

**11th Annual
Bear Lake Association
Zoom Meeting
May 28, 2020
7:30 pm**

Agenda

Welcome

- **Jason Broekstra, Vice President of Mich. Operations, PLM**
 - 2019 PLM Survey Results & Treatment
 - Lake Water Levels
- **Board of Directors Members Terms & Voting**
 - Jeff Shull
- **Health of Bear Lake**
 - 2019 CLMP Lake Quality Readings
 - 2019 Au Sable Institute Testing Results
- **Related Lake Information**
 - POS Septic Inspection Program Update
 - Fish Stocking
- **Treasurer's Report**
 - Association Account
 - SAD Account – Sam
- **Other / Q & A / Discussion**
 - Loon Report – Mary, Our Loon Ranger
 - What You Can Do

2019 Survey Results & Treatment

- From PLM Lake & Land Management Corp:
 - In 2019, 7.0 acres of EWM and 2 acres of algae were targeted for control. In 2018, 5.0 acres of EWM, 1 acre for algae and purple loosestrife were treated , 2017 - 4.0 acres of EWM, 2016 – 4.8 acres, 2015 – 7.2 acres.

2019 Survey Results & Treatment

- From PLM Lake & Land Management Corp:
 - EWM will vary annually, however, the treatments have been successful in limiting expansion and the program has been very successful.
 - We will continue to look for newly introduced exotic plants.
 - We are investigating other active ingredients for better long-term control.

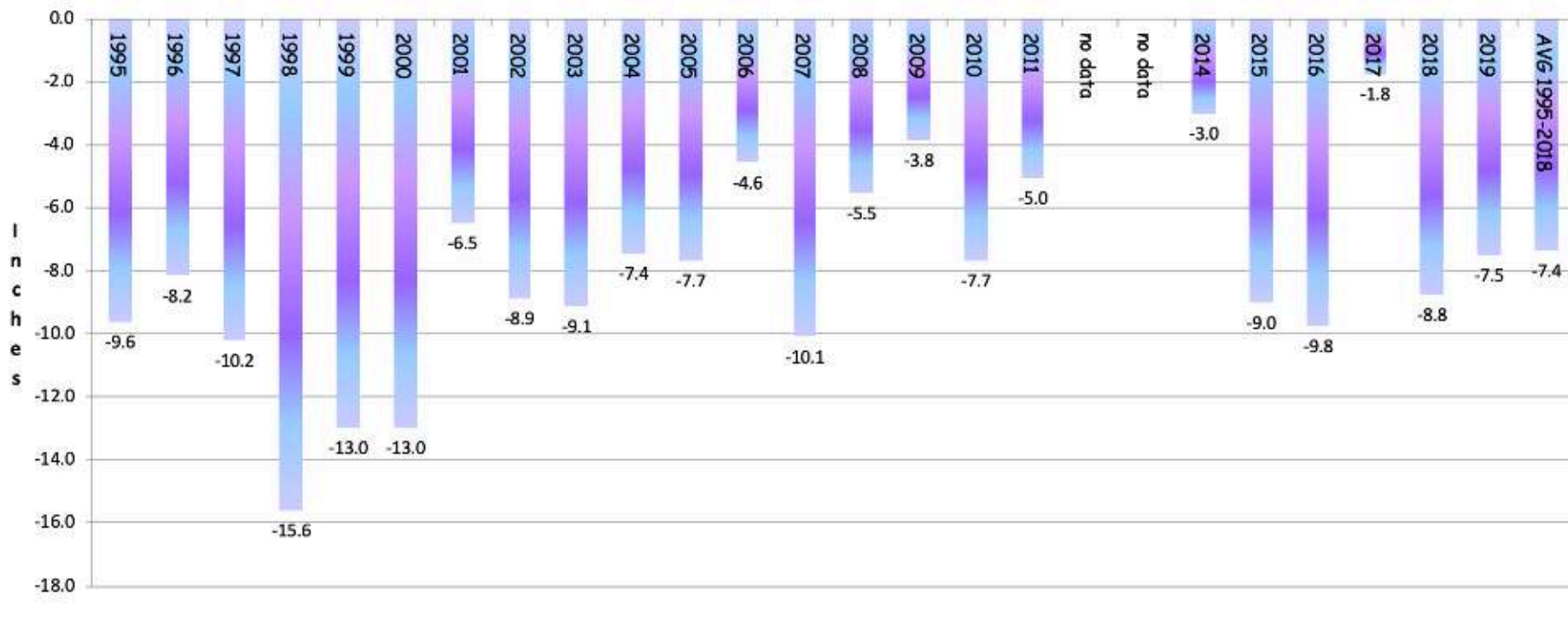
Lake Water Levels – Historical

Bear Lake Water Levels - USGS Referenced



Lake Water Levels – Historical

Water Level Loss/Gain
Spring High to Fall Low



Board of Directors Terms & Voting

- Jeff's 3-year term is completed.
- Volunteers to serve on the Board?
- Nominate for re-election
- Requires 2/3 majority from active members attending this meeting.

2019 CLMP Lake Quality Readings

- With an average TSI score of 29 based on 2017 Secchi transparency, chlorophyll-a, and summer total phosphorus data, this lake is rated as an **oligotrophic** lake.
- The low level of nutrients in the lake results in dissolved oxygen being available throughout the water column for the entire summer.
- Long term monitoring shows slight downward slopes on the parameters, indicating a very slow movement toward lower nutrient levels in the lake. [Report is available for distribution.](#)

Average TSI	2019	2014-2018	1975-2013
Bear Lake	30	29	30
All CLMP Lakes	40	40	43

2019 Au Sable Inst. Test Results

- Highlights

- There were no fecal coliforms found in any of the 20 samples of taken from Bear Lake.
- This TSI indicates that Bear Lake is an oligotrophic lake, meaning it is good water quality with low biological productivity because of low nutrient content.
- Bear Lake is performing exceptionally well.
- Bear Lake is in good condition and the continuation of management strategies will ensure a stable and healthy lake for the residence to enjoy!

Discussion on Lake Health

- Q & A to bearlakekalkaska@gmail.com

Point-of-Sale Septic Systems Test

- Required for all Kankaska County home sales
- Septic tank pumping & inspection
- Must be replaced if it indicates failure
- Kankaska Board of Commissioners tried and failed to rescind
- Groups of environmental organizations are working to develop legislation to enact a workable statewide septic code.

Fish Stockings



- Fish have been stocked but data is unavailable.

Treasurer's Report – SAD Account

- This year's fee based on previous year's expenses and this year's estimated expenses - \$42.35
- Lake treatment averages about \$5000 per year
- With new township resolution, the SAD pays for non-treatment expenses – next slide
- Non-treatment averages about \$800 per year
- Current balance – \$8007.56

Treasurer's Report – Assoc. Account

May 27, 2019 to May 28, 2020

Balance forward (May 27, 2019):		\$2,501.19
Income (donations)	135.00	2,636.19
Expenses:		
Bear Lake Firefighters Association	(200.00)	
Supplies	(7.00)	
Website Annual Fee	SAD	
State of Mich Nonprofit Corp Annual Fee	SAD	
Box Rental, Postage	SAD	
Liability Insurance	SAD	
Mich. Lake & Streams Assoc. Membership	SAD	
	Total Expenses	(207.00)
Balance on Hand (May 28, 2020)		\$2,429.19

Loon Report – Mary, The Loon Ranger



What You Can Do

- Stay committed to a healthy lake
- Clean boats & trailers before launching – it's the law
- Rake-the-Lake
- Check your septic system & keep them functioning well
- High speed/wake boating causes erosion and nutrient dump into the lake. We advise 200' from end of docks/rafts.
- Naturalize your shorelines
- Put up geese barriers and do not feed the ducks
- Protect our loons – “If you see something, say something”

Adjourn

- Q & A: email – bearlakekalkaska@gmail.com
- Minutes, presentation and results to be posted on website – bearlakeassoc.com