



Mayatan Lake Management Association Annual General Meeting President's Report November 24, 2024

Dear MLMA Members,

2024 has been an eventful year for the MLMA. Here are some of the highlights.

Lake Surveying 2021-2024

Lake surveying continued in 2024.

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

. 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.

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/>.

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



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

2024 was a bit different.

- We re-sampled three deep lakes – Mayatan West, Hubbles and Gerhardt – in spring and fall to measure the *turnover* in these three deep lakes, that is, to determine whether the lakes mix from top to bottom to induce uniform temperature and oxygen values. This data is important to understand the survivability of fish. The results indicated these deep lakes mixed uniformly down to about 10 meters.

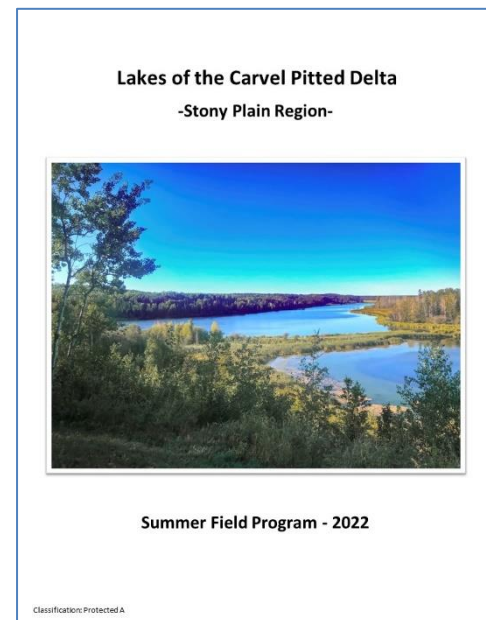
We also re-sampled several lakes from last year, and one new lake. The new lake is just north of Stony Plain and is interesting in that it served as a source of water for Stony Plain in the 1940's. That additional lake brings our total of surveyed lakes to 78. All data have been entered into the DataStream public data base.

Dave Trew will present a draft of the 2023 report at the 2024 AGM.

Education

A focus for 2024 has been to synthesize the lake and watershed information we have collected over the previous three years to create a science-based overview of all available environmental information for the small lakes in the study area and their surrounding watersheds. This overview will provide a benchmark against which future stewardship activities and best management practices aimed at maintaining and improving watershed health can be assessed.

The overview document is in development.



We also purchased two drones using funding from the Land Stewardship Center. These drones have been used to capture images of the lakes of Parkland County, both in the air and under water. A educational video has been produced on the Lakes of the Carvel Pitted Delta, incorporating lake images and interviews with lake residents. The first cut of this exciting video will be shown at the 2024 AGM.

“Your Parkland” Newsletter Article

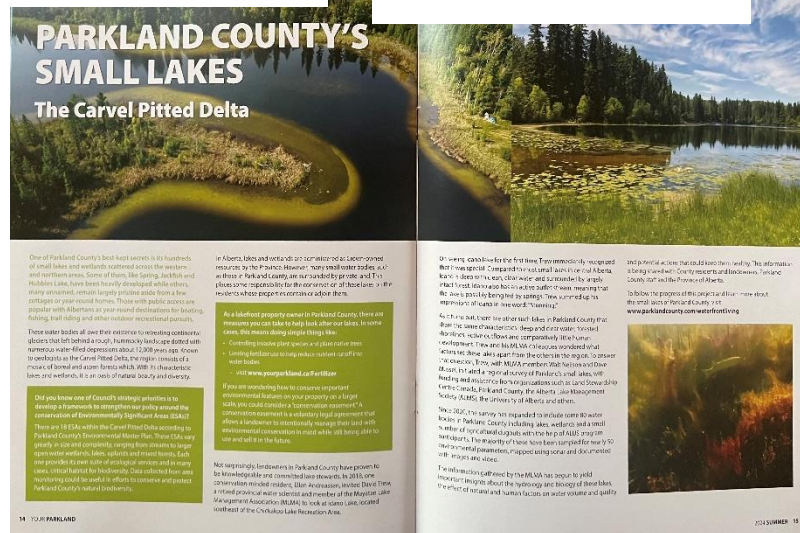
MLMA collaborated with Parkland County to produce an article for the My Parkland newsletter produced by Parkland County. Many thanks to Dave Mussell who did most of the work on the document.



Figure 2 Underwater drone



Figure 3 Dave Mussell with aerial drone

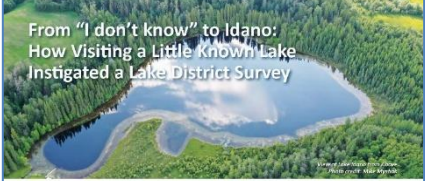


The article can be found on the Parkland County website at [your-parkland-summer24.pdf](https://www.your-parkland-summer24.pdf).

NSWA Blog on the Lakes of Parkland County

In July, we collaborated with the North Saskatchewan Watershed Alliance to produce a blog entitled [From “I don’t know” to Idano: How Visiting a Little Known Lake Instigated a Lake District Survey](#). The blog describes the beginning of the project we have undertaken over the past four years, starting with the inception by Dave Trew on a single lake called “Idano”.

The article can be found on the NSWA website at [Carvel-Lakes-Article-July-25-2023-FINAL.pdf](#).



From “I don’t know” to Idano: How Visiting a Little Known Lake Instigated a Lake District Survey

As July marks Lakes Appreciation month, we wanted to highlight a collaborative citizen science story happening in the Sturgeon River Watershed. Three of the key partners told their tale to tell us how their converging interests in some small lakes in the Glory Hills set in motion “a regional survey of a little lake district.”

A CLEARLY MYSTERIOUS LAKE

Shortly after Dave Trew retired from the NSWR in the summer of 2018, he was talking to family friend Ellen Andreassen, who lives north of Stony Plain. For years, Andreassen had been asking him to come out and see the lake on their property. When the Trews finally visited the property later that summer, Trew says, “I was quite awestruck when I saw the lake for the first time. . . I was amazed at how clear and clear it was.” Besides its clarity, Trew noted its rapid drop-off depth, and permanent outflow, which was characteristic features of most of the lakes he’d encountered in central Alberta. Known informally to the family as Lake Idano (“I don’t know the name”), Andreassen expressed a desire to see the lake protected for future generations.

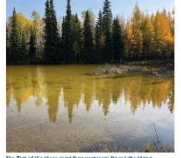
As Trew pondered this pristine lake, set in the Glory Hills, he was rolled back to look at the springs that feed Lake Idano. In September, he and Andreassen followed a stream through the forest until they reached a fairly shallow waterbody with whitish sediments. This was later determined to be a groundwater-fed pool fed by volcanic carbonate, not unlike the Wagner Fen. Two more fens were located further upstream, which also drain into Idano.

Still intrigued, Trew told Alberta Lake Management Society (ALMS) Executive Director Bradley Peters about the lake. The two of them arranged to sample Lake Idano the following summer and Trew says Peters was “equally impressed with its beautiful setting.” After running the lake chemistry samples, the nutrients were determined to be intermediate. Trew compares them to “a lake in the foothills or the Canadian Shield,” saying they are “nothing like most central Alberta lakes at all.”

THE GLORY HILLS & THE CARVEL PITTED DELTA:

ABOUT THE REGION:

The Glory Hills separate two major sub-watersheds of the Sturgeon River and are also a transition zone between Sherwood and Redland ecosystems. They are part of a broader region west and north of Stony Plain, known as the Carvel Pitted Delta. This geological area of “heads and heels” includes was formed as glacial ice retreated, leaving mountains (heads) and



This view of the flow over the stream system Delta Lake Idano. Photo credit: Dave Trew.

MLMA Display at NSWA COP Forum

The North Saskatchewan Watershed Alliance held a day-long “Communities of Practice” Workshop in Edmonton on May 29, 2024. MLMA staffed a worktable to display some of our lake work, including some of the equipment purchased for this year’s work.

Thanks to Dave Mussell, Conny Shuster, Elisa Brose, and Marilyn Allen for an excellent job on explaining the work being done by MLMA.



Pond Days

Once again in June 2024, 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. Dave Mussell, Tara Doell, Marilyne Allen, Sandy Steinke, Elisa Brose, Conny Shuster, and Myrna Neilson provided activities for 151 students from Duffield, Graminia, and Stony Plain Central Schools. Thanks to all for volunteering to organize our participation and run the stations.



Parkland County MDP and LUB Update

Parkland County is updating their Municipal Development Plan and Land Use Bylaw. It is a great opportunity for MLMA to provide input on the levels of protection required to preserve the water quality of Mayatan and other lakes in the County.

Walt Neilson and Pete Marshall have met with Parkland County staff at numerous Open House and Meet the Consultant events regarding these two documents. They will make a presentation to Parkland County Council on November 26th, 2024 with feedback on the first draft of the MDP. The major improvement in the document is the recognition of “Lake Country”, which acknowledges the existence of dozens of lakes in the Carvel Pitted Delta region of Parkland County. MLMA will urge the County to increase the protections for lakes such as Mayatan Lake.

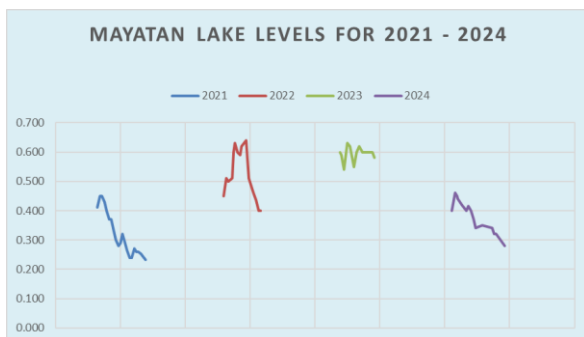
Lakeshore and Roadway Clean-up

Thanks again to the organizing efforts of Tara Doell, the 2024 Mayatan Lake shore and roadway cleanup on May 4, 2024, 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 Star Lake to the Duffield Road. (The Mink Lake-Star Lake Road was still under construction.)

Thanks to Parkland County for supplying materials and funding.

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



low levels in 2024 than in previous years. Many thanks to Al and Sandy.



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Alberta Environment depth gauge at Mayatan Lake

Fall Fun at Mayatan

On August 17, 2024, MLMA held a neighborhood picnic at Rod and Jane Simpson's residence at Mayatan Lake for the third straight year. It was a wonderful chance to get together, eat great food, and catch up on happenings over the summer. Floyd Young and Dave Mussell royally entertained us all with a medley of guitar and banjo music. Many thanks to Rod and Jane for hosting this event.

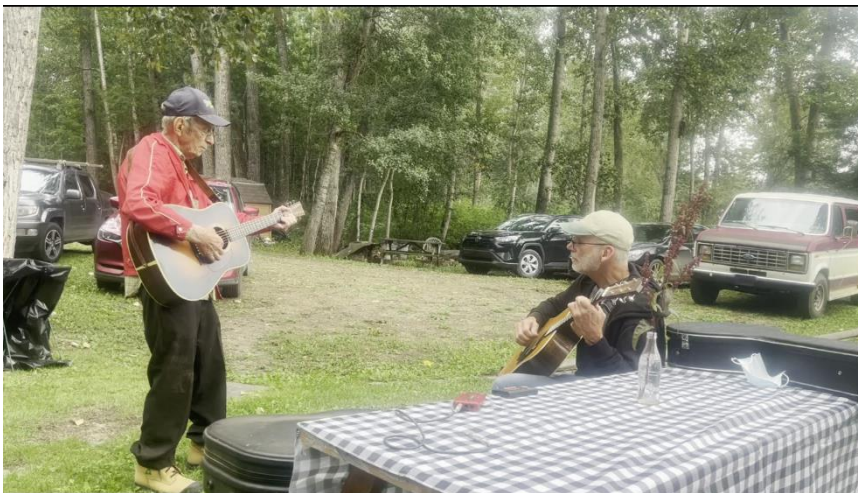


Figure 4 Floyd Young and Dave Mussell provide the entertainment.



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

What's Next for 2025

For 2025, 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 2025 on this year's lake survey project and we will complete an overview report on the four years of work on the Carvel Pitted Delta. We will continue to work with Parkland County on improvement of lake protection through legislation and other projects such as Pond Days in spring 2025. We will almost certainly continue the lake survey project. One possibility for 2025 is carrying out DNA sampling on lakes to determine fish populations

I anticipate we will carry out a review of the Mayatan Lake Watershed Management Plan both to gauge our success in its implementation and to determine if changes are needed going forward.

What other projects should we be considering? Bring your ideas!

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, in particular the Land Stewardship Center which has generously funded our work on the Carvel Pitted Delta over the last four years.

