

**Shoreline Preservation and Restoration Planning and Action
Kangaroo Lake Association (KLA): Final Report
WDNR Lake Planning Grant # SPL--342-14
(GP-NE-2015-04334, GP-NE-2016-15-04357)
Fish Sticks Coordinator: Tom Schneider
Bulrushes Coordinator: Paul Mahlberg**

Fish Sticks Initiative, Part I—Tom Schneider, Project Coordinator

(Italics below reflects the application description in our proposal. Bold represents what the KLA and its partners accomplished.)

Description of project goals and objectives.

1. **Research** *best practices with WDNR staff consultants, other potential partners interested in sharing information about their efforts including Lake Partnership Workshop especially presenters from 2013 and 2014.*
Schneider reviewed all WDNR website information with particular focus on the Best Practice Manual; consulted with WDNR's Scott Van Egeran and Scott Toshner about number of trees in cluster/securing them, attended every related workshop in 2014, 2015, and 2017 that involved Fish Sticks at the annual Wis. Lakes Partnership Conferences including Healthy Lakes initiative special workshops with Pam Toshner, etc., and became a workshop presenter at the conference in 2017.
2. **Educate** *our members and non-member neighbors on the ecological desirability and biological importance of shoreline improvement with the additions of tree-drops and planting of hard-stem bulrushes along the shoreline. We will do so with:*
 - a. *Kangaroo Lake Newsletter article(s).* **Schneider wrote 11 articles, referenced Fish Sticks/Bulrushes in another 9 President's letters, and developed brochure and letter for mailing to every land owner on the lake--not just our members. Mahlberg wrote a similar number of articles relating to hard stem bulrushes. Shoreline Buffers were also promoted in the KLA newsletter.**
 - b. *Have speakers, and videos/DVD's, at our Annual Meetings and other meetings on discussing shoreline improvement featuring tree-drops and planting of bulrushes.* **Schneider presented WDNR's Scott Van Egeran's kick-off presentation at KLA's Annual Meeting in July, 2015 to our membership. Updates were given annually at these meetings by Schneider and Mahlberg.**
 - c. *Preparation of an Education Papers on shoreline improvement featuring tree-drops and planting of bulrushes for our residents including results of our research.* **Multiple articles on Fish Sticks and Bulrushes have been highlighted on KLA's website to educate and motivate participation and volunteerism.**
 - d. *Members would participate in "look-see" at a tree-drop and recently planted bulrushes at Mahlberg's residence and other installations.* **Many Fish Stick "hosts" visited sites to learn first hand about "the look" and benefits**

of placing Fish Sticks and bulrushes on their property. Schneider hosted the Ridges' "Festival of Nature" groups (2015) and the Clark Lake leader (ongoing) to teach about Fish Sticks as well as Hagenow and Leach hosted a group of Great Lakes' shoreline enthusiasts at three sites (2017).

e. *Promote "show and tell" modeling through 'peer to peer' education. Occurred throughout 3-year process.*

f. *Place resource materials on our KLA website's Learning Center. Completed. Visit: www.kangaroolake.org website and view materials in the "Fish and Fowl" web pages.*

g. *Work with local media outlets to publicize our efforts and to motivate our members to want to be part of this effort. Schneider and The Nature Conservancy staff engaged multiple media outlets with coverage aimed at educating the public, affirming our members, and our KLA's leadership in this stewardship initiative, and showcasing public/private partnerships with WDNR, The Nature Conservancy, and local business volunteers including:*

- *Milwaukee Journal Sentinel statewide: ¾ of full page story*
- *WLUK TV Green Bay: 2 feature stories*
- *Radio Interviews in Door County: 4 on air interviews*
- *Peninsula Pulse Door County: 3 large stories and 3 press release stories*
- *Door County Magazine: 1 story*
- *Door County Advocate: 1 story; 3 mentions*
- *Green Bay Press Gazette: 1 story and 2 additional mentions*
- *Sheboygan Press: 1 press release story*
- *WDNR Magazine Story: 1*
- *Placed links to all stories on our KLA website*
- *Placing all stories and links on The Nature Conservancy website.*

These efforts highlighted the significance of this effort and contributed to motivating lake owners and volunteers to participate.

3. *To encourage members to volunteer to participate in the shoreline improvement program. During this 3-year period we will seek to encourage landowner(s) to participate in the tree-drop program, as well as planting of bulrushes along their shoreline even if they are not physically able to help with placement of trees or planting of bulrushes. We achieved 19 homeowners to host 24 sites of 3-tree Fish Sticks complexes placing 78 35-55 foot long trees over the three year grant period. We engaged many other volunteers in locating, cutting/hauling, placing trees on the shoreline, and providing housing and hospitality luncheons for workers.*

Description of methods and activities.

1. **The Nature Conservancy staff were critical partners in the location and selection of the trees and volunteering to help with installation and media promotion. They wanted to harvest and "thin out" their non-native trees from their property near the lake to improve their forest. Not only was this a "win-win" opportunity for both of**

our organizations, this was the critical element of success for this project. Locating and harvesting 78 live trees would have been almost impossible to achieve otherwise.

2. A significant amount of time went into researching, permitting, planning and coordinating. A great deal of time was spent in communicating with volunteer “hosts,” volunteer workers, media promotion, and finally each year: placement, anchoring, photographing, and inspecting, and reporting on the Fish Sticks.

e. Description of project products or deliverables.

1. *The product of our program will be placing tree-drops along the shoreline of our members who participate in the program. At present we do not know how many members will participate. The language of “tree drops” was replaced with “Fish Sticks” as our various publics learned about this effort. Every year was a challenge to find hosts. Some “hosts” added multiple complexes (two 3-tree clusters). Year I had 6 hosts; Year II had 5 new hosts plus we added 1 tree to the 2-tree complexes from Year I; and Year III had 8 new hosts. In total, we had 19 “hosts” for 24, 3-tree or 4-tree complexes—see Attachment 1. A newly created brochure and cover letter was sent to every landowner on the lake—not just our KLA members. This both educated all landowners and “motivated additional hosts to participate.*

2. *A second product will be planting of hardstem bulrushes along shoreline areas of participating members where bulrushes have disappeared. A special effort will be made to obtain sites that are named as “sensitive areas” in our Lake Management Plan. We will work with our WDNR partners including our fish biologist if there may be a location that is not adjacent to one of our landowners, e.g. a rock pile area. **A separate report on bulrushes will follow this Fish Stick reporting.***

f. Description of data to be collected.

1. *We and the tree-drop participant(s) will gather information including costs and resources that are required. From observations on how the tree-drop affects natural events, we will observe the presence of different fish, mussels, aquatic plants, bird-life, and other organisms in the vicinity of the tree-drop in various locations.*

2. *We are not aware presently where bulrush restoration has occurred successfully. If our efforts are successful, we will share our processes and success with other interested parties. **We have documented expenses by year relating to our Year I: 15 trees, Year II: 30 trees, and Year III: 33 trees totaling 78 trees. See Attachment 2. Bulrush restoration report to follow. We have completed a survey of Fish Stick “hosts” who were very satisfied with the education and placement process including communication. The first two years report some results of increased wildlife and year three hosts hadn’t had enough time to report developments. Pre and Post placement photos were taken of each cluster as well as inspected after ice out.***

g. Description of existing and proposed partnerships.

Other than the Door County Nature Conservancy, we are not aware of any other partnering organizations at this time. The Nature Conservancy was our most critical partner as described above. In addition, Harbor Lumber, Inc. harvested our trees and used a paid worker to assist. Our media partners contributed significantly to public education. Throughout, we considered the WDNR staff as major contributing partners as well.

h. Discussion of role of project in planning and/or management of lake.

*Shoreline improvement is important for lake biology. Our members may be unaware of the negative impact of development on our lake. Education is such an ongoing need and process. This will become the number one action priority of our Association for several years. This project is consistent with the extensive consultation our Association undertook with WDNR staff members who advised us on priority actions they'd recommend for our lake base on their extensive knowledge of our lake. We will be undertaking some EWM removal on our lake that is jeopardizing the north end of our lake. All water and EWM monitoring will continue. **This grant was the key impetus for making this project a reality. KLA doesn't have the funds to accomplish this alone. Education of our members has been a clear result. In subsequent surveying of our members by professionals from Onterra, Inc., we achieved almost a 100% awareness of the fish stick program and its importance to shoreline restoration and preservation. Along with our bulrush initiative as well, we continued to educate members about buffer zones along the shoreline.***

i. Timetable for implementation of key activities.

*We will initiate our research efforts in the spring of 2014. We will "kick off" this project with those that are interested, and we will begin planting at the best time in spring/summer of 2014 that maximizes survival long term. We will initiate tree drops after permits are secured in the summer of 2014. Once substantial research on best practices has occurred, we will follow other best practice efforts that have worked elsewhere and develop motivational materials that will increase participation by our members. **Completed. The Fish Sticks were harvested and placed in February of 2015, 2016, and 2017.***

j. Plan for sharing project results.

*1. Project results will be shared with all landowners through our Newsletters, Annual Meetings, and periodic written reports including Educational Papers during the project period. We will share the results and our processes with the other lake associations in northern Door County at our annual gathering. We will attempt to place stories in local media to educate the public in general and our members/potential members. If feasible and desired, we would be willing to share our experiences at a Lake Partnership Conference in the future. A final report will be submitted to the DNR at the end of the 3- year period. **The above information demonstrates KLA's tremendous success in accomplishing our goals. When we started, we had no idea how many "tree drops," now "Fish Stick complexes," we would place. We believe our***

efforts, especially with the media, have helped the education process statewide on the importance of “Shoreline Preservation and Restoration!”

Lessons Learned from “Fish Stick Adventures”

1. Much more time was spent recruiting, coordinating and communicating with “hosts” and volunteers than anticipated. “There’s no such thing as a “free volunteer.” This also included feeding, beverages, and celebrating together and it was Worth It! This built ownership, pride, and willingness to continue volunteering.
2. Much more time was spent with media which really paid dividends. Time was spent on the phone, emails, writing press releases, and stories for publications.
3. THE critical element of success was the partnership and proximity of trees from The Nature Conservancy. Access to live trees relatively close to the lake was key. (Trees had to come from 35 feet from the shoreline.) Their staff was amazing as well!
4. A big 4-wheel drive truck was sufficient to move trees on the ice. Adequate ice with limited snow was essential. When we began, we didn’t know if we would move trees in the water vs. on ice in the depths of winter.
5. While we are sure it felt like a “broken record” at times to some, communicating with our membership and among members at every opportunity, led to increased participation.
6. Our method of securing trees by drilling holes through the trunk for the cable to pass through that would be attached to shoreline trees assured that the trees would not move. Having the right cable cutter made a huge difference. We learned the hard way the first year. We used a battery operated disc cutter to cut our 3/8’s inch galvanized cable. A manual cable cutter, even the large one, “didn’t cut it.”
7. We learned with 8-10 hardy volunteer workers, we could move the trees that were 35-55 feet long up to and on the shoreline even though we struggled at times. A designated team leader/coach was very helpful. A separate team of 2-3 cablers would then follow and secure the trees. None of our 78 trees have moved since placement.
8. Using a volunteer professional tree cutter/hauler with equipment reduced our expenses and was important even though we needed additional paid help for this more risky task.
9. Creating the brochure with local pictures with educational information, some “lifted” from WDNR’s Healthy Lakes initiative, and mailing it to all property owners was worth the effort in year III. The Brochure is ***Attachment 3.***
10. Schneider was a persistent and organized leader who appreciated the ongoing support from all those involved including the staff of WDNR.

Attachment 1 Three-year Site Maps

Attachment 2 Three-year Fish Stick Expenses

Attachment 3 Fish Stick Brochure

The 3-year Financial Report is on the next page for the Fish Sticks and Bulrush Grant. The full Bulrush report is contained in a separate document that will be submitted with this file.

Attachment 4a and 4b and 4c will be the files documenting volunteer hours.

Attachment 5 will be the documentation of all financial transactions.

SHORELINE PRESERVATION GRANT

April 1, 2014 thru June 30, 2017

DATE	DESCRIPTION	BULRUSH	FISH STICK	BALANCE
2014				
JUN 1	Grant Advance			\$2,250.00
JUL 27	Bulrush Plants	295.40		
	Print DNR Time Sheets	5.80		
DEC 10	Galvanized Cable & Clips		165.25	
	Garden Hose to Secure Trees		29.54	
	Total expenses to date	\$301.20	\$194.79	\$1,754.01
2015				
APR 16	Gas for Plowing, Dragging Trees, Transporting Volunteers - 2/13&14		30.00	
APR 20	Cable Cutter Tool		8.44	
	Meal for Volunteers		76.00	
AUG 12	Bulrush Plants & Transportation cost to P/U & Deliver	117.29		
AUG 20	Stamps for Special Mailing	24.50		
SEP 5	2nd oz. Stamps, Ink Cartridge, Envelopes	33.76		
	Total expenses to date	\$476.75	\$309.23	\$1,464.02
2016				
JAN 7	Galvanized Cable, Clips & Hose		395.18	
MAR 9	Food for 2/20 Volunteers' Lunch		29.85	
	Drill Bits		24.24	
	Harvesting Trees		200.00	
	Gas for Truck		30.00	
	Beverages for 2/20 Volunteers' Lunch		33.27	
APR 6	Food for 2/20 Volunteers' Lunch		19.43	
	Sales Tax for Bulrush Plants Purchased 8/12/15	5.00		
JUN 8	Bulrush Plants	202.56		
OCT 14	Brochure Printing & Mailing		276.59	
	Total expenses to date	\$684.31	1,317.79	\$247.90

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April 1, 2014 thru June 30, 2017

DATE	DESCRIPTION	BULRUSH	FISH STICK	BALANCE
2017				
JAN 25	Galvanized Cable & Clips		371.62	
MAR 23	Food for 2/11 Volunteers' Lunch		88.15	
	Cut & Skid Trees		450.00	
	Gas for Truck		30.00	
	Beverages for 2/11 Volunteers' Lunch		44.42	
JUN 7	Bulrush Plants	202.56		
	Total expenses to date	\$886.87	2,301.98	-\$938.85

With full grant including the non-advanced sum of \$750, KLA funds paid an additional \$188.85.

Kangaroo Lake Association WDNR Grant SPL 342-14

Shoreline Preservation & Restoration Planning & Action Grant

Volunteer Service Hours: Fish Sticks & Bulrush Restoration

2014-2017

Fish Sticks Program	776 hours	\$12 per hour	\$9,549
Bulrush Restoration	688 hours	\$12 per hour	\$7,717
Total:	1,464 hours	\$12 per hour	\$17,266

Volunteer time sheets provide detail on *Attachments 4a, 4b, and 4c*.

Bulrush Restoration Final Report is an integral part of the total project and is contained in the following additional file.

Part II, Kangaroo Lake Shoreline Preservation & Restoration Planning & Action Grant

Report: Hardstem Bulrush (*Schoenoplectus acutus*)

Introduction and growth in Kanagroo Lake

Paul G. Mahlberg and Sherrill Eichler