### *Winter of 2018-19*

We are having an old fashioned winter in Minnesota and Boot Lake is getting it's share.

To date we have had over 50 inches of snow with at least 2+ feet currently on the ground. And the area made the national news on January 31 with the lowest temperature in the State at 45 degrees below zero. This came a day after we recorded a high temperature of 19 below and low of 42 below. Just when we thought we were done with the feared "polar votex" we dropped down to 32 and 34 degrees below zero on February 8 and 9.

While we complained and whined about this lousy weather we need to look for some positives. Yes, there are positives – cold is good for lakes and cold is good (or bad if you are the bug) for invasive bugs!!

Experts say bitterly cold weather actually can have positive impacts on lakes from curbing the growth of harmful algae to reducing water loss. One of the greatest benefits of an extended cold snap is that it helps form a thick ice cover on a lake. When the temperature is 20 degrees below zero a lake could form 3 or 4 inches of ice per day. Thicker ice usually means a later ice-out in the spring, which slows the growth of plants and algae because the snow-covered ice blocks out the sun from the depths of the lake where they form. A thick ice cover that takes longer to melt in the spring also could help keep the lake's temperature a little cooler. Thicker ice near the shore that extends all the way to the bottom of a lake can help slow the growth of invasive species that prefer shallower water, like zebra mussels.

The extreme temperatures may also kill off a significant percentage of emerald ash borer larvae, according to one of the premier forestry experts in Minnesota. The invasive beetle has killed an estimated 100 million ash trees in the United States since it was discovered in 2002 in Michigan. The extreme temperature lows this winter are expected to kill up to 80 percent of the Emerald Ash Borer population.

What about our old favorites — mosquitoes and ticks. Are they affected?

They can be but they have a long evolutionary history in dealing with the cold, and especially with the deep snow pack they usually survive. With just 4 to 5 inches of snow the temperature beneath that snow pack stays right around 32 degrees. So keep your repellent handy for this summer!!





If you are getting cabin fever, hang in there, only 1 month until the first day of spring!!

## **Shoreland Management**

In 1998 when our Boot Lake Association was formed our members and property owners made one of our primary goals to preserve the quality of our beautiful and crystal clear lake, They recognized that we are stewards of Boot Lake and we are just "temporary" residents and are entrusted to protect our wonderful environment for all those that come after us. At that time we were a relatively undeveloped lake.

- In 1998 we did a survey of property development on the lake. That year the results showed that we only had 20 seasonal structures and only 11 year-round homes.
- Ten years later in 2008 we did another survey. That showed we now had 45 seasonal structures on the lake (an increase of 125%), and the number of year-round structures increased to 18 (an increase of 64%). With the downturn in the economy in 2008, development slowed down over the next several years.
- We just completed another survey in 2019 that showed we now have 57 seasonal structures on the lake (an increase of 27 % in the past 10 years), and 21 year-round structures (an increase of 17%). We should note that many of the "seasonal" structures are built for year-around occupancy and could be such if property owners retire and relocate to the area year-round.

Who knows what the next 10 years will bring but most likely we can be sure that development of lakeshore will continue.

The measure of our lake clarity has remained fairly consistent in the past 20 years with transparency readings with the sechii disk in the 20+ foot range, with just a slight decline in the past 5 years. This is mainly due to the fact that we have no inlets bringing storm or agricultural runoff and sediment into the lake, we have springs that continually feed the lake with clean fresh groundwater, and we have an outlet that is constantly flushing the lake. So if our water quality is going to decline the main reason will be from runoff from our shoreland property.

So how can you as a property owner do your part. Here are a few items for consideration:

- 1. Stabilize shoreland property to prevent erosion
- 2. Minimize runoff from shoreland property
- 3. Maintain the quality of water and septic systems
- 4. Reduce the impact of recreational activity on the lake
- 5. Prevent the introduction of invasive species
- 6. If constructing new buildings strive to minimize the effect on erosion and the environment
- 7. Plan and maintain lawns and gardens to prevent contamination of surface waters

There are many sources of information on Shoreland Management. Here are a couple for your consideration and use.

- 1. The University of Minnesota Extension has an excellent website for property owners to use to Protect and preserve water quality by following these best management practices (BMPs) for your shoreland property. https://extension.umn.edu/water-resources/shoreland-property-owners
  - 2. Another source is our own Boot Lake Association website. Go to the link below and then click on Lakeshore Education. https://minnesotawaters.org/bootlake/

As property owners and "stewards" our goal should be to do all we can to maintain this excellent water quality.



## Five Environmentally-Friendly New Year's Resolutions to Commit to

#### Celebrate the new year with these easy tips

The start of a new year is the perfect time to add in some new habits that'll improve your way of life. On top of the usual resolutions like living healthier, saving more money, and taking more time for yourself, saving the environment is another great task to take on.

To make the daunting task of taking care of the planet seem a little easier, we're giving you some easy ways to put that New Year's motivation towards shrinking your carbon footprint.

#### 1. Eat organic and local as often as possible

On top of being better for you and putting less chemicals into your body, eating organic foods helps the environment by reducing the amount of chemicals used in their growth. Eating local produce often tastes better, supports the local economy and reduces pollution from transporting food across the country.

#### 2. Incorporate meat-free days into your diet

Eating less meat cuts down on the very unsustainable effects of mass-produced meat and encourages creativity through home-cooked meals with ingredients like fresh produce.

#### 3. Bring your own grocery bags

Reusing the plastic bags you have sitting in your cabinets (we all have an overflowing plastic bag cabinet, right?) helps prevent plastic from ending up in the ocean or in habitats where they kill over a million animals every year.

#### 4. Practice energy and water conservation around the house

Getting your whole family in on saving the environment is a great way to build sustainable habits. Encourage everyone to turn off the lights when they're not needed and to use less water by being mindful of things like shower length.

#### 5. Bring your own water bottle

This super simple resolution is similar to bringing your own shopping bag, but is even easier. Switching to a reusable water bottle is an awesome way to remember to stay hydrated while saving dozens of disposable plastic bottles from sitting in the landfill for decades.



For more info and healthy living tips visit the website:

#### http://www.1thingus.com/

Believe in the power of 1Thing. The 1Thing Sustainability Initiative promotes positive environmental practices and living. If everyone did just 1Thing to improve the environment every day, our world would be a better place to live in for generations to come.

# Calendar of Events

- Spring Road Pickup and Potluck Thursday May 16, 2019
- Annual 4th of July Boat Parade Thursday, July 4, 2019
- Annual Meeting and Potluck Sunday, August 11, 2019

Note: We are looking for voluteers to host the potluck events in May and August. If you are willing please email us at: <a href="mailto:boot.lake.association@gmail.com">boot.lake.association@gmail.com</a>

# **Association Dues**

A reminder, annual dues are \$10. If you haven't already paid you can make check payable to:

Boot Lake Association.

Send your dues to our Treasurer:

Craig Nieman 53199 Sunrise Lane Park Rapids, MN 56470.

# See you on the Lake!!