



Mayatan Lake Management Association Annual General Meeting President's Report November 26, 2023

Dear MLMA Members,

2023 has been an eventful year for the MLMA. Here are some of the highlights.

Another Busy Year of Lake Surveying

The MLMA had a productive summer surveying lakes in the Parkland County region.

Starting in 2021, under the direction of Dave Trew, MLMA successfully delivered a community-based water quality survey program for 44 lakes. The project was a collaborative effort supported by several partners: Land Stewardship Center, North Saskatchewan Watershed Alliance, Stony Plain Fish & Game Association, Alberta Lake Management Society, and the University of Alberta. Many (27) private landowners were engaged in the project and provided lake access.



Figure 1 Dave Trew collecting water sample with Van Dorn water sampler

In 2022, again under the leadership and direction of Dave Trew, the MLMA and partners conducted Phase 2, a water quality assessment to confirm the 2021

observations. Water quality data was collected on 50 lakes during August – October 2022.

In 2023 we have completed testing on another 27 lakes, bringing the total of surveyed lakes to 77. We also worked in partnership with the ALUS staff at Parkland County to survey 7 dugouts on lands involved in the ALUS program.

All data have been entered into the DataStream public data base.

Joint technical reports for 2021 and 2022 were developed collaboratively by MLMA and ALMS and can be found on the ALMS website at <https://alms.ca/carvel-pitted-delta/>. The report for 2023 will be developed in the near future.

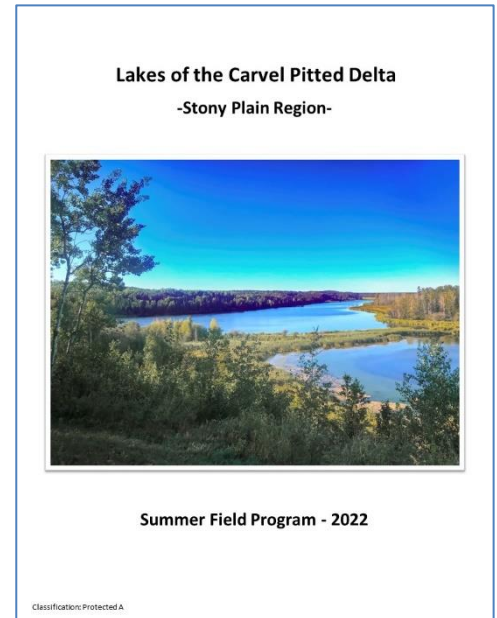
Congratulations to Dave for conceiving, developing and execution such a worth-while project.

Bathymetric information (mapping lake bottoms) has been collected on a number of lakes by Dave Mussell, using the Garmin ECHOMAP sonar device and transducer we purchased in 2022.

Why Multi-Lake Surveys?

These multi-lake surveys do not lead directly to improvements in lake management. However, there are a number of benefits to be derived:

- A regional survey helps to provide the “big picture” on the current health of lakes in the region. This information is useful to governments at various levels when considering legislative changes to protect lakes. Parkland County has demonstrated the value it sees in this work by contributing substantial financial support for the project.
- Many lakes are on private property. Connections have been made with many landowners who have expressed strong support for the project and interest in the results.
- The project is an opportunity to pursue our educational mandate: we spoke with many lake users and landowners, were able to hear their concerns and issues, and provide them with stewardship information.



- For Mayatan Lake specifically, we get a better overall picture of the health of the watershed as we surveyed four different basins of Mayatan Lake.

The MLMA would like to acknowledge the financial and technical support provided by the Land Stewardship Center of Canada (\$7,500 grant in each of the past three years).

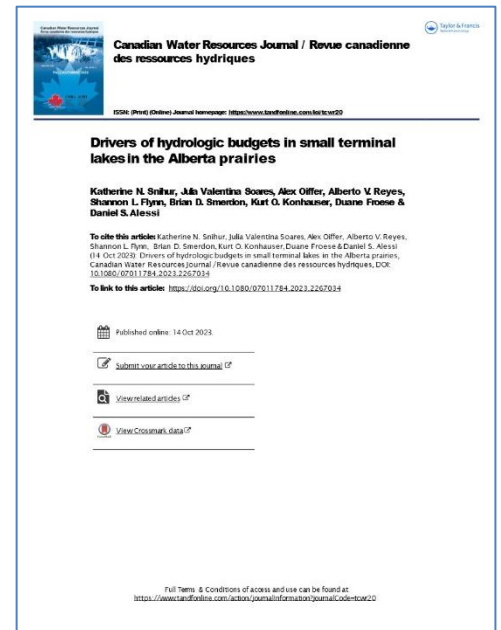
2017 Research in Print

Many members will recall the research project we carried out in 2016-2017 on six lakes (Mayatan, Hubbles, Jackfish, Spring, Cottage, Hasse).

Volunteers collected lake and well samples over two summers, which were analyzed by a team at the University of Alberta. Isotopes of hydrogen and oxygen were analyzed to try to determine the source of water for these lakes. The results have now been published.

Key findings outlined in the report:

- groundwater from the bedrock underneath the Carvel Pitted Delta area does not contribute to the lakes.
- these 6 lakes lose slightly more water to evaporation than to groundwater (or surface outflow).
- the role of shallow groundwater requires further study.



The report is online on the MLMA website at <http://mayatanlake.ca/files/Drivers-of-hydrologic-budgets-in-small-terminal-lakes-in-the-Alberta-prairies.pdf> (mayatanlake.ca)

Parkland County Land Use Bylaw and Municipal Development Plan Update

Parkland County is updating their MDP and LUB. It is a great opportunity to provide input on the levels of protection required to preserve the water quality of Mayatan and other lakes in the County.

Working with Kelsie Norton from the North Saskatchewan Watershed Alliance, the MLMA helped to organize a meeting with Parkland County staff on November 23rd 2023 to give lake residents and watershed stewardship groups an opportunity to learn about

the MPD/LUB update process and to understand the ways in which they can provide input. This activity will continue into 2024.

Lakeshore and Roadway Clean-up

Thanks again to the organizing efforts of Tara Doell, the 2023 Mayatan Lake shore and roadway cleanup on May 6, 2023, was a great success. MLMA members and friends did ditch cleanup around the Mayatan Lake boat launch, along Range Road 30, and on Township Road 524 from Mink Lake to the Duffield Road. Thanks to Parkland County for supplying materials and funding.



Mayatan Boat Launch on Clean-up Day

Pond Days



From May 31st – June 2nd, 2023, the MLMA participated in Parkland County's "Pond Days", an educational event held at Chickakoo Lake to provide



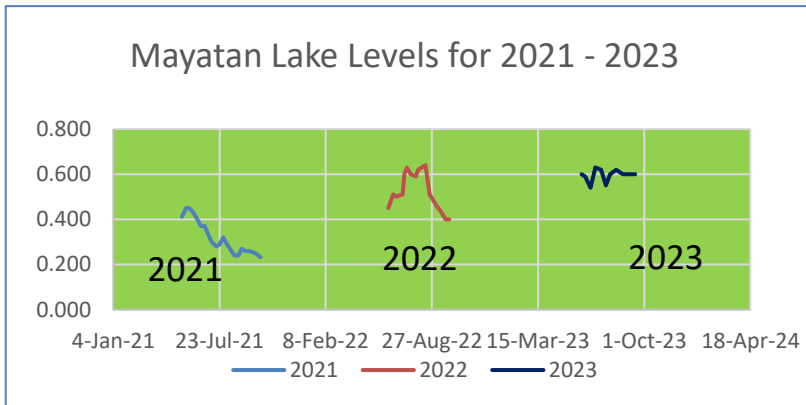
lake stewardship activities and information for elementary school students. This year we were able to utilize three microscopes we



purchased last year through funding from the Land Stewardship Center. Thanks to Dave Mussell, Tara Doell, Marilynne Allen, Elisa Brose, and Myrna Neilson for volunteering to organize our participation and run the stations.

Staff Gauge

Sandy and Al Steinke led the charge once again this year in taking measurements on the Alberta Environment staff gauge at the Mayatan Lake Boat Launch. The lake showed higher levels in 2023 than in 2021 or 2022 so it appears that for the moment the lake is holding its own. Many thanks to Al and Sandy.



Alberta Environment depth gauge at Mayatan Lake

Fall Fun at Mayatan

On September 23, 2023, the MLMA held a neighborhood picnic at Rod and Jane Simpson's residence at Mayatan Lake. It was a wonderful chance to get together, eat great food, and catch up on happenings over the summer. Many thanks to Rod and Jane for hosting this event.



Thanks to Rod and Jane Simpson for hosting an MLMA get-together in September.

What's Next for 2024

For 2024, the MLMA will continue to work with partners on projects that are designed to protect Mayatan Lake and its watershed. A report will be produced in early 2024 on this year's lake survey project. We will hold discussions with members and partners on how best to utilize the information gathered over the past three years. Our interactions with Parkland County this summer will hopefully lead to more joint work, such as Pond Days in spring 2024 and discussions on how to improve legislation to protect lakes.

Finally, many thanks to all the volunteers who have made our efforts successful over the past year!

Regards,

Walt Neilson
President

The MLMA wishes to thank the following organisations for their support of our work in the past year.

