

KORONIS LAKE ASSOCIATION

Box 333 • Paynesville, MN 56362

"An association formed to promote the protection and improvement of Lake Koronis".

Spring 2018

Greetings to all friends of Lake Koronis! It is that time of year again when KLA begins its' annual membership drive. Your neighbors and all who love Lake Koronis appreciate your support!

Your 2018 membership will allow continued work on water quality, erosion projects and community involvement. The primary focus, as was last year, is the infestation of Starry Stonewort (SSW) in Lake Koronis.

In 2016 the Koronis Lake Association received a \$400,000 grant from the Initiative Foundation (these monies are from the Lessard-Sams Outdoor Heritage Fund) and a \$200,000 matching grant from the state legislature, to combat the SSW infestation. With these grant dollars KLA developed a 2 year pilot project strategy approved by the DNR and the Initiative Foundation. This project demonstrated the best techniques and tools to reduce and manage the spread of SSW.

The areas DNR permitted KLA for the pilot projects were selected due to large infestations of SSW. This invasive was interfering with navigation and recreational use, in addition to disrupting fish spawning areas. These successful pilots have allowed the DNR to permit KLA to expand the treatment area in 2018 to 250 acres.

In 2017 the DNR permitted KLA to apply three different treatments: mechanically pulling, mechanically pulling with algaecide treatments, or just algaecide treatments which required follow-up maintenance applications. It is worth noting that in all cases, verifications were performed by a 3rd party auditor, Steve McComas of Blue Water Science, as required by the DNR permit. The 2017 data confirmed that in certain circumstances, each of the three different approaches kept the SSW infestations below nuisance levels and helped to re-establish native plants and fish habitat.

In 2017, the 2016 pilot project areas were monitored for fresh growth. Two algaecide treatments were performed with these areas. These treatments were found to be effective in markedly reducing SSW.

In 2018 we intend to tackle the originally identified 250 acres, in the East Bay of the lake. We will be implementing lessons learned over the past two years. Enclosed is the 2018 Lake Koronis SSW Strategy. It explains our plans in more detail.

KLA is pleased to announce an operational partnership with Mathiowetz Solutions LLC of Sleepy Eye, MN to combat the SSW. The Mathiowetz families have been lake residents and KLA members for many years. As a result of their interest in improving Lake Koronis, Mathiowetz Solutions LLC has purchased and will operate a machine to be used to harvest SSW.

—————→ (see other side)

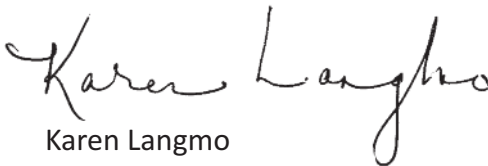
Mathiowitz's expertise in civil construction and material handling will be critical in determining the most cost effective way to manage SSW in the coming years. The Koronis Lake Association thanks the Mathiowetz family for their interest and is looking forward to this partnership.

Protecting and preventing our lake from invasion of other Aquatic Invasive Species like Zebra Mussels and Eurasian Milfoil are key components of our 2018 AIS Boat Inspection program that will be in its' sixth season of operation.

More than ever your membership is crucial to protecting, enhancing and restoring our lake. It will take an enormous amount of funding to treat and manage SSW. This is not an invasive species that will go away.

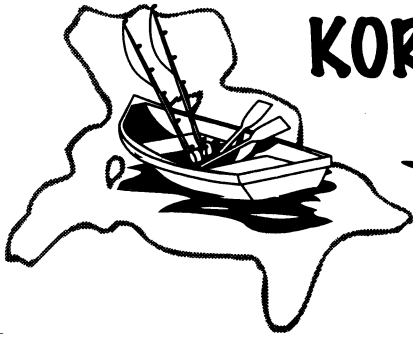
Please keep this in mind as you consider your 2018 membership. With your generous support, we can protect and improve our lake!

Thank you for your support!

A handwritten signature in black ink that reads "Karen Langmo". The signature is written in a cursive, flowing style.

Karen Langmo

KLA President



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KORONIS LAKE ASSOCIATION 2018 BUSINESS MEMBERSHIP APPLICATION

Welcome to the Koronis Lake Association. Show your support of Lake Koronis by becoming a member. As a member, most importantly, you are taking an active part in preserving your lake. In addition to that, your membership benefits include:

- Recognized in our newsletter as a Business Member
- A "2018 KLA Member" window sticker.

Business Name _____

Description of Business _____

Owner/Proprietor of Business _____

Business Address _____

City _____ State _____ Zip _____

Phone# _____ Email _____

Business Website _____

I would like to receive my newsletter by (select one):

- Hard Copy Email Website

- Yes I am interested in advertising in the newsletter and/or website.
(A KLA board member will contact you with details)

Business Membership Dues: \$50 \$100 \$200 Other _____

Fireworks Donation: \$50 \$100 \$200 Other _____

AIS: \$25 \$50 \$75 Other _____

TOTAL ENCLOSED \$ _____

Please return form with your check payable to Koronis Lake Association
Koronis Lake Association
P.O. Box 333
Paynesville, MN 56362

—————> (see other side)

Listed below are a few opportunities to get involved in KLA. Please indicate the projects you are interested in so KLA Board members can contact you. I/We would like to support the Association by volunteering my/our time in the following way:

- Serve on the KLA Board
- Serve on a committee (AIS, Community Involvement/Awareness, Lake Quality Improvement, Lake Assessment, Membership/Dues, Shoreline Restoration and Stormwater Mgmt Grant (see website for more committee Duties)
- Work on the newsletter
- Help with the annual meeting
- Help with 4th of July Boat parade and/or Fireworks
- Help/work with website
- Other _____

If you have any suggestions/comments please let us know below. Thanks!



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Koronis Lake Association Starry Stonewort Pilot and Management for Lake Koronis

In 2017 data confirmed that both mechanical pulling, mechanically pulling with algaecide treatments, or just algaecide treatments with algaecide sustainability treatments the next year, can effectively manage, for at least two years, relatively large areas of Starry Stonewort infestation below a nuisance level and re-establish areas for fish habitat.

The 2016 areas were monitored for fresh growth and when growth was observed was treated. This resulted in two algaecide treatments over the summer to sustain the progress achieved from the previous year. Algaecide treatments were very effective in maintaining the low level of Starry Stonewort growth in the 2016 treatment areas.

The 2017 areas were treated the same as the 2016 areas, one area being mechanically pulled, diver gleaned, and algaecide treated two times, and one area algaecide treated two times. In the 2017 work area we removed approximately 236,000 lbs. of Starry Stonewort biomass. The 2017 data was consistent with what was observed in 2016 with the fastest and most dramatic results of biomass reduction in the area that was both pulled and algaecide treated.

In 2017 we also learned that we could begin the removal of the Starry Stonewort earlier in the year in the shallow areas of the lake as well as perform earlier algaecide treatments to more effectively manage and sustain the desired low levels of the invasive algae. (The algaecide used in the lake are specific for algae in the lake such as the Starry Stonewort. The algaecide has no restrictions such as swimming, lawn watering on their labels.) We also demonstrated that with the use of algaecides in the deeper areas when applied early in the summer can keep the depth of the invasive lower.

Starry Stonewort produces a star shaped structure called a bulbil that can grow into a new plant. The University of Minnesota completed a bulbil viability study and found that the algaecide used didn't impact bulbil viability. We suspect that these bulbils had been protected by the lake sediment since other laboratory testing showed that the algaecides were very effective in killing the bulbils when exposed directly.

After review of the two years of our project with the University of Minnesota, MN DNR, and our consultant from Clemson University we are prepared to move forward in 2018 and 2019 with our management project on Lake Koronis for Starry Stonewort. Our plans for the next year is to take advantage of the integrated approach developed, use mechanical pulling and algaecide treatment where it is most beneficial and cost effective and use algaecide treatment where and when it will deliver the best results.

In 2018 the major infested area, first discovered and mapped by DNR in 2015 as 250 plus acres of infestation will be broken into two areas based on depth. Just as the lake is divided up into areas that are able to grow vegetation so can the infested areas be divided up into management areas for managing invasive species. Areas can be divided by different depths, areas around docks and lifts, water temperatures, time in the year, personal preferences for or against algaecides, costs, and ecological benefits to native species, etc. In 2018 and into the future this integrated protocol based on what is believed to be important factors, mechanical pulling, and algaecide treating will be put in place.

In simple terms the protocol for management of the Starry Stonewort identified areas is –

Areas less than 4 feet in depth – mechanical pulling, this includes around docks and lifts, followed with algaecide treatment (s) as necessary. Pulling can start in early June in the shallow areas. Algaecide treatments can be used to augment the pulling and can vary depending on needs and personnel preferences.

Areas greater than 4 feet in depth – treat with two algaecide treatments. The first algaecide treatment will be early in the season and the second treatment about one month later. An additional treatment can occur later that year or early the next year.

Koronis Lake Association's Starry Stonewort Work Plan for 2018 and 2019.

Our goal is to manage and sustain the Starry Stonewort below a nuisance level and attempt to create environments that improve survival of native plants and animals.

Target Species:

Starry Stonewort

Treatment Areas for 2018:

ONLY those areas identified on the included map (see last page)

Treatment Dates:

The treatment dates will depend on growth of the Starry Stonewort and ability to integrate the two algaecide treatments together where possible.

Mechanically Pulling: June – September

Algaecide Application: End of June, End of July, End of September

Algaecide Used:

Citrine Plus Liquid, algaecide, label has no restrictions for use of water or swimming

If treatment is not desired:

If you desire that the treatment NOT occur adjacent to your property, please notify Karen Langmo, Koronis Lake Association President, or Kevin Farnum immediately either via phone, email, or the included letter below to KLA. (All information listed in letter below must be communicated.)

Per DNR individual signature waver approval requirements for aquatic treatments, shore owners may request that control not occur adjacent to their property. This is one of several forms of communication to you.

Responses by May 15, 2018 to Karen Langmo or Kevin Farnum

Phone: Karen: 320-333-0122 Kevin: 612-963-5248 or KLA: 320-300-0802

OR

email address: karenlangmo60@gmail.com or Kevin@farnum.info or koronislakeassoc@gmail.com

OR

Address: KLA
P.O. Box 333
Paynesville, MN 56362

SHORE OWNERS NEAR TREATMENT AREAS WHO CHOSE TO OPT OUT MUST HAVE THE FOLLOWING INFORMATION IN EMAIL, LETTER, POSTCARD, or PHONE CALL. (This portion can be cut off and mailed.)

I have read the annual letter sent on or before _____ [date] of this year and reviewed this document.

I request that NO herbicide treatment occur adjacent to my shoreline property.

I request that NO mechanical treatment occur adjacent to my shoreline property.

Signed

Date

NOTE: All requested information must be entered for verification purposes.

Year: Parcel or Pin Number(s) from property tax statement:

Property Owners Name(s):

Lake Property Address:

Phone Number(s)

Home:

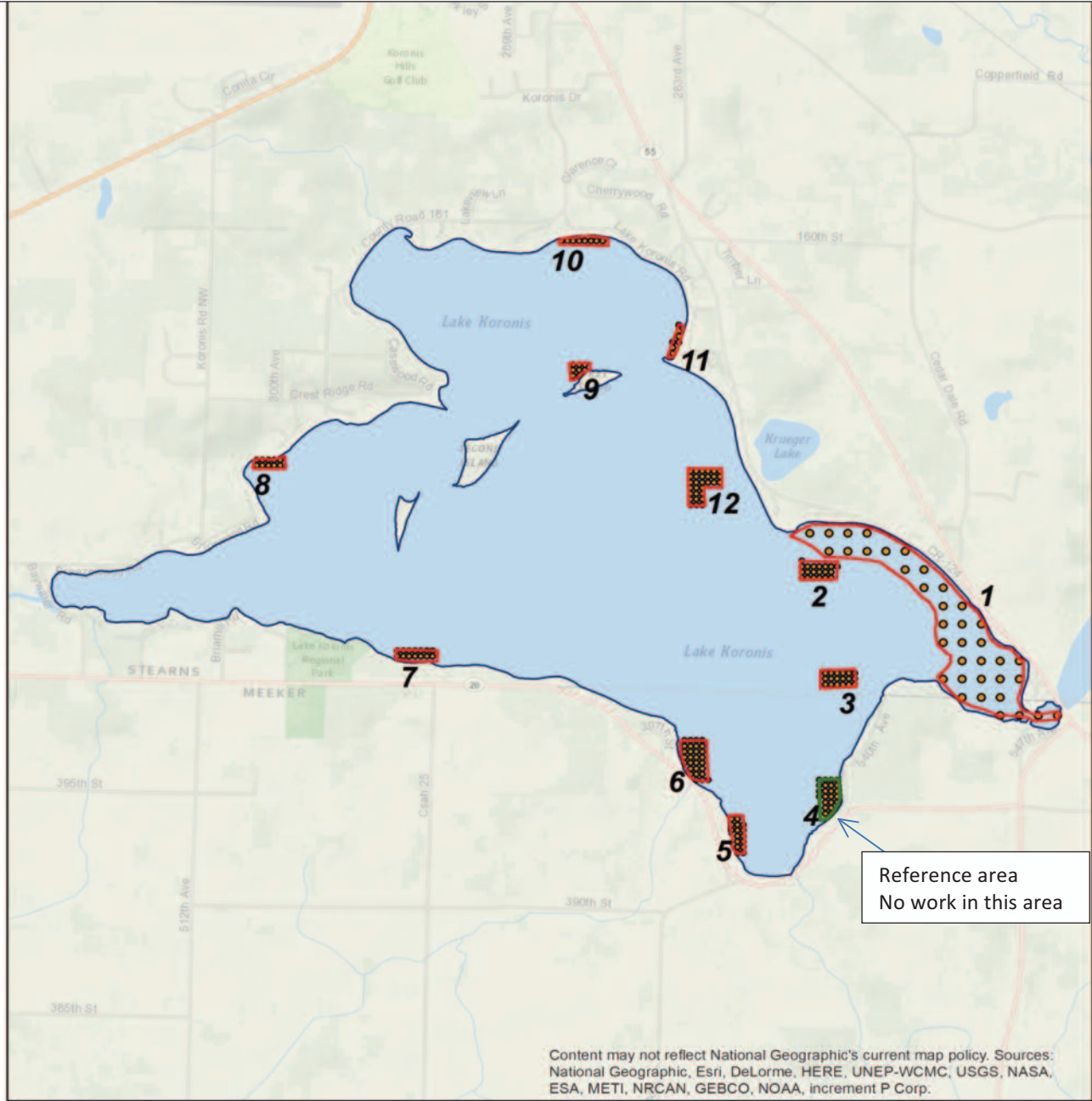
Cell:

Mailing Address (If different from Lake Property Address):

Starry Stonewort Treatment Map

Below is a map of Lake Koronis showing the areas that would be treated, either mechanically pulled, algaeicide treated, or both as listed in above plan. **The 1st Priority for 2018 is Area 1.** Areas 2-12 will be treated as time allows. Treatment areas as part of next year's project will be these areas and include others.

Lake Koronis Starry Stonewort Treatment Areas 1-12 (excluding 4)
are permitted for project work as described



1 centimeter = 367 meters



UTM NAD 1983
Blue Water Science