Dear Friends and Neighbors,

Another year has come and gone, and you will have experienced another great fireworks show on Big Spirit. The SLPA has been blessed with our sponsor of the fireworks for the past five years. Kable’s Trading Post and Lodge has been more than exemplary, going beyond the fireworks display. Thane and Tanya Johnson, without any prompting by our organization, also sold T-shirts and donated 100% of the profits to the SLPA as well. Our relationship has gone beyond the fireworks to promote other projects on our lake. Saying thanks just doesn’t demonstrate how grateful we are to Thane and Tanya.

That leads me to “What’s Next?” regarding the fireworks sponsor in 2023. Our board has recognized that the SLPA Century Club members now fund about $20,000. This is where corporate sponsors and an expanded “Premier Membership” idea is to identify a significant project and recruit sponsors to make it happen. We cannot escape the mission statement future generations will recognize what the SLPA exists to preserve and protect the quality of water and the quality of life so we can enjoy our beautiful lakes. We have some great news for our members that involves the SLPA Century Club members and our membership. Where does that lead us? We have kicked off around the idea of more substantial business and premier memberships for some time now. Just what is the role of the community and our organization? It seems we always have some project that is imminent and demands our attention that requires some funding. Example: Templar Park really could use a new dock which will probably cost in excess of $20,000. This is where corporate sponsors and an expanded “Premier Membership” could really help our organization. One idea is to identify a significant project and recruit sponsors to make it happen.

We cannot escape the mission statement of Spirit Lake Protective Association. The Spirit Lake Protective Association (SLPA) is to complete the mission.

With the enthusiasm of this Board and the strong support of Big Spirit Lake residents and this community, SLPA continues to find projects to preserve and protect the quality of life and quality of water we treasure.

With the low lake level this spring, the Spillway dock was put to the test. What a joy to see the lake level improve so everyone can safely use the dock. We are so grateful for the funding we receive from the Walleye Weekend event through the Iowa Great Lakes Chamber grant process enabling us to fund additional lake access projects.

The Red, White & Blue Pancake Brunch on July 3 was again a HUGE success. We see the great support and enthusiasm of our community. This is an event we love to work on! Our thanks to everyone for coming to beautiful Mini-Wakan State Park to enjoy the fun and fellowship. We especially appreciate the new volunteers that helped in many ways. The SLPA board is so appreciative.

The July 3rd Fireworks celebration was spectacular! Our appreciation goes out to Kable’s Trading Post and Lodge, our corporate sponsor, our generous Century Club Members and the continued financial support from individual members and businesses. Our continuing goal is to “grow the show!” Thank you everyone!

Many generous memorials were given to honor loved ones. Please note the list of Memorials found in this newsletter. The Board is humbled by the donations entrusted to us to honor these special people. We will do our best to use these funds wisely.

Respectfully,
BECKI HUISENGA
SLPA Treasurer

PRESIDENT’S LETTER
KIRK HUISENGA SLPA President

INHF NORTH SHORE UPDATE

With the rains we have had in the watershed, the wetland developed by the INHF on the western edge of Shore Acres now has water! This wetland is designed as nature intended—filtering water flowing into Big Spirit as well as providing a home for an abundance of wildlife. The native species of plants that the INHF sowed in December of 2021 are now growing strong, and the prairie strip planted along the blacktop contributes to filtering and erosion control.

WALLEYE WEEKEND

Walleye Weekend was a ‘welcome to summer’ weekend—with wind!! It hampered the fishermen in some cases, but it may have helped the fish as the tagged walleyes are still in the lake. If you bought the extended license, you may still be in luck this summer.

The SLPA applied for and received a grant from the Iowa Great Lakes Chamber of Commerce for funds to be used for a new dock at Templar Park. These beginning funds will allow us to apply for additional funds as this will be a multi-year fundraising effort. If you would like to contribute to the funding effort for this dock, please send checks to P.O. Box 51, Spirit Lake, Iowa 51360 and note your donation is for the Templar Park dock.

2022 SLPA TREASURER’S REPORT

With the enthusiasm of this Board and the strong support of Big Spirit Lake residents and this community, SLPA continues to find projects to preserve and protect the quality of life and quality of water we treasure.

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Respectfully,
BECKI HUISENGA
SLPA Treasurer

INCOME

DIRECT PUBLIC SUPPORT
Business Memberships  1,100.00
Individual Memberships  9,710.00
Donations  4,530.00

INVESTMENTS
Interest - Savings  8.82

SPECIAL EVENTS INCOME
Dock Contributions  7,272.00
Fireworks  23,147.83
Silent Auction  325.00
Walleye Weekend  4,000.00
Memorials  5,855.00
Special Projects  6,677.00
Pancake Breakfast  9,001.00
Promotional Items  1,605.00

EXPENSES

BUOY/SNOW
Removal  1,600.00

BUSINESS EXPENSES
Memberships  1,100.00
Advertising, Promotion  1,707.63

CONTRACT SERVICES
Accounting Fees  875.00

OPERATIONS
Insurance  2,535.00
Miscellaneous Expense  8.03
Postage, Mailing Service  337.01
Printing and Copying  6,827.56
Fireworks  24,000.00
Stipend Expense  1,100.00
Storage Unit  256.80
Supplies  27.98
Website  231.17
Travel and Meetings  145.18
Pancake Breakfast  6,403.02
Promo Items  450.00

SPECIAL EVENTS DONATIONS
Dock Donations  5,186.01
Other  5,500.00

NET INCOME $14,941.26
The Iowa Great Lakes region is experiencing another great and busy year. Residents and visitors are clearly taking advantage of the activities and traditions offered in our lakes area. The SLPA’s annual July 3rd fireworks display, in my opinion, is the best event of all. I truly look forward to this time each year with great anticipation.

Some great news is that we were able to “Fill the Barge” with fireworks. This means that we were able to put as many fireworks as possible on the barge to be shot off the evening of the 3rd. This is due to the support of many of you reading this annual newsletter including Kable’s Trading Post and Lodge as well as our Century Club members. Kable’s Trading Post and Lodge has honored us with one last year of corporate sponsorship for the 2022 fireworks display. Thank you to Thane and Tanya Johnson. In addition to being our corporate sponsor, they have been vital friends to the Iowa Great Lakes region over the years.

The SLPA Century Club members have clearly stepped up their donations this year for the fireworks display success. We depend on the SLPA members who generously provide funding for this fun-filled event. The support of these groups is invaluable in presenting a successful fireworks display and bringing much joy to our community.

I would especially like to thank the people who make themselves available on July 3rd to see that the display is a success. Tai Allen, J&M Displays, Inc., has provided the area with many spectacular fireworks displays over the years. The Spirit Lake Fire Department participates by bringing their rescue boat to monitor the display area. I would also like to thank the John and Lisa Haver family, the Mark and Kathy Stelzer family, the John and Angie Soukup family, and my family (Julie, Anne, and Lucy) for assisting in monitoring the display area. The efforts and dedication of these individuals are greatly appreciated.

This is an unforgettable evening where families and friends gather around Spirit Lake with fellowship, fun, and celebration. I look up and down the beach to see and to feel the joy and happiness of my neighbors and friends. The fireworks display is special to all of us and is a highlight of the Independence Day holiday. Here is hoping that you enjoy the fireworks display each year and that we have many more displays in the future. The SLPA Board sends out best wishes to all our members, their families and friends for the coming year.

The 2022 SLPA Pancake Breakfast was again a huge success, serving 951 members and guests which exceeded last year’s record of 950. We thank everyone who came to help support all that the SLPA does. The weather continued to favor us, and having a Sunday schedule certainly helped with the attendance. The Chris Cakes guys again did a fantastic job serving all-you-can-eat pancakes while demonstrating their skill and showmanship to entertain the crowds standing in line. The SLPA Board, spouses and other volunteers served coffee, juice, strawberries, blueberries, and whipped cream to young and old alike. Our thanks go out to Fareway, Hy-Vee, and Walmart for their generous donations of items helping to make our day a great success.

The SLPA board meets in person the second Saturday of the month at 8:00 am in the Orleans City Hall from April to October. During the winter months, we have virtual meetings. Visitors welcome! Check our Facebook page for meeting reminders, changes, and updates.
It all began in the 1970’s when Gary and Tom Kuhlman started “doing docks” and built the thriving lake service business that we all still enjoy today. They added Kevin in 1995, he built his first barge in 2007 and offered service to both East Okoboji and Big Spirit Lake. In 2010, he added a 2nd barge and a 3rd one in 2016. Tom Kuhlman retired in 2014 but not until he had established a long-term relationship with Big Spirit Lake. The hallmarks of the relationship that exists today are the July 3rd fireworks event (first held in 1974) and the display of the huge American flag around Big Spirit prior to the signature evening event.

In the early 2000s, their fireworks barge was named “Miss Ruthie” in honor of Ruth Schwarck, former President of the Iowa Great Lakes Chamber of Commerce and self-penned “Fireworks Lady.” Ruth was a huge advocate and long-term volunteer in support of fireworks in the region. In July 2011, Tom was recorded in the Dickinson County News saying he “wasn’t sure that she was impressed” by the honor. Tom went on to suggest that the barge represented “a wonderful machine that brings smiles, joy and excitement to people” and it was a perfect representation for Ruthie’s role with the lakes area fireworks. To this day, “Miss Ruthie” is still delivering “smiles, joy and excitement” to residents and visitors of Big Spirit Lake. We celebrate “Miss Ruthie” for all her years of service.

Starting in 2016, the business dedicated a barge just to Big Spirit Lake during the entire season. They still sell docks and hosts installing and servicing them. Kuhlman’s was instrumental in the design, building and installation of the wonderful new dock at Ainsworth-Orleans Park on the south end of Big Spirit Lake at the Spillway. The SLPA thanks Kuhlman’s Lake Service and Welding, Inc. for all that they provide for the good folks of the lakes area, particularly Big Spirit Lake. We look forward to a long and ongoing working relationship with them.

While there are things that farmers can do to help to reduce runoff of fertilizers, non-farmland owners, especially lakeside residents, have an important role to play in protecting the quality of our water. Jake Johnson explains: “In the Iowa Great Lakes, there are many beautiful homes on or near the lakes themselves. One thing that, as a farmer, I ask a lot is, “How much fertilizer are you putting on your lake home’s front lot?” I have heard rumors for years about the amount of fertilizer being used but had never actually done the research myself. To get an answer from the professionals, I called three different companies in our immediate area that fertilize lawns. I was absolutely amazed at the amounts these companies were proposing to apply directly next to the lake. Not only were the amountsastronomic, but companies are using slow-release fertilizers which essentially means that they will sit on the yard for a certain period of time as a solid fertilizer before being absorbed by grass or any other type of plant. On average, the farmer puts down between 120 and 180 pounds of nitrogen per acre to grow a corn crop, in most cases that is one time every other year as fields are rotated between soybeans and corn. Soybeans don’t need that much nitrogen input. The three lakes area companies I called were going to apply fertilizer between 4 and 6 times a year to maintain a beautiful lawn. Each of these applications was going to include between 40 and 70 pounds of nitrogen depending on how much you wanted to spend. Just that information alone should be enough for you to understand that some homeowners are applying more fertilizer than farmers are. If you understand anything about indirect and direct source run-off, you know that applying those amounts and types of fertilizers right next to the lake is just as much a problem as farmers fertilizing for a crop that will actually use it.” Considering this farmer’s perspective, what questions should lake residents be asking themselves?

What do I look for when purchasing fertilizer or hiring a contractor to apply fertilizers? The three numbers on fertilizer bags show the N-P-K (Nitrogen, Phosphorus, Potassium) nutrient analysis. Of these three, nitrogen is the most soluble and prone to leaching or runoff. It may enhance weed and algae growth in our lakes. The middle number is the phosphate (phosphorus) content. A “zero” in the middle means it is phosphorus free. Phosphorus has the greatest impact on aquatic weed growth. Phosphorus is not very soluble and is bound tightly to the soil. It usually enters the water attached to soil as a result of erosion. Therefore, prevent soil on your property from eroding into surface water. Potassium movement and impact are minimal and not considered a routine problem.

Will phosphorus-free fertilizer keep my lawn green and healthy? Yes! Most soils in Iowa contain adequate amounts of phosphorus and no additional phosphorus should be used in a fertilizer program unless indicated by a low soil test. Fifteen ppm of phosphorus is sufficient to grow a beautiful lawn. How do I find out what my soil needs and if I have enough phosphorus already in the soil? To obtain a soil testing kit, contact ISU Dickinson County Extension Service. (712) 336-3488. What else can you do to protect water quality besides using a phosphorus-free fertilizer on your lawn? Yard waste can contribute significant amounts of phosphorus to the lake. Keep soil, leaves, and lawn clippings out of the street, ditches, storm drains, streams and the lake by bagging them, composting them, or leaving them right on the lawn as a natural fertilizer. You can do your part to protect water quality by doing the following:

- Use 5-10 foot buffer strips adjacent to the water and apply little or no fertilizers in this area.
- If you use a lawn care company, make sure their technicians are familiar with water protection techniques.
- Don’t fill fertilizer spreaders near the water.
- Mow higher and less often. Keeping your grass length to 2½ – 3 inches is healthier for your lawn.
- Control soil erosion around your house. When left bare, soil is easily washed away with rain carrying phosphorus with it. Soil erosion can be prevented by covering exposed soil with vegetation or mulch.

TEMPLAR PARK UPDATE

Marsha Smeltzer

Clearing the hillside south of the steps at Templar has created a beautiful view space, and it has returned the area to its iconic look. In order to keep the vegetation under control, volunteer days will be planned. The docks in the lagoon have been replaced, and with more water coming into Big Spirit, the lagoon is once again useful. The SLPA applied for and received funds from the Iowa Great Lakes Chamber of Commerce Walleye Weekend Grant program for a new dock at the stairs. As part of the Templar Park Vision Document, the SLPA will be continuing to raise funds for the new dock, but this grant will allow us to begin the design phase and to apply for other grants related to docks.

LAKE FRIENDLY LAWN PRACTICES

FERTILIZER

10-0-5

Phosphorus Free

TAX INFORMATION FOR DONORS

Donations, no matter how much, or what it is designated for are the lifeblood of the Spirit Lake Protective Association. Donations are tax deductible as long as no goods or services are received. In the past, the SLPA sent donation letters to all donors who had contributed $100 or more. However, beginning with the 2021 tax year, letters to prove the donation are only required for those above $250. If you gave less than that amount, your canceled check is considered as proof of donation.

WHEN HAVING GAS IS GOOD

As this newsletter is being written, a gas boat will be returning to Big Spirit! SLP Marine out of Lake Park will be providing “on lake” gas service to customers on Big Spirit and Silver Lake. You can see current information about them on their facebook page. SLP Marine. We encourage our members to sign up with them and keep the service alive.
The Angler’s Bay Shoreline Restoration Project is on schedule and proceeding nicely. As many people know, all invasive target trees have been removed, leaving only native oaks, hackberry, and basswood. The contractor will soon return to remove any remaining stumps and place sediment control fencing where needed. Local DNR staff have removed large quantities of invasive small trees and brush and will continue removing invasive tree sprouts and weed species this summer. Once the area undergoes a hard frost this fall, DNR staff will use an approved herbicide, where needed, to eliminate any remaining sprouts in an effort to get the site ready for prairie seeding and tree planting.

DNR continues to monitor upland areas for native oak and herbaceous plant germination (both DNR). DNR staff also installed sediment control fencing and seeded sloped areas to the spring to protect Big Spirit Lake from sediment delivery. In addition to providing an excellent protective ground cover, oak also has an allelopathic effect (prevents germination) on many weed species; a current study with Lakeside Laboratory students will quantify that effect. Spirit Lake Protective Association members recently partnered with the DNR to remove larger tree limbs from the boat ramp road area; smaller branches will be allowed to naturally decompose on site. The bur oak reforestation aspect of the project has already begun. Twelve 9’ native bur oaks were planted and caged this spring along the boat ramp shoreline; these trees have faced extreme heat and wind this spring, but thanks to every-other-day watering, most appear healthy, and those that were exceptionally desiccated are now putting out new buds and leaves. The vendor of these trees says that near total leaf loss under those conditions is common due to the large amount of mass that the relatively small root ball must support and that the trees should be OK. As for the remainder of the oak savannah restoration, acorns sourced from locally raised, and Bur Oak Blight resistant trees were harvested last fall and are now being grown at Iowa Native Hardwoods and Shrubs for future transplant in fall 2024 at the Angler’s Bay site and perhaps elsewhere. Stay tuned for a future “Adopt-A-Tree” opportunity sponsored by the Spirit Lake Protective Association in conjunction with DNR. Prior to tree planting, and most likely during early spring 2024, upland areas throughout the project site will be seeded to a high quality, high diversity wildflower and grass seeding.

AQUATIC SHORELAND AREAS are being evaluated and managed as needed. Several large tree stumps along the boat ramp road will be removed, and these, along with other erosion-prone shoreline areas, will be protected with earthen fill and/or large field stone placement. Existing open water areas located within the existing hard stem burrush stands will be monitored for new and existing native plant colonization/expansion. If needed, the area may be replanted using available native species that were historically present.

For further information on the Angler’s Bay Shoreland Restoration Project, call Mark Gulick or Mike Hawkins at 712-336-1840 or Dustin Paulus at 712-336-1485.

The SLPA funds the July 3rd fireworks through membership dues and other donations, and we thank all our members for their generosity. The people listed here are Century Club members who have donated $500 or more to be used exclusively for the fireworks.

CENTURY CLUB MEMBERS

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<tr>
<th>Name</th>
<th>Phone/Email</th>
<th>Membership Level</th>
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<tbody>
<tr>
<td>Oak Hill Marina, Inc.</td>
<td>Area &amp; Club Organizer</td>
<td>Robert Prueck</td>
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<tr>
<td>Patricia Piett</td>
<td>Honorary Trust</td>
<td>Mark &amp; Drusia</td>
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<tr>
<td>Clay &amp; Ann Pierce</td>
<td></td>
<td>Mary Ely Pierce</td>
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<tr>
<td>Garaed “Bad” Teens</td>
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<td>Jeff Mitchell</td>
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<td>Cheryl Schneider</td>
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<td>Brad Herman</td>
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<td>Kathy Harrison</td>
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<td>Dan Olson</td>
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<td>Steve Wood</td>
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<td>Matt Russell</td>
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<td>Kevin Stadt</td>
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<td>Susan Ziegenbusch</td>
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COMMERCIAL MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Membership Level</th>
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**SPECIAL THANK YOU TO THE DONORS WHOSE NAMES ARE BOLDED FOR THEIR CONTRIBUTION OF $500 OR MORE.**

**SPIRIT OF OKOBOJI TREE CARVINGS**

Have you seen the tree sculpture along the bike trail on the east side of Big Spirit? This tree is part of the nonprofit, Spirit of Okoboji “Okobero” project. This project secured a $5,000 grant from the Mountain Dew Outdoor Grant program in January for this first phase of the program. The goal of the project is to take some of the old trees throughout the area and bring new life to them through carving as well as giving visitors to the lakes region another hidden treat as they explore the area. Hired by Spirit of Okoboji, Des Moines artist Gary Keenan began to sculpt the first three trees included in this project in late June. Within reach of Big Spirit is the one on the east side of the lake depicting walleye and one along the trail at the Isthmus depicting owls. Take some time to travel the bike trail and see those interesting, creative works of art that add to our quality of life.

If you are interested in sponsoring a sculpture or otherwise donating to the project, it can be done through the website, www.spiritofokoboji.org.
WHO’S GOT GOATS?

There was a lot of time to chat while the SLPA volunteers cleared the hillside of trees and shrubs and unwanted grasses in 2021 at Templar Park. One of the topics of discussion was the idea of using goats as a means of assisting us in our endeavors. So, we had that discussion of using “Goat’s on the Go,” a company out of Ames, Iowa at the time. They were one; I’m sure there are others, but the central question was “Who’s Got Goats?” Certainly, that’s one way to get volunteers. Even goats can be volunteers as well, albeit somewhat “directed” by others to do so.

All volunteers are vital to nonprofits, but our focus as an organization is really on people. Goats can help, but it’s people who make things function. We spin forward to 2022. The 2022 pancake breakfast has just ended, and the volunteer list has been reviewed. Our planning efforts for the SLPA’s “Big Day” on July 3rd required oversight of 25 volunteers. Some painted silent auction art, some ditched out strawberries or blueberries, some added whipped cream to the red and blue pancake breakfasts being served. Others cleaned tables, took photographs, sold calendars or t-shirts or SLPA hats. Some placed signs notifying the participants of the event and others picked up those very same signs, and some even created new and interesting signs to be displayed.

Without volunteers, there would be no SLPA. Even our board members are volunteers in the real sense. They are folks who perform jobs for someone else, including “the organization,” with no remuneration and sometimes little thanks. They give of their time and skills to help others. Together they make up an organization. Ours is the SLPA… Spirit Lake Protective Association. We’ve been an all-volunteer organization off and on (mostly on) from 1929-1930 when the first group met at the Orleans Hotel.

The SLPA has recently worked in collaboration with Iowa DNR on several projects that required volunteer assistance. Projects include clearing the hillside at Templar Park as mentioned above; sanding and staining picnic tables at Crandall’s Beach, Mini-Wakan and Templar Park, cleanup at Hales Slough; historical research through Dickinson County History Museum, and water quality sampling through CLAMP. We appreciate all our volunteers, no matter how or what task(s) they perform. Thanks to all our volunteers and all that they give to Quality of Water—Quality of Life on Big Spirit Lake. You may all hear from us again soon. And, please let us know too if you are interested in assisting.

ANOTHER SUCCESS FOR THE PROTECTION OF BIG SPIRIT

We are pleased to report the recent purchase of a key tract of land in the Minnesota portion of the Great Lakes Watershed. In May of this year, Pheasants Forever bought 196 acres of land just north of the Minnesota/Iowa border as shown by the X on this map. Currently the land is drained through an elaborate tile and pump system into McClelland’s Slough.

Despite the man-made effort to drain the land quickly during rain events, this high priority 196-acre tract frequently floods. Taken during July of 2022, this picture is an example. Now the original wetland area will be reclaimed, and water such as shown in the photograph will be slowed and allowed to drop its contaminants prior to entering the Iowa Great Lakes system.

Additional benefits of this acquisition include: the restoration of a large habitat complex critical to resident and migrant wildlife species; a premier public recreation/education area that will be used by citizens from many states; and a demonstration of the dramatic effects that can be realized when new and diverse groups of partners address common conservation needs without regards to political boundaries.

Contributing groups for this project (thus far) include:

- Minnesota and Iowa Pheasants Forever
- Nobles County Pheasants Forever
- Todd County Pheasants Forever
- Jackson County Pheasants Forever
- Wildlife Habitat Society of McLeod County
- U.S. Fish and Wildlife Service
- Owen & Becca Stockdale
- Iowa DNR
- Dickinson County Water Quality Commission
- Iowa Natural Heritage Foundation
- Spirit Lake Protective Association

The SLPA recognizes this project as an exceptional water quality enhancement. Congratulations to Pheasants Forever and all the partners involved. As referenced in the President’s letter, the SLPA will be presenting more information at the annual meeting about how members can participate as the project is further developed.

REED FARM ACQUISITION

The SLPA continues to partner with other lake organizations and conservation groups to acquire land that enhances the watershed. In addition to our contribution to the Narrows Preserve, the SLPA donated to the acquisition of the Reed Farm. According to an article by local outdoor writer, Steve Weisman, “The Reed Farm is a 160-acre tract east of Arnolds Park located across the blacktop and northwest of the landfill. It connects with the Spring Run Wetlands Complex. Owned and farmed by the Reed Farm for over 83 years, it was the wish of matriarch Irene Reed, when she died in 2018, that the farm would retain its rural identity and not be sold for commercial development.” He goes on to share: “The lead partner in this endeavor, Ducks Unlimited (DU), was closing in on their fundraising goal but needed additional support to make it to the top. This is where the lake associations came in.” According to Dominic Lawrence, DU Director of Development, “It was their goal to ensure that the rural nature of their family land would be preserved for all Iowans. DU agreed to purchase and restore the land for $1,336,540. With a lead gift from the Andrea Walt Carlton Foundation along with a grant from the Okoboji Foundation, Dickinson County Water Quality Commission and many others, $1,236,540 had been secured by mid-May.”

Steve continued to explain: “The final push occurred late in May when four area lake protective associations stepped up. The Center Lake Protective and Improvement Association, The East Okoboji Lakes Improvement Corporation, The Okoboji Protective Association and the Spirit Lake Protective Association combined for a $50,000 donation. This was then matched with another $50,000 by an anonymous donor to complete the final $100,000 needed. Lawrence’s response to this latest financial support, “Conservation takes the efforts of many. Special gratitude for Greg Drees, Howard and Sheryl Paul whose passion for our mission shined brightest as we surpassed a generous $30,000 challenge.” The SLPA is proud to work with our partners to improve water quality in our chain of lakes, and the contributions by our members that make this possible. Through the efforts of all the lake and conservation organizations, we are able to fund projects that would not be possible without cooperation. Should you like to read the complete article by Steve Weisman, go to: nwiwaaoudoors.com/2022/06/02-ducks-unlimited-works-on-clean-water-efforts-in-dickinson-county

AN HISTORIC COTTAGE - IDLEWILD

Interview with Sallie Ketchum

If you have ever driven the roads of the original town of Orleans and, more specifically, Sunset Drive, you will have passed a cottage on the lake shore with a distinctive Asian design. Owned by the Ketchum Family, Sally Ketchum provided this short narrative of their cottage history.

“We believe the cottage construction was started in 1896 because we found several contemporary newspapers in the attic caves. It was built by a man named Luther Johnson and was registered on the deed in 1900. Japanese architecture was very popular at the turn of the century, hence the design. Luther Johnson sold the cottage to a man named Brigham. We still have a few pieces of the Brigham furniture.

My Danish grand-grandfather, Albert Johnson (no relation to Luther) was from Atlantic, IA and had visited the lakes a few times with his four sons by 1907. They usually stayed at Peck’s Resort in Okoboji where one of his sons, my grandfather William Johnson, used to play with Abby Gardner Sharp’s grandson. Albert decided to buy the cottage in the summer of 1907 because he thought Spirit Lake was the better fishing lake.

It has always remained a private home--just a little strange looking. We’re currently working on restoration and some structural issues, but we’ve changed very little over the years. It is not winterized, so it continues to be a fair-weather cottage to this day. It looks pretty much the same as it did when I would hang out on the dock with my neighborhood friends and even when my grandparents first started staying in it.”
The Spirit Lake Fish Hatchery is Iowa's largest walleye hatchery and also produces all of the northern pike and muskellunge used to stock Iowa's waters. Since its creation, the hatchery has undergone some major improvements in 2021. In the fall of 2019, staff were given the green light to hire an aquaculture engineer to design and implement a new system that would circulate water in the system and utilize dechlorinated city water rather than lake water. The design plans were finalized in January 2021, and a hatchery underwent some major improvements in 2021. In the fall of 2021, 2022, the new system was completed and the hatchery came online.

To meet current stocking demands for Iowa's waters and to address problems associated with the older system, the hatchery underwent some major improvements in 2021. In the fall of 2019, staff were given the green light to hire an aquaculture engineer to design and implement a new system that would circulate water in the system and utilize dechlorinated city water rather than lake water. The design plans were finalized in January 2021, and a hatchery underwent some major improvements in 2021. In the fall of 2021, 2022, the new system was completed and the hatchery came online.

The new system consists of three individually controlled walleye incubators with a separate incubator for northern pike and muskellunge. City water is dechlorinated in large carbon filters prior to entering the system. The water is then pumped from under-floor tanks to stack disc filters which remove large debris from the water. The water then travels through an ultraviolet disinfection cylinder to eliminate bacteria and other pathogens. The water is heated or cooled using heat exchangers and then mixed and pumped to the top of the incubators. After flowing through the incubation tanks and oxygenating the eggs, the water then cycles back through the circuit again.

So, how did the system do during its first run in 2022? We are happy to report that the system worked very well and eliminated some of our past issues and improved our production capacity. We were able to produce more fry with fewer eggs while having to collect fewer broodstock fish. The hatchery produced over 67 million walleye fry and met all of our stocking requests. The muskie and northern pike system also met all requests and produced 1.5 million northern pike fry and 100,000 muskellunge fry for stocking in Iowa and trading to other states. There are a few tweaks staff will be making before the next season, but the new system ran great and will be able to provide walleye, northern pike, and muskellunge for the anglers of Iowa for many years to come.

**FISH HATCHERY UPDATE 2022**

**Kim Hawkins, Hatchery Manager**

The Spirit Lake Fish Hatchery is Iowa's largest walleye hatchery and also produces all of the northern pike and muskellunge used to stock Iowa's waters. Since its construction in 1963, the current hatchery system has had very few modifications. The need to modernize the plant to correct some issues became apparent. The hatchery utilized unfiltered lake water from Big Spirit Lake which contained bacteria, fungi, and other microorganisms that could impact egg survival and interfere with the hatching process. The water could also contain high levels of dissolved gasses. Gasses in the water can create bubbles on the eggs after it enters the hatchery. These bubbles are like those that form when opening a can of soda. These bubbles float the eggs out of the incubation jars and into the catch tanks. In spite of the attempts that were made to recover the eggs, losses were still high. Since 2017, the hatchery has recorded a loss of over 50% of viable walleye eggs annually due to high gas concentrations.

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Trees and shrubs were removed while the project is done. What is left to do is to armor some of the shoreline where there is erosion, plant native prairie grass, and plant oak and native woodland species to form a savannah, one of the world’s most endangered landscape types.

In addition, wetland restorations on the Wallace and Bowers Nature Area on the north shore, the Hoien prairie strips on the east side, and other prairie strips around the lake round out the diverse number of practices that are found in the Spirit Lake watershed. Because of the increased number of conservation practices around Big Spirit Lake, the average depth of water clarity has significantly increased since 1999, and the total phosphorus that is available to toxic algae has decreased. This means we are seeing fewer toxic algae blooms and clearer water in the lake than we have seen over the years of sampling which started in 1999.

All the success is encouraging, but we still have more to do. The lake is responding in a positive way to the practices that are being implemented and the programs that are used to help landowners implement the practices. We still need to visit with farmers and farm program participants to invest in water quality practices.

On the Iowa side of the Spirit Lake watershed, which is largely in Minnesota, we have seen an increase in cover crops, reduced tillage, erosion reduction practices, and shoreline protection. One of the biggest shoreline protection projects is on Anglers Bay where many invasive trees and shrubs were removed while leaving beneficial oak trees. Almost a mile of shoreline will be protected when the project is done. What is left to do is to armor some of the shoreline where there is erosion, plant native prairie grass, and plant oak and native woodland species to form a savannah, one of the world’s most endangered landscape types.

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There are good things happening in the Iowa Great Lakes, and specifically, on Big Spirit Lake. In the last few years there have been tremendous successes that have contributed to better water clarity and fewer toxic algae blooms. The successes range from small single field wins to large watershed-wide initiatives.

Projects such as cover crops, no-till, shoreline protection, wetland restoration, and prairie strips are becoming more common within the Big Spirit Watershed. Within the larger watershed scale, the Spirit Lake Source Water Plan has yielded a program called the National Water Quality Initiative (NWQI). The NWQI includes some of the best paybacks I have ever seen for farmers and farm program participants to invest in water quality practices.

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