana, Kentucky, Tennessee, and Missouri. Aquatic Control maintains a fleet of 75 boats and 71 trucks that can be rapidly mobilized to handle a variety of problems on a wide range of water bodies. Aquatic Control is an authorized distributor for various algaecides, herbicides, and water quality products, an authorized distributor and service provider for various fountain and aeration manufacturers, and provides full-service lake management including vegetation management, harmful algal bloom management, fisheries management, laboratory services, nutrient remediation, and native aquatic planting. The company's most valuable resource is its staff of 97 full-time employees. Several of these full-time employees would be heavily involved in this project, and their brief resumes are included in an Appendix at the end of this document.

2. Qualifications and Experience

Zebra Mussel Management

Aquatic Control has been completing Zebra mussel control treatments since 2022. We have worked with several molluscicide manufacturers to test their products and to also develop treatment protocols for their products. We haved worked with the Iowa Department of Natural Resources to adopt their Zebra mussel monitoring program to assess treatment success in past treatments. Multi-year treatments have been completed at Lake Wildwood in Varna, Illinois. We worked extensively with the Lake Wildwood Board of Directors to ensure that these treatments were completed in a safe manner and to also educate their homeowner about the treatment process and our monitoring plan.

Vegetation Management

Aquatic Control has been conducting vegetation management applications and surveys since 1966. Vegetation management operations span waterbodies of all sizes from small, man-made backyard ponds to thousand plus acre lake and reservoir systems as well as irrigation canals, ditches and river systems. Waters managed also involve a variety of stakeholders including private property owners and conservancy districts, state owned public waters, property/homeowner and neighborhood associations along public water shorelines. Aquatic Control has been a leading contractor through the Indiana Department of Natural Resources Lake and River Enhancement (LARE) program since the program began in the early 2000s. Through the LARE program, we have helped sponsor organizations and the State meet their invasive species management goals on lakes including the Tippecanoe chain of lakes near North Webster, IN, Clear Lake in Laporte, IN, Griffy Lake in Bloomington, IN and the White River in Indianapolis, IN. All projects managed under LARE include annual vegetation surveys and management plan updates provided to the sponsoring organization as well as the State. Private conservancies utilizing our vegetation management and monitoring services include Cordry Sweetwater Conservancy, in Nineveh, IN, Lake Lemon Conservancy in Unionville, IN and the Lake Papakeechie Protective Association in Syracuse, IN. LARE clients are focused on invasive species management, while our private conservancy clients are focused on not only invasive vegetation, but also maintaining optimal recreational water uses through each year.

Aeration

Aquatic Control has been installing aeration systems and fountains for over 50 years. We not only design, assemble, and install these systems, but we are also equipped to help customers throughout the complete lifespan of their fountain or aeration system. We are a certified warranty repair center for Aquamaster, Kasco, Otterbine, and Aqua Control fountains and aeration systems. Our team has maintained professional relationships with these manufacturers for decades, partnering on testing new technology and providing input to improve product design. In addition to seamless sales and installation, our proactive winter servicing program is designed to identify and resolve potential issues, guaranteeing peak performance and maximizing the operational lifespan of your equipment.

Laboratory Services

Aquatic Control has operated a service laboratory at our headquarters office in Seymour, IN since 2018. We provide retail laboratory services including water quality and nutrient analysis, algae and cyanobacterial identification and enumeration, cyanobacterial toxin testing, sediment characterization, sediment phosphorus analysis, and *E. Coli* testing. In addition to offering these retail services, we can conduct custom experiments for water clarity improvement and nutrient remediation, evaluating specific products against site samples to determine efficacy and feasibility of candidate management plans. We also offer custom algaecide efficacy testing which involves laboratory experimentation to test performance of candidate algaecides against site-specific algae based on water uses, water chemistry, and types of algae present in the water. For many of our management projects, we utilize our laboratory to conduct strategic monitoring plans whether for nutrients or harmful algal blooms to ensure that management decisions are based on site data. Our laboratory services are utilized by various entities across the US ranging from private pond homeowners to lake associations, to large-scale public reservoirs and industrial water managers.

Nutrient Remediation

Aquatic Control has extensive experience with designing and implementing site-specific treatment plans for nutrient remediation in ponds and lakes. Excess phosphorus concentrations in water and sediment can result in overproduction of algae and vegetation in aquatic systems, which can lead to harmful algal blooms, hypoxia, and accretion of muck in sediments. We provide laboratory analysis to characterize total and reactive phosphorus concentrations in water and sediment and monitor trends over time to design tailored nutrient management plans. This includes evaluation of potential phosphorus sources to the lake and whether in situ phosphorus inactivation is a sound and feasible action. In situations where additional data resolution is needed, we can provide laboratory-scale experiments to evaluate efficacy of specific products on site-specific samples. We distribute and apply a variety of phosphorus inactivation products including aluminum-based and lanthanum-based formulations and can provide professional recommendations on which products may be more suitable based on whether the water or sediments are being targeted, budget, and time frame for management.

3. Approach to Services

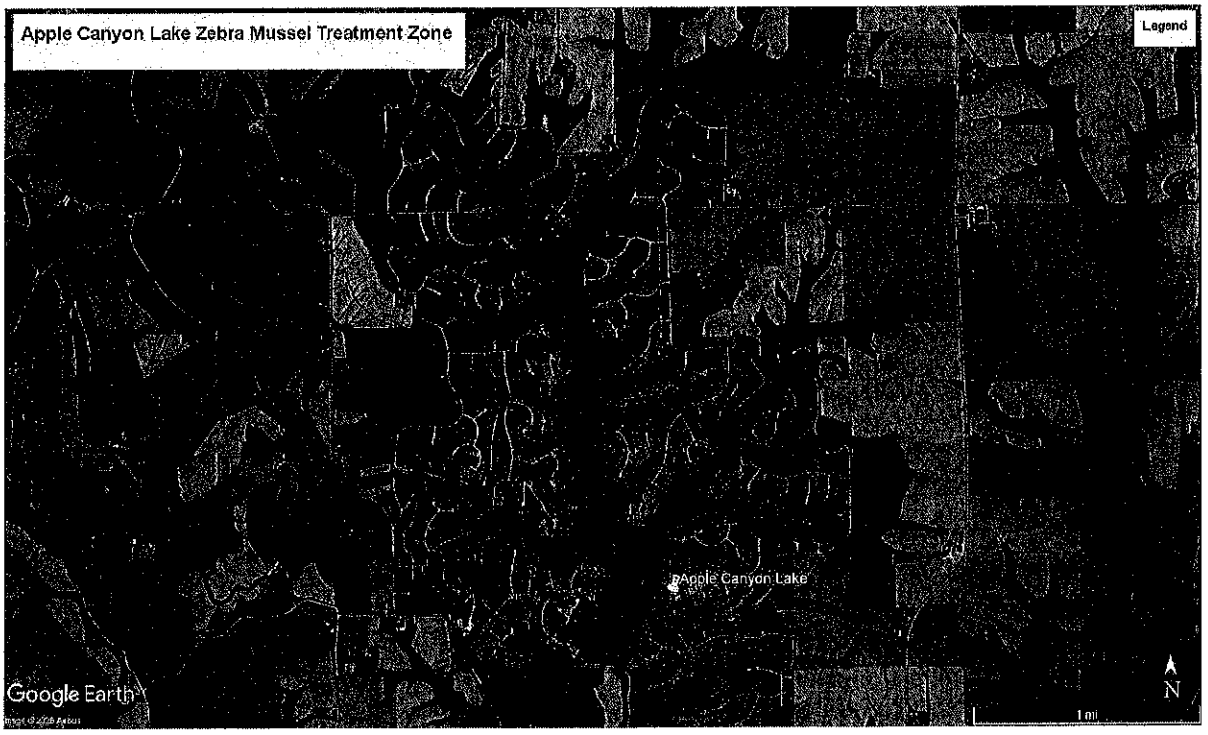
Aquatic Control will complete on call molluscicide treatments to the entire shoreline of Apple canyon lake. Treatments zones will include a 41 acre treatment area and extend 20' from the shoreline. Aquatic Control will apply 575 gallons of EPA registered Earthtec QZ with lake boats equipped with high pressure application pumps. All Aquatic Control Biologists are certified to apply EPA registered aquatic pesticides in the State of Illinois.

4. **Anticipated Schedule of Visits and Services**

Event Type	Proposed Frequency
Zebra Mussel Treatment	On - Call

5. **Price Schedule**

Service Type	Price per event
On Call Molluscicde Treatments – 575 gallons Earthtec QZ	$22,289.97



6. Client References

Firm Name	Contact Person	Title	Address	E-mail Address	Phone Number
Lake Wildwood	Shawn Dixon	General Manager	1000 Lake Wildwood Drive, Varna, IL	Sdixon@lake-wildwood.com	309-463-2047
Lake Santee POA	Gina Julien	Lake Manager	13 Southwest Wrenn Parkway, Greensburg IN	ginajulien@gmail.com	513-226-6276
Painted Hills Lake Assc.	Ron Milford	Board Director	4364 Rembrandt Dr. Martinsville, IN	Phalakes2@gmail.com	317-319-5558
Lake Tansi	Sam McAdoo	General Manager	5050 Shoshone Loop Crossville, TN	Sam.mcadoo@laketansipoa.com	931-287-5504

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/28/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Laverne Carr		
Moore & Shepherd Insurance	PHONE (A/C, No, Ext): (812) 522-8555	FAX (A/C, No): (812) 522-8552	
328 South Airport Road	E-MAIL ADDRESS: carls@shepherdins.com		
PO Box 443	INSURER(S) AFFORDING COVERAGE		NAIC #
Seymour IN 47274	INSURER A: Selective Ins Co		12572
INSURED	INSURER B: Bridgefield Casualty Insurance Company		10336
AQUATIC CONTROL, INC.	INSURER C: Great American		16691
418 W STATE ROAD # 258	INSURER D: Old Republic Insurance Company		24147
PO BOX 100	INSURER E:		
SEYMOUR IN 47274	INSURER F:		

COVERAGES: CERTIFICATE NUMBER: 25-26 Master REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☒ LOC ☐ OTHER			B 1860441	05/17/2025	05/17/2026	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
							MED EXP (Any one person)	$ 15,000
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 3,000,000
							PRODUCTS - COMP/OP AGG	$ 3,000,000
								$
A	AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☒ HIRED AUTOS ONLY ☒ NON-OWNED AUTOS ONLY			B 1860441	05/17/2025	05/17/2026	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
							Medical payments	$ 5,000
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE ☐ DED ☒ RETENTION $ 0			B 1860441	05/17/2025	05/17/2026	EACH OCCURRENCE	$ 5,000,000
							AGGREGATE	$ 5,000,000
								$
B/C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		0196-51072 & WCES97586	05/17/2025	05/17/2026	☒ PER STATUTE ☐ OTH-ER	
							E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Pesticide and Herbicide Applicator Coverage			B 1860441	05/17/2025	05/17/2026	Limit	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Automatic Additional Insured applies to General Liability (including ongoing and completed operations), Automobile Liability & Umbrella coverages on a Primary & Non-Contributory Basis where required by written contract subject to policy terms, conditions & exclusions. Automatic Waiver of Subrogation applies to General Liability, Automobile Liability, Umbrella & Workers Compensation coverages where required by written contract subject to policy terms, conditions & exclusions. Additional Insured Status including Primary & Non-Contributory Basis & Waivers of Subrogation extend to the Umbrella coverage regarding General Liability, Auto Liability and Employers Liability coverages. Subject to policy terms, conditions and exclusions. Per forms: CG 72 02 12 19; CG 20 01 04 13; CG 79 21 01 19; CA 77 35 03 10; CA 77 73 12 05; CXL 545 01 23; CXL 449 05 17; CXL 4 04 13 & WC 00 03 13. Pesticide and Herbicide Applicator Coverage included per form PH0005 01/96.

CERTIFICATE HOLDER	CANCELLATION
Apple Canyon Lake Property Owners Association 14A157 Canyon Club Drive Apple River IL 61001	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Laverne K Carr

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-3397
JB Pritzker, Governor John J. Kim, Director

217/782-0610

May 04, 2023

Aquatic Control, Inc.
P.O. Box 100
Seymour, IN 47274

RE: Aquatic Control, Inc.
NPDES Permit No. ILG870099
Bureau ID: W2178990075
Notice of Coverage under the Pesticide Application Point Source Discharges General Permit

Permittee:

The Illinois Environmental Protection Agency has reviewed your NOI and determined that the pesticide application discharges described therein are appropriately covered by a General NPDES Permit issued by the Agency. A copy of the General Permit is enclosed.

The General Permit includes discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the permit could result in civil and/or criminal penalties. The Agency is ready and willing to assist you in interpreting any of the conditions of the permit as they relate specifically to your discharge.

The Annual Report must be submitted to the Agency no later than February 15th of the following year for all pesticide activities covered under this permit occurring during the previous calendar year.

The permit is applied to your discharge effective on the date of this letter or as identified by the conditions of the Permit. You have the right to appeal the Agency's decision to cover your discharge by the General Permit to the Illinois Pollution Control Board within a 35 day period following the date of this letter.

This letter shows your NPDES Permit number, please reference this number in all future correspondence. Should you have any questions concerning the Permit, please contact Francisco J. Herrera at 217/782-0610.

Sincerely,

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

DEL:FJH:ILG870099.docx

Enclosure: General Permit

cc: Compliance Assurance Section
Records Unit
Marion Region

2125 S. First Street, Champaign, IL 61820 (217) 278-5800
2009 Mall Street Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
595 S. State Street, Elgin, IL 60123 (847) 608-3131
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

NPDES Permit No. ILG87 0099

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
www.epa.illinois.gov

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit
For
Pesticide Application Point Source Discharges

Expiration Date: September 30, 2027

Issue Date: September 14, 2022

Effective Date: October 01, 2022

In compliance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board and Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter 1), and the Clean Water Act, and the regulations thereunder the following discharges are authorized by this permit in accordance with the conditions and attachments herein.

This permit is available to operators who discharge to waters of the State from the application of biological pesticides or chemical pesticides that leave a residue, when the pesticide application is for one of the following pesticide use patterns:

1. Mosquito and Other Insect Pest Control
2. Weed and Algae Pest Control
3. Animal Pest Control
4. Forested Areas Pest Control
5. Other Pest Control Activities

Discharges may be authorized to any surface water of the State excluding waters identified as impaired by that pesticide or its degradates. This permit does not authorize discharges, to any waters of the State which are designated as a outstanding resource water by the Agency in accordance with 35 Ill. Adm. Code 302.105(b).

To receive authorization to discharge under this general permit, an operator must submit the proper application form to the Illinois Environmental Protection Agency. Authorization, if granted, will be by letter and include a copy of this permit.

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

DEL:MEL:21090201.docx

EcoCAT
Ecological Compliance Assessment Tool

Applicant: Aquatic Control Inc.
Contact: Tim Holt
Address: 501 W 76th St
Davenport, IN 52806

Project: Apple Canyon Lake
Address: 14A157 Canyon Club Dr. , Apple River

IDNR Project Number: 2609335
Date: 01/08/2026

Description: Aquatic Control will complete biweekly inspections of Apple Canyon Lake for aquatic invasive species, planktonic algae (HAB's), filamentous algae, and nuisance aquatic vegetation. If necessary, State registered Aquatic Applicators will apply EPA registered herbicides and/or algaecides for control of observed vegetation.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

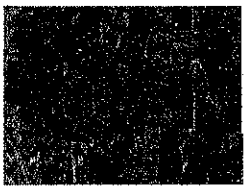
Gray/Timber Wolf *(Canis lupus)*

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location
The applicant is responsible for the accuracy of the location submitted for the project.

County: Jo Daviess

Township, Range, Section:
28N, 3E, 3
28N, 3E, 4
28N, 3E, 9
28N, 3E, 10
28N, 3E, 15
28N, 3E, 16
28N, 3E, 22



IL Department of Natural Resources
Contact
Adam Rawe
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
IL Environmental Protection Agency
Adam Rawe
1 Natural Resources Way
Springfield, Illinois 62702

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor
Natalie Phelps Finnie, Director

January 08, 2026

Tim Holt
Aquatic Control Inc.
501 W 76th St
Davenport, IN 52806

RE: Apple Canyon Lake
Project Number(s): 2609335
County: Jo Daviess

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Adam Rawe

Adam Rawe
Division of Ecosystems and Environment
217-785-5500

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE
SPRINGFIELD, ILLINOIS

LIC# CA105422
EXPIRES December 31, 2026

AQUATIC CONTROL INC
CLINTON A CHARLTON
418 W STATE RD 258
SEYMOUR IN 47274

SIGNATURE

(FOLD LINE)

ILLINOIS PESTICIDE ID CARD

LIC# CA105422 USAPLANTS ID: 00221X

COMMERCIAL APPLICATOR

General Standards
Aquatic

IL406-1122 X021-406-0030

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE
SPRINGFIELD, ILLINOIS

LIC# CAD99196
EXPIRES December 31, 2027

AQUATIC CONTROL INC
TIMOTHY B HOLT
105 N OLD ROUTE 66
WILLIAMSVILLE IL 62693

Tim Holt
SIGNATURE

(FOLD LINE)

ILLINOIS PESTICIDE ID CARD

LIC# CAD99196 USAPLANTS ID: 0045PL

COMMERCIAL APPLICATOR/DEALER

General Standards
Aquatic

IL406-1122 X021-406-0030

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE
SPRINGFIELD, ILLINOIS

LIC# CA107295
EXPIRES December 31, 2025

Aquatic Control Inc
BLAKE J COTTRELL
105 N OLD ROUTE 66
WILLIAMSVILLE IL 62693

Blake Cottrell
SIGNATURE

(FOLD LINE)

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE
SPRINGFIELD, ILLINOIS

LIC# CAD99337
EXPIRES December 31, 2025

AQUATIC CONTROL INC
NATHAN LONG
418 W STATE RD 258
SEYMOUR IN 47274

SIGNATURE

Appendix:
Project Delivery Team Resumes

Ciera M. Kinley-Baird, Ph.D.

Aquatic Control, Inc.
418 W State Rd. 258 Seymour, IN 47274
T: 812-497-2410 x2520
Email: cierab@aquaticcontrol.com

Education

Clemson University, Clemson, SC, Ph.D., Wildlife and Fisheries Biology (Ecotoxicology); 2018
Clemson University, Clemson, SC, M.S., Wildlife and Fisheries Biology (Ecotoxicology); 2015
Keystone College, La Plume, PA, B.S., Wildlife Biology; 2012

Professional Experience

Aquatic Ecotoxicologist **11/2018-present**
Specializing in Harmful Algal Bloom (HAB) Management
Aquatic Control, Inc., Seymour, IN

- Design and supervise HAB management contracts using applications of USEPA-registered algaecides to mitigate toxins/taste & odor issues in lakes and reservoirs
- Design phosphorus inactivation treatments in water and sediment for ponds and lakes
- Licensed and certified aquatic pesticide applicator in Indiana
- Perform laboratory bench-scale evaluations of various algaecides for control of site-specific algal assemblages prior to implementing treatments at the field-scale
- Design full-scale algaecide applications using advanced application equipment to effectively target planktonic and benthic algal assemblages
- Conduct internal and collaborative research regarding performance evaluations and best practices for various algaecides (copper, hydrogen peroxide, and endothall-based formulations)
- Interpret laboratory exposure-response data for algaecides and site-specific algal assemblages to identify effective formulations and treatment concentrations for full-scale algaecide treatments

Independent Consultant **1/2018 – 10/2018**

- Project manager for algaecide performance evaluations at Lake Okeechobee, FL, USA
- Conducted ecological risk assessments for terrestrial and aquatic ecosystems
- Analyzed exposure-response datasets for ecological risk assessments

Graduate Research Assistant **4/2013 – 5/2018**
Clemson University, Clemson, SC

- Designed and conducted laboratory, demonstration, and field-scale experiments to evaluate efficacy of algaecides and herbicides against noxious cyanobacteria, algae, and aquatic weeds
- Management of noxious algae in drinking water reservoirs, lakes, and ponds using USEPA-registered algaecides
- Studied the relative risks of using pesticides for controlling target species and minimizing risks for non-target aquatic organisms

Selected Professional Affiliations

Member, North American Lake Management Society
Member, American Water Works Association
Member, Aquatic Plant Management Society
Reviewer, Ecotoxicology and Environmental Safety
Reviewer, Journal of Aquatic Plant Management

Reviewer, Environmental Pollution
Reviewer, Science of the Total Environment

Selected Publications

Kinley-Baird, C.M. Smith, E.F.,Calomeni, A.J., McQueen,A.D., Gusler, G.O.,Boyer, M., Decker,K.N., and Clyde, G.A. (2023).Evaluation of preventative algaecide treatments for cyanobacterial resting cells in sediments of a central USA lake. Lake and Reservoir Management, 309, 340-355.

Calomeni, A., McQueen, A., **Kinley-Baird, C.**, Clyde, G., Gusler, G., Boyer, M., and Smith, E. (2023). Efficacy of algaecides for the proactive treatment of overwintering cyanobacteria. Ecotoxicology and Environmental Safety, 262, 115187.

Kinley-Baird, C.M., Calomeni, A.J.,Berthold, D.E., Lefler,F.W., Barbosa, M., Rodgers, J.H., & Laughinghouse IV, H.D. (2021).Laboratory-scale evaluation of algaecide effectiveness for control of microcystin producing cyanobacteria from Lake Okeechobee, Florida (USA). Ecotoxicology and Environmental Safety, 207, 111233.

Kinley-Baird, C. M., McQueen, A. D., Iwinski-Wood, K. J., Calomeni,A. J., & Rodgers, J. (2020). Intervention for microcystin-producing cyanobacteria and microcystins in freshwater resources: Development of a decision support document for risk management. Aquatic Ecosystem Restoration Foundation, Special Publication.

Calomeni, A.J., **Kinley, C.M.**, Geer, T.D., Hendrikse, M., & Rodgers, J.H. (2018). Lyngbya wollei responses to copper algaecide exposures predicted using a concentration exposure time (CET) model: Influence of initial biomass. Journal of Aquatic Plant Management, 56, 73-83.

Kinley, C.M., Iwinski, K.J., Hendrikse, M., Geer, T.D., & Rodgers,J.H. (2017). Cell density dependence of Microcystis aeruginosa responses to copper algaecide concentrations: Implications for microcystin-LR release. Ecotoxicology and Environmental Safety, 145, 591-596.

Geer, T.D., Calomeni, A.J., **Kinley, C.M.**, Iwinski, K.J., & Rodgers Jr., J.H. (2017). Predicting in situ responses of taste and odor producing algae in a southeastern US reservoir to a sodium carbonate peroxyhydrate algaecide using a laboratory exposure-response model. Water, Air, and Soil Pollution, 228 (53), 1-14.

Selected Presentations

Kinley-Baird, C.M. October 9, 2025. Introduction to Harmful Algal Blooms (HABs):Identification, Risks, and Management Tactics. Presentation at the Indiana American Fisheries Society Fall Meeting. Carmel, IN.

Kinley-Baird, C.M., Smith, E., Calomeni, A., McQueen, A., Patchett, G., Boyer, M. Decker, K., and Clyde, T. July 26, 2023. Evaluation of preventative algaecide treatments for cyanobacterial resting cells in sediments of a central USA lake. Platform presentation at the 63rd Annual Meeting of the Aquatic Plant Management Society. Indianapolis, IN.

Kinley-Baird, C.M & Long, N.W. January22, 2020. Results of Algaecide Treatment on Milford Gathering Pond. Platform presentation at 2020 Kansas Harmful Algal Bloom Meeting (hosted by Kansas Department of Health & Environment), Topeka, KS.

Kinley-Baird, C.M. August 25, 2019. Harmful algal blooms (HABs): Associated health risks and other issues (Part 1) and Adaptive water resource management for Cyano HABs (Part 2). Presentations given at "Algae Identification Workshop" hosted by Illinois Lake Management Association (ILMA), held at Aqua America plant in Danville, IL.

Rader, D. & **Kinley-Baird, C.M.** August 19, 2019. Reducing source water taste & odor through algal treatment of Jacobson Reservoir. Platform presentation at the 2019 Water Professionals Conference (WPC19) of the Kentucky/Tennessee Section AWWA. Louisville, KY.

Timothy B. Holt

Aquatic Control, Inc.
105 N Old State Road 66 Williamsville, IL 62693
T: 309-649-6000 x3601
Email: timh@aquaticcontrol.com

Education

Indiana University, Bloomington, IN, B.S., Outdoor Recreation, Parks, and Human Ecology with High Distinction; 2016

Professional Experience

Regional Manager - Northern Territory **8/2023 - present**

Aquatic Control, Inc., Williamsville, IL

- Mentored a team of 5 Satellite Office Managers across a multi-state region (Illinois, Central Iowa, Eastern Iowa, Missouri, Northern Indiana), ensuring consistent operational efficiency and performance across all offices
- Certified Pesticide Applicator with 10 years of experience planning and executing environmentally sound aquatic vegetation management programs on large drinking water and nuclear cooling plant reservoirs throughout the Midwest
- Researched and analyzed state-specific pesticide application and licensing regulations to ensure company-wide compliance

Office Manager - Illinois Office **12/2018 – 7/2023**

Aquatic Control Inc., Williamsville, IL

- Established Illinois Branch Office; grew staff from 1 to 6 while overseeing all operations and expansion.
- Facilitated a training program that prepared new team members to work independently in less than 30 days
- Generated customized quotes for clients based on comprehensive onsite inspections and project specifications
- Designed and managed aquatic vegetation control programs for 350+ clients, coordinating all aspects from design to execution
- Oversaw the full lifecycle of fountain and aeration systems, including installation, maintenance, and advanced mechanical, electrical, and control system diagnostics for equipment from four different manufacturers
- Managed regulatory compliance by successfully completing and submitting all required DNR permits and EPA annual reports

Aquatic Biologist **8/2016 – 11/2018**

Aquatic Control Inc., Williamsville, IL

- Developed and executed efficient daily schedules for over 150 customer treatments, demonstrating exceptional time management to meet strict daily and weekly deadlines
- Conducted electrofishing surveys to collect population data, including species identification, length, and weight measurements
- Performed routine and preventative maintenance on small engines and outboard motors, extending equipment lifespan and reducing downtime

Maintenance Intern – Muscatatuck Wildlife Refuge **8/2016 – 11/2018**

USFW, Seymour, IN

- Supported maintenance department by performing regular upkeep of facilities and equipment to prolong lifespan and to minimize downtime
- Assisted in the development and build-out of 10,000 sq. ft. of native prairie plots, gaining experience in soil preparation, native seeding, and invasive species management

Professional Affiliations

Illinois Lake Management Association: 2018 – Present

- Board of Directors 2019-2021 and 2025-Present
- Secretary – 2020-21
- Treasurer – 2025-Present
- Chairman of Exhibits, Conference, Workshop, and Financials Affairs

Midwest Aquatic Plant Management Society: 2017-Present

- Board of Directors 2025-Present
- Chairman of Exhibits

Certificates

- Licensed and Certified Pesticide Applicator in IL, IN, MO, MN, IA, and NE

Nathan W. Long

Aquatic Control, Inc.
418 W State Rd. 258 Seymour, IN 47274
T: 800-753-5253 x243
Email: natel@aquaticcontrol.com

Education

Purdue University, West Lafayette, IN, B.S., Fisheries and Aquatic Science; 1997

Professional Experience

Executive Vice President **2017-present**
Vice President - Lake Management Services **2007-2016**
Manager **2004-2006**
Aquatic Biologist **1999-2003**
Aquatic Control, Inc., Seymour, IN

- Supervise and perform algaecide and herbicide applications
- Plan and conduct electrofishing surveys and write survey reports
- Oversee more than 1,000 individual annual lake management contracts
- Supervise team of licensed aquatic applicators covering Midwest and Mid-South
- Design aquatic vegetation management programs
- Participate in lake and pond consultation with lake associations, government agencies, and individual property owners
- Author IDNR-reviewed and approved vegetation management plans for numerous Indiana public lakes
- Present at pond clinics, certification courses, professional, and public meetings
- Elected to Board of Directors in 2007
- Conduct field research under EUP permits for numerous products
- Oversee several lake management specialists and supervisors

Fisheries Aide **1998-1999**
Cinergy Corporation

- Sampled fish on Ohio and Wabash River utilizing electrofishing and seines
- Fish identification
- Co-author of technical reports

NMFS Observer **Winter 1997-1998**
Data Contractors Inc.

- Sampled bycatch and target fish aboard trawler vessel in Bering Sea, AK

Purdue Aquaculture Center Volunteer **1996**

Professional Affiliations

Indiana Chapter of American Fisheries Society **1999-Present**

- Paper Presenter 1999, 2005, 2006, & 2008
- Chairman of Awards Committee 2001-2005

Indiana Lake Management Society Meeting **1999-Present**

- Paper Presenter 1999, 2004, 2005, 2006, 2007,2008, 2009, 2010, 2012, 2014
- Board of Directors, Conference Committee, Chairman of Legislative Committee

Midwest Aquatic Plant Management Society **1999-Present**

- Paper Presenter 2005, 2007, 2008, & 2009
- Board of Directors 2013-2020
- President 2020

Aquatic Plant Management Society **2005-Present**

- Paper Presenter 2024
- Membership Committee 2009-2010
- By-laws Committee 2022-present

Awards and Certifications

Applied Biochemists Applicator of the Year	**2017**
SePRO Preferred Applicator of the Year	**2005**
SePRO Best Management Practices Award	**2005**
Certified PADI open water diver	**2001-Present**
Licensed and certified aquatic applicator in MI, KS, IA, PA, SC, AR, IN, IL, TN, OH, MO & KY	**1999-Present**

C. Adam Charlton

Aquatic Control, Inc.
1189 Dangerfield Road Hodgenville, KY 42748
T: 502-744-6497
Email: adamc@aquaticcontrol.com

Education

Purdue University, West Lafayette, IN, B.S., Fisheries and Aquatic Sciences with Highest Distinction; 2006
Rose-Hulman Institute of Technology, Terre Haute, IN, Mechanical Engineering (68 credits earned; transferred to Purdue); 2004

Professional Experience

Vice President of Satellite Operations **12/2023-present**
Aquatic Control, Inc., Elizabethtown, KY

- Oversee operations of 9 satellite office locations across 6 states
- Supervise all aspects of business operations in those territories
- Track, analyze, and assess trends in revenue and profitability at all offices
- Supervise and guide Regional Managers of the Southern and Northern Territories
- Oversee and manage improvements in operational efficiency of satellite offices
- Oversee and manage standardization of office operations among satellite offices
- Assist in management of large reservoir projects for harmful algal blooms, invasive aquatic vegetation, and fisheries

Director of Satellite Operations **10/2020-12/2023**
Aquatic Control Inc., Elizabethtown, KY

- Oversee operations of 6 satellite office locations across 5 states
- Supervise all aspects of business operations in those territories
- Oversee hiring and training of new personnel at satellite locations
- Oversee and manage improvements in operational efficiency of satellite offices
- Oversee and manage standardization of office operations among satellite offices
- Assist in management of large reservoir projects for harmful algal blooms, invasive aquatic vegetation, and fisheries

Kentucky Office Manager **11/2011-10/2020**
Aquatic Control Inc., Elizabethtown, KY

- Managed all aspects of business operations in KY and TN
- Supervised 4 full time aquatic biologists
- Actively managed aquatic plants and habitats on multitudes of private waterbodies
- Assisted in the development of a comprehensive algal management plan for a large drinking water reservoir targeting management of taste and odor compounds
- Assisted in active management of large reservoir projects for harmful algal blooms, invasive aquatic vegetation, and fisheries

Aquatic Biologist **6/2009 - 11/2011**

Aquatic Control Inc., Valparaiso, IN

- Managed private lakes and small impoundments across northwest Indiana and northeast Illinois
- Managed for water and resource use through weed and algae control, water quality manipulations, fish population management, fish stocking, selective fish removal, and total fish eradications
- Provided landowners with science-based guidanceon managing and using theirwater resources
- Provided technical fisheries expertise to supervisor and other upper-level management
- Conducted fisheries population sampling using boat electrofishing gear
- Conducted fish kill investigations and plant tuber surveys in coordination with Indiana Department of Natural Resources
- Attended public meetings, state regulatory agency meetings, and professional meetings
- Performed routine maintenance on trucks, trailers, boats, outboard motors, pump units, backpack sprayers, etc.

Fisheries Biologist II **3/2008 - 6/2009**

Florida Fish and Wildlife Conservation Commission Division of Freshwater Fisheries Management
Northeast Regional Office, Ocala, FL

- Managed fisheries resources in 12-county region containing over 3,500 water bodies
- Supervised one senior fisheries technician and one creel clerk
- Summarized annual fisheries data, compiled and created all necessary charts, graphs, and tables
- Conducted fisheries sampling including electrofishing, creel surveys, block netting, and push netting on various lakes and rivers to achieve regional project goals and objectives
- Served as lead GIS biologist on Three Forks Marsh Conservation Area reservoir project
- Served as lead management biologist on large-scale habitat enhancement project
- Provided technical fisheries expertise to other regional biologists and the public through phone calls, emails, and presentations at local organizations
- Conducted annual fishing derbies for local children as well as special needs children and provide education on fisheries biology
- Conducted weekly fisheries biology presentations for youth at Florida Fish and Wildlife's Youth Conservation Center during summer camp

OPS Biological Scientist II **9/2006 - 3/2008**

Florida Fish and Wildlife Conservation Commission Fish and Wildlife Research Institute
Freshwater Fisheries Research - Long Term Monitoring Project, Eustis, FL

- Worked on a federally funded project focused on establishing a long-term monitoring database to track changes in fish communities over time
- Intensively sampled fish, vegetation, and water quality on 32 lakes across Florida using various sampling gears including: electrofishing, gill nets, throw traps, and trawls
- Assisted in creation of electrofishing transect sites using ArcGIS software
- Collected largemouth bass on various lakes for population age structure data
- Summarized lake-wide electrofishing and throw trap data

Skills & Certifications

- Certified aquatic applicator in IN, KY, TN, AR, IL, and MO
- Fisheries sampling (boat and backpack electrofishing units, gillnets, trawls, throw traps, seines, block nets, fyke nets, bow-mounted push nets, GPS units, water quality meters)
- Boat operation, boat trailering, outboard maintenance, trailer maintenance, small engine repair
- PADI Open Water Diver Certification (October 2003)

Professional Activities

- Mid-south Aquatic Plant Management Society – Editor (2020 – present)
- Mid-south Aquatic Plant management Society –Director (2019-2020)
- Mid-south Aquatic Plant Management Society– Member (2019-present)
- Kentucky American Fisheries Society– Member (2012- present)
- Midwest Aquatic Plant Management Society– Member (2009-2019)
- Florida Chapter of the AmericanFisheries Society – Member (February2007 – June 2009)

Leif Willey

Aquatic Control, Inc.
116 N Wolfcreek Road Columbus, IN 47201
T: 812-525-9862
Email: leifw@aquaticcontrol.com

Education

University of Florida, Gainesville, FL, M.S., Agronomy; 2012
Purdue University, West Lafayette, IN, B.S. Fisheries and Aquatic Sciences, 2010

Relevant Coursework

- Statistical Methods and Analysis I
- Statistical Methods and Analysis II
- Plant-Herbicide Interactions
- Invasive Species Ecology
- Vegetation Monitoring In Management Context
- Advanced Research Methods
- Aquatic Plant Management
- Aquatic Botany
- Natural Resource Information Systems (GIS)
- Statistical Analysis

Extracurricular Activities

- UF/IFAS Plant Camp

Professional Experience

Lake and Special Project Supervisor **1/2018-present**
Aquatic Control, Inc., Seymour, IN

- Perform vegetation surveys adhering to Indiana Department of Natural Resources Protocol
- Creation and update of aquatic vegetation management plans
- Use of GIS software to create treatment and species distribution maps
- Assist with and supervise laboratory services
- Evaluate new herbicides and algaecides through scientific methods in both lab and field settings
- Direct and supervise field research projects, data collection, and data analysis

Aquatic Technical Specialist (Great Lakes) **2/2016-1/2018**
SePRO Corporation, Carmel, IN

- Work with customers to develop and improve technical understanding of aquatic herbicides and algaecides
- Evaluate new and experimental use herbicides in controlled and permitted field settings
- Identify new or more effective uses of existing herbicide/algaecide chemistries
- Present technical information updates at relevant scientific and industry conferences

Research Biologist **11/2013 – 2/2016**

Aquatic Systems, Pompano Beach, FL

- Coordinate herbicide and algaecide use among Company's 10 regional offices
- Research new and more effective uses for existing herbicides and algaecides
- Lead testing and evaluation projects for new herbicides and algaecides
- Organize and lead in-house technical symposiums
- Represent Company at relevant state, regional, and national society conferences

Research Biologist **12/2012 – 10/2013**

University of Florida, Gainesville, FL

- Lead greenhouse and growth chamber scale studies for herbicide use
- Conduct in-field monitoring of experimental treatments
- Assist supervisor and senior staff with greenhouse and field scale research projects
- Perform data analysis on all research projects
- Prepare manuscripts of research projects for peer-review publication

Graduate Research Assistant **7/2010 – 12/2012**

University of Florida, Gainesville, FL

- Conduct greenhouse scale research projects for completion of MS thesis
- Assist advisor and committee with ongoing research projects
- Prepare manuscripts of research projects for publication
- Present research at relevant scientific conferences
- Apply for and secure grant funding for research

Additional Skills

- ExpertGPS- Professional licensed GIS software for creating map files and images for use with Lowrance fathometers and RAVEN precision ag. equipment
- SigmaStat 4.0- Business license for use of SigmaStat and Sigma Plot statistical analysis software to create publication quality statistical analysis and graphics
- Small scale herbicide and algaecide research methods- use of small-scale study systems to screen and evaluate various algaecide chemistries, concentrations and exposure times
- Hach laboratory equipment- use of HACH spectrophotometer and methods to test water quality parameters
- Algae Identification (compound microscope)- ability to use compound microscope to identify (to genus) and enumerate various algae and cyanobacteria
- Algal toxin detection testing

Certifications

- Indiana Aquatic Pesticide Applicator
- Arkansas Aquatic Pesticide Applicator
- Ohio Aquatic Pesticide Applicator

Professional Affiliations

- Member, North American Lake Management Society 10/2018-Present
- Member, Midwest Aquatic Plant Management Society 2/2016 -Present
  - Editor 2/201 7-2/2025
  - Vice-President 2/2025-Present
- Member, National Aquatic Plant Management Society 6/2013 -Present
  - Education and Outreach Committee Chair 7/2025-Present
- Member, Indiana Lake Management Society 3/2016-Present

Publications

Netherland, M.D., **Willey, L.N.** (2017). Mesocosm evaluations of three herbicides on Eurasian watermilfoil (Myriophyllum spicatum) and hybrid watermilfoil (Myriophyllum spicatum x Myriophyllum sibiricum): developing a predictive assay. Journal of Aquatic Plant Management, 55, 39 -42.

Willey, L.N., Netherland, M.D. (2015). Influence of sediment coverage on sprouting of crested floating -heart ramets and response of quiescent ramets to contact herbicides. Journal of Aquatic Plant Management, 53, 216 - 219.

Glomski, L.M., **Willey, L.N.**, Netherland, M.D. (2014). Efficacy of protox-inhibiting herbicides alone and in combination with glyphosate to control crested floating heart. Journal of Aquatic Plant Management, 52, 90 -92..

Willey, L.N., Netherland, M.D., Haller, W.T., Langeland, K.A. (2014). Evaluation of aquatic herbicide activity against crested floating heart. Journal of Aquatic Plant Management, 52, 47-56.

Willey, L.N., Langeland, K.A. (2011). Aquatic Weeds: Crested floating heart (Nymphoides cristata). University of Florida IFAS Extension Publication SS-AGR-344/AG354.

Blake Cottrell

Aquatic Control, Inc.
501 W 76th St Davenport, IA 52806
T: 563-587-9980
Email: blakec@aquaticcontrol.com

Education

University of Wisconsin-Oshkosh, Oshkosh, WI, B.S., Environmental Policy; 2022

Relevant Coursework

- Environment and Society
- Principles of Wildlife Management
- Introduction to Nature Writing
- Environmental Studies
- Environmental Law
- Environmental Toxicology
- Introduction to GIS
- Wisconsin Geography

Professional Experience

Branch Manager **7/2025-present**

Aquatic Control, Inc., Davenport, IA

- Established East Iowa office inheriting 65 current customers from the Central Iowa and Illinois office
- Creating new treatment routes and treatment plans to ensure profitability from the start
- Covering 200-mile radius from Davenport into Eastern Iowa and Northern Illinois
- Grown office nearly 30% in 5 months
- Established professional relationships with multiple fountain and aeration vendors

Assistant Manager **3/2025-6/2025**

Aquatic Control, Inc., Springfield, IL

- Created lake and pond maintenance proposals for algae and weed treatments
- Assisted with HAB treatments on large lakes over 900 surface acres
- Mentored and trained first year biologists to allow for successful treatments and high efficiency on routes
- Coordinated and scheduled fountain/aeration installs and removals to ensure efficiency of biologists
- Help grow the Illinois Office from three to seven employees

Aquatic Biologist **1/2022-3/2025**

Aquatic Control, Inc., Springfield, IL

- Treated large lakes and ponds for algae and submersed weeds in a weekly route
- Inspected lakes and ponds then created maintenance proposals for clients that were looking for maintenance on their lake/pond
- On-site consultation with customers that may be interested in fountain and aeration sales
- Created fountain and diffused aeration system quotes for clients
- Installed and diagnosed fountains and diffused aeration on 120V, 240V and 460V
- Assisted in fish surveys by collecting fish and taking data on large lakes and ponds

Lakeland Biologists- Aquatic Biologist, Waukesha WI **5/2022-11/2022**

Fleet Farm- Receiving/Stocking, Oshkosh, WI **9/2021-5/2022**

Wisconsin DNR-Internship **5/2021 – 9/2021**

- Maintaining all forest trails by brushing, mowing, and chain sawing
- First-hand experience working with state forest rangers taking care of the forest

City of Pewaukee Parks Maintenance, Pewaukee, WI **5/2019-9/2020**

Activities/Certifications

- Illinois, Iowa, and Wisconsin Commercial Aquatic Pesticide Applicator License
- Two-Time SePRO Stewardship of the Water Winner
- Otterbine-Barebo fountain Warranty Service Certified
- Alumni of University of Wisconsin-Oshkosh Fishing Team

Harmful Algal Bloom (HAB) Management

Aquatic Control performed our first large-scale harmful algal bloom (HAB) treatment in company history in 1989 on Morse Reservoir in Indianapolis, IN. In 2001, Indianapolis Water developed severe blooms on Eagle Creek and Morse Reservoirs and Aquatic Control was brought back into management of those reservoirs. We have remained the algal management contractor for this company since 2001. Other examples of lakes and reservoirs where Aquatic Control has designed and implemented custom HAB treatment protocols include Lake Bloomington and Lake Evergreen in Bloomington, IL; Lake Mattoon and Lake Paradise in Mattoon, IL; Lake John Hay in Salem, IN; Prairie Creek Reservoir in Muncie, IN; Jacobson Reservoir in Lexington, KY; West Boggs Lake in Loogootee, IN; Milford Lake in Junction City, KS; Marion Reservoir in Marion, KS; and Braidwood Lake in Braidwood, IL. We provide laboratory analysis (e.g., harmful algal bloom identification and enumeration, toxin testing, and water quality testing) for the majority of these projects. We also provide professional consulting services, laboratory analysis, and USEPA-registered algaecides for a number of other reservoirs outside of our application service territory.

Laboratory Services

Aquatic Control has operated a service laboratory at our headquarters office in Seymour, IN since 2018. We provide retail laboratory services including water quality and nutrient analysis, algae and cyanobacterial identification and enumeration, cyanobacterial toxin testing, sediment characterization, sediment phosphorus analysis, and *E. Coli* testing. In addition to offering these retail services, we can conduct custom experiments for water clarity improvement and nutrient remediation, evaluating specific products against site samples to determine efficacy and feasibility of candidate management plans. We also offer custom algaecide efficacy testing which involves laboratory experimentation to test performance of candidate algaecides against site-specific algae based on water uses, water chemistry, and types of algae present in the water. For many of our management projects, we utilize our laboratory to conduct strategic monitoring plans whether for nutrients or harmful algal blooms to ensure that management decisions are based on site data. Our laboratory services are utilized by various entities across the US ranging from private pond homeowners to lake associations, to large-scale public reservoirs and industrial water managers.

Nutrient Remediation

Aquatic Control has extensive experience with designing and implementing site-specific treatment plans for nutrient remediation in ponds and lakes. Excess phosphorus concentrations in water and sediment can result in overproduction of algae and vegetation in aquatic systems, which can lead to harmful algal blooms, hypoxia, and accretion of muck in sediments. We provide laboratory analysis to characterize total and reactive phosphorus concentrations in water and sediment and monitor trends over time to design tailored nutrient management plans. This includes evaluation of potential phosphorus sources to the lake and whether in situ phosphorus inactivation is a sound and feasible action. In situations where additional data resolution is needed, we can provide laboratory-scale experiments to evaluate efficacy of specific products on site-specific samples. We distribute and apply a variety of phosphorus inactivation products including aluminum-based and lanthanum-based formulations and can provide professional recommendations on which products may be more suitable based on whether the water or sediments are being targeted, budget, and time frame for management.

3. **Approach to Services**

Aquatic Control will complete on call molluscicide treatments to the entire shoreline of Apple canyon lake. Treatments zones will include a 41 acre treatment area and extend 20' from the shoreline. Aquatic Control will apply 575 gallons of EPA registered Earthtec QZ with lake boats equipped with high pressure application pumps. All Aquatic Control Biologists are certified to apply EPA registered aquatic pesticides in the State of Illinois.

4. **Anticipated Schedule of Visits and Services**

Event Type	**Proposed Frequency**
Zebra Mussel Treatment	On - Call

5. **Price Schedule**

Service Type	**Price per event**
On Call Molluscicde Treatments – 575 gallons Earthtec QZ	$22,289.97

6. Client References

Firm Name	Contact Person	Title	Address	E-mail Address	Phone Number
Lake Wildwood	Shawn Dixon	General Manager	1000 Lake Wildwood Drive, Varna, IL	Sdixon@lake-wildwood.com	309-463-2047
Lake Santee POA	Gina Julien	Lake Manager	13 Southwest Wrenn Parkway, Greensburg IN	ginajulien@gmail.com	513-226-6276
Painted Hills Lake Assc.	Ron Milford	Board Director	4364 Rembrandt Dr. Martinsville, IN	Phalakes2@gmail.com	317-319-5558
Lake Tansi	Sam McAdoo	General Manager	5050 Shoshone Loop Crossville, TN	Sam.mcadoo@laketansipoa.com	931-287-5504

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/28/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Moore & Shepherd Insurance 320 South Airport Road PO Box 443 Seymour IN 47274	CONTACT NAME: Leanne Carr PHONE (A/C, No, Ext): (812) 522-8555 FAX (A/C, No): (812) 522-8592 E-MAIL ADDRESS: certs@shepherdins.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Selective Ins Co	12572
INSURED AQUATIC CONTROL, INC. 418 W STATE ROAD # 258 PO BOX 100 SEYMOUR IN 47274	INSURER B : Bridgefield Casualty Insurance Company	10335
	INSURER C : Great American	86591
	INSURER D : Old Republic Insurance Company	24147
	INSURER E :	
	INSURER F :	

COVERAGES CERTIFICATE NUMBER: 25-26 Master REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC OTHER:			B 1850441	05/17/2025	05/17/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 500,000 $ 15,000 $ 1,000,000 $ 3,000,000 $ 3,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY SCHEDULED AUTOS X HIRED AUTOS ONLY X NON-OWNED AUTOS ONLY			B 1850441	05/17/2025	05/17/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Medical payments	$ 1,000,000 $ 5,000
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 0			B 1850441	05/17/2025	05/17/2026	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000
B/C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		0196-51072 & WCE5575S6	05/17/2025	05/17/2026	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
A	Pesticide and Herbicide Applicator Coverage			B 1850441	05/17/2025	05/17/2026	Limit	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Automatic Additional Insured applies to General Liability (including ongoing and completed operations), Automobile Liability & Umbrella coverages on a Primary &Non-Contributory Basis where required by written contract subject to policy terms, conditions & exclusions. Automatic Waiver of Subrogation applies to General Liability, Automobile Liability, Umbrella & Workers Compensation coverages where required by written contract subject to policy terms, conditions & exclusions. Additional Insured Status including Primary & Non-Contributory Basis & Waivers of Subrogation extend to the Umbrella coverage regarding General Liability, Auto Liability and Employers Liability coverages. Subject to policy terms, conditions and exclusions. Per forms: CG 72 02 12 11; CG 20 01 04 13; CG 79 21 01 10; CA 77 35 02 10; CA 77 73 12 05; CXL 515 01 23; CXL 449 05 17; CXL 4 04 13 & WC 00 03 13. Pesticide and Herbicide Applicator Coverage included per form FH0005 01/96.

CERTIFICATE HOLDER	CANCELLATION
Apple Canyon Lake Property Owners Association 14A157 Canyon Club Drive Apple River IL 61001	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Leanne K Carr

McCloud AQUATICS

Proposal #114704
Date: 01/22/2026
From: House

Proposal For

Apple Canyon Lake
14A157 Canyon Club Dr.
Apple River, IL 61001

Location

14A157 Canyon Club Dr
Apple River, IL 61001

Customer Contact
main: 815-541-0983
mike.harris@applecanyonlake.org; mike.yorke@applecanyonlake.org

Terms
Due Upon Receipt

Apple Canyon Lake 2026/2027

ACCEPT	ITEM DESCRIPTION	QUANTITY	AMOUNT
✓	**Standard Pond/Lake Contract** *Included* *Accepted* Treat for Algae/Chara and submerged weeds with inspections that focus on harmful algae blooms (HAB's) along with identification of invasive species not covered under contract. Covers perimeter treatments up to 20' out from the shoreline. High traffic/impact areas such as beaches, marinas, boat docks, swimming platforms, will be spot treated with algaecides and contact herbicides as needed. Apple Canyon green space as well as homeowner shoreline not specifically associated with recreational traffic will not be targeted with additional treatments as we want this area to contain vegetation for fish and overall lake health. DO, pH, Temp, and secci disk readings will be taken and included in our report upon the completion of treatments. We will include pictures of new or uncommon species of plants and will discuss options and recommendations. We will attend HOA/board meetings as necessary. Includes a one-time "early season" treatment of Curly Leaf Pondweed of up to 50 acres (up to 200acre/feet of water volume in continuous plots. OR two 25-acre plots. This can be utilized in heavy boat traffic areas, or areas that were the most impacted last season. Period of Control: Bi-weekly visits Mid-April through Mid-October with a scheduled visit to occur within 5-7 days before July 4th and Labor Day.	13 Visit	$ 46,302.75
#114705 - APPLE CANYON LAKE 2026/2027	14A157 CANYON CLUB DR APPLE RIVER, IL 61001		$ 46,302.75
✓	**Zebra Mussel** *Included* *Accepted* 2 treatments total utilizing 2.5 totes (687.5 gallons) of EarthTec QZ per treatment. Product will be applied via drop hose and spray gun to ensure a blend of shoreline and subsurface areas are impacted. Treatment includes entire shoreline treatment including Nixon Beach/Marina and Jumping Rock. With a focus on recreational areas, piers, docks, ladders, etc. Sales tax is included in this price.	2	$ 38,900.00

✓	Shipping/Freight Included Accepted Shipping/Freight	1	$ 1,150.00
#114706 - ZEBRA MUSSEL TREATMENT 2026/2027	14A157 CANYON CLUB DR APPLE RIVER, IL 61001		$ 40,050.00
☐	Zebra Mussel Optional Declined ZEBRA MUSSEL SURVEY AND SAMPLE COUNT Installation of up to 10 Z.M. population sample cages and up to 10 Veliger Plates. Locations will be discussed and approved via Apple Canyon Management. A report including pictures and counts, will be provided to the G.M. and B.O.D. Discussions on potential 3rd treatment to follow. Includes clean-up and removal of plates/cages.	1	$ 4,250.00
☐	Sediment Test Optional Declined 10 Sediment samples to be collected and shipped to SePRO Lab from pre-selected locations at Apple Canyon Lake. See Map for collection sites suggested by EutroPHIX. Labor, Shipping, and Data report costs included in total price. Less Expensive options available include fewer tests or decreased data parameters.	10	$ 8,309.00
☐	Bio-Dredge (KA) Optional Declined Bio-Dredge and Sediment Phosphorus Binding. Trial application(s). Suggesting Nixon and Dog Beach. Two 2-acre zones. Before and after muck measurements included. Gentle and sustainable sludge reduction without dredging. Reduces sludge in lakes and binds phosphate released by degradation process.	2 Visit	$ 8,800.00
#114707 - RECOMMENDED SERVICES	14A157 CANYON CLUB DR APPLE RIVER, IL 61001		$ 0.00
☐	5% Discount Optional Declined 5% Annual PRE- PAY DISCOUNT is valid only on "STANDARD POND/LAKE "CONTRACTS", EXCLUDES Equipment Sales/Repairs &/or APPLICATION services). PAYMENT MUST be RECEIVED BY MARCH 31ST OF THE CURRENT YEAR. NO EXCEPTIONS will be granted...	1	$ 0.00
☐	Single Payment Optional Declined Invoice will be sent on April 1st of the contracted year. Contracts signed after April 1st are due upon receipt for the first year of contracted services before scheduling.	1	$ 0.00
☐	Two-Part Payment Optional Declined Two-part payment for contracted services only. Single applications do not apply. Invoices will be sent out on 4/1 and 6/30. Contracts signed after July 1st are not subject to two-part payment on the first year of a multi-year contract.	1	$ 0.00
☐	Irrigation? Optional Declined PLEASE SELECT IF YOUR POND/LAKE IS USED FOR IRRIGATION. LEAVE BLANK IF THERE ARE NOT IRRIGATION RESTRICTIONS.	1	$ 0.00

Client Notes

Please Read

- Please choose one of the two payment methods by changing from optional to included from the online proposal
- Let us know if the pond or lake is used for irrigation purposes, by changing from optional to included from the online proposal
- Please note this proposal is a per-season price for 2026 & 2027

By default, we will assume you are choosing the onetime payment on April 1st without the discount, and the pond is not used for irrigation.

Our quotation is based on access of your lake/pond via our trailered boat and equipment, your current irrigation status, and reflects the entire cost of labor, equipment, chemical, insurance, state and local licensing, NPDES permit and guarantee. (No guarantee for ponds with average depth less than 2 feet or no boat access).

Estimate is only valid for 30 days for the date of quote. We reserve the right to revoke (or null) the proposal if not accepted within 30 days.

See attached for Scope of Service & Term and Conditions. EPA registered.

SUBTOTAL	$ 86,352.75
SALES TAX	$ 0.00
TOTAL	$ 86,352.75

Signature

x Date:

Please sign here to accept the terms and conditions

ID	DESCRIPTION	COLOR
Nixon Beach Boat Launch	Designated boat launch area	
Jumping Rock	Point of Interest	
Irrigation Intake		
Clubhouse		
"Dog Beach"		
9 Sediment	Level 2	

8 Sediment	Level 3	
7 Sediment	Level 3	
6 Sediment	Level 2	
5 Sediment	Level 3	
4 Sediment	Level 3	
3 Sediment	Level 2	
2 Sediment	Level 2	
1 Sediment	Level 3	
Dog Beach area	Bio-Dredge Phosphorus binding.	
Nixon Beach/Marina	Bio-Dredge Phosphorus Binding	

SCOPE OF SERVICE

Periods of Operation:

At McCloud Aquatics, we strategically design our service routes, including the installation and removal of aeration equipment, to maximize efficiency based on geographic location and surrounding accounts. This approach allows us to deliver reliable, timely, and cost-effective service to all our customers. Please note that special requests for specific service times or dates may disrupt this efficiency and, as a result, could incur additional charges.

Aquatics

Standard Bi-weekly Aquatics Services: Visits mid-April through mid-October. Should the need for services arise prior to the start of the season, McCloud Aquatics will respond to your request as soon as possible (additional charges may apply). You will receive a site visit approximately every two weeks after the initial service is started. Service is dictated by weather, boat access, dissolved oxygen levels and other growth-related conditions. A service report will be sent after each site visit.

Standard Monthly Aquatic Services: Visits May through September. Should the need for services arise prior to the start of the season, McCloud Aquatics will respond to your request as soon as possible (additional charges may apply). You will receive a site visit approximately every four weeks after the initial service is started. Service is dictated by weather, boat access, dissolved oxygen levels and other growth-related conditions. A service report will be sent after each site visit.

If additional services are need in between your regular scheduled visits, please contact the office (info@mccloudaquatics.com) and set up a request for service

Vegetation categories below are NOT included in the Standard Pond/Lake Maintenance Program:

- Floating Pondweed, i.e.., American & IL Pondweeds
- Emersed Plants, i.e.., Cattails, Arrowheads, American Lotus, Waterlily, Creeping Water Primrose
- Submerged Vegetation, i.e.., Eelgrass*
- Terrestrial vegetation in rocked shoreline
- No physical removal is offered

*Limited control is due to the genetic makeup of Duckweed, Watermeal, and Eelgrass, which can form a resistance to products used during treatment. It is also difficult to gain control due to the reintroduction through stormwater systems and waterfowl.

Our quotation is based on access to your lake/pond via our trailered boat and equipment, your current irrigation status, and reflects the entire cost of labor, equipment, chemical, insurance, state and local licensing, NPDES permit, and guarantee. (**No guarantee for ponds with average depth less than 2 feet or no boat access**).

Sediment Removal

Full Lake Removal

- Timeline: Conducted annually between mid-May and late November.

Spot Removal

- Timeline: Can be scheduled outside the mid-May to late November window based on project requirements.

Permitting

- Customer Responsibility: The customer is responsible for applying for the permit and covering any associated costs related to permitting. McCloud Aquatics can offer assistance if needed.
- Requirements: Dredging projects require completed permitting prior to scheduling unless planned for the following year.

Disposal - McCloud Aquatics is not responsible for disposal of dewatering bags or dewatered material unless otherwise stated.

Aeration

Installation-Our installation season typically begins the second or third week in March and will extend to the third week of April when the aquatic season begins

Removal starts late September - November 7th, weather dependent. Customer requests for removal after Nov. 7th will incur an additional fee of $130.00, for late removal

Shoreline

Spring Restoration services will be conducted between April 1st and June 15th. Services provided past this time frame may require additional watering.

Fall Restoration services will be conducted from the middle of October until frozen ground conditions.

Rip Rap services will be completed during the dryer months between June 15th and September 15th

Stewardship services will be conducted between April and the end of November. The set number of visits will be determined on each individual proposal.

Prescribed fire operations are expected to begin in mid-November and will continue through mid-April. Due to the strict dependence on weather conditions, an exact date for each prescribed fire cannot be determined until a few days prior to the event. As soon as McCloud Aquatics determines that conditions are favorable, clients will be promptly notified.

Herbicides/Algaecides:

Herbicide and algaecide selections, along with application rates, are based on product labels, target species, and the extent of vegetation present. Aquatic application choices also take into consideration current and proposed water usage (e.g., irrigation, swimming, fishing), dissolved oxygen levels (applications will not be made if levels are below 5.0 ppm), environmental conditions, and McCloud Aquatics' professional discretion, due to the inherent risk of dissolved oxygen depletion in waterbodies.

All herbicides and algaecides used are EPA-registered, labeled for use in aquatic environments, and applied by licensed applicators.
McCloud Aquatics is not liable for the clean-up or replacement of dead fish resulting from decreases in dissolved oxygen.

Surrounding Area

McCloud Aquatics will take reasonable precautions to minimize disturbances; however, existing landscape features, including turf grass, shoreline vegetation, and other plantings near work areas, may experience some impact. The client acknowledges and agrees that McCloud Aquatics shall not be held responsible for incidental damage to such features during normal service

Delays Caused by Others

If McCloud Aquatics' work is delayed due to conditions beyond our control, the Client will be notified promptly. In the event the delay is caused by another contractor, vendor, or third party on site, the Client agrees to take appropriate action to resolve the issue within 48 hours.

If the delay is not resolved within this time frame, any additional costs incurred by McCloud Aquatics as a result of the delay, including labor, equipment standby, rescheduling, and mobilization—will be billed to the Client.

TERMS AND CONDITIONS

These Terms and Conditions apply to the attached proposal and any subsequent proposals or changes to existing contracts between BS&T dba. McCloud Aquatics and the Client.

Materials

The Herbicide/materials used in services shall conform to federal, state, and local ordinances and are EPA registered for aquatic use.

Communication

McCloud Aquatics request 2 on-site/off-site points of contact for communication purposes. McCloud Aquatics is always open to your questions or concerns and will provide factual answers to the point of contact(s) only. McCloud Aquatics will email a service report to the points of contact after each site visit. Our service report includes dissolved oxygen level, water temperature, infestation(s), action taken and water use restrictions, if applicable.

Proposal Acceptance and Adjustments

If the Client does not provide written acceptance and authorization of the proposal within the designated allotment (stated below), McCloud Aquatics reserves the right to withdraw the proposal or, at its sole discretion, adjust the pricing, project timeline, and scope of work to reflect any impacts resulting from the delay.

Additionally, if the Client modifies the originally proposed scope of work, McCloud Aquatics reserves the right to equitably revise the contract terms, including costs and scheduling, to accommodate the changes.

Aquatics Services proposals are valid for 90 days
Restoration and Rip Rap Proposals are valid for 90 days
Stewardship and Prescribed fire proposals are valid for 60 days
Sediment Removal Proposals are valid for 12 months

Payment Terms:

McCloud Aquatics may issue invoices either upon completion of the full project scope or through progress billing, depending on the complexity and duration of the work. Unless stated otherwise in the agreement, payment is due within 30 days of the invoice date.

Invoices will not exceed the proposal amount unless the Client has authorized a change order for additional services or expenses. Accounts that are 45 days past due will be moved to inspections only until the balance is resolved. Accounts that reach 60 days past due will be placed on hold and services suspended.

Any outstanding balances more than 45 days past due will be subject to a 1.5% monthly finance charge (equivalent to 18% annually). The Client also agrees to reimburse McCloud Aquatics for all costs associated with the collection of delinquent payments, including but not limited to legal fees, court costs, and collection agency charges.

Returned checks are subject to a $100.00 service fee per occurrence.

Invoices in the sum of $10,000 or more will be subject to a 3% surcharge if paid with Credit Card

Aquatics:

Single Payment: Invoice will be sent on April 1st of the contracted year. Contracts signed after April 1st are due upon receipt for the first year of contracted services before scheduling. Unless specific payment terms have been arranged and approved.

Two Part Payment: Two-part payment for contracted services only, single applications due not apply. Invoices will be sent out on 4/1 and 6/1 of the contracted year. Contracts signed after July 1st are not subject to two-part payment on the first year of a multiyear contract, and are due upon signing.

Aeration

Spring and Fall services will be invoiced upon completion

Product sales will require 100% payment up front before products are ordered

Repair estimates are to be paid upon completion

Aeration Service Charge- There will be a trip charge of $110 for any onsite diagnostics. An hourly rate of $160/ hour (minimum 0.5 hours) will be charged for any repairs needed.

Any equipment remaining in the possession of McCloud Aquatics beyond August 1st, without fault on the part of McCloud Aquatics, shall be deemed abandoned and will become the property of McCloud Aquatics.

Sediment Removal, Restoration Projects, and Rip Rap:

A nonrefundable Payment of 50% of the contract total price as shown in the accompanying contract is due upon contract signing. The balance of the contract total price, plus any extras, is due upon completion.

Emergent Application/Stewardship/Prescribed Fire Payment:

Invoices will be sent each month to which services are provided. Payment is due within 30 days of the invoice date.

Any changes to the scope of work, including additions or deletions, must be mutually agreed upon in writing by both parties. Unless otherwise specified in writing, additional work will be billed on a time and materials basis, which includes charges for travel, pickup and delivery, setup, cleanup, and any associated costs.

Modifications:

Any changes to the scope of work, including additions or deletions, must be mutually agreed upon in writing by both parties through a Change Order. Unless otherwise specified in writing, additional work will be billed on a time and materials basis, which includes charges for travel, pickup and delivery, setup, cleanup, and any associated costs.

Any modifications to the Terms and Conditions after the proposal has been signed that result in additional costs to McCloud Aquatics may be subject to reimbursement and will be billed back to the client accordingly.

Sales tax:

Sales tax will be added if required by local jurisdiction. Clients claiming tax exempt status must submit a copy of their official tax-exempt status form including their tax-exempt number to waive the sales tax.

Lien Rights:

If the Owner/Client does not make timely payments in accordance with the terms outlined in the contract, McCloud shall exercise such lien rights as permitted to any contractor by the state in which the work is completed.

Client Responsibility

- Aquatic Services
    a. The customer shall extend all necessary cooperation to ensure effective results from aquatic management services, such as availability of boat access. With boat access comes the possibility of minor shoreline disturbances, such as tire depressions, shoreline tears and mud trails, if not a man-made structure. McCloud Aquatics shall be held harmless should events of this type occur.
    b. Customer is responsible for passing information along to the appropriate parties on restrictions due to herbicide applications that is related to: **Fish consumption, live-stock drinking, swimming, irrigation.**
    c. Label will dictate which restrictions will apply. High winds, heavy rains, water temperature, dissolved oxygen levels will determine any and all applications.
    d. Customer's signature attests to 1) financial responsibility, ability, and willingness to pay McCloud Aquatics within stated terms of Upon Receipt; 2) agreement to pay a finance charge of 1/2 % per month or 18% per year on all past due amounts older than 30 days; 3) agreement to pay all costs of collecting to include attorney's fees; 4) agreement, that for purposed of determining the location for bringing any legal action on the account, client agrees that any such action may be brought in a court in the county in which McCloud Aquatics principal place of business is located, or in such other county chosen by McCloud Aquatics.
    e. Allegations of property damage resulting from a service visit by McCloud Aquatics, must be submitted in writing within 5 business days. McCloud Aquatics will review and submit McCloud Aquatic's findings to determine a fair and equitable resolution if McCloud Aquatics is found to be at fault.
    f. Fish kills must be reported with 24-48 hours to determine the "root" cause of the kill by calling 847-226-4718 for inspection and gathering of water parameters by McCloud Aquatics. If determined that the resultant fish kill was caused by our actions, McCloud Aquatics will remove and dispose of the fish collected and will replace only those game species at the time of stocking (spring and fall only), if requested. Fish replacement will be based only on the number of game species collected and not by the size. Exotic species and non-native game fish are excluded from replacement and or monetary reimbursement. Fish kills caused by acts of nature, weather, disease, bacteria, runoff, foul hooking, vandalism, pollution, turnover, or other events beyond our control, are not covered under the contract with McCloud Aquatics. There are no provisions, written or implied, concerning removal, disposal, or water testing to determine cause, diagnosis,

prevention, or odor reduction offered by McCloud Aquatics. McCloud Aquatics shall be held harmless should these events occur.

- Terrestrial Services
    a. Before work begins, the Client is responsible for clearly marking all private utilities, including but not limited to sprinkler systems, septic fields, manholes, property boundaries, and any other underground hazards. McCloud Aquatics will contact J.U.L.I.E. for public utility locates but assumes no liability for damage to unmarked private utilities or underground structures.
    b. If work is delayed or modified due to buried obstructions, large rocks, or unforeseen underground conditions, McCloud Aquatics will notify the Client. Any additional labor, equipment, or materials required will be billed at time and materials rates.
    c. McCloud Aquatics is not responsible for damage to any underground infrastructure unless it has been properly located and flagged by the Client in advance. The Client agrees to indemnify and hold McCloud Aquatics harmless from any claims or damages resulting from the Client's failure to identify and mark such underground features.
    d. Where applicable, the Client must ensure that a reliable and accessible water supply is available on site for use during plant establishment. If adequate water is not provided, it may result in additional charges and/or nullification of plant material guarantees.
    e. Installed plantings shall immediately become the responsibility of the owner to maintain them unless otherwise agreed to in writing.

Special Procedures

A. Any service required outside the scope of the agreement will have to be agreed upon by both parties in writing before any services can be performed.

Ongoing Maintenance Programs

A. The terms of agreement for all ongoing programs or other annual plans are from the date of the proposal.
B. All multiyear programs will renew automatically through the terms of the agreement unless the contract is terminated by either party within a written 30-day notice or expires.
C. All equipment purchased by the customer is your sole responsibility unless McCloud Aquatics is retained to perform any maintenance/service. Any aeration equipment that is missing or becomes damaged while under McCloud Aquatic's winter storage program will be replaced by McCloud Aquatics personnel.
D. Customer approval of this contract includes the specifications that McCloud Aquatics will provide all services as scheduled in this document. Customer agrees to pay for all such services even if no client representative is available nor approving signature obtained by McCloud Aquatics at the time service is performed.
E. Customer approval of this contract indicates your willingness to pay any associated fees for non-contracted vegetation treatments, special services, product/equipment purchases, and/or for add-on service to additional locations requested in writting and approved by you or your representatives.

Insurance

McCloud Aquatics provides the following insurance coverage at this time:

Worker's Compensation and Employer's Liability..... $1,000,000
Professional Liability and Pollution Prevention.....$1,000,000
General Liability $2,000,000
Umbrella Liability.....$4,000,000
Automobile $2,000,000

The above is included in the Standard Policies from McCloud Aquatics. A certificate of insurance will be issued upon request and submitted upon acceptance of this agreement.

Limited Warranty

The following Limited Warranty and is in lieu of any other warranty whether express or implied and whether arising under any law, regulation other rule. All other warranties including any implied warranty for fitness for a particular purpose are hereby DISCLAIMED.

Aquatics

McCloud Aquatics will guarantee up to 80% of covered submerged vegetation and 90% of algae, excluding resistant algae, which are: Microcystic spp., Lyngbya spp., Oscilliation spp., Hydrodictyon spp. There is no guarantee for non-covered vegetation. Use of any other products (aquatic or otherwise) and/or service provider by any individual(s), agents, board members or owners of the property shall be cause for termination of the contract and McCloud Aquatics shall be held harmless as a result of such actions.

McCloud Aquatics warrants that its application of treatments here under shall be in accordance with applicable herbicide/algaecide regulations of the Environmental Protection Agency (EPA) and other application government agencies. This warranty is exclusive and is in lieu of any warranty of merchantability, fitness for a particular purpose or other warranty or representation, expressed or implied, with respect to any goods or services furnished by McCloud Aquatics, pursuant to this contract. Unless specified otherwise in the service agreement, special services and after-hours service calls will be provided on a cost per treatment basis. The parties agree that the client's sole and exclusive remedy against McCloud Aquatics in the event continued infestation shall be the reapplication of treatment as described above. The customer agrees that no other remedy shall be available to them. ORAL STATEMENTS DO NOT CONSTITUTE WARRANTIES. The entire contract is embodied in this writing and NO OTHER WARRANTIES are given beyond those set forth in this contract. This writing constitutes the final expression of the parties agreement and it is a complete and exclusive statement of the terms of that agreement. Any different additional terms proposed in customer's order are rejected unless expressly agreed to in writing by McCloud Aquatics authorized agent. The terms and conditions contained herein shall constitute an offer by McCloud Aquatics and may only be accepted on the terms herein set forth.

Terrestrial Services:

Owner Managed Sites:

McCloud Aquatics guarantees that trees and shrubs installed by our team will survive for a period of one (1) year from the date of installation. If any trees or shrubs fail within this time, they will be replaced once, which constitutes the Client's sole and exclusive remedy. McCloud Aquatics reserves the right to substitute plant species at its discretion if the original species is unavailable or unsuitable.

This guarantee is void if the Client fails to provide reasonable care during the one-year period, including but not limited to: adequate watering, weed and invasive species control, mowing, and protection from physical or environmental damage.

This warranty does not cover losses or damage caused by:

- Improper care or neglect by the Client
- Soil contamination (e.g., from herbicides or toxic substances)
- Damage by third parties
- Application of herbicides or chemicals by others
- Wildlife, herbivory, flooding, stormwater runoff, or acts of nature (acts of God)

Perennials, annuals, seed, and transplanted materials are not covered under any guarantee expressed or implied.

The Client's only remedy for issues with covered plant materials is the one-time replacement or re-planting of the affected plant(s) or seed.
Failure to remit full payment within thirty (30) days of job completion will render all guarantees null and void.

McCloud Aquatics Managed Sites:

Trees and Shrubs:
Trees and shrubs installed by McCloud Aquatics are guaranteed to survive for a period of one (1) year from the date of installation. If a tree or shrub fails within that time, it will be replaced once, which constitutes the Client's sole and exclusive remedy. McCloud Aquatics may, at its discretion, substitute the original species with an alternative if availability or site conditions warrant.

Native Seed Installations:
When establishing native vegetation from seed, McCloud Aquatics will re-seed one time at no additional cost in any areas that show no germination within the first year following initial installation.

Performance benchmarks are as follows:

- End of Year 1: A well-established cover crop should be present, with at least 90% overall vegetative cover and no visibly bare areas.

- End of Year 2: The cover crop should make up no more than 50% of the total vegetative cover, with at least 25% of the seeded native species visibly growing.
- End of Year 3: The cover crop should no longer be dominant, and at least 50% of the planted native species should be visibly established and actively growing.

These benchmarks help ensure a successful native plant community over time and are dependent on proper site care and environmental conditions.

Installed Native Perennials:

Installed native perennials are guaranteed to reach a minimum 80% survival rate after one (1) year. Replacement of failed perennials will be performed once, and McCloud Aquatics may substitute alternate species if deemed appropriate. This is the Client's sole remedy.

General Guarantee Terms:
The guarantees described above do not apply to losses or damages resulting from:

- Soil contamination (e.g., herbicide residues or toxins)
- Third-party damage
- Application of chemicals not provided by McCloud Aquatics
- Wildlife activity, flooding, extreme weather, or acts of God

All guarantees are void if full payment is not received within thirty (30) days of the final invoice date.

Guarantees terminate immediately if McCloud Aquatics is no longer actively managing the site under a maintenance or stewardship agreement.

Prescribed Fire:

For McCloud Aquatics a successful burn is anything greater than 70% of the total area, with a goal of no more than 90% of the material burned.

If environmental conditions are deemed safe by McCloud Aquatics and the appropriate local fire authority grants permission to proceed, but the burn must be halted for reasons outside McCloud Aquatics' control, the full contracted amount will still be due. Any subsequent visit required to complete the prescribed fire will be billed at the rate outlined in the service agreement.

Please note that landscape plantings, mulch beds, and above-ground utilities located within or near the burn area may be damaged due to heat or flame exposure. These items are not covered under any warranty or liability.

The Client acknowledges that prescribed fire will generate smoke, which may drift off-site. It is the Client's responsibility to notify any neighbors or parties potentially affected by the burn.

By entering into this agreement, the Client agrees to indemnify and hold harmless McCloud Aquatics, its employees, and agents from any and all damages, claims, or liabilities arising from or related to the prescribed fire.

If local fire authorities require on-site supervision or impose any fees, these additional costs will be the Client's responsibility and will be added to the final invoice.

In no event shall Contractor be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, weather, naturally occurring conditions of any kind or nature, the use or misuse of the Subject Property by Owner and any of Owner's other contractors, agents, guests and invitees, any failure to observe the Client's Responsibilities as outlined in this Agreement, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Contractor shall use reasonable efforts which are consistent with accepted practices in Contractor's industry to resume performance as soon as practicable under the circumstances.

Cancellation

If a client is dissatisfied with the services rendered by McCloud Aquatics, they are encouraged to provide thirty (30) days' written notice to allow McCloud Aquatics the opportunity to address and resolve the concern. If the issue remains unresolved after this period, the client may terminate the agreement at that time, provided all outstanding charges have been paid in full.

Either party may terminate this agreement, with or without cause, by providing thirty (30) days' written notice via Certified Mail.

In the event of a dispute, the governing law shall be that of the State of Illinois, and any litigation shall be conducted in Kane County, Illinois.

Please note that certain services may incur a restocking fee if materials have already been purchased prior to cancellation.

Default Remedies:

In the event the Client defaults on any obligations under this agreement, the Client agrees to pay all costs incurred by McCloud Aquatics in the collection of outstanding balances. This includes, but is not limited to, attorney's fees, court costs, and accrued interest.

The parties further agree that any legal action arising from or related to this agreement, including services rendered or materials provided, shall be brought exclusively in the appropriate court located in Kane County, Illinois, where McCloud Aquatics maintains its principal place of business.

Company Overview & Resources

McCloud Aquatics is a fifth-generation, family-owned business that has been providing lake and pond management services since 1962 and has been recognized as a leader in the aquatics industry since 1980. We deliver a comprehensive range of environmental and aquatic management services to clients across the Chicago metropolitan area, Central and Northern Illinois, and Southern Wisconsin.

Driven by a passion for high-quality lake management planning and exceptional customer service, McCloud Aquatics offers a highly trained team of degreed professionals equipped with the skills, experience, and resources needed to support and enhance your aquatic investment. Through national industry partnerships and a broad network of technical resources, we provide informed, science-based solutions for all aquatic and shoreline management needs.

Ownership

T.J. McCloud has been involved in the aquatics industry since 2012 and brings more than 25 years of operational experience through a legacy of family-owned service businesses dating back to 1904. Our leadership emphasizes:

- Strong communication
- Effective team management
- Sales and marketing strategy
- A customer-first service philosophy

Headquartered in Elburn, Illinois, we are positioned to provide personalized, local support. Our commitment remains simple: **"We care — that's our commitment to you."**

Management Team

The McCloud Aquatics management team brings **over 110 years of combined experience** in lake and pond management, ecological restoration, and native stewardship. As we continue to expand our services, we remain committed to hiring and developing professionals who share our dedication to environmental stewardship. Our goal is to maintain the highest level of qualification and service for every client we serve.

Technical Expertise & Staff Qualifications

McCloud Aquatics employs a highly skilled, boots-on-the-ground, work force. **14 degreed biologists**, representing approximately 90% of our Lake Management Specialist team. Staff backgrounds and areas of expertise include:

- State Wildlife Biologist
- Two Fisheries Biologists
- Fish Hatchery Supervisor
- ArcGIS-certified technicians (2)
- Experience with IN DNR Fisheries, WI DNR, MO Department of Conservation
- Certified Rescue Scuba Diver (20+ years of experience)
- Customer Service Manager who also operates a nonprofit animal sanctuary

We place a high value on education, cross-disciplinary experience, and ongoing professional development. Our staff of **30+ employees** includes management, sales personnel, land management crews, aeration technicians, and lake management specialists.

Lake Carroll – Assigned Lake Management Specialists

Brian Kiro – Large Lakes Manager

- 11 years of experience managing lakes and ponds
- 7 years in upper management with McCloud Aquatics
- B.S. with a focus in Microbiology

Brian Zalay – Lake Management Specialist

- Nearly 2 years of experience with McCloud Aquatics working on large lakes, water chemistry, and lake management planning
- **M.S., Natural Resources and Environmental Sciences**, University of Illinois at Urbana–Champaign
    - Thesis: *Zooplankton Response to Asian Carp Harvesting in Illinois River Backwaters*

- **B.S., Integrative Biology**, University of Illinois at Urbana–Champaign
- 5 years as a **Wisconsin DNR Water Resources Management Specialist**

Cole Weede – Lake Management Specialist

- Experience in aquaculture, aquatic ecosystem management, and four seasons as an aquatic applicator and lake/pond manager
- **B.S., Biology**, University of Wisconsin–Stevens Point
    - Minor in Aquaculture/Fish Culture
- Strong personal and professional dedication to native aquatic ecosystems and non-game species

McCloud AQUATICS
FRIENDS OF THE WATER

References

Lake Hinsdale Village HOA
Marti B.
1 Clubhouse Dr.
Willowbrook, IL 60527
630-655-0992
martiski77@gmail.com

Partnering since 2024, McCloud performs bi-weekly/weekly treatments for Lake Hinsdale. Our inspections and treatments focus on Algae/Chara along with submerged weeds and invasive species. High dose Nutrient Management treatments are also provided to effectively reduce nutrient levels and algae growth.

Village of Pingree Grove Public Works
Pat Doherty, Director of Public Works
14N042 Reinking Rd.
Pingree Grove, IL 60140
(224)535-1335
pdoherty@pingreegrove.org

Over 10 years of partnership with the Village of Pingree Grove. May thru October treatment period. Bi-weekly visits on 9 ponds focusing on detection, identification and treatment of algae, harmful algae blooms, nuisance pondweeds, invasive species and more for 16 acres of water.

Forest Preserve District of DuPage County
Dan Grigas, Ecologist
(630) 933-7668
3S580 Naperville Road
Wheaton, IL 60189
dgrigas@dupageforest.org

Partnering since 2005, McCloud performs both contracted and on call service for the DuPage Forest Preserve. Contract dates April thru October. On call service has included spot treatment of harmful algae blooms as well as partial lake milfoil treatments. Contracted work covers multiple lakes with service visits both weekly and bi-weekly. We have done work on roughly 150 acres of water.

McCloud AQUATICS
FRIENDS OF THE WATER

Village of Bloomingdale
Rob Blum, Crew Leader
305 Glen Ellyn Road
Bloomingdale, IL 60108
630-671-5835
blumr@vil.bloomingdale.il.us

Partnering since 2014, McCloud performs bi-weekly treatments focusing on Algae/Chara along with submerged weeds and invasive species. We also remove, provide winter storage, and install aerators.

Village of Lindenhurst
Kevin Klahs, Director of Operations
2301 E. Sand Lake Rd
Lindenhurst, IL 60046
847-356-8252
kklahs@lindenhurstil.org

Partnering since 2021, McCloud performs bi-weekly treatments for 4 Lakes. Our inspections and treatments focus on Algae/Chara along with submerged weeds and invasive species. 120 acres of water.

Lake Carroll
Patrick Mcquilkin
3-200 Association Dr,
Lake Carroll, IL 61046
815-291-2898
pmcquilkin@golakecarroll.com

Partnering since 2023, McCloud Aquatics performs algae and submerged weed treatments, water and sediment testing, invasive plant surveys, and bathymetry mapping. We have created a Lake Management/Monitoring Plan. 640-acre lake.

McCloud AQUATICS
FRIENDS OF THE WATER

Bass and Gill Fishing Club
Rick Pach
23011 E Main St
Plainfield IL 60544
773-987-8605
basspach@live.com

Partnering on and off since 2017. We perform lake algae and submerged weed treatments on over 200 acres of combined lakes. Systemic weed treatments to aid in control of invasive species. Bio-Dredging in spot treatments, Targeted lily pad control, on going lake management decisions.

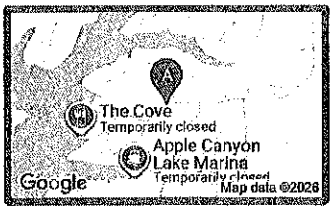
McCloud AQUATICS

McCloud Aquatics
705 E North St
Elburn,IL. 60119

Work Order #108355-5

From: Brian Kiro

Job: Apple Canyon Lake 2025
Client: Apple Canyon Lake
main: 815-541-0983
mike.harris@applecanyonlake.org; mike.yorke@applecanyonlake.org



Location

14A157 Canyon Club Dr
Apple River, IL 61001

SERVICE PROVIDED	QUANTITY
Standard Pond/Lake Contract Treat for Algae/Chara and submerged weeds with inspections that focus on harmful algae blooms (HAB's) along with identification of invasive species not covered under contract. Covers perimeter treatments up to 20' out from the shoreline. High traffic/impact areas such as beaches, marinas, boat docks, swimming platforms, will be spot treated with algaecides and contact herbicides as needed. Apple Canyon green space as well as homeowner shoreline not specifically associated with recreational traffic will not be targeted with additional treatments as we want this area to contain vegetation for fish and overall lake health. DO, pH, Temp, and secci disk readings will be taken and included in our report upon the completion of treatments. We will include pictures of new or uncommon species of plants and will discuss options and recommendations. We will attend HOA/board meetings as necessary. Includes a one time "early season" treatment of Curly Leaf Pondweed of up to 50 acres (up to 200acre/feet of water volume in continuous plots. OR two 25 acre plots. This can be utilized in heavy boat traffic areas, or areas that were the most impacted last season. Period of Control: Bi-weekly visits Mid-April through Mid-October with a scheduled visit to occur within 5-7 days before July 4th and Labor Day.	13 Visit

Your Service Provider

Brian Kiro
bkiro@mccloudaquatics.com

Brian Zalay
bzalay@mccloudaquatics.com

Cole Weede
cweede@mccloudaquatics.com

Sales Reps

Brian Kiro
bkiro@mccloudaquatics.com

McCloud Aquatics
705 E North St
Elburn,IL. 60119

Work Order #108355-5

From: Brian Kiro

Pond Size	Average Pond Depth	Arrival Time	Treatment Method	Irrigation Restriction
TBD	TBD	Jun 24, 2025 08:30AM	by boat	0

Chara Coverage	Percent of Filamentous Algae	Percentage of Planktonic Algae	Submerged weeds noted	Free Floating Plants Observed Percent Coverage
1%	NA	very minimal	coontail, very little curly, very slight milfoil	very slight duckweed

Current Water Temperatures	Dissolved Oxygen	Irrigation Restriction	Water PH	Livestock Drinking Restriction in Days
79.7	8.85	0	8.76	0

Swimming Restrictions in Days	Fish Consumption Restriction in Days
0	0

Weather data recorded on Jun 24, 2025 02:57PM

Wind Speed:	Wind Gust:	Wind Direction:	Temperature:
4.97 mph	10.2 mph	W	82.17 °F

CONSERVATION ZM TREATMENT PROPOSALS - 2026

ITEM	AQUATIC	MCCLOUD
Area of Survey	Entire shoreline - 41 acre treatment area and extend 20' from shoreline.	Entire shoreline - with focus on recreational areas,piers,docks,ladders,etc.
	575 gallons of EarthTec QZ with High pressure application pumps	2.5 totals or 687.5 for two treatments or 343.75 gallons for one treatment of EarthTec QZ with drop hose and spray gun to ensure blend of shoreline & subsurface areas.
Cost	$22,289.97/treatment	$19,450 incl tax/treatment
Zebra Mussel Survey & Sample Count		$4,250
5% Discount if paid for year by April 1st.		5% Discount
SUBMITTALS		
Qualifications	Yes	Yes
Itemized summary of costs & fees		
List of data assumed to be provided by ACL	None	None
Contact information for firm	Yes	Yes
Proof of insurance	Yes	Yes
References	Yes	Yes

Memorandum

To: Board of Directors **Date:** February 21, 2026

From: Conservation Commission

Memo: 2026-11

Topic: Lake Shocking RFP – 3 Year Contract – Recommendation to Proceed With JayEco Lake & Natural Resources

Issue: As one of ACL's most valuable assets, our fishery needs to be monitored and analyzed on a continual basis to ensure the success of the fishery continues into the future, especially since the presence of zebra mussels and invasive vegetation are battled with chemical treatments. Keeping in mind that adding new varieties of species to our lake can have a negative effect that can never be reversed, and by understanding the health and growth of each specie that is in the lake will ensure a healthy fishery, we recommend a 3 year contract to ensure continuity as changes and adjustments to the fishery will not be evident in a single season. An RFP was issued and we received three responses which are attached along with a simple comparison of the proposals.

Recommendation: The Conservation Commission recommends awarding the contract to JayEco. Their proposal included everything requested in the RFP including detailed analysis of the data for each shocking event, a report to be issued within 30 days of the shocking event and a presentation to the Conservation Commission and members of the community at the end of the season. The contractor will also write an article for the Apple Core at the end of the season. This proposal has the lowest cost at $4,480/year for three years. The contractor reserves the right to add a 3% escalation in years 2 and 3, if necessary. Even with this escalation, the contractor's cost is still below the next lowest bidder. The work would begin with the Spring shock.

AQUATIC CONTROL
Est. 1966

APPLE CANYON LAKE FISHERIES MANAGEMENT 3-YEAR PLAN

PREPARED BY:
AQUATIC CONTROL

To: Apple Canyon Lake Property Owners Association
14A157 Canyon Club Dr.
Apple River, IL 61001

Dear Selection Committee,

Thank you for the opportunity to submit a proposal for a 3 year fisheries management proposal for Apple Canyon Lake. In this proposal, you will find information about Aquatic Control, Inc., our team's qualifications, and references to our prior and present projects that are similar in scope. Aquatic Control, Inc. is a business in the midwestern US, based out of Seymour, IN., with satellite offices in Davenport, IA; Elkhart, IA; Williamsville, IL; Truesdale, MO; Valparaiso, IN; Evansville, IN; Elizabethtown, KY; Jackson, TN; and Knoxville, TN. Thank you for your time and consideration.

Sincerely,

Wes Goldmsith
Fish Management Specialist
Aquatic Control, Inc.
418 W State Road 258
Seymour, IN 47274
812-497-2410 ext. 2310

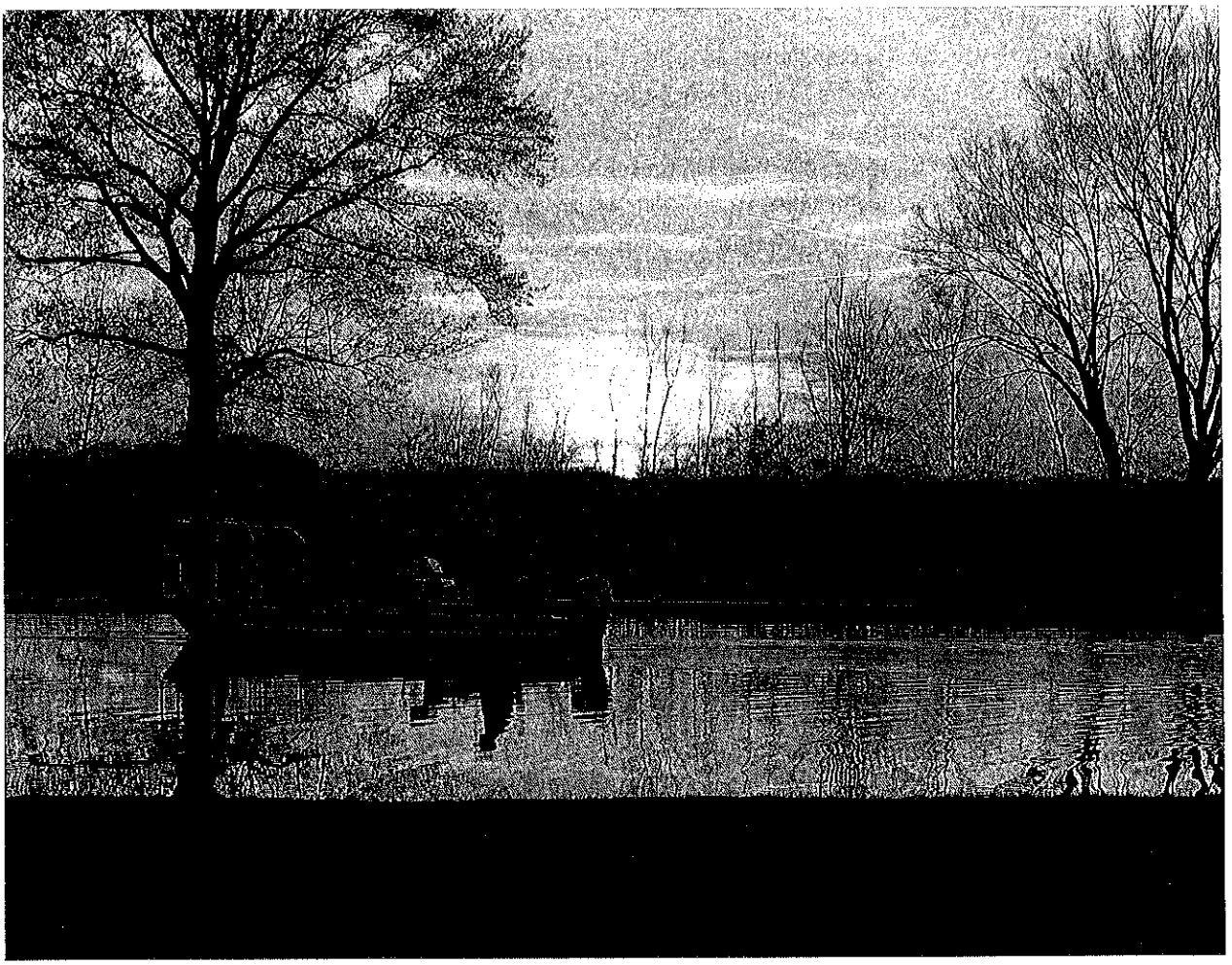
Apple Canyon Lake Fisheries Management 3-Year Contract

Prepared By:

Wes Goldsmith, B.S., Fisheries Management Specialist
Nathan Long, B.S., Executive Vice President
Adam Charlton, B.S., Vice President of Satellite Operations
Timothy Holt, B.S., Regional Manager – North Territory
Blake Cottrell, B.S., Davenport, IA Office Manager

Aquatic Control, Inc., 501 W 76th St, Davenport, IA 52806

Purpose: A technical proposal for a 3-year fisheries management proposal requested by the Apple Canyon Lake Property Owners Association



1. Company Overview

Aquatic Control is an Indiana S-Corporation that has been providing high quality products, services, and staff for managing lakes, ponds, reservoirs, and other water resources for both public and private entities since 1966. Aquatic Control was officially incorporated on December 15, 1971. Aquatic Control's corporate headquarters is in Seymour, IN and has 9 branch offices in Iowa, Illinois, Indiana, Kentucky, Tennessee, and Missouri. Aquatic Control maintains a fleet of 75 boats and 71 trucks that can be rapidly mobilized to handle a variety of problems on a wide range of water bodies. Aquatic Control is an authorized distributor for various algaecides, herbicides, and water quality products, an authorized distributor and service provider for various fountain and aeration manufacturers, and provides full-service lake management including vegetation management, harmful algal bloom management, fisheries management, laboratory services, nutrient remediation, and native aquatic planting. The company's most valuable resource is its staff of 97 full-time employees. Several of these full-time employees would be heavily involved in this project, and their brief resumes are included in an Appendix at the end of this document.

2. Qualifications and Experience

Aquatic Control has been doing fisheries work since 1966 when they first opened. At that time the focus of the fisheries work was conducting backpack electrofishing studies for stream assessments. This quickly transitioned to pond and lake owners as the business grew. Aquatic Control currently conducts over 100 electrofishing surveys a year and has a full time staff dedicated to this work. These surveys are done on everything from 1 acre ponds up to 500+ acre lakes each year. Aquatic Control has been managing several lakes with similar groups across the Midwest. These lakes are on an every 2 or 3 year electrofishing schedule and reports are providing similar data points and recommendations requested in this proposal.

3. Expected Data from ACLPOA

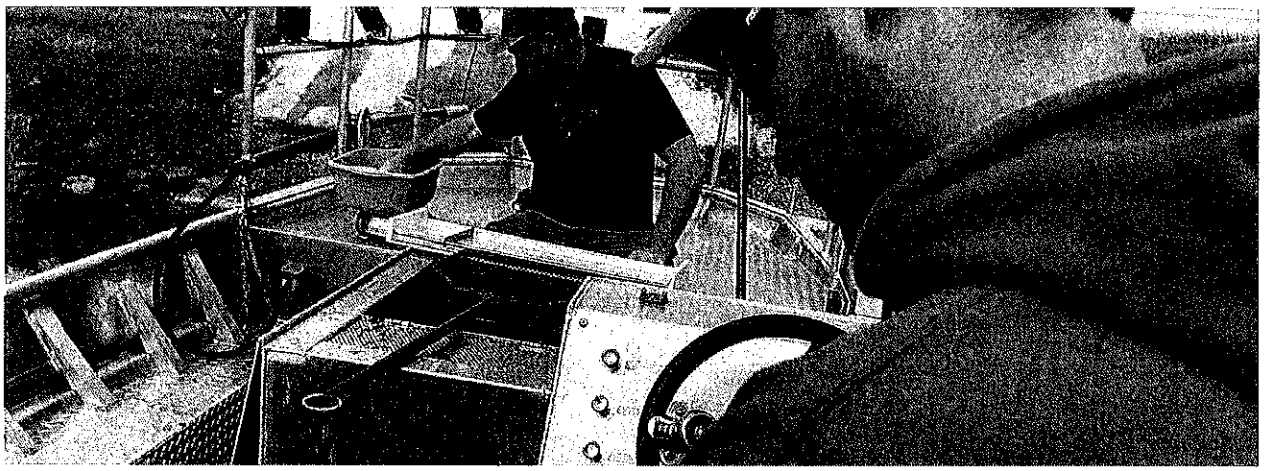
- Up to previous 3 years of electrofishing reports
  - Most recent electrofishing report at a minimum
- Previous 20+ years of stocking records if applicable
- Current creel limits and recent changes made

4. Itemized Summary of Costs

Service Type	Price Per Event	Total Price
Spring 2026 Fisheries Analysis Survey	$4,000	
Fall 2026 Fisheries Analysis Survey	$4,000	
Spring 2027 Fisheries Analysis Survey	$4,000	
Fall 2027 Fisheries Analysis Survey	$4,000	
Spring 2028 Fisheries Analysis Survey	$4,000	
Fall 2028 Fisheries Analysis Survey	$4,000	
		$24,000

5. Client References

Firm Name	Contact Person	Title	Address	E-mail Address	Phone Number
Lake Carroll	Patrick McQuilkin	Operations Manager	3-200 Association Dr, Lanark, IL	pmcquilkin@golakecarroll.com	815-493-2552 ext. 410
Lake Santee POA	Gina Julien	Lake Manager	13 Southwest Wrenn Parkway, Greensburg, IN	ginajulien@gmail.com	513-226-6276
Lake Clearwater	Toby Stone	Board Member	8105 Clearwater Parkway Indianapolis, IN	toby.stone.63@gmail.com	317-727-2339



4. Proof of Insurance

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/28/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Laverne Carr
Moore & Shepherd Insurance 320 South Airport Road PO Box 443 Seymour IN 47274	PHONE (A/C, No, Ext): (812) 522-6555 FAX (A/C, No): (812) 522-6592 E-MAIL ADDRESS: certs@shepherdins.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Selective Ins Co	12572
INSURER B: Bridgefield Casualty Insurance Company	10335
INSURER C: Great American	16691
INSURER D: Old Republic Insurance Company	24147
INSURER E:	
INSURER F:	

INSURED
AQUATIC CONTROL, INC.
418 W STATE ROAD # 258
PO BOX 100
SEYMOUR IN 47274

COVERAGES **CERTIFICATE NUMBER:** 25-26 Master **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC OTHER:			S 1660441	06/17/2025	06/17/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 500,000 $ 15,000 $ 1,000,000 $ 3,000,000 $ 3,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY X HIRED AUTOS ONLY SCHEDULED AUTOS X NON-OWNED AUTOS ONLY			S 1660441	06/17/2025	06/17/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Medical payments	$ 1,000,000 $ $ $ $ 5,000
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 0			S 1660441	06/17/2025	06/17/2026	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000 $
B/C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		0156-51972 & WCES97586	06/17/2025	06/17/2026	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
A	Pesticide and Herbicide Applicator Coverage			S 1660441	06/17/2025	06/17/2026	Limit	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Automatic Additional Insured applies to General Liability (including ongoing and completed operations), Automobile Liability & Umbrella coverages on a Primary &Non-Contributory Basis where required by written contract subject to policy terms, conditions & exclusions. Automatic Waiver of Subrogation applies to General Liability, Automobile Liability, Umbrella & Workers Compensation coverages where required by written contract subject to policy terms, conditions & exclusions. Additional Insured Status including Primary & Non-Contributory Basis & Waivers of Subrogation extend to the Umbrella coverage regarding General Liability, Auto Liability and Employers Liability coverages. Subject to policy terms, conditions and exclusions. Per forms: CG 72 02 12 19; CG 20 01 04 13; CG 79 21 01 10; CA 77 35 02 19; CA 77 73 12 05; CXL 515 01 23; CXL 449 09 17; CXL 4 04 13 & WC 00 03 13. Pesticide and Herbicide Applicator Coverage included per form PH0006 01/95.

CERTIFICATE HOLDER	CANCELLATION
Apple Canyon Lake Property Owners Association 14A157 Canyon Club Drive Apple River IL 61001	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Laverne K Carr

Appendix:
Project Delivery Team Resumes

Wesley Goldsmith

Aquatic Control, Inc.
418 W State Rd. 258 Seymour, IN 47274
T: 812-497-2410 x2310
Email: wesleyg@aquaticcontrol.com

Education

Purdue University, West Lafayette, IN, B.S., Fisheries and Aquatic Science; 2015

Professional Experience

Fish Management Specialist **2019-Present**

Aquatic Control, Inc., Seymour, IN

- Oversee all fish management work company wide (Fisheries Analysis Surveys, Electrofishing Removals, Fish Stocking, Fish Habitat, Fish Feeders, Fish Food, etc.)
- Mentored a team of 3 fisheries biologists across the companies footprint
- Build electrofishing schedule for headquarters and all 9 satellite offices
- Oversee all Fisheries Analysis reports
- Preform Fisheries Analysis Surveys for most significant projects each year
- Build and maintain relationships with all fisheries related vendors
- Consult with all office managers on their fisheries related projects

Aquatic Biologist **2017-2019**

Aquatic Control, Inc., Seymour, IN

- Developed and executed efficient daily schedules for over 150 customer treatments, demonstrating exceptional time management to meet strict daily and weekly deadlines
- Lead 50% or more of the Fisheries Analysis surveys company wide
- Wrote 75% or more of the Fisheries Analysis survey reports company wide
- Coordinated stockings, habitat installations, and fish feeder installations
- Ran basic water quality analysis samples in the lab
- Performed routine and preventative maintenance on small engines and outboard motors, extending equipment lifespan and reducing downtime

Fisheries Scientist **2016-2017**

Marsh & Associates, Phoenix AZ

- Lead week long field excursions while supervising 1 subordinate on the Colorado River tracking endangered native fish species
- Lead one 3 week long field excursion in Death Valley trapping and documenting pupfish in the Amargosa River
- Lead a 3 month project on Utah Lake tracking June Sucker
- Analyzed data collected in the field and built reports to meet government contract requirements
- Presented project findings at the Desert Fishes Council

Fisheries Technician **2015-2016**

Marsh & Associates, Phoenix, AZ

- Assisted Fisheries Scientist during week long field excursions on the Colorado River and mountain streams
- Assisted Fisheries Scientist during one 3 week long field excursion in Death Valley
- Preformed boat, trailer, and net maintenance as needed

Professional Affiliations

Indiana Chapter of American Fisheries Society **2018-Present**

- Parent chapter member – 2018-Present
- Indiana Chapter Continuing Education Chairman – 2021-Present

Society of Lake Management Professionals **2019-Present**

Certificates

- American Fisheries Society – Associate Fisheries Professional

Publications

Ehlo, C. A., Goldsmith, W. J., Kesner, B. R., & Marsh, P. C. (2019). Size-specific fate and survival of June Sucker Chasmistes liorus mictus in Utah Lake, Utah. Western North American Naturalist, 79(1), 110-123.

Humphrey, K. G., Leavitt, J. B., Goldsmith, W. J., Kesner, B. R., & Marsh, P. C. (2017). Distribution of Amargosa River pupfish (Cyprinodon nevadensis amargosae) in Death Valley National Park, CA. California Fish and Game, 103(3), 91-95.

Nathan W. Long

Aquatic Control, Inc.
418 W State Rd. 258 Seymour, IN 47274
T: 800-753-5253 x243
Email: natel@aquaticcontrol.com

Education

Purdue University, West Lafayette, IN, B.S., Fisheries and Aquatic Science; 1997

Professional Experience

Executive Vice President **2017-present**
Vice President - Lake Management Services **2007-2016**
Manager **2004-2006**
Aquatic Biologist **1999-2003**

Aquatic Control, Inc., Seymour, IN

- Supervise and perform algaecide and herbicide applications
- Plan and conduct electrofishing surveys and write survey reports
- Oversee more than 1,000 individual annual lake management contracts
- Supervise team of licensed aquatic applicators covering Midwest and Mid-South
- Design aquatic vegetation management programs
- Participate in lake and pond consultation with lake associations, government agencies, and individual property owners
- Author IDNR-reviewed and approved vegetation management plans for numerous Indiana public lakes
- Present at pond clinics, certification courses, professional, and public meetings
- Elected to Board of Directors in 2007
- Conduct field research under EUP permits for numerous products
- Oversee several lake management specialists and supervisors

Fisheries Aide **1998-1999**

Cinergy Corporation

- Sampled fish on Ohio and Wabash River utilizing electrofishing and seines
- Fish identification
- Co-author of technical reports

NMFS Observer **Winter 1997-1998**

Data Contractors Inc.

- Sampled bycatch and target fish aboard trawler vessel in Bering Sea, AK

Purdue Aquaculture Center Volunteer **1996**

Professional Affiliations

Indiana Chapter of American Fisheries Society **1999-Present**

- Paper Presenter 1999, 2005, 2006, & 2008
- Chairman of Awards Committee 2001-2005

Indiana Lake Management Society Meeting **1999-Present**

- Paper Presenter 1999, 2004, 2005, 2006, 2007,2008, 2009, 2010, 2012, 2014
- Board of Directors, Conference Committee, Chairman of Legislative Committee

Midwest Aquatic Plant Management Society **1999-Present**

- Paper Presenter 2005, 2007, 2008, & 2009
- Board of Directors 2013-2020
- President 2020

Aquatic Plant Management Society **2005-Present**

- Paper Presenter 2024
- Membership Committee 2009-2010
- By-laws Committee 2022-present

Awards and Certifications

Applied Biochemists Applicator of the Year	**2017**
SePRO Preferred Applicator of the Year	**2005**
SePRO Best Management Practices Award	**2005**
Certified PADI open water diver	**2001-Present**
Licensed and certified aquatic applicator in MI, KS, IA, PA, SC, AR, IN, IL, TN, OH, MO & KY	**1999-Present**

C. Adam Charlton

Aquatic Control, Inc.
1189 Dangerfield Road Hodgenville, KY 42748
T: 502-744-6497
Email: adamc@aquaticcontrol.com

Education

Purdue University, West Lafayette, IN, B.S., Fisheries and Aquatic Sciences with Highest Distinction; 2006
Rose-Hulman Institute of Technology, Terre Haute, IN, Mechanical Engineering (68 credits earned; transferred to Purdue); 2004

Professional Experience

Vice President of Satellite Operations **12/2023-present**

Aquatic Control, Inc., Elizabethtown, KY

- Oversee operations of 9 satellite office locations across 6 states
- Supervise all aspects of business operations in those territories
- Track, analyze, and assess trends in revenue and profitability at all offices
- Supervise and guide Regional Managers of the Southern and Northern Territories
- Oversee and manage improvements in operational efficiency of satellite offices
- Oversee and manage standardization of office operations among satellite offices
- Assist in management of large reservoir projects for harmful algal blooms, invasive aquatic vegetation, and fisheries

Director of Satellite Operations **10/2020-12/2023**

Aquatic Control Inc., Elizabethtown, KY

- Oversee operations of 6 satellite office locations across 5 states
- Supervise all aspects of business operations in those territories
- Oversee hiring and training of new personnel at satellite locations
- Oversee and manage improvements in operational efficiency of satellite offices
- Oversee and manage standardization of office operations among satellite offices
- Assist in management of large reservoir projects for harmful algal blooms, invasive aquatic vegetation, and fisheries

Kentucky Office Manager **11/2011-10/2020**

Aquatic Control Inc., Elizabethtown, KY

- Managed all aspects of business operations in KY and TN
- Supervised 4 full time aquatic biologists
- Actively managed aquatic plants and habitats on multitudes of private waterbodies
- Assisted in the development of a comprehensive algal management plan for a large drinking water reservoir targeting management of taste and odor compounds
- Assisted in active management of large reservoir projects for harmful algal blooms, invasive aquatic vegetation, and fisheries

Aquatic Biologist **6/2009 - 11/2011**

Aquatic Control Inc., Valparaiso, IN

- Managed private lakes and small impoundments across northwest Indiana and northeast Illinois
- Managed for water and resource use through weed and algae control, water quality manipulations, fish population management, fish stocking, selective fish removal, and total fish eradications
- Provided landowners with science-based guidanceon managing and using theirwater resources
- Provided technical fisheries expertise to supervisor and other upper-level management
- Conducted fisheries population sampling using boat electrofishing gear
- Conducted fish kill investigations and plant tuber surveys in coordination with Indiana Department of Natural Resources
- Attended public meetings, state regulatory agency meetings, and professional meetings
- Performed routine maintenance on trucks, trailers, boats, outboard motors, pump units, backpack sprayers, etc.

Fisheries Biologist II **3/2008 - 6/2009**

Florida Fish and Wildlife Conservation Commission Division of Freshwater Fisheries Management
Northeast Regional Office, Ocala, FL

- Managed fisheries resources in 12-county region containing over 3,500 water bodies
- Supervised one senior fisheries technician and one creel clerk
- Summarized annual fisheries data, compiled and created all necessary charts, graphs, and tables
- Conducted fisheries sampling including electrofishing, creel surveys, block netting, and push netting on various lakes and rivers to achieve regional project goals and objectives
- Served as lead GIS biologist on Three Forks Marsh Conservation Area reservoir project
- Served as lead management biologist on large-scale habitat enhancement project
- Provided technical fisheries expertise to other regional biologists and the public through phone calls, emails, and presentations at local organizations
- Conducted annual fishing derbies for local children as well as special needs children and provide education on fisheries biology
- Conducted weekly fisheries biology presentations for youth at Florida Fish and Wildlife's Youth Conservation Center during summer camp

OPS Biological Scientist II **9/2006 - 3/2008**

Florida Fish and Wildlife Conservation Commission Fish and Wildlife Research Institute
Freshwater Fisheries Research - Long Term Monitoring Project, Eustis, FL

- Worked on a federally funded project focused on establishing a long-term monitoring database to track changes in fish communities over time
- Intensively sampled fish, vegetation, and water quality on 32 lakes across Florida using various sampling gears including: electrofishing, gill nets, throw traps, and trawls
- Assisted in creation of electrofishing transect sites using ArcGIS software
- Collected largemouth bass on various lakes for population age structure data
- Summarized lake-wide electrofishing and throw trap data

Skills & Certifications

- Certified aquatic applicator in IN, KY, TN, AR, IL, and MO
- Fisheries sampling (boat and backpack electrofishing units, gillnets, trawls, throw traps, seines, block nets, fyke nets, bow-mounted push nets, GPS units, water quality meters)
- Boat operation, boat trailering, outboard maintenance, trailer maintenance, small engine repair
- PADI Open Water Diver Certification (October 2003)

Professional Activities

- Mid-south Aquatic Plant Management Society – Editor (2020 – present)
- Mid-south Aquatic Plant management Society –Director (2019-2020)
- Mid-south Aquatic Plant Management Society– Member (2019-present)
- Kentucky American Fisheries Society– Member (2012- present)
- Midwest Aquatic Plant Management Society– Member (2009-2019)
- Florida Chapter of the AmericanFisheries Society – Member (February2007 – June 2009)

Timothy B. Holt

Aquatic Control, Inc.
105 N Old State Road 66 Williamsville, IL 62693
T: 309-649-6000 x3601
Email: timh@aquaticcontrol.com

Education

Indiana University, Bloomington, IN, B.S., Outdoor Recreation, Parks, and Human Ecology with High Distinction; 2016

Professional Experience

Regional Manager - Northern Territory **8/2023 - present**

Aquatic Control, Inc., Williamsville, IL

- Mentored a team of 5 Satellite Office Managers across a multi-state region (Illinois, Central Iowa, Eastern Iowa, Missouri, Northern Indiana), ensuring consistent operational efficiency and performance across all offices
- Certified Pesticide Applicator with 10 years of experience planning and executing environmentally sound aquatic vegetation management programs on large drinking water and nuclear cooling plant reservoirs throughout the Midwest
- Researched and analyzed state-specific pesticide application and licensing regulations to ensure company-wide compliance

Office Manager - Illinois Office **12/2018 – 7/2023**

Aquatic Control Inc., Williamsville, IL

- Established Illinois Branch Office; grew staff from 1 to 6 while overseeing all operations and expansion.
- Facilitated a training program that prepared new team members to work independently in less than 30 days
- Generated customized quotes for clients based on comprehensive onsite inspections and project specifications
- Designed and managed aquatic vegetation control programs for 350+ clients, coordinating all aspects from design to execution
- Oversaw the full lifecycle of fountain and aeration systems, including installation, maintenance, and advanced mechanical, electrical, and control system diagnostics for equipment from four different manufacturers
- Managed regulatory compliance by successfully completing and submitting all required DNR permits and EPA annual reports

Aquatic Biologist **8/2016 – 11/2018**

Aquatic Control Inc., Williamsville, IL

- Developed and executed efficient daily schedules for over 150 customer treatments, demonstrating exceptional time management to meet strict daily and weekly deadlines
- Conducted electrofishing surveys to collect population data, including species identification, length, and weight measurements
- Performed routine and preventative maintenance on small engines and outboard motors, extending equipment lifespan and reducing downtime

Maintenance Intern – Muscatatuck Wildlife Refuge **8/2016 – 11/2018**

USFW, Seymour, IN

- Supported maintenance department by performing regular upkeep of facilities and equipment to prolong lifespan and to minimize downtime
- Assisted in the development and build-out of 10,000 sq. ft. of native prairie plots, gaining experience in soil preparation, native seeding, and invasive species management

Professional Affiliations

Illinois Lake Management Association: 2018 – Present

- Board of Directors 2019-2021 and 2025-Present
- Secretary – 2020-21
- Treasurer – 2025-Present
- Chairman of Exhibits, Conference, Workshop, and Financials Affairs

Midwest Aquatic Plant Management Society: 2017-Present

- Board of Directors 2025-Present
- Chairman of Exhibits

Certificates

- Licensed and Certified Pesticide Applicator in IL, IN, MO, MN, IA, and NE

Blake Cottrell

Aquatic Control, Inc.
501 W 76th St Davenport, IA 52806
T: 563-587-9980
Email: blakec@aquaticcontrol.com

Education

University of Wisconsin-Oshkosh, Oshkosh, WI, B.S., Environmental Policy; 2022

Relevant Coursework

- Environment and Society
- Principles of Wildlife Management
- Introduction to Nature Writing
- Environmental Studies
- Environmental Law
- Environmental Toxicology
- Introduction to GIS
- Wisconsin Geography

Professional Experience

Branch Manager **7/2025-present**

Aquatic Control, Inc., Davenport, IA

- Established East Iowa office inheriting 65 current customers from the Central Iowa and Illinois office
- Creating new treatment routes and treatment plans to ensure profitability from the start
- Covering 200-mile radius from Davenport into Eastern Iowa and Northern Illinois
- Grown office nearly 30% in 5 months
- Established professional relationships with multiple fountain and aeration vendors

Assistant Manager **3/2025-6/2025**

Aquatic Control, Inc., Springfield, IL

- Created lake and pond maintenance proposals for algae and weed treatments
- Assisted with HAB treatments on large lakes over 900 surface acres
- Mentored and trained first year biologists to allow for successful treatments and high efficiency on routes
- Coordinated and scheduled fountain/aeration installs and removals to ensure efficiency of biologists
- Help grow the Illinois Office from three to seven employees

Aquatic Biologist **1/2022-3/2025**

Aquatic Control, Inc., Springfield, IL

- Treated large lakes and ponds for algae and submersed weeds in a weekly route
- Inspected lakes and ponds then created maintenance proposals for clients that were looking for maintenance on their lake/pond
- On-site consultation with customers that may be interested in fountain and aeration sales
- Created fountain and diffused aeration system quotes for clients
- Installed and diagnosed fountains and diffused aeration on 120V, 240V and 460V
- Assisted in fish surveys by collecting fish and taking data on large lakes and ponds

Lakeland Biologists- Aquatic Biologist, Waukesha WI **5/2022-11/2022**

Fleet Farm- Receiving/Stocking, Oshkosh, WI **9/2021-5/2022**

Wisconsin DNR-Internship **5/2021 – 9/2021**

- Maintaining all forest trails by brushing, mowing, and chain sawing
- First-hand experience working with state forest rangers taking care of the forest

City of Pewaukee Parks Maintenance, Pewaukee, WI **5/2019-9/2020**

Activities/Certifications

- Illinois, Iowa, and Wisconsin Commercial Aquatic Pesticide Applicator License
- Two-Time SePRO Stewardship of the Water Winner
- Otterbine-Barebo fountain Warranty Service Certified
- Alumni of University of Wisconsin-Oshkosh Fishing Team

February 4, 2026

APPLE CANYON LAKE FISHERY MANAGEMENT PROPOSAL

Prepared for:

ACLPOA Natural Resources Manager

Naturalresources@applecanyonlake.org

Prepared by:

Joe Rush – JadEco Lake & Natural Resources

Email: jrush@jadecoconsulting.com

Cell: 815-543-5695

JadEco
LAKE & NATURAL RESOURCES CONSULTATION & MANAGEMENT

01 SUMMARY

This proposal is in response to a request for proposals sent by the natural resource manager on January 19th, 2026 on behalf of the Apple Canyon Lake Property Owners Association located in Jo Davies County, Illinois. This request includes a 3-year Fishery Management Agreement that includes the scope of services, fee proposal, and submission of the proposal by February 6, 2026 at 1:00pm to naturalresources@applecanyonlake.org.

02 CONSULTANT'S SCOPE OF SERVICES

2a: This section of the RFP outlined requirements for surveys in the spring and fall of each year with sites to include President's Bay, Independence Bay, and the dam. However, the RFP included a map of the proposed locations that also outlines sections of Arrowhead Bay (North), and Broken Bow Bay (Winchester). This proposal reflects our services to include all sites outlined on the map.

2b: Data collection will include species, quantity, weight, length, health, and any identifiable disease. Analysis of the data will be provided on catch per unit effort by species, relative weight by species, length ranges by species, and proportional stock density on largemouth bass, bluegill, black crappie, white crappie, smallmouth bass, and walleye. Emphasis will also be given to northern pike and channel catfish.

2c: Reporting of the findings is required to be provided to ACLPOA within thirty (30) days following each survey. This is to include analysis of the data collected per species, the fishery as a whole, trend analysis, and recommendations for stocking and creel limits. Please see exhibit A for an example report.

2d: A presentation will be given to the ACLPOA thirty (30) days following the final report explaining the findings and recommendations.

2e: An executive summary will be written and submitted to ACLPOA thirty (30) days following the final report that will be included in the "Apple Core" ACLPOA monthly newspaper.

2f: The RFP also requested recommendations for alternate suggestions to manage the fishery with pricing to execute these alternate suggestions.

03 FEE PROPOSAL

The fee structure for the outlined RFP as provided: These are based on an annual basis. We reserve the right to request a 3% annual increase. Billing will be performed after each survey event and submitted with the final report within thirty (30) days of the data collection. Payment on receipt is appreciated,

however we can accept Net 30 if necessary. We reserve the right to terminate this agreement at any time with 60 days notification, in writing.

3a: Two (2) surveys (data collection), reporting, recommendations: ***Cost: $4,000.***

Expectations to complete each of the surveys during one trip onsite.

3b: Executive summary and presentation preparation /onsite presentation: ***Cost: $480.***

3c: The ACLPOA will be expected to provide past 5 years stocking history, past 5 years, including current, creel limits, and fisheries management reports for any fisheries work done in the past 3 years. They will also be required to provide access to the lake when needed for data collection services.

04 ALTERNATE

4a: Alternate 1 – Additional night surveys can be done per visit when coordinated with the day surveys. Night survey work is beneficial for sampling walleye, larger bluegill, and crappie. Reporting will be included in the day survey documents. ***Cost per survey: $1,500.***

4b: Alternate 2- Aging can be performed for largemouth bass and bluegill to better understand how quickly these species are growing. This would require a subsample of largemouth bass and bluegill at different size ranges to be collected, euthanized, and the otoliths (inner ear bones) removed for age analysis (approximately 100 fish). This would be done one time in the three years. Data collection would be done at the same time as a scheduled survey and costs reflect the added time and materials for otolith removal, preparation, analysis, and reporting. Reporting will take more time due to the labor involved to age the otoliths, but expected within 45 days. ***Cost: $2,225***.

05 QUALIFICATIONS, REFERENCES, AND AVAILABILITY TO WORK:

5a: Qualifications: The company owner was formally trained in fisheries management at Southern Illinois University Carbondale (SIUC) for his bachelors and master's programs. Bachelor's course work included: Principles of ecology, ecology and ethics, introduction to statistics, the invertebrates, ichthyology, herpetology, fish management, wildlife biology, fish culture, and natural history of the vertebrates (GPA 3.542/4.0). Master's level course work included: Freshwater invertebrates, limnology, advanced fisheries management, fish stock assessment, environmental physiology of fishes, fish genetics, inferential statistics, and multiple regression (GPA 3.33/4.0).

Advisors for fisheries and aquaculture at SIUC were Dr Roy Heidinger, Dr. Robert Sheehan, Dr. Edward Heist, Dr Brooks Burr, Dr Chris Kohler, and others. We have been managing fisheries throughout Illinois for the past 13 years. We do provide

services to smaller lakes, clubs, or private pond owners but much or our work has been on private recreational lake communities ranging from 100 acres to over 600 acres. Along with this, we successfully managed the fishery at Apple Canyon Lake for a decade, making large strides to improve the bass and bluegill fisheries in that time.

The purpose of providing fisheries management services was due to the need of my clients to have quality data-driven guidance to manage their fishery. Once the IDNR stopped providing services to private bodies of water, the clubs began making uneducated (and often detrimental) decisions on how to stock and manage their fisheries. Most of the decisions were based on agendas with specific stocking desires, not data collected on the current state of the fishery.

5b: Work load availability: We are currently holding spring and fall survey allocations for Apple Canyon Lake should we be selected. The work would be scheduled and performed within similar time frames as previous spring and fall surveys. Spring surveys to be coordinated as best as possible with spring spawning to help review the larger bluegill in the lake.

5c: References:

Michael Pehanich Cell: 708-334-9024

Lake Commission Member and Secretary.

Candlewick Lake. Poplar Grove, IL.

Jerry Koeller Cell: 815-488-5810

Lake Management liaison overseeing 4 lakes we survey

New Windsor Sportsman's Club. Victoria, IL

Steve Birkbeck Cell: 815-541-3167

Previous Lake Manager. I currently manage their fishery,

Zach Ornatek is the new lake manager after Steve retired (cell: 815-281-1858).

The Galena Territory. Galena, IL

Michael Schmieder Cell: 864-533-0994

General Manager

Lake Summerset. Davis, IL

JadEco LLC
CONSULTATION & MANAGEMENT

Fall 2024

Introduction:

JadEco has been assisting with the fisheries management program at Apple Canyon now for 10 years. Historically, the survey consisted of subsampling several areas of the lake, but not the entire lake. Replicating the spring survey for 2024, this survey consisted of dividing the lake into three habitat types: Main Lake, Cove, and Tributary. Every section of the shoreline was divided into approximately ½ mile sample locations. A random sample for each habitat type was generated using a random sample generator program to select the sites, representing all habitat types in the lake (see figure 1). All fish species were collected, enumerated, weighed and lengths taken at each site. Daytime DC Electrofishing was used to collect the fish.

Consistent with past surveys, data analysis for CPUE per species, total catch per unit effort, proportional stock density (PSD) on important game species, and relative weight (Wr) were analyzed. These metrics provide information on the gamefish population density and potential trends in the fishery. They also provide an understanding of the size structure of game species within the lake and provide information on length to weight relationships to better understand if your game fish are relatively fat, or relatively thin. Potential changes in the predator / prey relationships and available forage can be interpreted through these metrics.

Summary of Fisheries Data:

A total of 2,228 fish were collected during the survey, with an overall catch per unit effort (CPUE) of 13.94 fish / minute. This CPUE is well above our overall objective for total fish collected of 6 fish per minute. A total of 10 different species were collected, with the majority being game species (over 99%+) compared to less than 1% undesirable or non-game (green sunfish). Sportfish and desirable species consisted of largemouth and smallmouth bass, bluegill, black crappie, walleye, northern pike, golden shiners, silversides, and white suckers.

Largemouth bass were collected at a rate of 4.94 fish per minute with 790 bass sampled. This is above our objective range of 1-2.5 fish per minute, but not outside the norm for Apple Canyon Lake bass densities. The population distribution continues to show a shift towards larger bass with over 26% of the bass collected being over 15" in total length (up from 19% in 2023). Largemouth bass over 21" were represented in this survey. With the high relative weights for the larger bass, I would expect that another shift to a larger size structure could occur.

Size distribution of bass collected indicated an improving fishery, once again, with over 9% of the bass collected 17" or larger. In four short years this has shifted from

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less than 1% in 2020 to over 9% this fall. This shows our consistent management of the fishery continues to work for Apple Canyon Lake, and the bass fishery is becoming a quality fishery.

Overall bass relative weights continue to maintain within our objective range at 106. These are some of the best relative weights for our bass that we've observed. Historically, the largemouth bass 14" and under have excellent weights and the trend for bass weights at 15" and over generally drop as sizes increase. This survey had much better relative weights throughout all size classes. This should be monitored to see if this is a new trend, or an anomaly in 2024. Our goal is to increase the representation of larger bass, and if the relative weights are low, then the growth rate is likely slower (age and growth work would help provide insight into the growth rates). At this time, the size structure and representative weights indicate the potential to continue seeing growth in the larger bass. This should make anglers very happy, and bass weighed at current tournaments should be showing this as well.

The relative stock density of bass collected over 14" was at 58. This would indicate a larger proportion of bass over 14" in relation to all bass over 8". The RSD 16 is at 30. This should continue to be reflected in the angler's catch and tournament results as well.

Bluegill were the highest collection rate at 7.70 fish per minute and 1,232 fish collected. The CPUE was well above our objective of 2-4.5 fish per minute. Larger bluegill weren't as present in this survey, but we know they are present in the current fishery based on the spring collection. Bluegill over 9" were collected again this fall. The relative weight for bluegill was within our objective at 96, and was the highest observed in at least the 5 past fall surveys. Bluegill ranged from less than an inch to 9.4". The PSD for bluegill was below our objectives this fall at 8, but is not a concern at this time due to the spring survey being at 40 and within range of our PSD goals of 20 to 60. The larger bluegills are not usually as well represented during the fall surveys. We are observing a fairly balanced and stable fishery with quality bass and bluegill observed.

Crappie were well represented this fall with 161 fish collected with a CPUE of 1.01 fish per minute. Sizes ranged from 2.3" young of the year to 11.8" adults. The average collected was 5.6". Along with the higher than normal densities, the relative weights were excellent at 112 and we had excellent size structure indicating multiple year classes present.

A total of 8 northern pike were collected this fall ranging from 21.3" to 34.6" and had decent relative weights averaging 93. Along with the 8 collected, several more

were seen, but unable to be captured due to evading the electrical current before they could be netted.

Largemouth Bass:

The 2024 spring bass catch per unit effort was above our objective range at 4.94 fish per minute (objective of 1-2.5 fish per minute). For the past years we've been working on removing biomass of bass in the under 13" size range in an attempt to allow stunting bass to jump to the next size level and continue growing. This management strategy continues to be extremely effective for Apple Canyon Lake, and continues to be effective with over 43% of bass collected being larger than 15". This is up from only 24% three short years ago.

These efforts are working and the population continues to shift to a more balanced and more desirable fishery with a greater percentage of the population represented by the larger size classes. I would expect bass angler satisfaction to have consistently improved over the past 5 years.

Relative weights for largemouth bass were excellent, and some of our highest observed at an average of 106. These relative weights should indicate continued opportunity for good growth for the bass population. Historically, bass 14" had excellent weights, but the bass over 15" have continued to show slightly lower average Wr as sizes increase. In this survey, the bass over 15" showed much better overall condition and this indicates we may see good growth again in the next year. This does need to be monitored to see if this is an anomaly or a trend. Based on angler reports, tournaments, and fish sampling results the bass fishery is showing great improvement through this management program. The size range of bass has continued to improve as well with bass being collected over 21" this fall.

Again in 2024 we utilized the PSD or 'proportional stock density' metric to analyze the size structure of the bass population. This is a comparison of the stock (>8") to quality (>12") size bass in the sample. The objective range for largemouth bass PSD is 40-70. The 2024 survey was slightly above our objective range at 71, down from 77 in 2023.

The RSD16 for largemouth bass was at 30 this fall and was above our objective range of 10 to 20. We will continue to monitor PSD and RSD trends as well as Wr. If Wr drop, and PSD's shift higher, we may need to adjust creel limits to balance the population. Average largemouth bass length in the survey was at 10.3" and bass were collected from 3.3" to 21.5".

Bluegill:

The overall CPUE for bluegill was above our objective range this fall with 7.70 fish per minute collected. Our objective range is 2 to 4.5 fish per minute. Bluegill ranged

from less than an inch to 9.4". We did not observe high numbers of larger bluegill in the fall, but they were well represented in the spring survey. The average length was at 3.1".

The bluegill condition for fall was good with Wr ranging from 64-141 and averaging 96. This is the highest average Wr we've had in at least the last five fall surveys. This is within our objective range of 90 to 110. The proportional stock density was below our objective range at 8. This is not a concern at this time due to the representation in our spring survey at 40.

Black Crappie:

We collected 161 black crappie in the fall 2024 survey for a CPUE of 1.01 fish per minute (above our objective range). Crappie ranged from 2.3" young of the year to 11.8" adults with an average size at 5.6". Relative weights were excellent at 112. Relative weights ranged from 85-165. Based on the size distribution, the crappie are spawning and recruiting consistently right now with 54% of the collection under 6". Larger crappie are well represented too with over 20% of the collection being crappie larger than 8".

As discussed in previous reports, a lower collection of crappie while electrofishing is not a good indicator of a crappie fishery. Generally, crappie are less susceptible to electrofishing due to their habitat preferences (deeper water outside the range of the sampling gear). However, the collections we continue to observe at Apple Canyon Lake indicate the crappie populations is still strong and multiple year classes are present. Most of the crappie collected this fall were associated with submerged vegetation in the coves (and some main lake areas). When vegetation was present, young crappie were collected. The larger crappie were associated with vegetation as well as woody structures on shorelines.

Walleye:

We collected 9 walleyes during the 2024 fall survey. Walleye ranged from 17.4" to 21" and averaged 19.4". The walleye Wr were within our objective range this fall at 103. This trend needs to continue to be monitored. The Wr ranged from 90 to 113. We will continue to monitor the walleye condition and adjust the harvest numbers and sizes if needed. The CPUE for walleye was at 0.06 fish per minute.

Smallmouth bass:

We collected 9 smallmouth bass this fall. Smallmouth ranged from 4.8" to 16.3" and averaged 8.7". Smallmouth under 7" represented 33% of the collection. These are likely stocked fish, but we will continue to monitor for natural recruitment. If no smallmouth bass are being stocked, then this would indicate natural recruitment. Twenty-two percent of the smallmouth collected were larger than 12".

The relative weights were good and within our objective range averaging 96 and ranging from 79 to 118. We are consistently collecting smallmouth now during our fall surveys. This likely indicates the fall stockings are surviving over winter and a population of smallmouth bass is being established. Also, smallmouth bass grow better in clearer water as they are more of a sight feeder. With the increased clarity at Apple Canyon, the smallmouth are able to better feed and grow.

Northern Pike:
We collected 8 northern pike ranging from 21.3" to 34.6" and averaging 24.5". This may be an indicator of the stocking survival from the last few year's program. Fish collected had relative weights between 77 and 104 and averaging within our objective range at 93.

Recommendations:

Fisheries Monitoring:
We have been monitoring the fishery at Apple Canyon since 2014. Since 2016, we have conducted two surveys per year (spring and fall). Periodic monitoring after dark has been performed in the past as well (Fall 2018, and Spring 2019). There is value in conducting monitoring after dark. There is also value in age and growth studies. Collection of otoliths for age and growth has not been done at Apple Canyon Lake thus far. As noted in many of our reports, age and growth are indicators as to how fast fish are growing so we understand how quickly the population is growing and how quick it can recover from potential fish kills (how long does it take for a fish to grow into a desired size or creel limit size). Do the fish have growth bottlenecks at specific sizes or ages? These questions can be better answered through age and growth studies.

Until this year, we've done standard surveys in various areas of the lake to cover various habitat types. This year, a much more extensive survey of the lake was done in the spring and the fall with more of the various habitats sampled. While good information may have come from the larger sample size this year, I feel the information provided in our general sampling yearly provides the insight we need to effectively monitor the fishery, and at a much lower budget. If funds allow, I would suggest conducting periodic day/night surveys (every 2 years) as well as age and growth every 5 years. A sample size like what was done this year would not be needed often.

It is important that the fishery continues to be monitored, especially with current changes to the fishery and ecology of the lake. Northern Pike were recently stocked and the dynamics of that stocking need to continue to be monitored as well as the impacts from zebra mussels, or the large-scale chemical treatments being conducted to assist with their control. This year's higher relative weights may or may not be

attributed to the current drawdown performed to work on the dam spillway structure. All of these can have an impact on the fishery and warrant continued, close monitoring of the fish population and fish community structure.

Fish Habitat:
As always, Apple Canyon Lake should continue their efforts to place quality fish habitat throughout the lake. Several years ago, the board agreed to allow volunteers to work with us on an annual approval basis. Volunteers should work to organize the production and installation of structures annually. This not only improves the cover for fish to grow and feed, it also improves the fishing opportunities at Apple Canyon. ***I have not been consulted on the structure installations the past few years but will assist when requested.***

Currently, the natural resources department is working on removing cedars to rehabilitate some of their Oak Savannah areas. These trees could be used as structure if placed in the lake, or left remaining dropped in the water off the shorelines.

Size and creel limits:
We will continue to monitor the largemouth bass population but at this time, the largemouth bass size and creel limits should remain at the current 5 per day under 13" in length, and one over 24" for the opportunity for a trophy. I anticipate these limits will change as the trends indicate but currently we are seeing improvements in the bass population distribution towards better representation of larger bass and the population distribution appears to be maintaining a decent balance between larger bass and all other size classes. ***Please send tournament results to me as well to help monitor the fishing trends.***

The change in the bluegill fishery size limit appears to be working since we are observing continued improvement in the population distribution of larger bluegill in the annual surveys (this is the benefit to the spring survey). I suggest you maintain those limits and continue working to educate the membership on the benefits of releasing the larger males so as to garner support from your anglers on this creel and size limit recommendation.

Stocking:
Stocking is always subjective to budgetary constraints, and all recommendations may not be able to be met. Stocking recommendations should always be re-evaluated based on subsequent fish population sampling.

1) Walleye continue to be a desired species for the anglers, and stocking can be done either annually or every other year. This would ensure fishing opportunities for walleye continue. These should be stocked in the fall of

the year at 6"-8" in size. Stocking densities should be ***NO MORE*** than 10 per acre (approximately 4,000 / year). Right now, relative weights are good but if the previous trend toward lower relative weights persists in future samples, we may consider reducing the walleye stocking. ***With these stocking rates, creel limit recommendations have been made to reduce the size limit to harvest walleye to 16" and larger.*** Please note that allowing some harvest of these walleye (see creel limit changes above) will improve angler satisfaction as well as allow remaining walleye to have better growth and condition.

2) If channel catfish are desired by the membership, an annual, or every other year, stocking can be done at an 8"-10" size range. The larger the catfish, the better their stock survival. Please note that a MINIMUM of 8" stocking size is required. Fish smaller than 8" are more likely to be consumed by other sport species as prey. Stocking densities of 10 fish per acre (approximately 4,000 fish per year) is a good guideline. Catfish are relatively fast-growing fish, and with the stocking program in place *allowing harvest of catfish at 6 fish per day is acceptable.*

If budgetary constraints are a problem, stocking every other year may be an option, keeping in mind limited year-class strength and size gaps in the fish that may be observed by fisherman and their creel.

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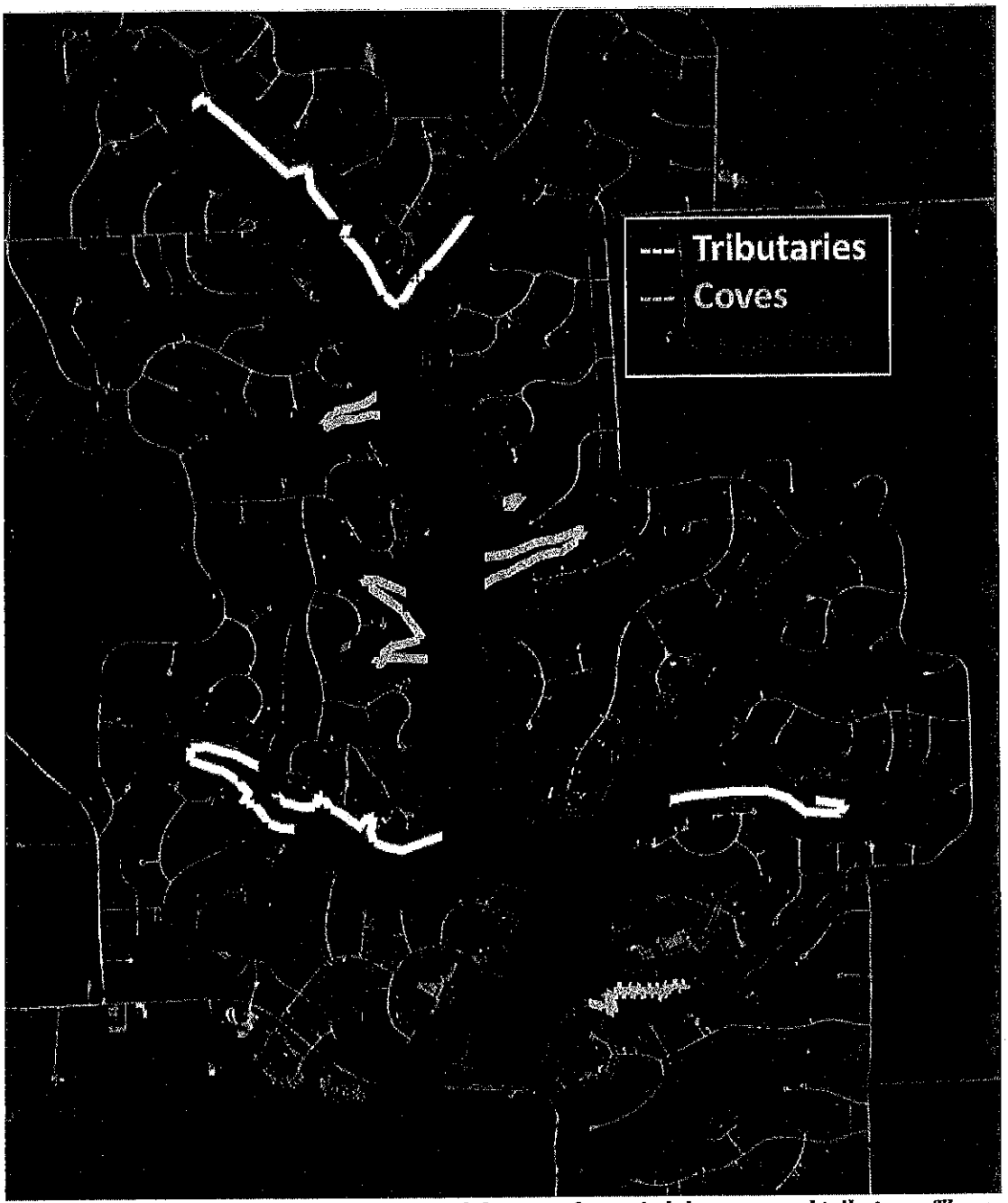

Figure 1: Sample sites divided into separate lake types for main lake, cove, and tributary. These sites were randomly selected through a random number generator.

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Table 1: Catch Per Unit Effort (CPUE) by species

Species:	Number:					Fish / Minute					Obj. (fish/min)
	24f	23f	22f	21f	20f	24f	23f	22f	21f	20f	
Largemouth Bass:	790	531	388	608	471	4.94	5.77	3.77	5.08	4.10	1.0-2.5
Smallmouth Bass:	9	15	4	7	5	0.06	0.16	0.04	0.06	0.04	-[illegible]
Bluegill:	1232	634	205	374	622	7.70	6.89	1.99	3.13	5.41	2.0-4.5
Black Crappie:	161	25	60	20	99	1.01	0.27	0.58	0.17	0.86	0.2-0.8
Walleye:	9	9	13	9	25	0.06	0.1	0.13	0.08	0.22	-[illegible]
Green Sunfish:	1	2	3	12	5	0.01	0.02	0.03	0.1	0.04	-[illegible]
Channel Catfish:		5	3	-[illegible]	1	---	0.05	0.03	0.01	0.009	-[illegible]
Northern Pike:	8	1	1	1	1	0.05	0.01	0.01	0.01	0.009	-[illegible]
Muskie:		-[illegible]	-[illegible]	1	1	---	---	---	0.01	0.009	-[illegible]
Other:	18	4	4	2	10	0.11	0.04	0.04	0.02	0.09	-[illegible]
Total CPUE	2228	1226	681	1034	1240	13.94	13.31	6.62	8.67	10.79	6.00[illegible]lus

Table 2: Proportional Stock Density (PSD)

Species:	24f	23f	22f	21f	20f	Objective
Largemouth Bass:	71	77	80	81	77	40-70
Bluegill:	8	8	9	3	1	20-60
Black Crappie:	45	67	72	0	0	30-60
Smallmouth Bass:	33	100	33	67	100	30-60
Walleye:	100	100	100	100	100	30-60

Table 3: Relative Weight (Wr)

Species:	Wr (Ave)					Range:					Objective
	24f	23f	22f	21f	20f	24f	23f	22f	21f	20f	
Largemouth Bass:	106	97	99	101	102	66-185	71-163	73-166	73-177	75-137	90-110
Bluegill:	96	94	91	88	93	64-141	65-166	72-122	72-112	80-118	90-110
Black Crappie:	112	96	100	103	106	85-165	75-111	77-119	103	88-135	90-110
Walleye:	103	94	82	97	97	90-113	86-103	61-98	90-106	88-110	90-110
Smallmouth Bass:	96	92	105	94	106	79-118	77-104	102-107	79-109	93-121	90-110
Northern Pike:	93	79	95	81	--	77-104	79	95	81	-[illegible]	90-110
Channel Catfish:	--	137	117	-[illegible]	-[illegible]	-----	125-149	110-127	-[illegible]	-[illegible]	90-110

Table 4: Length Ranges by Species

Species:	Length:					Average:				
	24f	23f	22f	21f	20f	24f	23f	22f	21f	20f
Largemouth Bass:	3.3"-21.5"	1.6"-18.5"	2.2"-18.1"	3.9"-17.8"	2.4"-19.2"	10.3"	8.3	9.1"	12.6"	10.8"
Smallmouth Bass:	4.8"-16.3"	3.5"-16.5"	3.8"-12.3"	9.9"-13.4"	6.1"-10"	8.7"	9.4	7.9"	11.7"	7.3"
Bluegill:	0.9"-9.4"	1"-8"	1.8"-6.6"	1.2"-6.9"	1.7"-6.1"	3.1"	2.9"	4.6"	4.0"	3.2"
Black Crappie:	2.3"-11.8"	2.8"-13.2"	2.8"-11.2"	---	2.1"-7.9"	5.6"	4.9"	4.9"	---	4.5"
Walleye:	17.4"-21"	16.9"-19.1"	9.3"-23.3"	18.3"-25.2"	15.7"-23.5"	19.4"	18.1"	19.2"	20.1"	19.6"
Carp:	----	-[illegible]	-[illegible]	30,4"	-[illegible]	----	----	-[illegible]	30.4"	-[illegible]
Green Sunfish:	5"	5.9"-7.5"	4.3"-4.7"	5.3"-5.7"	3.5"-9.8"	5"	6.7"	4.6"	5.3"	6"
Channel Catfish:	----	25.4"-30.5"	28.7"-31.3"	27.2"	27.6"	----	28.3"	29.9"	27.2"	27.6"
Northern Pike:	21.3"-34.6"	36.2"	33.9"	-[illegible]	-[illegible]	24.5"	36.2"	33.9"	-[illegible]	-[illegible]
White Sucker:	10.2"	-[illegible]	15.3"-22.8"	17.8"-20.7"	18.9"-20.3"	10.2"	----	19.8"	19.5"	19.4"
Golden Shiner:	7.3"	-[illegible]	-[illegible]	-[illegible]	3.4"-7.3"	7.3"	----	----	-[illegible]	5.3"
Silverside:	2.8"-3.6"	-[illegible]	-[illegible]	-[illegible]	2.8"-3.2"	3.3"	----	----	-[illegible]	3"
Fantail Darter	----	2"	-[illegible]	-[illegible]	-[illegible]	----	2"	----	-[illegible]	-[illegible]
Bullhead:	----	10"	-[illegible]	-[illegible]	-[illegible]	----	10"	----	-[illegible]	-[illegible]

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Table 5: Catch per unit effort by runs.

Species:	*Number (CPUE)*																*Obj. (fish/min)*
	Run 1	*Run 2*	*Run 3*	*Run 4*	*Run 5*	*Run 6*	*Run 7*	*Run 8*	*Run 9*	*Run 10*	*Run 11*	*Run 12*	*Run 13*	*Run 14*	*Run 15*	*Run 16*	
	Main	*Cove*	*Main*	*Cove*	*Cove*	*Trib*	*Main*	*Trib*	*Trib*	*Cove*	*Main*	*Main*	*Trib*	*Cove*	*Trib*	*Main*	
Largemouth Bass:	56 (5.60)	58 (5.8)	19 (1.9)	24 (2.4)	40 (4.0)	45 (4.5)	38 (3.8)	34 (3.4)	20 (2.0)	38 (3.8)	59 (5.9)	33 (3.3)	105 (10.5)	74 (7.4)	63 (6.3)	82 (8.2)	1.0-2.5
Smallmouth Bass:			3 (0.30)			3 (0.30)			1 (0.10)			1 (0.10)	1 (0.10)				-[illegible]
Bluegill:	174 (17.4)	224 (22.4)	3 (0.30)	40 (4.0)	10 (1.0)	72 (7.2)	63 (6.3)	29 (2.9)	10 (1.0)	46 (4.6)	68 (6.8)	33 (3.3)	195 (19.5)	69 (6.9)	138 (13.8)	62 (6.2)	2.0-4.5
Black Crappie:	7 (0.70)	20 (2.0)		2 (0.20)		7 (0.70)	9 (0.90)			20 (2.0)	1 (0.10)	1 (0.10)	14 (1.4)	16 (1.6)	44 (4.4)	20 (2.0)	0.2-0.8
Walleye:						4 (0.40)	1 (0.10)		1 (0.10)				3 (0.30)				-[illegible]
Carp:																	Below 0.25
Green Sunfish:	1 (0.10)																-[illegible]
Channel Catfish:																	-[illegible]
Northern Pike:		3 (0.30)		1 (0.10)	1 (0.10)	1 (0.10)			1 (0.10)	1 (0.10)							-[illegible]
Flathead Catfish:																	-[illegible]
Golden Shiner:														1 (0.10)			-[illegible]
Bullhead:																	-[illegible]
Silverside:	1 (0.10)	4 (0.40)							1 (0.10)				1 (0.10)	8 (0.80)		1 (0.10)	-[illegible]
White Crappie:																	-[illegible]
White Sucker:										1 (0.10)							-[illegible]
Total Number	*239*	*309*	*25*	*67*	*51*	*132*	*111*	*63*	*34*	*106*	*128*	*68*	*319*	*168*	*245*	*163*	
Total CPUE	*23.90*	*30.90*	*2.50*	*6.70*	*5.10*	*13.20*	*11.10*	*6.30*	*3.40*	*10.60*	*12.80*	*6.80*	*31.90*	*16.80*	*24.50*	*16.30*	6.00 plus
Run time	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	

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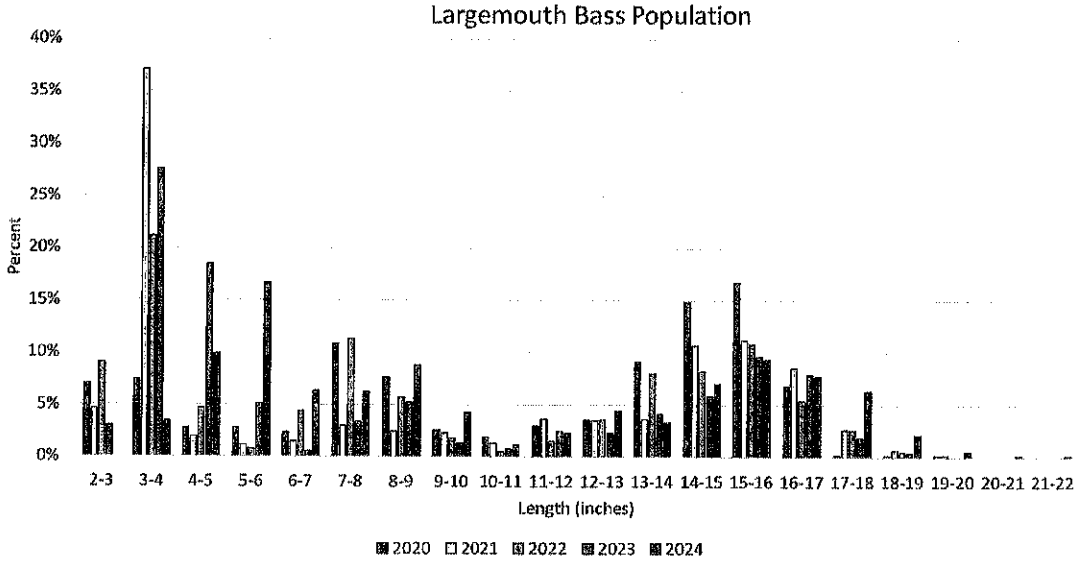

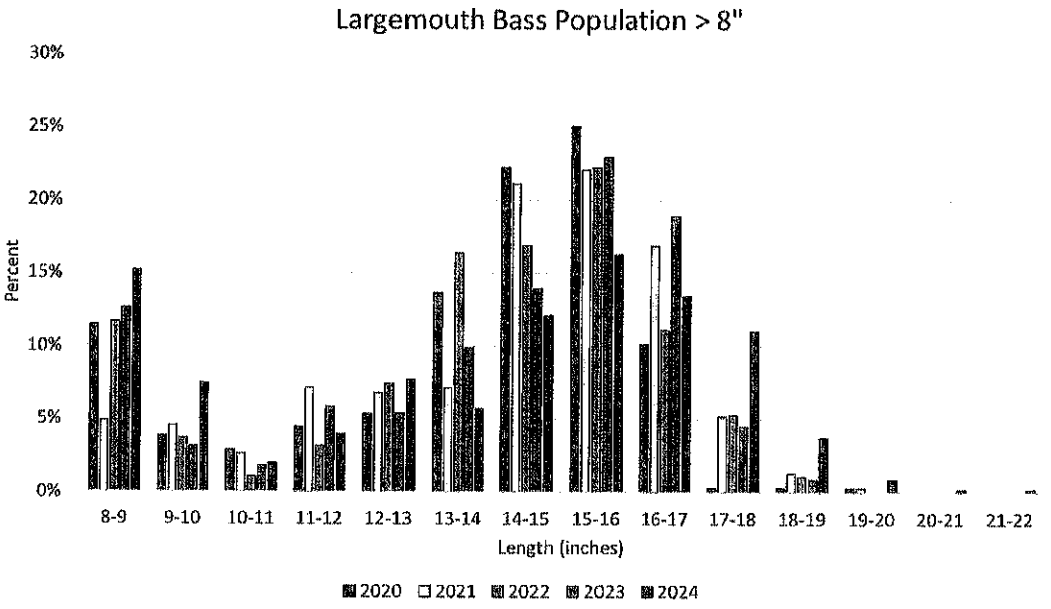

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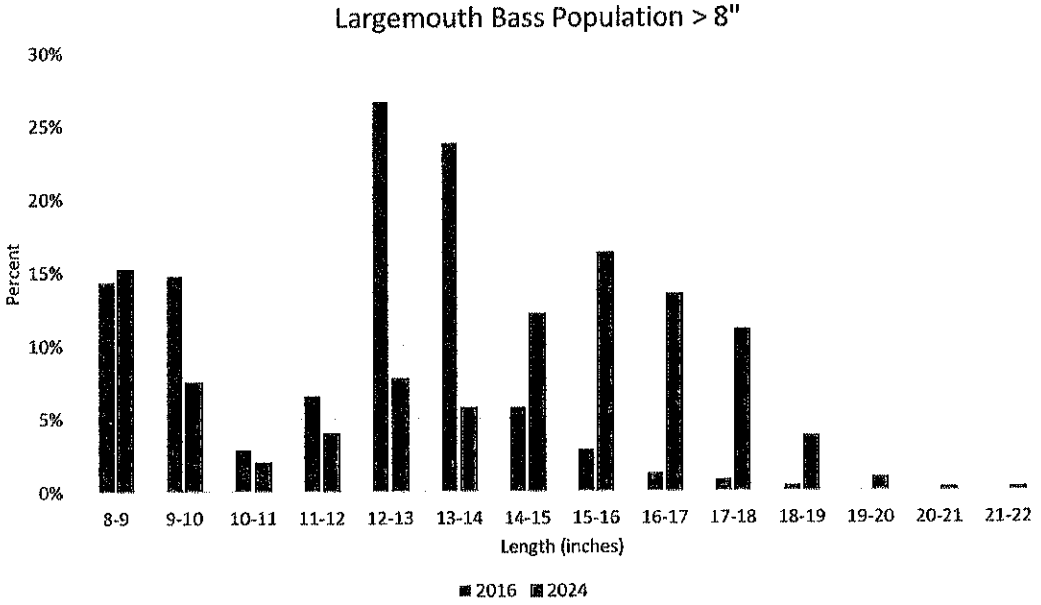

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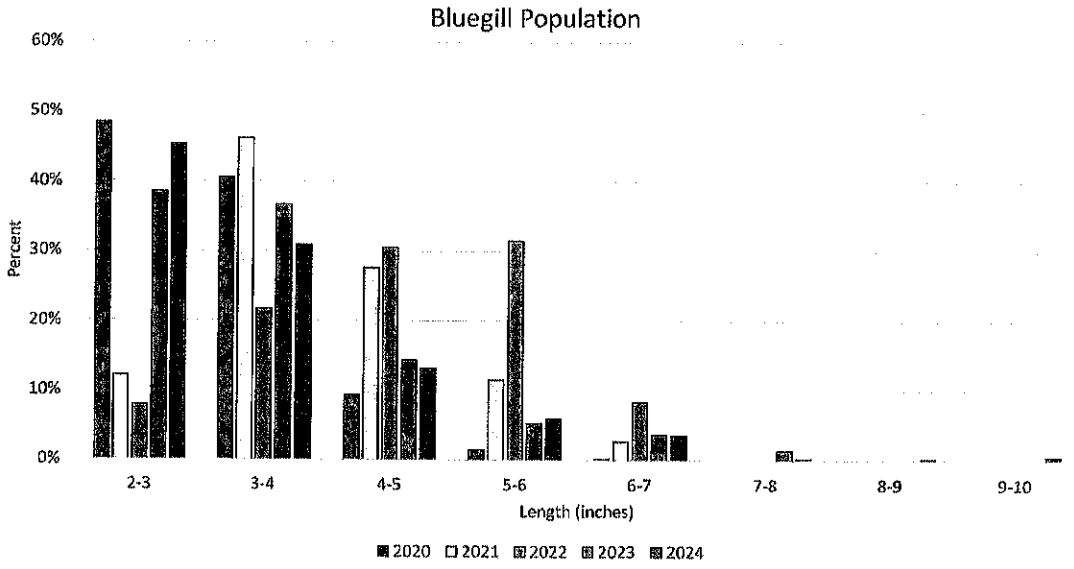

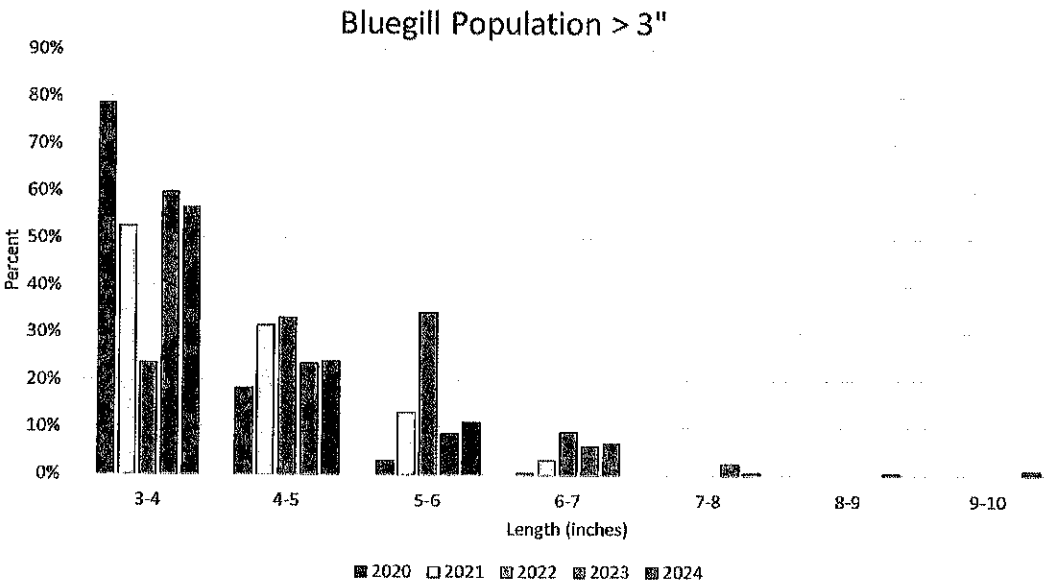

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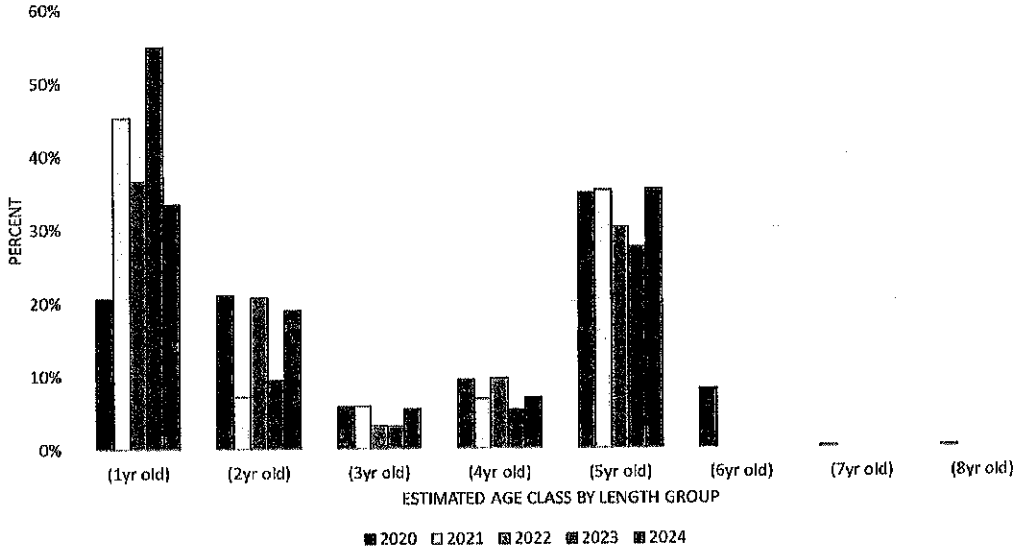
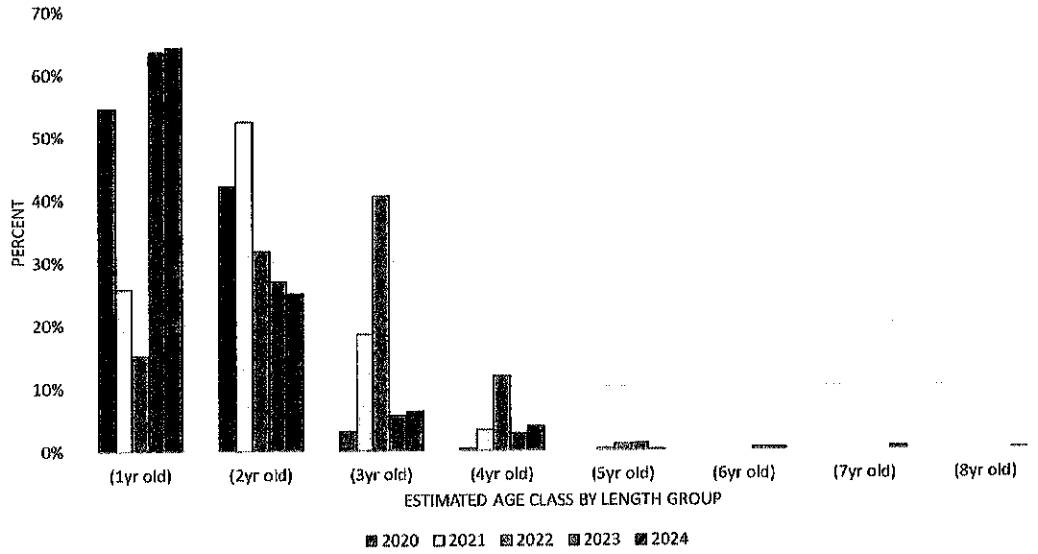
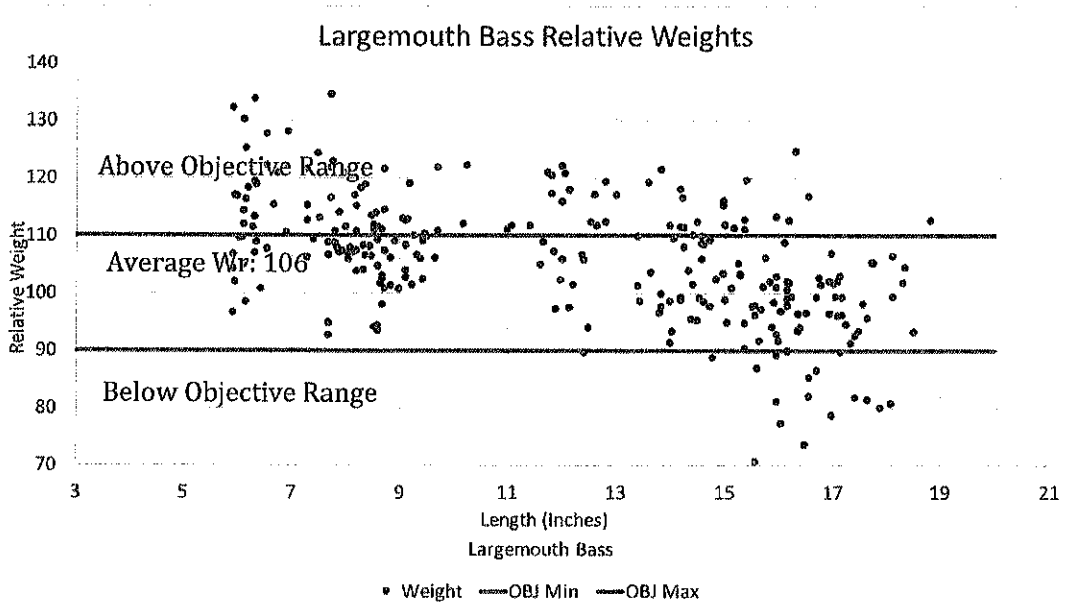
Largemouth Bass Frequency at Estimated Age

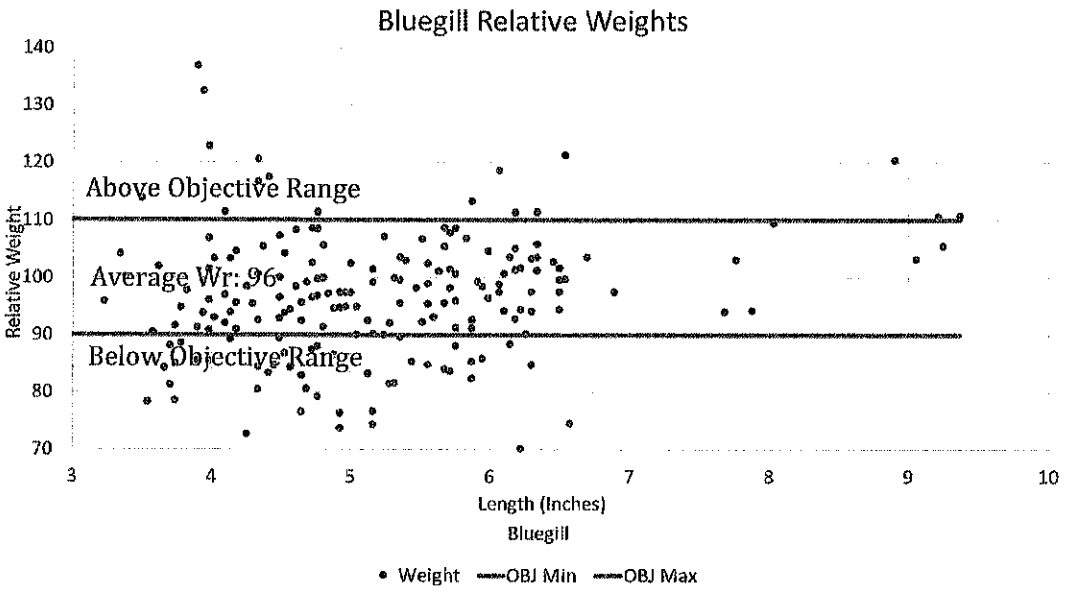


Bluegill Frequency at Estimated Age



JadEco, LLC
PO BOX 445 Shannon, IL 61078
Phone: 815-543-5695
Email: jrush@jadecoconsulting.com





JadEco, LLC
PO BOX 445 Shannon, IL 61078
Phone: 815-543-5695 *Email: jrush@jadecoconsulting.com*

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/23/2026

PRODUCER
Richard Furgiuele Agency
7479 Walton St Suite 2
Rockford, IL 61108

THIS CERTIFICATION IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Joe Rush
JadEco, LLC
314 S Chestnut St
Shannon, IL 61078

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Capitol Specialty Company	10328
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
A		GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [X] CLAIMS MADE [ ] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [ ] PRO-JECT [ ] LOC	#EV20184083-07	11/11/2025	11/11/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 50,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
		AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $
		GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
		EXCESS / UMBRELLA LIABILITY [ ] OCCUR [ ] CLAIMS MADE [ ] DEDUCTIBLE [ ] RETENTION $				EACH OCCURRENCE AGGREGATE	$ $
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH) If yes, describe under SPECIAL PROVISIONS below				WC STATU-TORY LIMITS / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $
A		OTHER Professional Liability Contractors Pollution Liability	#EV20184083-07 #EV20184083-07	11/11/2025	11/11/2026	$1,000,000 occ./$2,000,000 agg.	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Richard Furgiuele

Clear All

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statment on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

CONSERVATION 3-YEAR LAKE SHOCKING PROPOSALS - 2026

RFP #	ITEM	HERMAN BROTHERS	AQUATIC	JAYCO			
B.1	Area of Survey	Presidents/Independence/dam-excludes North Bay & Winchester	Areas per RFP-including North Bay and Winchester	Areas per RFP-including North Bay and Winchester			
B.2	Will provide requested data	Yes-we have not previously received raw data.	Yes and basic water testing (PH,Alkainity/hardness/nitrogen	Yes			
	Any recommendations based on experience	Based on observed conditions.	No	Based on observed conditions.			
B.3	Reporting - 30 days following survey	Yes	Yes	Yes			
	Example of report	Yes	Yes-exceptional!	Yes-exceptional!			
	Presentation to ACL after last report of season	Yes-does not include raw data	Yes	Yes			
B.4	Write article for Apple Core and Apple Seed	Yes	Yes	Yes			POSSIBLE TOTAL
C	Fee Proposal - ANNUAL	$5,000 per year	$8,000 per year plus 7.75% tax? -	$4,480 (incl presentation) **possible** 3% escalation in years 2 and 3	year 2 w/3% incr. 4,614.40	year 3 w/3% incr. 4,752.83	13,847.23
	FEE - 3 YEAR TOTAL	$15,000.00	$24,000 PLUS 7.75% TAX?	$13,847.23 ASSUMING **POSSIBLE** ANNUAL 3% INCREASES.			
	Number of Visits	Spring and Fall	Spring and Fall	Spring and Fall			
	Additional Recommendations			Night survey - add $1,500 when coordinated with day survey. Aging of largemouth & bluegill to better understand how they are growing - add $2,225			
	SUBMITTALS						
	Qualifications	Not addressed	Yes	Yes			
	Itemized summary of costs & fees	Yes	Yes	Yes			
	List of data assumed to be provided by ACL	None	Previous electrofishing report, 20+ yrs stocking records if available, creel limits	Past 5 yrs stocking history, 5 yrs creel limits, past 3 years fisheries management reports			
	Contact information for firm	Yes	Yes	Yes			
	Proof of insurance	Yes	Yes	Yes			
	References	Yes Check with Lake Carroll	Yes	Yes			

Proposal for Fishery Management Services

Apple Canyon Lake

Three-Year Fishery Management Agreement

Submitted to:
Apple Canyon Lake Property Owners Association (ACLPOA)

Submitted by:
Herman Brothers Fisheries, Inc.
www.hbfisheries.com
info@hbfisheries.com | 309-693-3255

Introduction

Herman Brothers Fisheries, Inc. (HB Fisheries) is pleased to submit this proposal for professional fishery management services for Apple Canyon Lake. We appreciate the opportunity to continue working with the Apple Canyon Lake Property Owners Association to monitor, evaluate, and enhance one of the Midwest's premier multi-species recreational fisheries.

HB Fisheries brings extensive experience managing private and community lakes through data-driven electrofishing surveys, long-term trend analysis, and practical, science-based recommendations. Our familiarity with Apple Canyon Lake, combined with our commitment to clear communication and consistent methodology, positions us well to meet the objectives outlined in this Request for Proposal.

We look forward to continuing our partnership with ACLPOA and supporting the long-term health, balance, and recreational value of Apple Canyon Lake.

Respectfully submitted,

Herman Brothers Fisheries, Inc.

Firm Qualifications

Professional History and Affiliations

HB Fisheries is a professional fisheries management and aquatic consulting firm specializing in long-term management of private lakes, recreational communities, homeowner associations, and special-use water bodies throughout the Midwest. The firm provides science-based fisheries assessments, electrofishing surveys, population analysis, and clear, actionable reporting designed for both technical review and community communication.

HB Fisheries was established to bridge the gap between rigorous fisheries science and the practical needs of lake associations and recreational communities. The firm's work emphasizes sustainable fisheries, adaptive management, and transparent communication with boards, committees, and residents.

Services include standardized spring and fall electrofishing surveys, catch-per-unit-effort (CPUE) analysis, relative weight (Wr) evaluation, size structure assessment, trend analysis, and stocking and harvest recommendations. All work is conducted using consistent methodologies to ensure year-to-year comparability and long-term data integrity.

Impact of Current Workload

HB Fisheries maintains a deliberately scaled workload to ensure timely fieldwork, thorough analysis, and responsive client communication. The firm's current workload will not impede its ability to complete all services outlined in this RFP, including spring and fall electrofishing surveys, reporting within thirty (30) days, presentations, and written summaries.

Survey schedules are planned well in advance to accommodate seasonal timing and weather variability. HB Fisheries has the staffing, equipment, and scheduling capacity to perform all work promptly and without delay or interference throughout the three-year contract term.

Experience with Lake and Recreational Communities

HB Fisheries has extensive experience working with lake associations and recreational communities where fisheries management decisions must balance ecological health, angler satisfaction, and long-term sustainability.

The firm routinely manages man-made and community lakes similar in size, depth, and use to Apple Canyon Lake. Experience includes multi-year monitoring programs, predator–prey balance evaluation, genetic and stocking strategy development, and clear presentation of findings to boards and residents.

Reports are structured to include both detailed technical analysis and accessible executive summaries suitable for newsletters, board packets, and community publications. Presentations

are designed to clearly explain findings, trends, and recommendations to non-technical audiences.

Scope of Services

Electrofishing Surveys

HB Fisheries will conduct standardized electrofishing surveys twice annually (spring and fall) for each year of the contract. Survey areas will include Presidents Bay, Independence Bay, and the dam area, consistent with past monitoring efforts.

Any additional recommendations for enhanced sampling or alternative survey approaches based on observed conditions will be provided as optional alternates.

Data Collection and Analysis

For each survey, data collected will include species identification, quantity, length, weight, observed health, and any identifiable parasites or disease. Data analysis will include:

- Catch Per Unit Effort (CPUE) by species
- Relative Weight (Wr) by species
- Length frequency distributions by species
- Proportional Stock Density (PSD) for largemouth bass, bluegill, black crappie, white crappie, smallmouth bass, and walleye

Trend analysis will be conducted across seasons and years to evaluate fishery progress and inform management decisions.

Reporting and Presentation

Within thirty (30) days following each survey, HB Fisheries will provide a written report including:

- Species-specific analysis
- Fishery-wide assessment
- Trend analysis
- Stocking, harvest, and management recommendations

A seasonal presentation will be provided to ACLPOA following delivery of the final report of the season to explain findings and recommendations.

Articles and Executive Summaries

An executive summary suitable for publication in the *Apple Core* newsletter will be provided within thirty (30) days following delivery of the final report of each season.

Fee Proposal

The proposed fee for fishery management services is a lump-sum total of $15,000 for the three-year contract term.

This includes:

- $5,000 per year
  - $2,500 for spring electrofishing survey
  - $2,500 for fall electrofishing survey

The proposed fee includes all labor, equipment, travel, reporting, presentations, and associated expenses required to complete the scope of work.

Data Required from ACLPOA

HB Fisheries does not require any data from ACLPOA to complete the scope of work. Any available historical records or angler feedback may be incorporated if provided, but are not required.

Insurance

Herman Brothers Fisheries maintains General Liability insurance meeting or exceeding the required minimum coverage of $1,000,000 per occurrence. A Certificate of Insurance is included with this proposal.

References

Oak Run Property Owners Association – Spoon Lake
Tyler Roake, President – Fishing Club | 309-229-7481
Ron Roling, POA Board Member | 309-453-4097
1028B Lakeview Rd. N, Dahinda, IL 61428

Lake Holiday Property Owners Association – Lake Holiday
Steve Beckwith, Board Member | 815-570-1781
283 Easy St., Somonauk, IL 60552

Lake Carroll Association – Lake Carroll
Pat McQuilkin, Operations Manager | 815-291-2898
3-200 Association Dr., Lake Carroll, IL 61046

Contact Information

Austin Bennett
Mattie Bennett
Drew German
Email: info@hbfisheries.com
Phone: 309-693-3255

Proposed Schedule

HB Fisheries will adhere to the schedule outlined in the Request for Proposal and is prepared to begin the first spring electrofishing survey in April 2026, pending contract approval.

Sample Report

A sample electrofishing and fishery evaluation report from Apple Canyon Lake is included with this proposal for reference.

Conclusion

Herman Brothers Fisheries appreciates the opportunity to submit this proposal for the Apple Canyon Lake Fishery Management Agreement. Apple Canyon Lake represents one of the Midwest's premier multi-species recreational fisheries, and HB Fisheries is committed to maintaining and enhancing this resource through consistent monitoring, sound science, and practical management strategies.

Our familiarity with Apple Canyon Lake, combined with a proven electrofishing and reporting program, allows us to provide continuity, reliable trend analysis, and clear recommendations that support both ecological health and recreational value. HB Fisheries is fully prepared to meet the requirements of this RFP and to serve as a trusted partner to the Apple Canyon Lake Property Owners Association throughout the three-year contract term.

We look forward to continuing our work with ACLPOA and contributing to the long-term success of Apple Canyon Lake's fishery. Should any additional information be required, we would be pleased to respond.

Respectfully submitted,

Herman Brothers Fisheries, Inc.

Memorandum

To: Board of Directors

Date: February 21, 2026

From: Conservation Commission

Memo: 2026-13

Topic: Submerged Vegetation RFP – Proposal Recommendation

Issue: An RFP was issued and we received three proposals to provide chemical treatments for the control of submerged vegetation in the lake. Attached are the three proposals along with a simple comparison of the proposals.

Recommendation: The Conservation Commission recommends awarding the contract to McCloud Aquatics at a cost of $46,302.75. Although the ILM proposal was slightly less expensive, their proposal was not considered due to the fact that they are located 3+ hours away and only included two visits to the lake. A request for clarification to McCloud confirmed that they will provide at least a 1 week notice when they plan on treating the lake giving our Lake Monitoring Team the time they need to test the water prior to the treatment. They agreed to treat the lake later in the day when oxygen levels are higher and McCloud also agreed, and stated it was prudent, to increase the minimum Dissolved Oxygen level from 5ppm to 8ppm to add a safety layer for our fishery. These terms need to be incorporated in their proposal prior to execution. We also recommend accepting the Sediment Testing at a cost of $8,309 to determine the phosphorus and nutrient levels in the sediment. We also recommend having a Bathymetric Map updated since the lake was dredged at a cost of $3,900-$4,300. The total contract amount with these two additions is $58,511.75 - $58,911.75.

The Commission would like to reserve the right to recommend a weed mapping survey in order to better understand where to treat the weeds and ensure the appropriate amount of chemicals are used. We will have this recommendation by the next Board meeting. This could possibly be done this year, and we could wait until next year to do the Bathymetric Mapping.

ILM

TRUSTED CARE OF LAND & WATER

Attn: ACLPOA
Fr: John Paterson, ILM
Re: Lake treatment RFP Response
2/5/26

Folks!
Please find attached ILM's response to the ACLPOA RFP for Lake treatments in 2026.

Please let me know if you have any questions.
Best,

John Paterson
Senior Account Manager, ILM Environments

info@ilmenvironments.com | ilmenvironments.com
110 Le Baron Street, Waukegan, IL 60085 (847) 244-6662

ILM

TRUSTED CARE OF LAND & WATER

1) Qualifications

The ILM Aquatics team has over 100 years of collective experience when it comes to water and has tackled almost every challenge imaginable.

Our clientele includes villages and municipalities, park districts, forest preserves, lake districts, private residences, homeowner associations, and citizen groups.

We pride ourselves on our highly trained, experienced staff, connection to industry trends and new treatment approaches, and providing our clients the results they want.

A few of our key ongoing projects are described in the attached "References" document.

2) Itemized Summary

Please find attached an ILM proposal, which outlines the scope of the treatments. Service items included are travel, per diem, chemical, labor and reporting.

The approach detailed within our proposal will use a contact herbicide (Diquat-based), plus an algicide that helps scrub algae off the leaves of target plant species allowing for the herbicide to be more effective.

Both chemicals work on algae, Diquat works on all aquatic plants to control their bio-mass, but will not kill them.

One note: a dedicated plant density and plant ID survey could be used to direct treatments, but it seems like a bit of overkill. There is plenty of location information in the maps from the 2025 treatments. All target plant species would be in the bays (shallow water), not the maion lake.

Algae is another story, but it cannot be mapped with certainty of it's locations remaining constant.

In the future, you could employ these surveys in conjunction with a whole-lake SONAR treatment for milfoil and curly leaf. But, that treatment is quite expensive at the scale Apple Canyon Lake would require.

ILM
TRUSTED CARE OF LAND & WATER

3) Data that your firm will expect to be provided by the ACLPOA

As ILM is 3+ hours away from the Lake, anecdotal reporting on the presence of target plants early in the season would be useful. Simple observation of a representative dock area would suffice to confirm plant presence.

We want to treat after the plants come in, so that they are exposed to the chemical as they grow, but not so late as to kill an undo amount of bio-mass.

4) Contact Information

John Paterson, will serve as your point of contact for the treatments, and all other communications.

John Paterson, Senior Account Representative
110 LeBaron St.
Waukegan, IL.
60085

JPaterso@ILMenvirronments.com
815.581.0713

5) Proof of insurance

- Please see attached Sample COI

If ILM receives the contract, a COI naming ACLPOA as a co-insured will be provided.

6) References

– Please see attached

ILM

TRUSTED CARE OF LAND & WATER

Client References

The ILM Aquatics team has over 100 years of collective experience when it comes to water and has tackled almost every challenge imaginable. Our clientele includes villages and municipalities, park districts, forest preserves, lake districts, private residences, homeowner associations, and citizen groups. We pride ourselves on our highly trained, experienced staff, connection to industry trends and new treatment approaches, and providing our clients the results they want. A few of our key ongoing projects are included below.

Chicago Park District
Contact: James Melledy (Stantec)
Address: 4830 S. Western Ave., Chicago, IL 60609
Phone: (708) 534-3450
Email: james.melledy@stantec.com

Since 2000, ILM has managed the ponds and lagoons at the Chicago Park District, totaling 200 acres of surface area, as well as the surrounding shoreline natural areas at various public parks throughout the City of Chicago. Given the visibility, sheer number of people using these water bodies, and the fact that many of them are open for fishing, effective management involves a lot of coordination. Our staff must maintain a routine that allows them to service all the ponds scheduled for any given day, while also being flexible and responsive to immediate or unexpected needs.

Our staff has developed an excellent working relationship with the Chicago Park District (CPD). Our Aquatic Ecologists offer feedback and regular recommendations that ensure we provide the best value to the customer, in this case the three million plus citizens of Chicago, by using our time, purchasing power, personnel and equipment resources efficiently.

Services include algae control, aquatic weed control, aerator installation and maintenance, use of biological controls for fish and plants, invasive fish removal, shoreline erosion control, shoreline buffer zone management, and water quality monitoring.

Schaumburg Park District
Contact: Todd King, Director of Parks and Planning
Address: 235 E Beech Dr, Schaumburg, IL 60193
Phone: (847) 985-2115
Email: tking@parkfun.com

ILM

TRUSTED CARE OF LAND & WATER

ILM has been providing aquatic services on an annual basis for the Schaumburg Park District since 2019. Management includes treatments of algae and aquatic weeds for ponds at 15 Park District locations, including parks, recreational sites and conservation areas. ILM staff works closely with the park district on treatment approaches. Keeping the water resources free of unwanted aquatic vegetation is important, as these areas are used by residents regularly during the summer months for fishing, boating and picnicking.

Services include application of algaecide and herbicide products, pond dye applications, ad hoc water quality testing services, and ongoing stormwater conveyance maintenance.

Waukegan Port District – Harbor

Contact: Max Pekcan
Address: 55 South Harbor Place, Waukegan, IL 60085
Phone: (847) 244-3133
Email: mpekcan@waukeganport.com

ILM has performed water resource management with the Waukegan Port District since 2017. The Harbor had a need to address nuisance aquatic vegetation in the North and South Harbor areas, totaling approximately 22 acres. The challenge to this project is that the herbicide applications need to occur in peak season for the Harbor, when it is full of watercrafts – from sailboats to luxury cruisers. The treatments require ILM's aquatic staff to cautiously navigate the channels of the harbors, as well as around piers and docked boats, while carefully applying the herbicide. The application method is slightly unique in that it employs a combination of ILM's tank sprayer equipment along with the harbor barges and drop hose systems. Set-up, scheduling and application all require detailed coordination with the harbor staff. ILM has been able to successfully manage and execute multiple treatments each growing season for the past six years.

Urbana Park District

Contact: Andy Rousseau
Address: 505 W Stoughton Street, Urbana, IL 61801
Phone: (217) 344-9583
Email: ajrousseau@UrbanaParks.org

Since 2018, ILM has partnered with Urbana Park District on the care of Crystal Lake under the Crystal Lake Rehabilitation, Access, and Management Plan. The Management Plan was created to drive significant environmental improvements to the lake, addressing water quality issues and restoring much needed habitat for local pollinators and wildlife.

ILM

TRUSTED CARE OF LAND & WATER

When ILM became involved, the lake was in a state of deterioration – plagued with a high nutrient load which caused blooms of unsightly green watermeal and duckweed. ILM began implementing annual applications of liquid aluminum sulfate to reduce phosphorous levels. We were also able to provide immediate improvement in aesthetics by performing manual removal of surface algae using our Truxor (amphibious machine) and DASH (Diver Assisted Suction Harvesting). As the needs of the lake have changed and the health has improved, management approaches have been adjusted and also include spot treatments for duckweed and watermeal, as well as water quality testing.

Hybernia Homeowners Association

Contact: Dr. Bob Stanley, HOA President
Address: Hybernia Drive and Ridge Road, Highland Park, IL 60035
Phone: (847) 926-0585
Email: robestan@aol.com

Hybernia is a private development of single-family homes, including 32 constructed ponds, located in Highland Park, IL. Upon leaving Hybernia, stormwater runoff from the ponds enters a storm sewer that drains into the Skokie River, a tributary of the North Branch of the Chicago River. Because of this connection to the Chicago River, the HOA has committed to the long-term goal of improving water quality, native habitat, and stormwater mitigation throughout their community. ILM has partnered with Hybernia since 2011 to manage the 32 ponds by ensuring the ponds remain in good aesthetic condition while monitoring and improving water quality.

Partnering with homeowners' associations presents unique challenges. Being available and responsive to nuisance aquatic issues, addressing resident complaints, and making recommendations for improvement are what have led ILM to be a successful partner for this HOA. Our aquatic staff performs weekly monitoring and management visits throughout the growing season. Additional aquatic services include aeration management for 17 compressor systems, removal of aquatic vegetation from the 32 ponds by hand and with our Truxor (amphibious machine), regular stormwater conveyance maintenance, emergent aquatic treatments and removal, and water quality monitoring and testing. Recognizing the influence of the land around the water, ILM has also worked with Hybernia to naturalize the shoreline buffers around each of the 32 ponds, totaling 18,000 linear feet. ILM staff also provide stewardship for the pond buffers.

TRUSTED CARE OF LAND & WATER

Proposal
#P11107

1/16/2026

ILM
110 Le Baron St
Waukegan IL 60085

PH: 847.244.6662
Info@ilmenvironments.com

Bill To
Apple Canyon Lake
14A157 Canyon Club Drive
Apple River IL 61001

Contract Start Date: May 2026

Contract End Date: August 2026

Submitted To: Apple Canton Lake POA : Tyler Hesselbacher

SITE: Apple Canyon Lake

Project: 2026 Lake Treatments

Environment Manager: John Paterson

Item	Visits	Price Per Visit	Amount
Algae Control May-June 2026 68 Acres - Algae and Submerged Pondweeds Price includes single visit for diagnostic monitoring and applications of industry-standard products to treat algae and pondweeds. 5-days no irrigation	1	$20,680.96	$20,680.96
Algae Control Optional - If Needed July-August 2026 68 Acres - Algae and Submerged Pondweeds Price includes single visit for diagnostic monitoring and applications of industry-standard products to treat algae and pondweeds. 5-days no irrigation	1	$20,680.96	$20,680.96
		Subtotal	$41,361.92
		Discount Item	
		Total	$41,361.92

By:_____ Date _____

John Paterson

Accepted:_____ Date Accepted _____

By signing I agree to ILM's standard terms and conditions

TRUSTED CARE OF LAND & WATER

TERMS AND CONDITIONS *(rev.10/2022)*

Scope of Work and Time Limit. The Proposal issued by Integrated Lakes Management ("ILM") is valid for a period of 30 days from the date of the Proposal. The entire scope of work is identified in the Proposal constitutes the "Project" as that term issue used in these Terms and Conditions. Client may not modify the Proposal by removing or adding items of work to the Proposal unless agreed to in writing by ILM. Upon signature by the Client the Proposal shall constitute a contract between Client and ILM (the "Contract"). If ILM does not receive Client's signed Proposal within 30 days of its date ILM reserves the right withdraw the Proposal without notice to Client. If ILM withdraws the Proposal ILM may issue to Client a new proposal which may differ from the original Proposal with respect to estimated costs, schedule for completion, and overall scope of work. Work is performed in order of proposals accepted, unless negotiated otherwise.

Time and Materials Proposals. Services which are billed at "Time and Materials" (as specified in the Proposal) will be charged in accordance with agreed upon hourly labor rates and materials costs specified in the Proposal. In addition to charges for time spent and material consumed in conducting fieldwork at the Project site, Time and Materials charges will include time spent traveling to and from Project site and time and materials spent on report preparation by professional, technical, or clerical staff. To the extent that a Time and Materials proposal includes estimated costs, the estimates are for budgeting purposes only and the Proposal shall not be considered to provide a fixed lump-sum cost for the time and materials specified in the Proposal. If during the performance of work ILM determines that an estimated cost will be exceeded ILM shall have the right (but not the obligation) to cease work on the Project until a revised estimated cost has been presented to and approved by the Client.

Permits & Ancillary Costs. Unless the Proposal specifically states otherwise, Client shall be responsible for arranging for, securing, and paying for any and all permits, fees, licenses, governmental approvals, inspections, bonds, testing, traffic control, detours, pavement/concrete restorations required in connection with the work specified in the Proposal.

Fuel & Materials Surcharges. In the event of a significant increase in the cost of fuel or materials to be utilized by ILM to complete the Project after the date of the Proposal ILM shall have the right to add a reasonable surcharge to the amount due from Client under this Contract to defray the increased fuel and materials expenses it incurs in conducting the work specified in the Proposal. Such materials may include, but shall not be limited to fuel, chemicals, and other supplies/products.

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agents. Client and ILM waive all rights of subrogation against each other and any of their subcontractors, suppliers, agents and employees, each of the other for damages caused by fire or other causes of loss to the extent covered by property insurance or other insurance applicable to the work specified in the Proposal.

Damages and Non-Target Areas. ILM will make every effort to minimize any damage to areas surrounding the area where the work specified in the Proposal will be conducted ("Non-Target Areas"). Prescribed burning or herbicide applications to tall vegetation or hard to reach areas increase the possibility of damage to Non-Target Areas. Client accepts the inherent risk of damages to Non-Target Areas and ILM shall not be responsible for damages to Non-Target Areas. Further, ILM shall not be obligated to remediate damages to Non-Target Areas unless ILM has specifically agreed to do so in the Proposal. ILM will remediate any damage caused to Non-Target Areas due to ILM's negligence or improper execution of services at no cost to the Client. Client is responsible for the removal and replacement of personal property, improvements, fixtures, appliances, or other obstacles in the area where the work specified in the Proposal will be conducted unless otherwise specified in the Proposal. ILM shall not be responsible for any damages incurred to landscaping or personal property located on the Property of any type due to dust, excavation, seepage, or flooding.

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Lien Notice. As required by local state lien laws, ILM hereby notifies Client that as a furnisher of labor and/or materials for improvement on the Property ILM has lien rights against the Property if not paid.

Termination. Either party may terminate the Contract for cause only, upon not less than ten (10) days written notice if the other party fails to substantially perform in accordance with the terms of this Contract through no fault of the terminating party, provided that the terminating party has provided the non-terminating party with written notice of the non-performance and non-terminating party has failed to cure the non-performance within ten (10) days of receipt of the notice. If Client terminates the Contract Client agrees to compensate ILM for all work performed by ILM, and materials utilized by ILM prior to the date of termination and to compensate ILM for mobilization fees, labor, material costs, and clerical time incurred thereafter.

Interpretation and Enforcement. This Contract shall not be modified except by written agreement signed by both Client and ILM. Duties and obligations imposed under this Contract and rights and remedies available hereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by ILM shall constitute a waiver of a right afforded under this Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach hereunder. In the event ILM institutes an action or proceeding against Client relating to the enforcement of this Contract, any provision hereof, or any default hereunder, Client shall pay ILM's attorneys' fees and other costs incurred in that action or proceeding, in addition to any other relief to which ILM may be entitled. This Contract constitutes the entire agreement between the parties with respect to the subject matter hereof, and any modification or change will not be effective unless in writing signed by the parties. No party to this Contract shall assign it without the written consent of the other party. This Contract shall be binding upon the Client and ILM, their heirs, successors, and assignees. This Contract shall be governed by Illinois law. The venue for resolution of any dispute arising under this Contract shall be Lake County Illinois.

Arbitration of Disputes. All claims, disputes, and other matters in question between ILM and Client arising out of, or relating to, this Contract shall be decided by arbitration, in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, unless the parties mutually agree otherwise. Such agreement to arbitrate, and any other agreement to arbitrate with an additional person or persons duly consented to by the parties to this Contract, shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered on it in accordance with applicable law in any court having jurisdiction thereof. Demand for arbitration shall be made in writing and served on the other party with copies sent to the American Arbitration Association.

Force Majeure. ILM shall not be considered to be in default or breach of this Contract, and shall be excused from performance or liability for damages incurred by Client, if and to the extent ILM shall be delayed in or prevented from performing or carrying out any of the provisions of this Contract due to any act, omission, or circumstance by or in consequence of any act of God, labor disturbance, vandalism, sabotage, failure of suppliers of materials, act of the public enemy, war, invasion, insurrection, riot, terrorism, civil disorders, strikes, rebellions, revolutions, fire, storm, flood, ice, earthquake, explosion, epidemic, pandemic, virus, disease, breakage or accident to machinery or equipment or any other cause or causes beyond ILM's reasonable control, including any curtailment, order, regulation, or restriction imposed by governmental, military or lawfully established civilian authorities.

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 01/13/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Willis Towers Watson Northeast, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 372305191 USA	CONTACT NAME: WTW Certificate Center PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378 E-MAIL ADDRESS: certificates@wtwco.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Nautilus Insurance Company	17370
INSURER B: Key Risk Insurance Company	10885
INSURER C: Great Divide Insurance Company	25224
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
Integrated Lakes Management Inc
110 Le Baron St
Waukegan, IL 600853027

COVERAGES **CERTIFICATE NUMBER:** W43657326 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:			ECP2045381-11	12/13/2025	12/13/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG [ ]	$ 1,000,000 $ 300,000 $ 25,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
B	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			BAP2045380-11	12/13/2025	12/13/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) [ ]	$ 1,000,000 $ $ $ $
A	[ ] UMBRELLA LIAB [X] OCCUR [X] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $			FFX2045382-11	12/13/2025	12/13/2026	EACH OCCURRENCE AGGREGATE [ ]	$ 5,000,000 $ 5,000,000 $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [No] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		WCA2045383-11	12/13/2025	12/13/2026	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
A	Contractors Pollution Liability			ECP2045381-11	12/13/2025	12/13/2026	Each Pollution Condit Deductible Each Claim Aggregate & per claim	$1,000,000 $10,000 $1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Evidence of Coverage

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Patricia A. Ferry

ILM
TRUSTED CARE OF LAND & WATER

110 Le Baron Street, Waukegan, IL 60085 | (847) 244-6662
info@ilmenvironments.com | ilmenvironments.com

SERVICE REPORT

Site Sample Site - 140 acre lake Date Apr 8, 2024

Service Task Description Early Spring Herbicide Visit 1

Personnel CJR, GZ

Signs Posted Yes Equipment Used Spray Boat

COMMENTS

Today an aquatic herbicide application was executed in the main basin and in the channels. Sonar was applied at a rate of 6 ppb. Both liquid and granular formulations were used.

Liquid was used in the main basin. Two passes were made the first at the 3 to 5 foot depth range the second in the 9-10 foot depth range.

Granular was applied in the two channels.

During the application a plant density survey was collected using sonar and rake tosses were made in multiple locations.

Sonar AS 640 oz
Sonar One 3 lbs

A temperature D.O. profile was performed at 1 foot intervals on the up wind side of the lake starting at the surface, secchi clarity was 3.5'. Wind speeds were too strong to perform diagnostics at any other portion of the lake.

10.98/8.4, 11.3/8.3, 11.5/ 8.2, 11.6/8.1, 11.1/8.0, 11.09/7.9, 11.1/7.9

Report By Chris Ryan

ILM

TRUSTED CARE OF LAND & WATER

TERMS AND CONDITIONS *(rev.10/2022)*

Scope of Work and Time Limit. The Proposal issued by Integrated Lakes Management ("ILM") is valid for a period of 30 days from the date of the Proposal. The entire scope of work is identified in the Proposal constitutes the "Project" as that term issue used in these Terms and Conditions. Client may not modify the Proposal by removing or adding items of work to the Proposal unless agreed to in writing by ILM. Upon signature by the Client the Proposal shall constitute a contract between Client and ILM (the "Contract"). If ILM does not receive Client's signed Proposal within 30 days of its date ILM reserves the right withdraw the Proposal without notice to Client. If ILM withdraws the Proposal ILM may issue to Client a new proposal which may differ from the original Proposal with respect to estimated costs, schedule for completion, and overall scope of work. Work is performed in order of proposals accepted, unless negotiated otherwise.

Time and Materials Proposals. Services which are billed at "Time and Materials" (as specified in the Proposal) will be charged in accordance with agreed upon hourly labor rates and materials costs specified in the Proposal. In addition to charges for time spent and material consumed in conducting fieldwork at the Project site, Time and Materials charges will include time spent traveling to and from Project site and time and materials spent on report preparation by professional, technical, or clerical staff. To the extent that a Time and Materials proposal includes estimated costs, the estimates are for budgeting purposes only and the Proposal shall not be considered to provide a fixed lump-sum cost for the time and materials specified in the Proposal. If during the performance of work ILM determines that an estimated cost will be exceeded ILM shall have the right (but not the obligation) to cease work on the Project until a revised estimated cost has been presented to and approved by the Client.

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AQUATIC CONTROL
Est. 1966

APPLE CANYON LAKE MANAGEMENT PLAN

PREPARED BY:
AQUATIC CONTROL

To: Apple Canyon Lake Property Owners Association
14A157 Canyon Club Dr.
Apple River, IL 61001

Dear Selection Committee,

Thank you for the opportunity to submit a proposal for a Comprehensive Lake Management Plan for Apple Canyon Lake. In this proposal, you will find information about Aquatic Control, Inc., our team's qualifications, references to our prior and present projects that are similar in scope, and our proposed scope of work for Apple Canyon Lake. Aquatic Control, Inc. is a business in the midwestern US, based out of Seymour, IN., with satellite offices in Davenport, IA; Elkhart, IA; Williamsville, IL; Truesdale, MO; Valparaiso, IN; Evansville, IN; Elizabethtown, KY; Jackson, TN; and Knoxville, TN. Thank you for your time and consideration.

Sincerely,

Tim Holt
Regional Manager – Northern Territory
Aquatic Control, Inc.
105 N Old Route 66
Williamsville, IL 62693

Apple Canyon Lake Comprehensive Lake Management Plan

Prepared By:

Timothy Holt, B.S. | Regional Manager – Northern Territory
Nathan Long, B.S. | Executive Vice President
Adam Charlton, B.S. | Vice President of Satellite Operations
Ciera Baird, Ph.D. | Aquatic Ecotoxicologist: Specializing in HAB Management
Leif Willey, M.S. | Lake and Special Project Supervisor
Wes Goldsmith, B.S. | Fisheries Management Specialist
Blake Cottrell, B.S. | Davenport, IA Office Manager

Aquatic Control, Inc., 501 W 76th St, Davenport, IA 52806

Purpose: A technical proposal for lake monitoring and management services requested by the Apple Canyon Lake Property Owners Association

Overall Objective:

The overall objective of this comprehensive lake management plan is to address growth of invasive and nuisance vegetation, growth of harmful algal blooms (HABs), and nutrient levels that could be affecting overall lake health and productivity. To meet this overall objective, a number of lake management and laboratory services are proposed below. This includes biweekly lake inspections beginning in April 2026 to monitor presence and growth of vegetation and algae. Water samples will be collected during these biweekly inspections for analysis of planktonic algae and cyanobacteria. Predetermined cell count thresholds will guide the deployment of on-call, EPA-registered algaecide treatments to control harmful algal blooms (HABs) in Apple Canyon Lake. EPA-registered herbicides will also be applied as needed to target aquatic invasive species prior to the establishment of reproductive structures. Water quality monitoring will be conducted monthly between April and September of 2026 to maintain consistency in data collection from prior years, with a few recommended additional parameters.

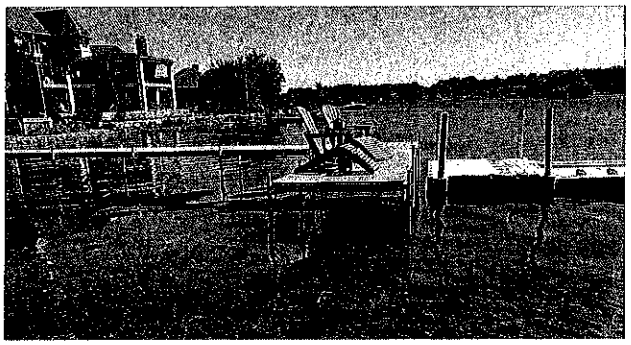
1. Company Overview

Aquatic Control is an Indiana S-Corporation that has been providing high quality products, services, and staff for managing lakes, ponds, reservoirs, and other water resources for both public and private entities since 1966. Aquatic Control's corporate headquarters is in Seymour, IN and has 9 branch offices in Iowa, Illinois, Indiana, Kentucky, Tennessee, and Missouri. Aquatic Control maintains a fleet of 75 boats and 71 trucks that can be rapidly mobilized to handle a variety of problems on a wide range of water bodies. Aquatic Control is an authorized distributor for various algaecides, herbicides, and water quality products, an authorized distributor and service provider for various fountain and aeration manufacturers, and provides full-service lake management including vegetation management, harmful algal bloom management, fisheries management, laboratory services, nutrient remediation, and native aquatic planting. The company's most valuable resource is its staff of 97 full-time employees. Several of these full-time employees would be heavily involved in this project, and their brief resumes are included in an Appendix at the end of this document.

2. Qualifications and Experience

Vegetation Management

Aquatic Control has been conducting vegetation management applications and surveys since 1966. Vegetation management operations span waterbodies of all sizes from small, man-made backyard ponds to thousand plus acre lake and reservoir systems as well as irrigation canals, ditches and river systems. Waters managed also involve a variety of stakeholders including private property owners and conservancy districts, state owned public waters, property/homeowner and neighborhood associations along public water shorelines. Aquatic Control has been a leading contractor through the Indiana Department of Natural Resources Lake and River Enhancement (LARE) program since the program began in the early 2000s. Through the LARE program, we have helped sponsor organizations and the State meet their invasive species management goals on lakes including the Tippecanoe chain of lakes near North Webster, IN, Clear Lake in Laporte, IN, Griffy Lake in Bloomington, IN and the White River in Indianapolis, IN. All projects managed under LARE include annual vegetation surveys and management plan updates provided to the sponsoring organization as well as the State. Private conservancies utilizing our vegetation management and monitoring services include Cordry Sweetwater Conservancy, in Nineveh, IN, Lake Lemon Conservancy in Unionville, IN and the Lake Papakeechie Protective Association in Syracuse, IN. LARE clients are focused on invasive species management, while our private conservancy clients are focused on not only invasive vegetation, but also maintaining optimal recreational water uses through each year.



Aeration

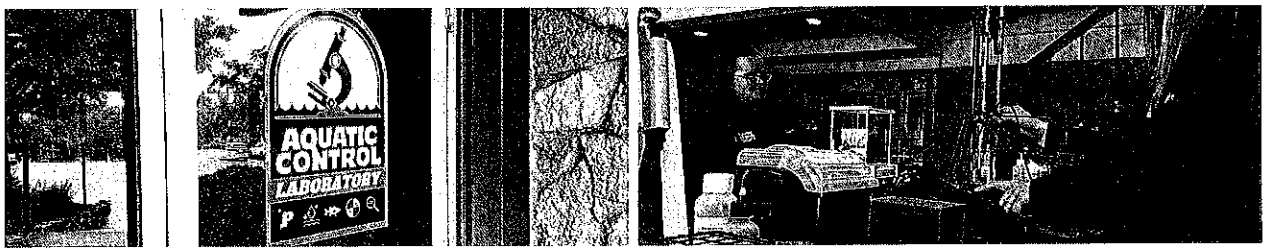
Aquatic Control has been installing aeration systems and fountains for over 50 years. We not only design, assemble, and install these systems, but we are also equipped to help customers throughout the complete lifespan of their fountain or aeration system. We are a certified warranty repair center for Aquamaster, Kasco, Otterbine, and Aqua Control fountains and aeration systems. Our team has maintained professional relationships with these manufacturers for decades, partnering on testing new technology and providing input to improve product design. In addition to seamless sales and installation, our proactive winter servicing program is designed to identify and resolve potential issues, guaranteeing peak performance and maximizing the operational lifespan of your equipment.

Harmful Algal Bloom (HAB) Management

Aquatic Control performed our first large-scale harmful algal bloom (HAB) treatment in company history in 1989 on Morse Reservoir in Indianapolis, IN. In 2001, Indianapolis Water developed severe blooms on Eagle Creek and Morse Reservoirs and Aquatic Control was brought back into management of those reservoirs. We have remained the algal management contractor for this company since 2001. Other examples of lakes and reservoirs where Aquatic Control has designed and implemented custom HAB treatment protocols include Lake Bloomington and Lake Evergreen in Bloomington, IL; Lake Mattoon and Lake Paradise in Mattoon, IL; Lake John Hay in Salem, IN; Prairie Creek Reservoir in Muncie, IN; Jacobson Reservoir in Lexington, KY; West Boggs Lake in Loogootee, IN; Milford Lake in Junction City, KS; Marion Reservoir in Marion, KS; and Braidwood Lake in Braidwood, IL. We provide laboratory analysis (e.g., harmful algal bloom identification and enumeration, toxin testing, and water quality testing) for the majority of these projects. We also provide professional consulting services, laboratory analysis, and USEPA-registered algaecides for a number of other reservoirs outside of our application service territory.

Laboratory Services

Aquatic Control has operated a service laboratory at our headquarters office in Seymour, IN since 2018. We provide retail laboratory services including water quality and nutrient analysis, algae and cyanobacterial identification and enumeration, cyanobacterial toxin testing, sediment characterization, sediment phosphorus analysis, and E. Coli testing. In addition to offering these retail services, we can conduct custom experiments for water clarity improvement and nutrient remediation, evaluating specific products against site samples to determine efficacy and feasibility of candidate management plans. We also offer custom algaecide efficacy testing which involves laboratory experimentation to test performance of candidate algaecides against site-specific algae based on water uses, water chemistry, and types of algae present in the water. For many of our management projects, we utilize our laboratory to conduct strategic monitoring plans whether for nutrients or harmful algal blooms to ensure that management decisions are based on site data. Our laboratory services are utilized by various entities across the US ranging from private pond homeowners to lake associations, to large-scale public reservoirs and industrial water managers.



Nutrient Remediation

Aquatic Control has extensive experience with designing and implementing site-specific treatment plans for nutrient remediation in ponds and lakes. Excess phosphorus concentrations in water and sediment can result in overproduction of algae and vegetation in aquatic systems, which can lead to harmful algal blooms, hypoxia, and accretion of muck in sediments. We provide laboratory analysis to characterize total and reactive phosphorus concentrations in water and sediment and monitor trends over time to design tailored nutrient management plans. This includes evaluation of potential phosphorus sources to the lake and whether in situ phosphorus inactivation is a sound and feasible action. In situations where additional data resolution is needed, we can provide laboratory-scale experiments to evaluate efficacy of specific products on site-specific samples. We distribute and apply a variety of phosphorus inactivation products including aluminum-based and lanthanum-based formulations and can provide professional recommendations on which products may be more suitable based on whether the water or sediments are being targeted, budget, and time frame for management.

3. Approach to Services

a. Initial Phase of Strategic Management Plan Development

Immediately following acceptance of the proposed work, the project manager will contact the Apple Canyon Lake Association to confirm contracted services and to schedule vegetation and/or batrhymetric surveys and to set a timeline for vegetation treatments. If desired, the project manager can meet with the Apple Canyon Lake contact and/or Board of Directors to introduce the Aquatic Control team, provide an outline of our management plan, explain the goals of our management plan, and to address any questions from membership.

b. Early Year Site Visits

Aquatic Control will complete the first site inspection at Apple Canyon Lake in March-April 2026 with the overarching objective being to collect comprehensive data on the current state of the lake, including characterization of vegetation growth and distribution, analysis of water quality, and analysis of the planktonic algal assemblage. This will include a full bathymetric mapping service to update the ACL bathymetric contour map and collect accurate volume information. The lake will need to be free of ice before this can occur. The mapping will also allow for future vegetation treatments to be performed with a high degree of precision and accuracy. An 80-point vegetation survey following Indiana DNR Tier 2 vegetation survey protocols will also be conducted in late March to mid-April, depending on water conditions (cannot do this survey if ice is present). Data from this survey will be used to formulate an early season vegetation management plan, which will include details on priority treatment zones to be visited for potential treatment every 2 weeks throughout the growing season. We recommend that a second formal vegetation survey take place in July-August. During the first lake inspection, samples will be collected for the first water quality monitoring event. Additionally, water samples will be collected from 4 sites throughout the lake for analysis of algal identification and enumeration to initially characterize the algal assemblage and provide baseline data for how trends change throughout the year. All water samples will be overnight shipped to our headquarters laboratory for analysis. Details on specific parameters and methodology are included in the subsequent sections below.

c. Vegetation Survey

Prior to vegetation surveys and treatments, an updated bathymetric map of ACL should be completed. Data for this map will be collected using Lowrance fathometers and transducers to record the bottom of the lake while traveling along evenly spaced transects across the lake. This updated map can also be used to identify areas of siltation where dredging should be prioritized. Digital and printed maps will be supplied to the client following completion. Cloud access to the recording data will also be used to enhance accuracy and precision in future vegetation treatments. An early season/pre-treatment survey conducted in late March to mid-April will establish a baseline for presence and acreage of curly-leaf pondweed growth and coverage. This survey will include an 80-point survey of the littoral zone of the lake utilizing INDNR Tier 2 vegetation sampling protocol. Sample point distribution will be assigned following guidelines for eutrophic lakes. Forty-three (43) sample sites will be located throughout the 0–5-foot contour, 27 sites in the 5–10-foot contour and 10 sites in the 10–15-foot contour. Sample points will be loaded into a Lowrance fathometer, and the boat will be driven to the sample point and brought to a stop. If the site is outside of the target contour on the initial survey, it will be adjusted to meet the appropriate location. Once the location and correct depth are confirmed, a sampling rake will be lowered to the bottom and 10 feet of line will be released. The boat driver will then back up slowly to remove slack, and the rake slowly retrieved. Upon retrieval, vegetation collected on the rake will be identified and separated by species. Each species will be assigned a rake score of 1 (1-19% of rake teeth filled), 3 (20-99% of rake teeth filled) or 5 (100 % rake teeth filled) and that score recorded for each species.

During the survey, sonar soundings will be recorded for later processing to generate vegetation density maps. Invasive species presence will be marked on Garmin handheld GPS units. Large areas of growth will be mapped by driving the boat around the edge of the bed of growth and marking with the handheld GPS. Waypoints will be uploaded to GIS software following the survey to generate the treatment map and calculate acreage. Lowrance sonar data will be processed to calculate precise water volume data for each treatment area. This enhances accuracy of herbicide dosage and ensures areas are not being over or under dosed.

d. Curlyleaf Pondweed Management

Invasive vegetation including curly-leaf pondweed should be treated prior to the water temperature reaching 60 F at the surface but should not be colder than 50 F and should be in a warming trend. This condition allows for the treatment to optimize efficacy on the actively growing curlyleaf, while enhancing selectivity to native species. This treatment timing also ensures that reproductive structures, called turions, are not produced for the following season. By not allowing vegetation reproduction structures to be produced, we can begin to reduce benthic turion density and in-turn reduce the acreage that can re-grow in the following seasons. It may take 2-5 seasons to achieve 98% reductions or more. Treatments would be conducted with endothall or diquat based herbicides for early season curly-leaf pondweed control.

Native plant management should be limited to areas where growth is interfering with access and water use. Leaving as much native vegetation as allowable is an important component to our management plans as it allows for better water quality maintenance and fish habitat conservation. Herbicides will be applied by State licensed applicators and biologists via boat mounted spray systems that utilize both surface spray and sub-surface injection application mechanisms. Prior to application communication is provided to the client and

residents in impacted areas of any potential water use restrictions associated with the herbicide application. This communication can be in the form of an electronic communication that can be circulated through the community or by placing individual notifications in residents' frontage areas or near boat docks. Application crews are equipped with Lowrance or handheld GPS systems with treatment maps and information loaded showing treatment area boundaries and precise amounts of product to be used. Crews are also equipped with waterproof, printed copies of this information.

e. Bi-weekly Vegetation Inspections and Treatments of High Traffic Areas

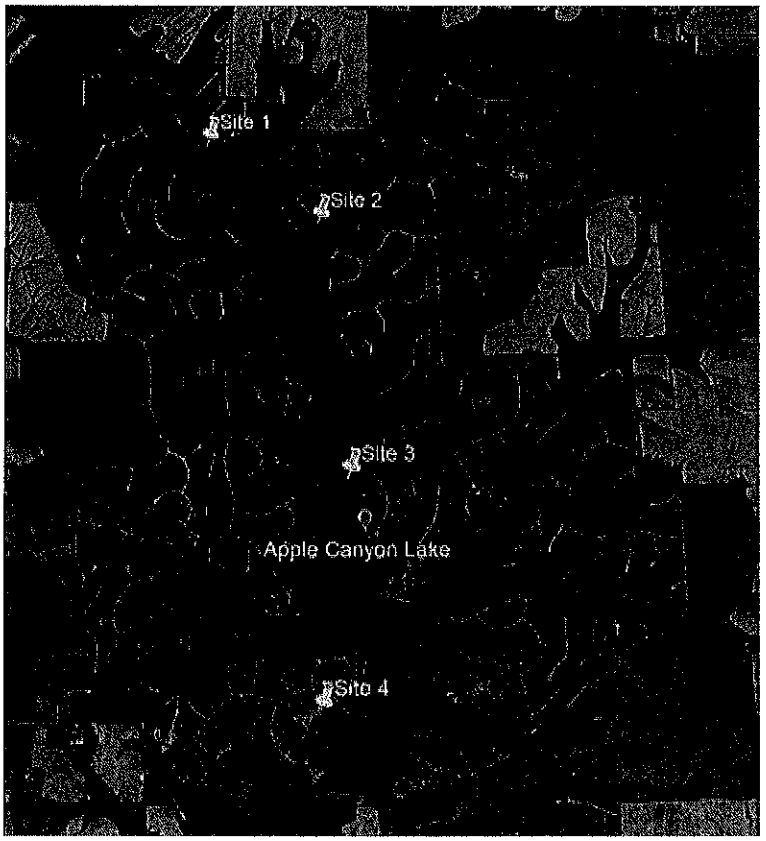
Aquatic Control will assess vegetation growth around predetermined high traffic areas during biweekly inspections. High traffic areas will be treated for filamentous algae and nuisance aquatic vegetation at this time. We anticipate that high traffic areas will receive monthly algaecide treatments. Nuisance submersed aquatic vegetation will be treated on an as needed basis. We anticipate 2-3 submersed aquatic vegetation treatments to be completed in these areas in 2026; most likely prior to Memorial Day, July 4th, and Labor Day weekends.

f. Dock Treatments – Paid by Lot Owner

Aquatic Control will complete on-call treatments to control invasive and nuisance aquatic submersed vegetation near homeowners' docks and shorelines. ACL staff will coordinate member signups and payment collection for private dock and shoreline treatments. Aquatic Control will complete submersed vegetation treatments on predetermined lots and bill the Apple Canyon Lake Association directly for services. Treatments will be applied to predetermined shoreline and dock areas. EPA registered aquatic herbicides and/or algaecides will be dispersed evenly to the treatment zone that will extend 100 ft. away from the shoreline.

g. Strategic Harmful Algal Bloom (HAB) Monitoring

Every two weeks from April through September 2026, water samples will be collected from 4 sampling sites throughout the lake (see map below for sampling locations). Sampling sites can be modified as needed based on client experience and preferences, but should capture the spatial and vertical variability of the lake, as well as high use areas. Water samples will be shipped overnight to our laboratory and analyzed using light microscopy and standardized enumeration methods to identify algal genera, and enumerate by genus and for the total assemblage. Reports containing results of the analysis will be provided following each sampling event. These data will be used to carefully monitor the presence and growth of harmful algae (i.e., toxin-producing cyanobacteria), so that proactive algaecide treatments can be triggered early in the growth cycle if and when needed. These proactive treatments help minimize potential for severe algal blooms throughout the season. Data from the HAB monitoring will also be used to inform lake residents of potential risk from using the lake if there is elevated growth of HABs at any point. Aquatic Control will provide professional recommendations on any water use restrictions that may be necessary per state and federal guidance. If elevated levels of harmful cyanobacteria are detected at any point, we will also provide toxin detection testing.



Map of Harmful Algal Bloom (HAB) Monitoring Sites 1-4

h. Harmful Algal Bloom (HAB) Management

If needed based on monitoring data, proactive algaecide applications will be completed to control growth of cyanobacteria and minimize potential for dense HABs to form. Algaecide treatments will be designed based on the spatial distribution, types, and densities of cyanobacteria. This includes product formulation, treatment concentration, and relative surface area of the lake to be treated. Aquatic Control utilizes advanced application equipment specifically designed to apply predetermined and precise product concentrations to targeted areas of the water body. Equipment includes advanced GPS, sonar, flow meters, and GPS-controlled valves. Application equipment is housed on 18-21 ft. Fiberglass Carolina skiff boats which are equipped with 90-115 hp outboard motors. Predetermined treatment areas are created and uploaded to onboard navigational systems, while treatment rates and swath widths are programmed into onboard computers. State-certified and licensed applicators operate boats in the predetermined treatment zones, and the calibrated computer-controlled valve meters expend the proper volume of product. Product depth placement can be adjusted with the use of our custom-built weighted trailing hoses. The selected algaecide is based on water characteristics, type and density of algae present, and uses for the water. To provide pricing for this bid, the pricing schedule details costs for specific scales of treatment to provide as accurate of an estimate as possible. However, we would recommend that treatments be based on site data at the time of sample collection and therefore, specific treatment design is subject to change.

i. Water Quality Monitoring

Based on prior water quality reports provided to Aquatic Control, we are aware that Apple Canyon Lake already has an established water quality monitoring routine, both for tributary streams and the lake itself. We recommend continuing with that program for consistency in data collection, so that you may continue comparing trends over time. Aquatic Control's laboratory is able to provide these services, and pricing will be provided below. We would also recommend adding some additional parameters to the monitoring program. Apple Canyon Lake has routinely measured total phosphorus, total nitrogen, nitrate and nitrite, total Kjedahl nitrogen, and total suspended solids. We would propose adding reactive phosphorus (i.e., orthophosphate), as this is the form of phosphorus that is readily bioavailable for algae and plants to use for growth and reproduction. In addition, we would recommend adding ammonia as an additional form of nitrogen to track. Ammonia can be toxic to fish and aquatic invertebrates if in the unionized form, which occurs under high temperature and high pH conditions (most often coinciding with harmful algal blooms). Ammonia is also prevalent under anoxic conditions near the sediment-water interface, so measuring this parameter can be beneficial in understanding nutrient cycling in the system. Finally, if no recent data on pH, alkalinity, hardness, and conductivity are available, we would also propose adding those parameters to the first monitoring event of each year to provide baseline data on general water chemistry. A total of 16 samples will be analyzed each month. This would include one sample from each of the 6 tributary streams, one sample from below the spillway, and 3 samples (surface, mid-column, and benthic) at each of the 3 central lake sites. Pricing below includes sample collection by Aquatic Control, since our team would already be on site every 2 weeks. While at the lake for biweekly lake inspections and sample collection, we would also measure dissolved oxygen and temperature profiles, as well as Secchi depths at the same 3 sites centrally located in the lake that are used for water quality samples. These data indicate overall lake health, can provide evidence of dense algae growth, and can also inform whether an algaecide treatment would be safe to complete if one were needed based on monitoring data.

A report will be provided following each sampling event and then again at the end of 2026 detailing the summary of all data collected. Reports will include data interpretations and management recommendations.

4. Anticipated Schedule of Visits and Services

Event Type	Proposed Frequency
Lake Inspections	Biweekly (April-September)
HAB Monitoring	Biweekly (April-September)
Bathymetric Survey and Maps	One-time: March (or after ice-out conditions)
Vegetation Survey Quick Assessment	Twice: March-April and July-August 2026
Curlyleaf pondweed treatment	One-time: March-April 2026 (Before water temperature reaches 60 degrees)
Nuisance Algae and Submersed Plant Treatments in High Traffic Areas	On Call
Nuisance Algae and Submersed Plants Treatments – Private Docks and Shorelines	On Call
Water Quality Monitoring	Monthly April through September 2026
HAB Treatments	As recommended based on strategic HAB monitoring data

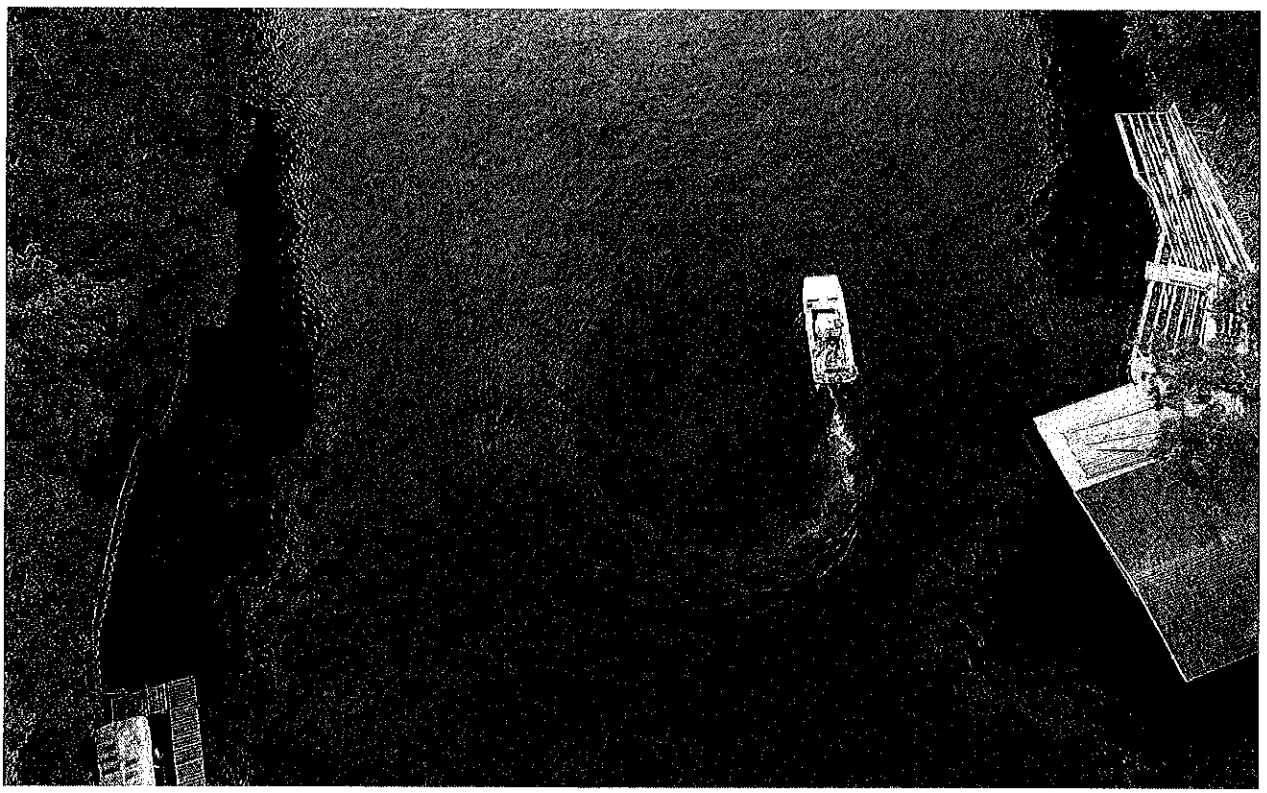
5. Price Schedule

Service Type	Price Per Event	Total Price
Biweekly Lake Inspections *(Visual inspections for filamentous and planktonic algae, aquatic plants, and nuisance aquatic vegetation)*	$1,309	$18,326
Water Quality Monitoring *(Monthly April – September 2026)*	$4,143	$24,858
Harmful Algal Bloom Monitoring *(Bi-weekly April-September, total of 14 sampling events)*	$1,066	$14,924
Optional cyanobacterial toxin detection testing (if recommended based on monitoring data)	*Up to $1,016	*Up to $14,224
Harmful Algal Bloom Management *(Applications of USEPA-registered algaecide Cutrine Plus, pricing based on acreage treated. No definitive frequency or timing of treatment since decisions would be based on monitoring data.)*	1/3 surface area treatment: $23,278 1/4 surface area treatment: $18,587	
Bathymetric Mapping	$4,417	$4,417
Tier 2 Spring and Summer Vegetation Survey – Vegetation Map Included	$4,420	$8,840
Curlyleaf Pondweed Treatment (50 acres)	$9,262.50	
Nuisance Species Vegetation Treatment (50 acres)	$14,592.50	
Filamentous Algae Treatment (50 Acres)	$3,477.50	
Filamentous Algae Treatment (10 Acres)	$1,674.70	
Planktonic Algae Spot Treatment (10 acres)	$1,755	

*For cyanotoxin detection testing, the "up to" amount indicates the maximum cost in the scenario that all 3 toxins (microcystins, cylindrospermopsin, and anatoxin-a) are tested for in each sample. However, our laboratory will only test for the toxins that could be produced based on the cyanobacterial genera detected in each sample.

6. Client References

Firm Name	Contact Person	Title	Address	E-mail Address	Phone Number
Lake Wildwood	Shawn Dixon	General Manager	1000 Lake Wildwood Drive, Varna, IL	Sdixon@lake-wildwood.com	309-463-2047
Lake Santee POA	Gina Julien	Lake Manager	13 Southwest Wrenn Parkway, Greensburg, IN	ginajulien@gmail.com	513-226-6276
Painted Hills Lake Assc.	Ron Milford	Board Director	4364 Rembrandt Dr., Martinsville, IN	Phalakes2@gmail.com	317-319-5558
Lake Tansi	Sam McAdoo	General Manager	5050 Shoshone Loop, Crossville, TN	Sam.mcadoo@laketansipoa.com	931-287-5504



7. Proof of Insurance and Licensing

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 12/10/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Moore & Shepherd Insurance 320 South Airport Road PO Box 443 Seymour IN 47274	CONTACT NAME: Laverne Carr PHONE (A/C, No, Ext): (812) 522-1555 FAX (A/C, No): (812) 522-1592 E-MAIL ADDRESS: certs@shepherdins.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Selective Ins Co	12572
INSURER B: Bridgefield Casualty Insurance Company	10335
INSURER C: Great American	16691
INSURER D: Old Republic Insurance Company	24147
INSURER E:	
INSURER F:	

INSURED
AQUATIC CONTROL, INC.
418 W STATE ROAD # 258
PO BOX 100
SEYMOUR IN 47274

COVERAGES CERTIFICATE NUMBER: 25-26 MASTER REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [X] LOC OTHER:			G 1660441	06/17/2025	06/17/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 500,000 $ 15,000 $ 1,000,000 $ 3,000,000 $ 3,000,000
A	AUTOMOBILE LIABILITY [X] ANY AUTO OWNED AUTOS ONLY [X] HIRED AUTOS ONLY SCHEDULED AUTOS [X] NON-OWNED AUTOS ONLY			G 1660441	06/17/2025	06/17/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Medical payments	$ 1,000,000 $ $ $ $ 5,000
A	[X] UMBRELLA LIAB [X] OCCUR EXCESS LIAB CLAIMS-MADE DED [X] RETENTION $ 0			G 1660441	06/17/2025	06/17/2026	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000 $
B/C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) [N] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		0196-81072 & WC6597585	06/17/2025	06/17/2026	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
A	Pesticide and Herbicide Applicator Coverage			G 1660441	06/17/2025	06/17/2026	Limit	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Automatic Additional insured applies to General Liability (including ongoing and completed operations), Automobile Liability & Umbrella coverages on a Primary &Non-Contributory Basis where required by written contract subject to policy terms, conditions & exclusions. Automatic Waiver of Subrogation applies to General Liability, Automobile Liability, Umbrella & Workers Compensation coverages where required by written contract subject to policy terms, conditions & exclusions. Additional insured status including Primary & Non-Contributory Basis & Waivers of Subrogation extend to the Umbrella coverage regarding General Liability, Auto Liability and Employers Liability coverages. Subject to policy terms, conditions and exclusions. Per forms: CG 72 03 12 19; CG 20 01 04 13; CG 75 21 01 10; CA 77 35 02 16; CA 77 73 12 05; CXL 548 01 23; CXL 449 05 17; CXL 4 04 13 & WC 00 03 13. Pesticide and Herbicide Applicator Coverage included per form PH0005 01/99.

CERTIFICATE HOLDER	CANCELLATION
Lake Carroll Association 28-378 Lake Carroll Blvd Lemark IL 61046	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Laverne K Carr

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-3397
JB Pritzker, Governor — John J. Kim, Director

217/782-0610

May 04, 2023

Aquatic Control, Inc.
P.O. Box 100
Seymour, IN 47274

RE: Aquatic Control, Inc.
NPDES Permit No. ILG870099
Bureau ID: W2178990075
Notice of Coverage under the Pesticide Application Point Source Discharges General Permit

Permittee:

The Illinois Environmental Protection Agency has reviewed your NOI and determined that the pesticide application discharges described therein are appropriately covered by a General NPDES Permit issued by the Agency. A copy of the General Permit is enclosed.

The General Permit includes discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the permit could result in civil and/or criminal penalties. The Agency is ready and willing to assist you in interpreting any of the conditions of the permit as they relate specifically to your discharge.

The Annual Report must be submitted to the Agency no later than February 15th of the following year for all pesticide activities covered under this permit occurring during the previous calendar year.

The permit is applied to your discharge effective on the date of this letter or as identified by the conditions of the Permit. You have the right to appeal the Agency's decision to cover your discharge by the General Permit to the Illinois Pollution Control Board within a 35 day period following the date of this letter.

This letter shows your NPDES Permit number, please reference this number in all future correspondence. Should you have any questions concerning the Permit, please contact Francisco J. Herrera at 217/782-0610.

Sincerely,

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

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Enclosure: General Permit

cc: Compliance Assurance Section
Records Unit
Marion Region

2125 S. First Street, Champaign, IL 61820 (217) 278-5800
2009 Mall Street Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
595 S. State Street, Elgin, IL 60123 (847) 608-3131
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

NPDES Permit No. ILG87 0099

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
www.epa.illinois.gov

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit
For
Pesticide Application Point Source Discharges

Expiration Date: September 30, 2027

Issue Date: September 14, 2022

Effective Date: October 01, 2022

In compliance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board and Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter 1), and the Clean Water Act, and the regulations thereunder the following discharges are authorized by this permit in accordance with the conditions and attachments herein.

This permit is available to operators who discharge to waters of the State from the application of biological pesticides or chemical pesticides that leave a residue, when the pesticide application is for one of the following pesticide use patterns:

1. Mosquito and Other Insect Pest Control
2. Weed and Algae Pest Control
3. Animal Pest Control
4. Forested Areas Pest Control
5. Other Pest Control Activities

Discharges may be authorized to any surface water of the State excluding waters identified as impaired by that pesticide or its degradates. This permit does not authorize discharges, to any waters of the State which are designated as a outstanding resource water by the Agency in accordance with 35 Ill. Adm. Code 302.105(b).

To receive authorization to discharge under this general permit, an operator must submit the proper application form to the Illinois Environmental Protection Agency. Authorization, if granted, will be by letter and include a copy of this permit.

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

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EcoCAT
Ecological Compliance Assessment Tool

Applicant:	Aquatic Control Inc.	*IDNR Project Number:*	2609335
Contact:	Tim Holt	*Date:*	01/08/2026
Address:	501 W 76th St Davenport, IN 52806		
Project:	Apple Canyon Lake		
Address:	14A167 Canyon Club Dr. , Apple River		

Description: Aquatic Control will complete biweekly inspections of Apple Canyon Lake for aquatic invasive species, planktonic algae (HAB's), filamentous algae, and nuisance aquatic vegetation. If necessary, State registered Aquatic Applicators will apply EPA registered herbicides and/or algaecides for control of observed vegetation.

Natural Resource Review Results

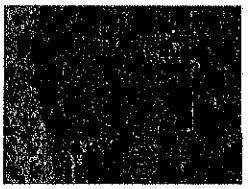
Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Grey/Timber Wolf *(Canis lupus)*

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location
The applicant is responsible for the accuracy of the location submitted for the project.



County: Jo Daviess

Township, Range, Section:
28N, 3E, 3
28N, 3E, 4
28N, 3E, 9
28N, 3E, 10
28N, 3E, 15
28N, 3E, 16
28N, 3E, 22

IL Department of Natural Resources Contact
Adam Rawe
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
IL Environmental Protection Agency
Adam Rawe
1 Natural Resources Way
Springfield, Illinois 62702

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

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1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

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EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor
Natalie Phelps Finnie, Director

January 08, 2026

Tim Holt
Aquatic Control Inc.
501 W 76th St
Davenport, IN 52806

RE: Apple Canyon Lake
Project Number(s): 2609335
County: Jo Daviess

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Adam Rawe

Adam Rawe
Division of Ecosystems and Environment
217-785-5500

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE
SPRINGFIELD, ILLINOIS

LIC# CA105422
EXPIRES December 31, 2026

AQUATIC CONTROL INC
CLINTON A CHARLTON
418 W STATE RD 258
SEYMOUR IN 47274

SIGNATURE

(FOLD LINE)

ILLINOIS PESTICIDE ID CARD

LIC# CA105422 **USAPLANTS ID:** 00221X

COMMERCIAL APPLICATOR

General Standards
Aquatic

IL406-1122 X021-406-0030

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE
SPRINGFIELD, ILLINOIS

LIC# CAD99196
EXPIRES December 31, 2027

AQUATIC CONTROL INC
TIMOTHY B HOLT
105 N OLD ROUTE 66
WILLIAMSVILLE IL 62693

Tim Holt
SIGNATURE

(FOLD LINE)

ILLINOIS PESTICIDE ID CARD

LIC# CAD99196 **USAPLANTS ID:** 0045PL

COMMERCIAL APPLICATOR/DEALER

General Standards
Aquatic

IL406-1122 X021-406-0030

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE
SPRINGFIELD, ILLINOIS

LIC# CA107295
EXPIRES December 31, 2025

Aquatic Control Inc
BLAKE J COTTRELL
105 N OLD ROUTE 66
WILLIAMSVILLE IL 62693

Blake Cottrell
SIGNATURE

(FOLD LINE)

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE
SPRINGFIELD, ILLINOIS

LIC# CAD99337
EXPIRES December 31, 2025

AQUATIC CONTROL INC
NATHAN LONG
418 W STATE RD 258
SEYMOUR IN 47274

SIGNATURE

Appendix:
Project Delivery Team Resumes

Ciera M. Kinley-Baird, Ph.D.

Aquatic Control, Inc.
418 W State Rd. 258 Seymour, IN 47274
T: 812-497-2410 x2520
Email: cierab@aquaticcontrol.com

Education

Clemson University, Clemson, SC, Ph.D., Wildlife and Fisheries Biology (Ecotoxicology); 2018
Clemson University, Clemson, SC, M.S., Wildlife and Fisheries Biology (Ecotoxicology); 2015
Keystone College, La Plume, PA, B.S., Wildlife Biology; 2012

Professional Experience

Aquatic Ecotoxicologist **11/2018-present**
Specializing in Harmful Algal Bloom (HAB) Management
Aquatic Control, Inc., Seymour, IN

- Design and supervise HAB management contracts using applications of USEPA-registered algaecides to mitigate toxins/taste & odor issues in lakes and reservoirs
- Design phosphorus inactivation treatments in water and sediment for ponds and lakes
- Licensed and certified aquatic pesticide applicator in Indiana
- Perform laboratory bench-scale evaluations of various algaecides for control of site-specific algal assemblages prior to implementing treatments at the field-scale
- Design full-scale algaecide applications using advanced application equipment to effectively target planktonic and benthic algal assemblages
- Conduct internal and collaborative research regarding performance evaluations and best practices for various algaecides (copper, hydrogen peroxide, and endothall-based formulations)
- Interpret laboratory exposure-response data for algaecides and site-specific algal assemblages to identify effective formulations and treatment concentrations for full-scale algaecide treatments

Independent Consultant **1/2018 – 10/2018**

- Project manager for algaecide performance evaluations at Lake Okeechobee, FL, USA
- Conducted ecological risk assessments for terrestrial and aquatic ecosystems
- Analyzed exposure-response datasets for ecological risk assessments

Graduate Research Assistant **4/2013 – 5/2018**
Clemson University, Clemson, SC

- Designed and conducted laboratory, demonstration, and field-scale experiments to evaluate efficacy of algaecides and herbicides against noxious cyanobacteria, algae, and aquatic weeds
- Management of noxious algae in drinking water reservoirs, lakes, and ponds using USEPA-registered algaecides
- Studied the relative risks of using pesticides for controlling target species and minimizing risks for non-target aquatic organisms

Selected Professional Affiliations

Member, North American Lake Management Society
Member, American Water Works Association
Member, Aquatic Plant Management Society
Reviewer, Ecotoxicology and Environmental Safety
Reviewer, Journal of Aquatic Plant Management

Reviewer, Environmental Pollution
Reviewer, Science of the Total Environment

Selected Publications

Kinley-Baird, C.M. Smith, E.F.,Calomeni, A.J., McQueen,A.D., Gusler, G.O.,Boyer, M., Decker,K.N., and Clyde, G.A. (2023).Evaluation of preventative algaecide treatments for cyanobacterial resting cells in sediments of a central USA lake. Lake and Reservoir Management, 309, 340-355.

Calomeni, A., McQueen, A., **Kinley-Baird, C.**, Clyde, G., Gusler, G., Boyer, M., and Smith, E. (2023). Efficacy of algaecides for the proactive treatment of overwintering cyanobacteria. Ecotoxicology and Environmental Safety, 262, 115187.

Kinley-Baird, C.M., Calomeni, A.J.,Berthold, D.E., Lefler,F.W., Barbosa, M., Rodgers, J.H., & Laughinghouse IV, H.D. (2021).Laboratory-scale evaluation of algaecide effectiveness for control of microcystin producing cyanobacteria from Lake Okeechobee, Florida (USA). Ecotoxicology and Environmental Safety, 207, 111233.

Kinley-Baird, C. M., McQueen, A. D., Iwinski-Wood, K. J., Calomeni,A. J., & Rodgers, J. (2020). Intervention for microcystin-producing cyanobacteria and microcystins in freshwater resources: Development of a decision support document for risk management. Aquatic Ecosystem Restoration Foundation, Special Publication.

Calomeni, A.J., **Kinley, C.M.**, Geer, T.D., Hendrikse, M., & Rodgers, J.H. (2018). Lyngbya wollei responses to copper algaecide exposures predicted using a concentration exposure time (CET) model: Influence of initial biomass. Journal of Aquatic Plant Management, 56, 73-83.

Kinley, C.M., Iwinski, K.J., Hendrikse, M., Geer, T.D., & Rodgers,J.H. (2017). Cell density dependence of Microcystis aeruginosa responses to copper algaecide concentrations: Implications for microcystin-LR release. Ecotoxicology and Environmental Safety, 145, 591-596.

Geer, T.D., Calomeni, A.J., **Kinley, C.M.**, Iwinski, K.J., & Rodgers Jr., J.H. (2017). Predicting in situ responses of taste and odor producing algae in a southeastern US reservoir to a sodium carbonate peroxyhydrate algaecide using a laboratory exposure-response model. Water, Air, and Soil Pollution, 228 (53), 1-14.

Selected Presentations

Kinley-Baird, C.M. October 9, 2025. Introduction to Harmful Algal Blooms (HABs):Identification, Risks, and Management Tactics. Presentation at the Indiana American Fisheries Society Fall Meeting. Carmel, IN.

Kinley-Baird, C.M., Smith, E., Calomeni, A., McQueen, A., Patchett, G., Boyer, M. Decker, K., and Clyde, T. July 26, 2023. Evaluation of preventative algaecide treatments for cyanobacterial resting cells in sediments of a central USA lake. Platform presentation at the 63rd Annual Meeting of the Aquatic Plant Management Society. Indianapolis, IN.

Kinley-Baird, C.M & Long, N.W. January22, 2020. Results of Algaecide Treatment on Milford Gathering Pond. Platform presentation at 2020 Kansas Harmful Algal Bloom Meeting (hosted by Kansas Department of Health & Environment), Topeka, KS.

Kinley-Baird, C.M. August 25, 2019. Harmful algal blooms (HABs): Associated health risks and other issues (Part 1) and Adaptive water resource management for Cyano HABs (Part 2). Presentations given at "Algae Identification Workshop" hosted by Illinois Lake Management Association (ILMA), held at Aqua America plant in Danville, IL.

Rader, D. & **Kinley-Baird, C.M.** August 19, 2019. Reducing source water taste & odor through algal treatment of Jacobson Reservoir. Platform presentation at the 2019 Water Professionals Conference (WPC19) of the Kentucky/Tennessee Section AWWA. Louisville, KY.

Timothy B. Holt

Aquatic Control, Inc.
105 N Old State Road 66 Williamsville, IL 62693
T: 309-649-6000 x3601
Email: timh@aquaticcontrol.com

Education

Indiana University, Bloomington, IN, B.S., Outdoor Recreation, Parks, and Human Ecology with High Distinction; 2016

Professional Experience

Regional Manager - Northern Territory **8/2023 - present**

Aquatic Control, Inc., Williamsville, IL

- Mentored a team of 5 Satellite Office Managers across a multi-state region (Illinois, Central Iowa, Eastern Iowa, Missouri, Northern Indiana), ensuring consistent operational efficiency and performance across all offices
- Certified Pesticide Applicator with 10 years of experience planning and executing environmentally sound aquatic vegetation management programs on large drinking water and nuclear cooling plant reservoirs throughout the Midwest
- Researched and analyzed state-specific pesticide application and licensing regulations to ensure company-wide compliance

Office Manager - Illinois Office **12/2018 – 7/2023**

Aquatic Control Inc., Williamsville, IL

- Established Illinois Branch Office; grew staff from 1 to 6 while overseeing all operations and expansion.
- Facilitated a training program that prepared new team members to work independently in less than 30 days
- Generated customized quotes for clients based on comprehensive onsite inspections and project specifications
- Designed and managed aquatic vegetation control programs for 350+ clients, coordinating all aspects from design to execution
- Oversaw the full lifecycle of fountain and aeration systems, including installation, maintenance, and advanced mechanical, electrical, and control system diagnostics for equipment from four different manufacturers
- Managed regulatory compliance by successfully completing and submitting all required DNR permits and EPA annual reports

Aquatic Biologist **8/2016 – 11/2018**

Aquatic Control Inc., Williamsville, IL

- Developed and executed efficient daily schedules for over 150 customer treatments, demonstrating exceptional time management to meet strict daily and weekly deadlines
- Conducted electrofishing surveys to collect population data, including species identification, length, and weight measurements
- Performed routine and preventative maintenance on small engines and outboard motors, extending equipment lifespan and reducing downtime

Maintenance Intern – Muscatatuck Wildlife Refuge **8/2016 – 11/2018**

USFW, Seymour, IN

- Supported maintenance department by performing regular upkeep of facilities and equipment to prolong lifespan and to minimize downtime
- Assisted in the development and build-out of 10,000 sq. ft. of native prairie plots, gaining experience in soil preparation, native seeding, and invasive species management

Professional Affiliations

Illinois Lake Management Association: 2018 – Present

- Board of Directors 2019-2021 and 2025-Present
- Secretary – 2020-21
- Treasurer – 2025-Present
- Chairman of Exhibits, Conference, Workshop, and Financials Affairs

Midwest Aquatic Plant Management Society: 2017-Present

- Board of Directors 2025-Present
- Chairman of Exhibits

Certificates

- Licensed and Certified Pesticide Applicator in IL, IN, MO, MN, IA, and NE

Nathan W. Long

Aquatic Control, Inc.
418 W State Rd. 258 Seymour, IN 47274
T: 800-753-5253 x243
Email: natel@aquaticcontrol.com

Education

Purdue University, West Lafayette, IN, B.S., Fisheries and Aquatic Science; 1997

Professional Experience

Executive Vice President **2017-present**
Vice President - Lake Management Services **2007-2016**
Manager **2004-2006**
Aquatic Biologist **1999-2003**
Aquatic Control, Inc., Seymour, IN

- Supervise and perform algaecide and herbicide applications
- Plan and conduct electrofishing surveys and write survey reports
- Oversee more than 1,000 individual annual lake management contracts
- Supervise team of licensed aquatic applicators covering Midwest and Mid-South
- Design aquatic vegetation management programs
- Participate in lake and pond consultation with lake associations, government agencies, and individual property owners
- Author IDNR-reviewed and approved vegetation management plans for numerous Indiana public lakes
- Present at pond clinics, certification courses, professional, and public meetings
- Elected to Board of Directors in 2007
- Conduct field research under EUP permits for numerous products
- Oversee several lake management specialists and supervisors

Fisheries Aide **1998-1999**
Cinergy Corporation

- Sampled fish on Ohio and Wabash River utilizing electrofishing and seines
- Fish identification
- Co-author of technical reports

NMFS Observer **Winter 1997-1998**
Data Contractors Inc.

- Sampled bycatch and target fish aboard trawler vessel in Bering Sea, AK

Purdue Aquaculture Center Volunteer **1996**

Professional Affiliations

Indiana Chapter of American Fisheries Society **1999-Present**

- Paper Presenter 1999, 2005, 2006, & 2008
- Chairman of Awards Committee 2001-2005

Indiana Lake Management Society Meeting **1999-Present**

- Paper Presenter 1999, 2004, 2005, 2006, 2007,2008, 2009, 2010, 2012, 2014
- Board of Directors, Conference Committee, Chairman of Legislative Committee

Midwest Aquatic Plant Management Society **1999-Present**

- Paper Presenter 2005, 2007, 2008, & 2009
- Board of Directors 2013-2020
- President 2020

Aquatic Plant Management Society **2005-Present**

- Paper Presenter 2024
- Membership Committee 2009-2010
- By-laws Committee 2022-present

Awards and Certifications

Applied Biochemists Applicator of the Year	**2017**
SePRO Preferred Applicator of the Year	**2005**
SePRO Best Management Practices Award	**2005**
Certified PADI open water diver	**2001-Present**
Licensed and certified aquatic applicator in MI, KS, IA, PA, SC, AR, IN, IL, TN, OH, MO & KY	**1999-Present**

C. Adam Charlton

Aquatic Control, Inc.
1189 Dangerfield Road Hodgenville, KY 42748
T: 502-744-6497
Email: adamc@aquaticcontrol.com

Education

Purdue University, West Lafayette, IN, B.S., Fisheries and Aquatic Sciences with Highest Distinction; 2006
Rose-Hulman Institute of Technology, Terre Haute, IN, Mechanical Engineering (68 credits earned; transferred to Purdue); 2004

Professional Experience

Vice President of Satellite Operations **12/2023-present**
Aquatic Control, Inc., Elizabethtown, KY

- Oversee operations of 9 satellite office locations across 6 states
- Supervise all aspects of business operations in those territories
- Track, analyze, and assess trends in revenue and profitability at all offices
- Supervise and guide Regional Managers of the Southern and Northern Territories
- Oversee and manage improvements in operational efficiency of satellite offices
- Oversee and manage standardization of office operations among satellite offices
- Assist in management of large reservoir projects for harmful algal blooms, invasive aquatic vegetation, and fisheries

Director of Satellite Operations **10/2020-12/2023**
Aquatic Control Inc., Elizabethtown, KY

- Oversee operations of 6 satellite office locations across 5 states
- Supervise all aspects of business operations in those territories
- Oversee hiring and training of new personnel at satellite locations
- Oversee and manage improvements in operational efficiency of satellite offices
- Oversee and manage standardization of office operations among satellite offices
- Assist in management of large reservoir projects for harmful algal blooms, invasive aquatic vegetation, and fisheries

Kentucky Office Manager **11/2011-10/2020**
Aquatic Control Inc., Elizabethtown, KY

- Managed all aspects of business operations in KY and TN
- Supervised 4 full time aquatic biologists
- Actively managed aquatic plants and habitats on multitudes of private waterbodies
- Assisted in the development of a comprehensive algal management plan for a large drinking water reservoir targeting management of taste and odor compounds
- Assisted in active management of large reservoir projects for harmful algal blooms, invasive aquatic vegetation, and fisheries

Aquatic Biologist **6/2009 - 11/2011**

Aquatic Control Inc., Valparaiso, IN

- Managed private lakes and small impoundments across northwest Indiana and northeast Illinois
- Managed for water and resource use through weed and algae control, water quality manipulations, fish population management, fish stocking, selective fish removal, and total fish eradications
- Provided landowners with science-based guidanceon managing and using theirwater resources
- Provided technical fisheries expertise to supervisor and other upper-level management
- Conducted fisheries population sampling using boat electrofishing gear
- Conducted fish kill investigations and plant tuber surveys in coordination with Indiana Department of Natural Resources
- Attended public meetings, state regulatory agency meetings, and professional meetings
- Performed routine maintenance on trucks, trailers, boats, outboard motors, pump units, backpack sprayers, etc.

Fisheries Biologist II **3/2008 - 6/2009**

Florida Fish and Wildlife Conservation Commission Division of Freshwater Fisheries Management

Northeast Regional Office, Ocala, FL

- Managed fisheries resources in 12-county region containing over 3,500 water bodies
- Supervised one senior fisheries technician and one creel clerk
- Summarized annual fisheries data, compiled and created all necessary charts, graphs, and tables
- Conducted fisheries sampling including electrofishing, creel surveys, block netting, and push netting on various lakes and rivers to achieve regional project goals and objectives
- Served as lead GIS biologist on Three Forks Marsh Conservation Area reservoir project
- Served as lead management biologist on large-scale habitat enhancement project
- Provided technical fisheries expertise to other regional biologists and the public through phone calls, emails, and presentations at local organizations
- Conducted annual fishing derbies for local children as well as special needs children and provide education on fisheries biology
- Conducted weekly fisheries biology presentations for youth at Florida Fish and Wildlife's Youth Conservation Center during summer camp

OPS Biological Scientist II **9/2006 - 3/2008**

Florida Fish and Wildlife Conservation Commission Fish and Wildlife Research Institute

Freshwater Fisheries Research - Long Term Monitoring Project, Eustis, FL

- Worked on a federally funded project focused on establishing a long-term monitoring database to track changes in fish communities over time
- Intensively sampled fish, vegetation, and water quality on 32 lakes across Florida using various sampling gears including: electrofishing, gill nets, throw traps, and trawls
- Assisted in creation of electrofishing transect sites using ArcGIS software
- Collected largemouth bass on various lakes for population age structure data
- Summarized lake-wide electrofishing and throw trap data

Skills & Certifications

- Certified aquatic applicator in IN, KY, TN, AR, IL, and MO
- Fisheries sampling (boat and backpack electrofishing units, gillnets, trawls, throw traps, seines, block nets, fyke nets, bow-mounted push nets, GPS units, water quality meters)
- Boat operation, boat trailering, outboard maintenance, trailer maintenance, small engine repair
- PADI Open Water Diver Certification (October 2003)

Professional Activities

- Mid-south Aquatic Plant Management Society – Editor (2020 – present)
- Mid-south Aquatic Plant management Society –Director (2019-2020)
- Mid-south Aquatic Plant Management Society– Member (2019-present)
- Kentucky American Fisheries Society– Member (2012- present)
- Midwest Aquatic Plant Management Society– Member (2009-2019)
- Florida Chapter of the AmericanFisheries Society – Member (February2007 – June 2009)

Leif Willey

Aquatic Control, Inc.
116 N Wolfcreek Road Columbus, IN 47201
T: 812-525-9862
Email: leifw@aquaticcontrol.com

Education

University of Florida, Gainesville, FL, M.S., Agronomy; 2012
Purdue University, West Lafayette, IN, B.S. Fisheries and Aquatic Sciences, 2010

Relevant Coursework

- Statistical Methods and Analysis I
- Statistical Methods and Analysis II
- Plant-Herbicide Interactions
- Invasive Species Ecology
- Vegetation Monitoring In Management Context
- Advanced Research Methods
- Aquatic Plant Management
- Aquatic Botany
- Natural Resource Information Systems (GIS)
- Statistical Analysis

Extracurricular Activities

- UF/IFAS Plant Camp

Professional Experience

Lake and Special Project Supervisor **1/2018-present**
Aquatic Control, Inc., Seymour, IN

- Perform vegetation surveys adhering to Indiana Department of Natural Resources Protocol
- Creation and update of aquatic vegetation management plans
- Use of GIS software to create treatment and species distribution maps
- Assist with and supervise laboratory services
- Evaluate new herbicides and algaecides through scientific methods in both lab and field settings
- Direct and supervise field research projects, data collection, and data analysis

Aquatic Technical Specialist (Great Lakes) **2/2016-1/2018**
SePRO Corporation, Carmel, IN

- Work with customers to develop and improve technical understanding of aquatic herbicides and algaecides
- Evaluate new and experimental use herbicides in controlled and permitted field settings
- Identify new or more effective uses of existing herbicide/algaecide chemistries
- Present technical information updates at relevant scientific and industry conferences

Research Biologist **11/2013 – 2/2016**

Aquatic Systems, Pompano Beach, FL

- Coordinate herbicide and algaecide use among Company's 10 regional offices
- Research new and more effective uses for existing herbicides and algaecides
- Lead testing and evaluation projects for new herbicides and algaecides
- Organize and lead in-house technical symposiums
- Represent Company at relevant state, regional, and national society conferences

Research Biologist **12/2012 – 10/2013**

University of Florida, Gainesville, FL

- Lead greenhouse and growth chamber scale studies for herbicide use
- Conduct in-field monitoring of experimental treatments
- Assist supervisor and senior staff with greenhouse and field scale research projects
- Perform data analysis on all research projects
- Prepare manuscripts of research projects for peer-review publication

Graduate Research Assistant **7/2010 – 12/2012**

University of Florida, Gainesville, FL

- Conduct greenhouse scale research projects for completion of MS thesis
- Assist advisor and committee with ongoing research projects
- Prepare manuscripts of research projects for publication
- Present research at relevant scientific conferences
- Apply for and secure grant funding for research

Additional Skills

- ExpertGPS- Professional licensed GIS software for creating map files and images for use with Lowrance fathometers and RAVEN precision ag. equipment
- SigmaStat 4.0- Business license for use of SigmaStat and Sigma Plot statistical analysis software to create publication quality statistical analysis and graphics
- Small scale herbicide and algaecide research methods- use of small-scale study systems to screen and evaluate various algaecide chemistries, concentrations and exposure times
- Hach laboratory equipment- use of HACH spectrophotometer and methods to test water quality parameters
- Algae Identification (compound microscope)- ability to use compound microscope to identify (to genus) and enumerate various algae and cyanobacteria
- Algal toxin detection testing

Certifications

- Indiana Aquatic Pesticide Applicator
- Arkansas Aquatic Pesticide Applicator
- Ohio Aquatic Pesticide Applicator

Professional Affiliations

- Member, North American Lake Management Society 10/2018-Present
- Member, Midwest Aquatic Plant Management Society 2/2016 -Present
  - Editor 2/201 7-2/2025
  - Vice-President 2/2025-Present
- Member, National Aquatic Plant Management Society 6/2013 -Present
  - Education and Outreach Committee Chair 7/2025-Present
- Member, Indiana Lake Management Society 3/2016-Present

Publications

Netherland, M.D., **Willey, L.N.** (2017). Mesocosm evaluations of three herbicides on Eurasian watermilfoil (Myriophyllum spicatum) and hybrid watermilfoil (Myriophyllum spicatum x Myriophyllum sibiricum): developing a predictive assay. Journal of Aquatic Plant Management, 55, 39 -42.

Willey, L.N., Netherland, M.D. (2015). Influence of sediment coverage on sprouting of crested floating -heart ramets and response of quiescent ramets to contact herbicides. Journal of Aquatic Plant Management, 53, 216 - 219.

Glomski, L.M., **Willey, L.N.**, Netherland, M.D. (2014). Efficacy of protox-inhibiting herbicides alone and in combination with glyphosate to control crested floating heart. Journal of Aquatic Plant Management, 52, 90 -92..

Willey, L.N., Netherland, M.D., Haller, W.T., Langeland, K.A. (2014). Evaluation of aquatic herbicide activity against crested floating heart. Journal of Aquatic Plant Management, 52, 47-56.

Willey, L.N., Langeland, K.A. (2011). Aquatic Weeds: Crested floating heart (Nymphoides cristata). University of Florida IFAS Extension Publication SS-AGR-344/AG354.

Blake Cottrell

Aquatic Control, Inc.
501 W 76th St Davenport, IA 52806
T: 563-587-9980
Email: blakec@aquaticcontrol.com

Education

University of Wisconsin-Oshkosh, Oshkosh, WI, B.S., Environmental Policy; 2022

Relevant Coursework

- Environment and Society
- Principles of Wildlife Management
- Introduction to Nature Writing
- Environmental Studies
- Environmental Law
- Environmental Toxicology
- Introduction to GIS
- Wisconsin Geography

Professional Experience

Branch Manager **7/2025-present**

Aquatic Control, Inc., Davenport, IA

- Established East Iowa office inheriting 65 current customers from the Central Iowa and Illinois office
- Creating new treatment routes and treatment plans to ensure profitability from the start
- Covering 200-mile radius from Davenport into Eastern Iowa and Northern Illinois
- Grown office nearly 30% in 5 months
- Established professional relationships with multiple fountain and aeration vendors

Assistant Manager **3/2025-6/2025**

Aquatic Control, Inc., Springfield, IL

- Created lake and pond maintenance proposals for algae and weed treatments
- Assisted with HAB treatments on large lakes over 900 surface acres
- Mentored and trained first year biologists to allow for successful treatments and high efficiency on routes
- Coordinated and scheduled fountain/aeration installs and removals to ensure efficiency of biologists
- Help grow the Illinois Office from three to seven employees

Aquatic Biologist **1/2022-3/2025**

Aquatic Control, Inc., Springfield, IL

- Treated large lakes and ponds for algae and submersed weeds in a weekly route
- Inspected lakes and ponds then created maintenance proposals for clients that were looking for maintenance on their lake/pond
- On-site consultation with customers that may be interested in fountain and aeration sales
- Created fountain and diffused aeration system quotes for clients
- Installed and diagnosed fountains and diffused aeration on 120V, 240V and 460V
- Assisted in fish surveys by collecting fish and taking data on large lakes and ponds

Lakeland Biologists- Aquatic Biologist, Waukesha WI **5/2022-11/2022**

Fleet Farm- Receiving/Stocking, Oshkosh, WI **9/2021-5/2022**

Wisconsin DNR-Internship **5/2021 – 9/2021**

- Maintaining all forest trails by brushing, mowing, and chain sawing
- First-hand experience working with state forest rangers taking care of the forest

City of Pewaukee Parks Maintenance, Pewaukee, WI **5/2019-9/2020**

Activities/Certifications

- Illinois, Iowa, and Wisconsin Commercial Aquatic Pesticide Applicator License
- Two-Time SePRO Stewardship of the Water Winner
- Otterbine-Barebo fountain Warranty Service Certified
- Alumni of University of Wisconsin-Oshkosh Fishing Team

McCloud AQUATICS

Proposal #114704
Date: 01/22/2026
From: House

Proposal For

Apple Canyon Lake
14A157 Canyon Club Dr.
Apple River, IL 61001

Location

14A157 Canyon Club Dr
Apple River, IL 61001

Customer Contact
main: 815-541-0983
mike.harris@applecanyonlake.org; mikeyorke@applecanyonlake.org

Terms
Due Upon Receipt

Apple Canyon Lake 2026/2027

ACCEPT	ITEM DESCRIPTION	QUANTITY	AMOUNT
✓	**Standard Pond/Lake Contract** Included Accepted Treat for Algae/Chara and submerged weeds with inspections that focus on harmful algae blooms (HAB's) along with identification of invasive species not covered under contract. Covers perimeter treatments up to 20' out from the shoreline. High traffic/impact areas such as beaches, marinas, boat docks, swimming platforms, will be spot treated with algaecides and contact herbicides as needed. Apple Canyon green space as well as homeowner shoreline not specifically associated with recreational traffic will not be targeted with additional treatments as we want this area to contain vegetation for fish and overall lake health. DO, pH, Temp, and secci disk readings will be taken and included in our report upon the completion of treatments. We will include pictures of new or uncommon species of plants and will discuss options and recommendations. We will attend HOA/board meetings as necessary. Includes a one-time "early season" treatment of Curly Leaf Pondweed of up to 50 acres (up to 200acre/feet of water volume in continuous plots. OR two 25-acre plots. This can be utilized in heavy boat traffic areas, or areas that were the most impacted last season. Period of Control: Bi-weekly visits Mid-April through Mid-October with a scheduled visit to occur within 5-7 days before July 4th and Labor Day.	13 Visit	$ 46,302.75
#114705 - APPLE CANYON LAKE 2026/2027	14A157 CANYON CLUB DR APPLE RIVER, IL 61001		$ 46,302.75
✓	**Zebra Mussel** Included Accepted 2 treatments total utilizing 2.5 totes (687.5 gallons) of EarthTec QZ per treatment. Product will be applied via drop hose and spray gun to ensure a blend of shoreline and subsurface areas are impacted. Treatment includes entire shoreline treatment including Nixon Beach/Marina and Jumping Rock. With a focus on recreational areas, piers, docks, ladders, etc. Sales tax is included in this price.	2	$ 38,900.00

✓	Shipping/Freight Included Accepted Shipping/Freight	1	$ 1,150.00
#114706 - ZEBRA MUSSEL TREATMENT 2026/2027	14A157 CANYON CLUB DR APPLE RIVER, IL 61001		$ 40,050.00
☐	Zebra Mussel Optional Declined ZEBRA MUSSEL SURVEY AND SAMPLE COUNT Installation of up to 10 Z.M. population sample cages and up to 10 Veliger Plates. Locations will be discussed and approved via Apple Canyon Management. A report including pictures and counts, will be provided to the G.M. and B.O.D. Discussions on potential 3rd treatment to follow. Includes clean-up and removal of plates/cages.	1	$ 4,250.00
☐	Sediment Test Optional Declined 10 Sediment samples to be collected and shipped to SePRO Lab from pre-selected locations at Apple Canyon Lake. See Map for collection sites suggested by EutroPHIX. Labor, Shipping, and Data report costs included in total price. Less Expensive options available include fewer tests or decreased data parameters.	10	$ 8,309.00
☐	Bio-Dredge (KA) Optional Declined Bio-Dredge and Sediment Phosphorus Binding. Trial application(s). Suggesting Nixon and Dog Beach. Two 2-acre zones. Before and after muck measurements included. Gentle and sustainable sludge reduction without dredging. Reduces sludge in lakes and binds phosphate released by degradation process.	2 Visit	$ 8,800.00
#114707 - RECOMMENDED SERVICES	14A157 CANYON CLUB DR APPLE RIVER, IL 61001		$ 0.00
☐	5% Discount Optional Declined 5% Annual PRE- PAY DISCOUNT is valid only on "STANDARD POND/LAKE "CONTRACTS", EXCLUDES Equipment Sales/Repairs &/or APPLICATION services). PAYMENT MUST be RECEIVED BY MARCH 31ST OF THE CURRENT YEAR. NO EXCEPTIONS will be granted...	1	$ 0.00
☐	Single Payment Optional Declined Invoice will be sent on April 1st of the contracted year. Contracts signed after April 1st are due upon receipt for the first year of contracted services before scheduling.	1	$ 0.00
☐	Two-Part Payment Optional Declined Two-part payment for contracted services only. Single applications do not apply. Invoices will be sent out on 4/1 and 6/30. Contracts signed after July 1st are not subject to two-part payment on the first year of a multi-year contract.	1	$ 0.00
☐	Irrigation? Optional Declined PLEASE SELECT IF YOUR POND/LAKE IS USED FOR IRRIGATION. LEAVE BLANK IF THERE ARE NOT IRRIGATION RESTRICTIONS.	1	$ 0.00

Client Notes

Please Read

- Please choose one of the two payment methods by changing from optional to included from the online proposal
- Let us know if the pond or lake is used for irrigation purposes, by changing from optional to included from the online proposal
- Please note this proposal is a per-season price for 2026 & 2027

By default, we will assume you are choosing the onetime payment on April 1st without the discount, and the pond is not used for irrigation.

Our quotation is based on access of your lake/pond via our trailered boat and equipment, your current irrigation status, and reflects the entire cost of labor, equipment, chemical, insurance, state and local licensing, NPDES permit and guarantee. (No guarantee for ponds with average depth less than 2 feet or no boat access).

Estimate is only valid for 30 days for the date of quote. We reserve the right to revoke (or null) the proposal if not accepted within 30 days.

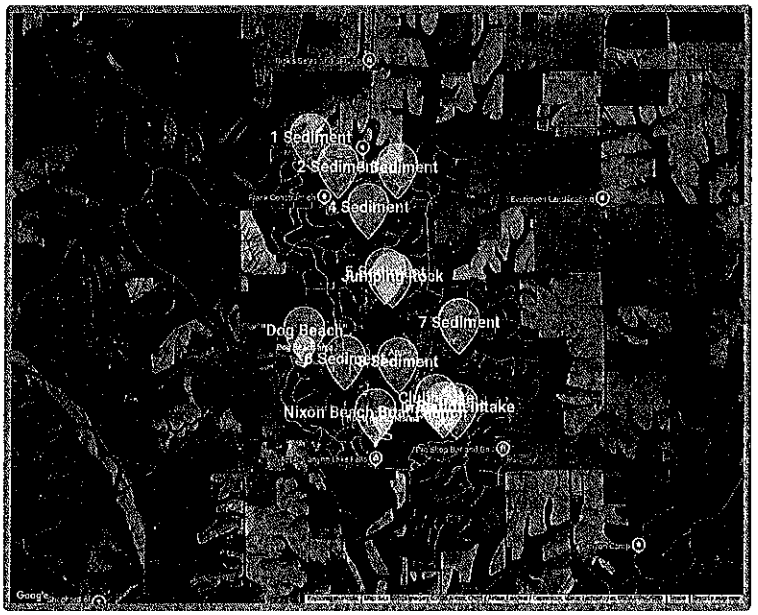
See attached for Scope of Service & Term and Conditions. EPA registered.

SUBTOTAL	$ 86,352.75
SALES TAX	$ 0.00
TOTAL	$ 86,352.75

Signature

x Date:

Please sign here to accept the terms and conditions



ID	DESCRIPTION	COLOR
Nixon Beach Boat Launch	Designated boat launch area	
Jumping Rock	Point of Interest	
Irrigation Intake		
Clubhouse		
"Dog Beach"		
9 Sediment	Level 2	

8 Sediment	Level 3	
7 Sediment	Level 3	
6 Sediment	Level 2	
5 Sediment	Level 3	
4 Sediment	Level 3	
3 Sediment	Level 2	
2 Sediment	Level 2	
1 Sediment	Level 3	
Dog Beach area	Bio-Dredge Phosphorus binding.	
Nixon Beach/Marina	Bio-Dredge Phosphorus Binding	

SCOPE OF SERVICE

Periods of Operation:

At McCloud Aquatics, we strategically design our service routes, including the installation and removal of aeration equipment, to maximize efficiency based on geographic location and surrounding accounts. This approach allows us to deliver reliable, timely, and cost-effective service to all our customers. Please note that special requests for specific service times or dates may disrupt this efficiency and, as a result, could incur additional charges.

Aquatics

Standard Bi-weekly Aquatics Services: Visits mid-April through mid-October. Should the need for services arise prior to the start of the season, McCloud Aquatics will respond to your request as soon as possible (additional charges may apply). You will receive a site visit approximately every two weeks after the initial service is started. Service is dictated by weather, boat access, dissolved oxygen levels and other growth-related conditions. A service report will be sent after each site visit.

Standard Monthly Aquatic Services: Visits May through September. Should the need for services arise prior to the start of the season, McCloud Aquatics will respond to your request as soon as possible (additional charges may apply). You will receive a site visit approximately every four weeks after the initial service is started. Service is dictated by weather, boat access, dissolved oxygen levels and other growth-related conditions. A service report will be sent after each site visit.

If additional services are need in between your regular scheduled visits, please contact the office (info@mccloudaquatics.com) and set up a request for service

Vegetation categories below are NOT included in the Standard Pond/Lake Maintenance Program:

- Floating Pondweed, i.e.., American & IL Pondweeds
- Emersed Plants, i.e.., Cattails, Arrowheads, American Lotus, Waterlily, Creeping Water Primrose
- Submerged Vegetation, i.e.., Eelgrass*
- Terrestrial vegetation in rocked shoreline
- No physical removal is offered

*Limited control is due to the genetic makeup of Duckweed, Watermeal, and Eelgrass, which can form a resistance to products used during treatment. It is also difficult to gain control due to the reintroduction through stormwater systems and waterfowl.

Our quotation is based on access to your lake/pond via our trailered boat and equipment, your current irrigation status, and reflects the entire cost of labor, equipment, chemical, insurance, state and local licensing, NPDES permit, and guarantee. (**No guarantee for ponds with average depth less than 2 feet or no boat access**).

Sediment Removal

Full Lake Removal

- Timeline: Conducted annually between mid-May and late November.

Spot Removal

- Timeline: Can be scheduled outside the mid-May to late November window based on project requirements.

Permitting

- Customer Responsibility: The customer is responsible for applying for the permit and covering any associated costs related to permitting. McCloud Aquatics can offer assistance if needed.
- Requirements: Dredging projects require completed permitting prior to scheduling unless planned for the following year.

Disposal - McCloud Aquatics is not responsible for disposal of dewatering bags or dewatered material unless otherwise stated.

Aeration

Installation-Our installation season typically begins the second or third week in March and will extend to the third week of April when the aquatic season begins

Removal starts late September - November 7th, weather dependent. Customer requests for removal after Nov. 7th will incur an additional fee of $130.00, for late removal

Shoreline

Spring Restoration services will be conducted between April 1st and June 15th. Services provided past this time frame may require additional watering.

Fall Restoration services will be conducted from the middle of October until frozen ground conditions.

Rip Rap services will be completed during the dryer months between June 15th and September 15th

Stewardship services will be conducted between April and the end of November. The set number of visits will be determined on each individual proposal.

Prescribed fire operations are expected to begin in mid-November and will continue through mid-April. Due to the strict dependence on weather conditions, an exact date for each prescribed fire cannot be determined until a few days prior to the event. As soon as McCloud Aquatics determines that conditions are favorable, clients will be promptly notified.

Herbicides/Algaecides:

Herbicide and algaecide selections, along with application rates, are based on product labels, target species, and the extent of vegetation present. Aquatic application choices also take into consideration current and proposed water usage (e.g., irrigation, swimming, fishing), dissolved oxygen levels (applications will not be made if levels are below 5.0 ppm), environmental conditions, and McCloud Aquatics' professional discretion, due to the inherent risk of dissolved oxygen depletion in waterbodies.

All herbicides and algaecides used are EPA-registered, labeled for use in aquatic environments, and applied by licensed applicators.
McCloud Aquatics is not liable for the clean-up or replacement of dead fish resulting from decreases in dissolved oxygen.

Surrounding Area

McCloud Aquatics will take reasonable precautions to minimize disturbances; however, existing landscape features, including turf grass, shoreline vegetation, and other plantings near work areas, may experience some impact. The client acknowledges and agrees that McCloud Aquatics shall not be held responsible for incidental damage to such features during normal service

Delays Caused by Others

If McCloud Aquatics' work is delayed due to conditions beyond our control, the Client will be notified promptly. In the event the delay is caused by another contractor, vendor, or third party on site, the Client agrees to take appropriate action to resolve the issue within 48 hours.

If the delay is not resolved within this time frame, any additional costs incurred by McCloud Aquatics as a result of the delay, including labor, equipment standby, rescheduling, and mobilization—will be billed to the Client.

TERMS AND CONDITIONS

These Terms and Conditions apply to the attached proposal and any subsequent proposals or changes to existing contracts between BS&T dba. McCloud Aquatics and the Client.

Materials

The Herbicide/materials used in services shall conform to federal, state, and local ordinances and are EPA registered for aquatic use.

Communication

McCloud Aquatics request 2 on-site/off-site points of contact for communication purposes. McCloud Aquatics is always open to your questions or concerns and will provide factual answers to the point of contact(s) only. McCloud Aquatics will email a service report to the points of contact after each site visit. Our service report includes dissolved oxygen level, water temperature, infestation(s), action taken and water use restrictions, if applicable.

Proposal Acceptance and Adjustments

If the Client does not provide written acceptance and authorization of the proposal within the designated allotment (stated below), McCloud Aquatics reserves the right to withdraw the proposal or, at its sole discretion, adjust the pricing, project timeline, and scope of work to reflect any impacts resulting from the delay.

Additionally, if the Client modifies the originally proposed scope of work, McCloud Aquatics reserves the right to equitably revise the contract terms, including costs and scheduling, to accommodate the changes.

Aquatics Services proposals are valid for 90 days
Restoration and Rip Rap Proposals are valid for 90 days
Stewardship and Prescribed fire proposals are valid for 60 days
Sediment Removal Proposals are valid for 12 months

Payment Terms:

McCloud Aquatics may issue invoices either upon completion of the full project scope or through progress billing, depending on the complexity and duration of the work. Unless stated otherwise in the agreement, payment is due within 30 days of the invoice date.

Invoices will not exceed the proposal amount unless the Client has authorized a change order for additional services or expenses. Accounts that are 45 days past due will be moved to inspections only until the balance is resolved. Accounts that reach 60 days past due will be placed on hold and services suspended.

Any outstanding balances more than 45 days past due will be subject to a 1.5% monthly finance charge (equivalent to 18% annually). The Client also agrees to reimburse McCloud Aquatics for all costs associated with the collection of delinquent payments, including but not limited to legal fees, court costs, and collection agency charges.

Returned checks are subject to a $100.00 service fee per occurrence.

Invoices in the sum of $10,000 or more will be subject to a 3% surcharge if paid with Credit Card

Aquatics:

Single Payment: Invoice will be sent on April 1st of the contracted year. Contracts signed after April 1st are due upon receipt for the first year of contracted services before scheduling. Unless specific payment terms have been arranged and approved.

Two Part Payment: Two-part payment for contracted services only, single applications due not apply. Invoices will be sent out on 4/1 and 6/1 of the contracted year. Contracts signed after July 1st are not subject to two-part payment on the first year of a multiyear contract, and are due upon signing.

Aeration

Spring and Fall services will be invoiced upon completion

Product sales will require 100% payment up front before products are ordered

Repair estimates are to be paid upon completion

Aeration Service Charge- There will be a trip charge of $110 for any onsite diagnostics. An hourly rate of $160/ hour (minimum 0.5 hours) will be charged for any repairs needed.

Any equipment remaining in the possession of McCloud Aquatics beyond August 1st, without fault on the part of McCloud Aquatics, shall be deemed abandoned and will become the property of McCloud Aquatics.

Sediment Removal, Restoration Projects, and Rip Rap:

A nonrefundable Payment of 50% of the contract total price as shown in the accompanying contract is due upon contract signing. The balance of the contract total price, plus any extras, is due upon completion.

Emergent Application/Stewardship/Prescribed Fire Payment:

Invoices will be sent each month to which services are provided. Payment is due within 30 days of the invoice date.

Any changes to the scope of work, including additions or deletions, must be mutually agreed upon in writing by both parties. Unless otherwise specified in writing, additional work will be billed on a time and materials basis, which includes charges for travel, pickup and delivery, setup, cleanup, and any associated costs.

Modifications:

Any changes to the scope of work, including additions or deletions, must be mutually agreed upon in writing by both parties through a Change Order. Unless otherwise specified in writing, additional work will be billed on a time and materials basis, which includes charges for travel, pickup and delivery, setup, cleanup, and any associated costs.

Any modifications to the Terms and Conditions after the proposal has been signed that result in additional costs to McCloud Aquatics may be subject to reimbursement and will be billed back to the client accordingly.

Sales tax:

Sales tax will be added if required by local jurisdiction. Clients claiming tax exempt status must submit a copy of their official tax-exempt status form including their tax-exempt number to waive the sales tax.

Lien Rights:

If the Owner/Client does not make timely payments in accordance with the terms outlined in the contract, McCloud shall exercise such lien rights as permitted to any contractor by the state in which the work is completed.

Client Responsibility

- Aquatic Services
    a. The customer shall extend all necessary cooperation to ensure effective results from aquatic management services, such as availability of boat access. With boat access comes the possibility of minor shoreline disturbances, such as tire depressions, shoreline tears and mud trails, if not a man-made structure. McCloud Aquatics shall be held harmless should events of this type occur.
    b. Customer is responsible for passing information along to the appropriate parties on restrictions due to herbicide applications that is related to: **Fish consumption, live-stock drinking, swimming, irrigation.**
    c. Label will dictate which restrictions will apply. High winds, heavy rains, water temperature, dissolved oxygen levels will determine any and all applications.
    d. Customer's signature attests to 1) financial responsibility, ability, and willingness to pay McCloud Aquatics within stated terms of Upon Receipt; 2) agreement to pay a finance charge of 1/2 % per month or 18% per year on all past due amounts older than 30 days; 3) agreement to pay all costs of collecting to include attorney's fees; 4) agreement, that for purposed of determining the location for bringing any legal action on the account, client agrees that any such action may be brought in a court in the county in which McCloud Aquatics principal place of business is located, or in such other county chosen by McCloud Aquatics.
    e. Allegations of property damage resulting from a service visit by McCloud Aquatics, must be submitted in writing within 5 business days. McCloud Aquatics will review and submit McCloud Aquatic's findings to determine a fair and equitable resolution if McCloud Aquatics is found to be at fault.
    f. Fish kills must be reported with 24-48 hours to determine the "root" cause of the kill by calling 847-226-4718 for inspection and gathering of water parameters by McCloud Aquatics. If determined that the resultant fish kill was caused by our actions, McCloud Aquatics will remove and dispose of the fish collected and will replace only those game species at the time of stocking (spring and fall only), if requested. Fish replacement will be based only on the number of game species collected and not by the size. Exotic species and non-native game fish are excluded from replacement and or monetary reimbursement. Fish kills caused by acts of nature, weather, disease, bacteria, runoff, foul hooking, vandalism, pollution, turnover, or other events beyond our control, are not covered under the contract with McCloud Aquatics. There are no provisions, written or implied, concerning removal, disposal, or water testing to determine cause, diagnosis,

prevention, or odor reduction offered by McCloud Aquatics. McCloud Aquatics shall be held harmless should these events occur.

- Terrestrial Services
    a. Before work begins, the Client is responsible for clearly marking all private utilities, including but not limited to sprinkler systems, septic fields, manholes, property boundaries, and any other underground hazards. McCloud Aquatics will contact J.U.L.I.E. for public utility locates but assumes no liability for damage to unmarked private utilities or underground structures.
    b. If work is delayed or modified due to buried obstructions, large rocks, or unforeseen underground conditions, McCloud Aquatics will notify the Client. Any additional labor, equipment, or materials required will be billed at time and materials rates.
    c. McCloud Aquatics is not responsible for damage to any underground infrastructure unless it has been properly located and flagged by the Client in advance. The Client agrees to indemnify and hold McCloud Aquatics harmless from any claims or damages resulting from the Client's failure to identify and mark such underground features.
    d. Where applicable, the Client must ensure that a reliable and accessible water supply is available on site for use during plant establishment. If adequate water is not provided, it may result in additional charges and/or nullification of plant material guarantees.
    e. Installed plantings shall immediately become the responsibility of the owner to maintain them unless otherwise agreed to in writing.

Special Procedures

A. Any service required outside the scope of the agreement will have to be agreed upon by both parties in writing before any services can be performed.

Ongoing Maintenance Programs

A. The terms of agreement for all ongoing programs or other annual plans are from the date of the proposal.
B. All multiyear programs will renew automatically through the terms of the agreement unless the contract is terminated by either party within a written 30-day notice or expires.
C. All equipment purchased by the customer is your sole responsibility unless McCloud Aquatics is retained to perform any maintenance/service. Any aeration equipment that is missing or becomes damaged while under McCloud Aquatic's winter storage program will be replaced by McCloud Aquatics personnel.
D. Customer approval of this contract includes the specifications that McCloud Aquatics will provide all services as scheduled in this document. Customer agrees to pay for all such services even if no client representative is available nor approving signature obtained by McCloud Aquatics at the time service is performed.
E. Customer approval of this contract indicates your willingness to pay any associated fees for non-contracted vegetation treatments, special services, product/equipment purchases, and/or for add-on service to additional locations requested in writting and approved by you or your representatives.

Insurance

McCloud Aquatics provides the following insurance coverage at this time:

Worker's Compensation and Employer's Liability..... $1,000,000
Professional Liability and Pollution Prevention.....$1,000,000
General Liability $2,000,000
Umbrella Liability.....$4,000,000
Automobile $2,000,000

The above is included in the Standard Policies from McCloud Aquatics. A certificate of insurance will be issued upon request and submitted upon acceptance of this agreement.

Limited Warranty

The following Limited Warranty and is in lieu of any other warranty whether express or implied and whether arising under any law, regulation other rule. All other warranties including any implied warranty for fitness for a particular purpose are hereby DISCLAIMED.

Aquatics

McCloud Aquatics will guarantee up to 80% of covered submerged vegetation and 90% of algae, excluding resistant algae, which are: Microcystic spp., Lyngbya spp., Oscilliation spp., Hydrodictyon spp. There is no guarantee for non-covered vegetation. Use of any other products (aquatic or otherwise) and/or service provider by any individual(s), agents, board members or owners of the property shall be cause for termination of the contract and McCloud Aquatics shall be held harmless as a result of such actions.

McCloud Aquatics warrants that its application of treatments here under shall be in accordance with applicable herbicide/algaecide regulations of the Environmental Protection Agency (EPA) and other application government agencies. This warranty is exclusive and is in lieu of any warranty of merchantability, fitness for a particular purpose or other warranty or representation, expressed or implied, with respect to any goods or services furnished by McCloud Aquatics, pursuant to this contract. Unless specified otherwise in the service agreement, special services and after-hours service calls will be provided on a cost per treatment basis. The parties agree that the client's sole and exclusive remedy against McCloud Aquatics in the event continued infestation shall be the reapplication of treatment as described above. The customer agrees that no other remedy shall be available to them. ORAL STATEMENTS DO NOT CONSTITUTE WARRANTIES. The entire contract is embodied in this writing and NO OTHER WARRANTIES are given beyond those set forth in this contract. This writing constitutes the final expression of the parties agreement and it is a complete and exclusive statement of the terms of that agreement. Any different additional terms proposed in customer's order are rejected unless expressly agreed to in writing by McCloud Aquatics authorized agent. The terms and conditions contained herein shall constitute an offer by McCloud Aquatics and may only be accepted on the terms herein set forth.

Terrestrial Services:

Owner Managed Sites:

McCloud Aquatics guarantees that trees and shrubs installed by our team will survive for a period of one (1) year from the date of installation. If any trees or shrubs fail within this time, they will be replaced once, which constitutes the Client's sole and exclusive remedy. McCloud Aquatics reserves the right to substitute plant species at its discretion if the original species is unavailable or unsuitable.

This guarantee is void if the Client fails to provide reasonable care during the one-year period, including but not limited to: adequate watering, weed and invasive species control, mowing, and protection from physical or environmental damage.

This warranty does not cover losses or damage caused by:

- Improper care or neglect by the Client
- Soil contamination (e.g., from herbicides or toxic substances)
- Damage by third parties
- Application of herbicides or chemicals by others
- Wildlife, herbivory, flooding, stormwater runoff, or acts of nature (acts of God)

Perennials, annuals, seed, and transplanted materials are not covered under any guarantee expressed or implied.

The Client's only remedy for issues with covered plant materials is the one-time replacement or re-planting of the affected plant(s) or seed.
Failure to remit full payment within thirty (30) days of job completion will render all guarantees null and void.

McCloud Aquatics Managed Sites:

Trees and Shrubs:

Trees and shrubs installed by McCloud Aquatics are guaranteed to survive for a period of one (1) year from the date of installation. If a tree or shrub fails within that time, it will be replaced once, which constitutes the Client's sole and exclusive remedy. McCloud Aquatics may, at its discretion, substitute the original species with an alternative if availability or site conditions warrant.

Native Seed Installations:

When establishing native vegetation from seed, McCloud Aquatics will re-seed one time at no additional cost in any areas that show no germination within the first year following initial installation.

Performance benchmarks are as follows:

- End of Year 1: A well-established cover crop should be present, with at least 90% overall vegetative cover and no visibly bare areas.

- End of Year 2: The cover crop should make up no more than 50% of the total vegetative cover, with at least 25% of the seeded native species visibly growing.
- End of Year 3: The cover crop should no longer be dominant, and at least 50% of the planted native species should be visibly established and actively growing.

These benchmarks help ensure a successful native plant community over time and are dependent on proper site care and environmental conditions.

Installed Native Perennials:

Installed native perennials are guaranteed to reach a minimum 80% survival rate after one (1) year. Replacement of failed perennials will be performed once, and McCloud Aquatics may substitute alternate species if deemed appropriate. This is the Client's sole remedy.

General Guarantee Terms:
The guarantees described above do not apply to losses or damages resulting from:

- Soil contamination (e.g., herbicide residues or toxins)
- Third-party damage
- Application of chemicals not provided by McCloud Aquatics
- Wildlife activity, flooding, extreme weather, or acts of God

All guarantees are void if full payment is not received within thirty (30) days of the final invoice date.

Guarantees terminate immediately if McCloud Aquatics is no longer actively managing the site under a maintenance or stewardship agreement.

Prescribed Fire:

For McCloud Aquatics a successful burn is anything greater than 70% of the total area, with a goal of no more than 90% of the material burned.

If environmental conditions are deemed safe by McCloud Aquatics and the appropriate local fire authority grants permission to proceed, but the burn must be halted for reasons outside McCloud Aquatics' control, the full contracted amount will still be due. Any subsequent visit required to complete the prescribed fire will be billed at the rate outlined in the service agreement.

Please note that landscape plantings, mulch beds, and above-ground utilities located within or near the burn area may be damaged due to heat or flame exposure. These items are not covered under any warranty or liability.

The Client acknowledges that prescribed fire will generate smoke, which may drift off-site. It is the Client's responsibility to notify any neighbors or parties potentially affected by the burn.

By entering into this agreement, the Client agrees to indemnify and hold harmless McCloud Aquatics, its employees, and agents from any and all damages, claims, or liabilities arising from or related to the prescribed fire.

If local fire authorities require on-site supervision or impose any fees, these additional costs will be the Client's responsibility and will be added to the final invoice.

In no event shall Contractor be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, weather, naturally occurring conditions of any kind or nature, the use or misuse of the Subject Property by Owner and any of Owner's other contractors, agents, guests and invitees, any failure to observe the Client's Responsibilities as outlined in this Agreement, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Contractor shall use reasonable efforts which are consistent with accepted practices in Contractor's industry to resume performance as soon as practicable under the circumstances.

Cancellation

If a client is dissatisfied with the services rendered by McCloud Aquatics, they are encouraged to provide thirty (30) days' written notice to allow McCloud Aquatics the opportunity to address and resolve the concern. If the issue remains unresolved after this period, the client may terminate the agreement at that time, provided all outstanding charges have been paid in full.

Either party may terminate this agreement, with or without cause, by providing thirty (30) days' written notice via Certified Mail.

In the event of a dispute, the governing law shall be that of the State of Illinois, and any litigation shall be conducted in Kane County, Illinois.

Please note that certain services may incur a restocking fee if materials have already been purchased prior to cancellation.

Default Remedies:

In the event the Client defaults on any obligations under this agreement, the Client agrees to pay all costs incurred by McCloud Aquatics in the collection of outstanding balances. This includes, but is not limited to, attorney's fees, court costs, and accrued interest.

The parties further agree that any legal action arising from or related to this agreement, including services rendered or materials provided, shall be brought exclusively in the appropriate court located in Kane County, Illinois, where McCloud Aquatics maintains its principal place of business.

Company Overview & Resources

McCloud Aquatics is a fifth-generation, family-owned business that has been providing lake and pond management services since 1962 and has been recognized as a leader in the aquatics industry since 1980. We deliver a comprehensive range of environmental and aquatic management services to clients across the Chicago metropolitan area, Central and Northern Illinois, and Southern Wisconsin.

Driven by a passion for high-quality lake management planning and exceptional customer service, McCloud Aquatics offers a highly trained team of degreed professionals equipped with the skills, experience, and resources needed to support and enhance your aquatic investment. Through national industry partnerships and a broad network of technical resources, we provide informed, science-based solutions for all aquatic and shoreline management needs.

Ownership

T.J. McCloud has been involved in the aquatics industry since 2012 and brings more than 25 years of operational experience through a legacy of family-owned service businesses dating back to 1904. Our leadership emphasizes:

- Strong communication
- Effective team management
- Sales and marketing strategy
- A customer-first service philosophy

Headquartered in Elburn, Illinois, we are positioned to provide personalized, local support. Our commitment remains simple: **"We care — that's our commitment to you."**

Management Team

The McCloud Aquatics management team brings **over 110 years of combined experience** in lake and pond management, ecological restoration, and native stewardship. As we continue to expand our services, we remain committed to hiring and developing professionals who share our dedication to environmental stewardship. Our goal is to maintain the highest level of qualification and service for every client we serve.

Technical Expertise & Staff Qualifications

McCloud Aquatics employs a highly skilled, boots-on-the-ground, work force. **14 degreed biologists**, representing approximately 90% of our Lake Management Specialist team. Staff backgrounds and areas of expertise include:

- State Wildlife Biologist
- Two Fisheries Biologists
- Fish Hatchery Supervisor
- ArcGIS-certified technicians (2)
- Experience with IN DNR Fisheries, WI DNR, MO Department of Conservation
- Certified Rescue Scuba Diver (20+ years of experience)
- Customer Service Manager who also operates a nonprofit animal sanctuary

We place a high value on education, cross-disciplinary experience, and ongoing professional development. Our staff of **30+ employees** includes management, sales personnel, land management crews, aeration technicians, and lake management specialists.

Lake Carroll – Assigned Lake Management Specialists

Brian Kiro – Large Lakes Manager

- 11 years of experience managing lakes and ponds
- 7 years in upper management with McCloud Aquatics
- B.S. with a focus in Microbiology

Brian Zalay – Lake Management Specialist

- Nearly 2 years of experience with McCloud Aquatics working on large lakes, water chemistry, and lake management planning
- **M.S., Natural Resources and Environmental Sciences**, University of Illinois at Urbana–Champaign
    - Thesis: *Zooplankton Response to Asian Carp Harvesting in Illinois River Backwaters*

- **B.S., Integrative Biology**, University of Illinois at Urbana–Champaign
- 5 years as a **Wisconsin DNR Water Resources Management Specialist**

Cole Weede – Lake Management Specialist

- Experience in aquaculture, aquatic ecosystem management, and four seasons as an aquatic applicator and lake/pond manager
- **B.S., Biology**, University of Wisconsin–Stevens Point
    - Minor in Aquaculture/Fish Culture
- Strong personal and professional dedication to native aquatic ecosystems and non-game species

McCloud AQUATICS
FRIENDS OF THE WATER

References

Lake Hinsdale Village HOA
Marti B.
1 Clubhouse Dr.
Willowbrook, IL 60527
630-655-0992
martiski77@gmail.com

Partnering since 2024, McCloud performs bi-weekly/weekly treatments for Lake Hinsdale. Our inspections and treatments focus on Algae/Chara along with submerged weeds and invasive species. High dose Nutrient Management treatments are also provided to effectively reduce nutrient levels and algae growth.

Village of Pingree Grove Public Works
Pat Doherty, Director of Public Works
14N042 Reinking Rd.
Pingree Grove, IL 60140
(224)535-1335
pdoherty@pingreegrove.org

Over 10 years of partnership with the Village of Pingree Grove. May thru October treatment period. Bi-weekly visits on 9 ponds focusing on detection, identification and treatment of algae, harmful algae blooms, nuisance pondweeds, invasive species and more for 16 acres of water.

Forest Preserve District of DuPage County
Dan Grigas, Ecologist
(630) 933-7668
3S580 Naperville Road
Wheaton, IL 60189
dgrigas@dupageforest.org

Partnering since 2005, McCloud performs both contracted and on call service for the DuPage Forest Preserve. Contract dates April thru October. On call service has included spot treatment of harmful algae blooms as well as partial lake milfoil treatments. Contracted work covers multiple lakes with service visits both weekly and bi-weekly. We have done work on roughly 150 acres of water.

McCloud AQUATICS
FRIENDS OF THE WATER

Village of Bloomingdale
Rob Blum, Crew Leader
305 Glen Ellyn Road
Bloomingdale, IL 60108
630-671-5835
blumr@vil.bloomingdale.il.us

Partnering since 2014, McCloud performs bi-weekly treatments focusing on Algae/Chara along with submerged weeds and invasive species. We also remove, provide winter storage, and install aerators.

Village of Lindenhurst
Kevin Klahs, Director of Operations
2301 E. Sand Lake Rd
Lindenhurst, IL 60046
847-356-8252
kklahs@lindenhurstil.org

Partnering since 2021, McCloud performs bi-weekly treatments for 4 Lakes. Our inspections and treatments focus on Algae/Chara along with submerged weeds and invasive species. 120 acres of water.

Lake Carroll
Patrick Mcquilkin
3-200 Association Dr,
Lake Carroll, IL 61046
815-291-2898
pmcquilkin@golakecarroll.com

Partnering since 2023, McCloud Aquatics performs algae and submerged weed treatments, water and sediment testing, invasive plant surveys, and bathymetry mapping. We have created a Lake Management/Monitoring Plan. 640-acre lake.

McCloud AQUATICS
FRIENDS OF THE WATER

Bass and Gill Fishing Club
Rick Pach
23011 E Main St
Plainfield IL 60544
773-987-8605
basspach@live.com

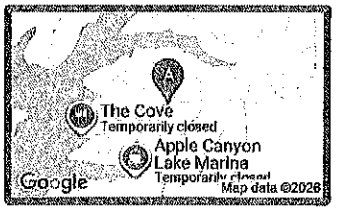
Partnering on and off since 2017. We perform lake algae and submerged weed treatments on over 200 acres of combined lakes. Systemic weed treatments to aid in control of invasive species. Bio-Dredging in spot treatments, Targeted lily pad control, on going lake management decisions.

McCloud AQUATICS

McCloud Aquatics
705 E North St
Elburn,IL. 60119

Work Order #108355-5
From: Brian Kiro

Job: Apple Canyon Lake 2025
Client: Apple Canyon Lake
main: 815-541-0983
mike.harris@applecanyonlake.org; mike.yorke@applecanyonlake.org



Location

14A157 Canyon Club Dr
Apple River, IL 61001

SERVICE PROVIDED	QUANTITY
Standard Pond/Lake Contract Treat for Algae/Chara and submerged weeds with inspections that focus on harmful algae blooms (HAB's) along with identification of invasive species not covered under contract. Covers perimeter treatments up to 20' out from the shoreline. Hight traffic/impact areas such as beaches, marinas, boat docks, swimming platforms, will be spot treated with algaecides and contact herbicides as needed. Apple Canyon green space as well as homeowner shoreline not specifically associated with recreational traffic will not be targeted with additional treatments as we want this area to contain vegetation for fish and overall lake health. DO, pH, Temp, and secci disk readings will be taken and included in our report upon the completion of treatments. We will include pictures of new or uncommon species of plants and will discuss options and recommendations. We will attend HOA/board meetings as necessary. Includes a one time "early season" treatment of Curly Leaf Pondweed of up to 50 acres (up to 200acre/feet of water volume in continuous plots. OR two 25 acre plots. This can be utilized in heavy boat traffic areas, or areas that were the most impacted last season. Period of Control: Bi-weekly visits Mid-April through Mid-October with a scheduled visit to occur within 5-7 days before July 4th and Labor Day.	13 Visit

Your Service Provider

Brian Kiro	Brian Zalay	Cole Weede
bkiro@mccloudaquatics.com	bzalay@mccloudaquatics.com	cweede@mccloudaquatics.com

Sales Reps

Brian Kiro
bkiro@mccloudaquatics.com

McCloud Aquatics
705 E North St
Elburn,IL. 60119

Work Order #108355-5

From: Brian Kiro

Pond Size	Average Pond Depth	Arrival Time	Treatment Method	Irrigation Restriction
TBD	TBD	Jun 24, 2025 08:30AM	by boat	0

Chara Coverage	Percent of Filamentous Algae	Percentage of Planktonic Algae	Submerged weeds noted	Free Floating Plants Observed Percent Coverage
1%	NA	very minimal	coontail, very little curly, very slight milfoil	very slight duckweed

Current Water Temperatures	Dissolved Oxygen	Irrigation Restriction	Water PH	Livestock Drinking Restriction in Days
79.7	8.85	0	8.76	0

Swimming Restrictions in Days	Fish Consumption Restriction in Days
0	0

Weather data recorded on Jun 24, 2025 02:57PM

Wind Speed:	Wind Gust:	Wind Direction:	Temperature:
4.97 mph	10.2 mph	W	82.17 °F

CONSERVATION WEED & ALGAE PROPOSALS - 2026

RFP #	ITEM	MCCLOUD	AQUATIC	ILM
B.1	1 week notice given prior to service.		Not addressed	Not addressed
B.2	Will provide requested data	Includes monthly water quality testing, bi-weekly lake inspections for algae.	By our Volunteers	Not addressed
	Any recommendations based on experience	Not addressed	Yes	Recommends plant survey in furture
B.3	Reporting - Example of report.	Received	Received	Received
	Presentation to ACL after last report of season	Not addressed	Not addressed	Not addressed
B.4	Write article for Apple Core and Apple Seed	Not addressed	Not addressed	Not addressed
C	Fee Proposal with billing schedule	$46,302.75	$60,582.51	$41,361.92
	Number of Visits	Biweekly April-Oct	Biweekly April-Sept	2 site visits-they are 3+ hours away
	Curlyleaf Area	50 Acres	50 Acres	68 Acres
	Payment Schedule	Due at execution of contract-possible 2 payments (April & June)	Not addressed	Due upon completion of work
	Sediment Testing - McCloud (10 spots)	$8,309	$7,390	Not addressed
	Bathymetric Mapping	$3,900-$4,300	$4,417	Not addressed
	Water Monitoring - extensive	DO, pH, Temp, and secci disk included	DO, pH, Temp, and secci disk included. $24,858 for add'l testing	Not addressed
	SUBMITTALS			
	Qualifications	Received	Received	Received
	Itemized summary of costs & fees	Received	Received	Not addressed
	List of data assumed to be provided by ACL	Received	Received	Received -
	Contact information for firm	Brian Kiro?	Tim Holt	John Paterson
	Proof of insurance	Received	Received	Upon request - don't know their standard limits?
	References	Received	Received	Received