

# Lakescape

newsletter of the



Box 1005, Wabamun, Alberta, T0E 2K0

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## Communication and Knowledge Sharing

by Sue Styles, WWMC Chair



Neil Fleming, Sue Styles and our new tent canopy at the Seba Beach market this spring

Welcome to our summer newsletter! As described by several of our directors, this one is “packed with information” useful for all lake users, including updates about the **South Shore Boat Launch** and the **TransAlta Water Treatment Plant**, information about the upcoming **Invasive Species Inspection Demonstration**, the **Highvale Mine Reclamation Plan** and a summary of the **LakeWatch Report** on Wabamun’s summer water quality.

“Knowledge sharing” is identified as a core value in the WWMC [2022-2025 Strategic Plan](#), and strong communication is highlighted as a key strategy. Information and knowledge sharing is an important component of the work of the WWMC. This newsletter, along with our website, Facebook page, Twitter account and discussions with people at markets and other events around the lake go along way to increase the knowledge of lake users.

I also wish to inform you that at the WWMC Special Meeting, held on June 29/2022, the WWMC members approved the proposed 2022 WWMC Bylaws.

In closing, I would like to give a big shout out to two WWMC Directors, who are the WWMC’s primary communications committee members—Don Meredith (Communications Chair) and Neil Fleming. Amongst your many contributions, thank you both for your excellence in providing accurate, comprehensive and timely information to WWMC stakeholders on all our media platforms!

We invite readers to connect and communicate with the WWMC. We welcome your questions, comments and feedback on any of the items in this newsletter or other issues. Visit us at [www.wwmc.ca](http://www.wwmc.ca), Email us at [info@wwmc.ca](mailto:info@wwmc.ca), Tweet us [@WabamunWMC](https://twitter.com/WabamunWMC) and follow us on [Facebook](#).



Don and Neil on a 2019 water sampling trip.



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## Aquatic Invasive Species Boat Inspection Demonstration



The WWMC is partnering with Alberta Environment and Parks (AEP) and Parkland County to hold an Aquatic Invasive Species (AIS) demonstration set for the **morning of Saturday, July 23<sup>rd</sup> at the Wabamun boat launch**. It will be a “Pop Up” watercraft inspection station, complete with the entire AEP inspection team and their sniffer dogs. We will be inspecting all watercraft entering the lake at that location, looking for evidence of invasive aquatic species, such as Quagga and Zebra mussels.

This will be an excellent opportunity for recreational boat users of Wabamun Lake to learn about the risks associated with AIS, in particular Quagga and Zebra Mussels. AEP staff will be on hand to answer questions.

## South Shore (Sundance) Boat Launch Update

by Stan Franklin

Construction on the South Shore Boat Launch has begun. This new facility, located at the old Sundance launch on the south shore, will go a long way to easing the pressure on weekends at the Wabamun and Provincial Park sites, as well as the informal sites around the lake.

Parkland County’s contractor, Chandos Construction, is on site and currently engaged in mobilization and set up work. The next phase of the work will involve the removal of the existing concrete ramp and the placement of the new ramp and dock. That work is currently scheduled to be completed by late July. Between the end of July and the end of August the contractor will be working on roadway and parking facilities, structures and facilities related to administration and day use and final landscaping. A concrete pad will be installed to park a crane for launch and retrieval of keel boats. It is hoped the site will be operational this fall with an official opening next spring.



For more information, including an Updated Concept Design, go to [Parkland County’s Wabamun Lake Boat Access web page](#).

## TransAlta Water Treatment Plant Update

by Neil Fleming

The low lake levels this spring have caused many people to enquire about the TransAlta water treatment plant (WTP) pumping operations. I’ll do my best to bring everyone up to date on the purpose, status and effect of the WTP on lake levels based on what we currently know.

First, the purpose of the WTP was never to artificially control the lake level. As a condition of their licence to operate the Highvale mine on the south side of the lake, TransAlta is required to contain all the precipitation falling on the mine site to prevent contaminated water from entering the lake. The water is diverted to their cooling ponds from which water is drawn and treated before being pumped to the lake. The amount of water to be pumped is calculated to be equal to the amount of water that would normally have reached the lake had the coal mine not existed. The goal is to mimic as closely as possible, natural inflows to the lake.

The WTP has not been in operation since late 2020. We were recently provided this update from TransAlta on the reason for the outage:

"During a severe storm event, damage occurred to structural components of the Wabamun Lake Water Treatment Plant (WLWTP). Following this event, an engineering assessment determined that the system damage was unreparable which resulted in a re-assessment of the operational design of the treatment plant. The process of identifying and planning changes to the treatment system has been completed and is now under review by Alberta Environment and Parks (AEP)."

We have since learned that the WTP is now operational and resumption of pumping has been authorized by AEP. Pumping will resume following performance testing and coordination with the Sundance Boat Launch construction. Construction will require alterations to the WTP output channel which is where the launch is being built. Expectations are that pumping should resume in mid-summer, with the launch being operational by September.



Water depth and quality are important factors affecting the health of the lake.

Our very rough calculations suggest that the WTP contributes about 6.5 vertical centimetres (2.5 inches) to the lake level on an average year. Our estimate is that the lake level would be about 10 cm (4 in.) higher had pumping not been interrupted. The "water debt" that accrued during the period the WTP was not operating will be "repaid" by incremental volumes over the next two years (approximately). Unfortunately, we cannot provide an accurate current lake level as the reporting station at Wabamun was damaged during construction at the Wabamun marina. Reporting is expected to resume later this summer. It is certain that the current level is below the height of the weir meaning no water is flowing from the lake. For a better understanding of water sources contributing to lake levels, readers are referred to our [website page on lake levels](#).

Finally, to reinforce the point that lake levels are primarily determined by precipitation and evaporation, people should be reminded that 2 years ago, following periods of heavy rain, many were complaining that lake levels were too high. So be careful of what you wish for!

## Highvale Mine Reclamation

The Highvale Mine ceased mining operations on December 31, 2021. This was a result of TransAlta Utilities' decision to move away from coal-fired generation. This in turn accelerated the timetable for reclamation and approval of a revised reclamation plan by the Alberta Energy Regulator (AER). According to the applicable regulations, this reclamation plan must be filed within 6 months from the cessation of mining, namely June 30, 2022.

Several months ago, TransAlta released a high-level conceptual vision for the reclamation and conducted some public consultation regarding the concept. The WWMC was one of the stakeholders that was contacted. Since that time, WWMC Board members have been engaged with TransAlta regarding the hydrological components and features that will be incorporated into the plan that will be submitted to the AER. Those discussions have resulted in an understanding with TransAlta that the WWMC will retain an independent expert who will have access to the filed plan and the consultants retained by TransAlta to prepare the plan. That work will begin in July and TransAlta has agreed to cover the reasonable costs of the services and expense of our expert. This collaboration with TransAlta will extend for an indefinite period and will have the goal of making sure that the water features and functions of the reclaimed site provide best in class protection for the health of Wabamun Lake.



## LakeWatch Report—A Summary

Each year, the Alberta Lake Management Society (ALMS) publishes their LakeWatch Reports for the several lakes it has investigated during the summer of the previous year. The 2021 report for Wabamun Lake was published this spring and is available on the [Studies and Reports page](#) of our website. The report describes the condition of important chemical, physical and biological indicators in the lake over summer 2021. Check out the ALMS 2020-21 Lake Keepers Report (also available on our [Studies and Reports page](#)) for a summary of winter conditions. The LakeWatch report also includes analysis of the long-term trends of key indicators so we can tell how the lake may be changing over time. Results include:

- No invasive mussel or spiny water flea species were detected.
- Phosphorus and chlorophyll-a showed slight, but statistically significant, decrease in concentration. The lake is considered mesotrophic (moderately productive) and seems to be fairly stable at this trophic state. There was not an Alberta Health blue-green algae advisory this summer.
- Total dissolved solids (a measure of salinity) showed significant increase; however, the increasing trend has appeared to slow in recent years. This could be related to the reduction of the volume of treated water due to power plant operations entering the lake. ALMS looked more closely at several parameters in the measure of total dissolved solids. Sodium, potassium, sulphate, alkalinity followed the trajectory of total dissolved solids over time and showed an initial level increase, followed by stabilization. Chloride and magnesium continued to increase in recent years. Understanding these differences may help to determine what management actions are necessary to reduce the increases in total dissolved solids.
- Water temperatures and dissolved oxygen are generally uniform from top to bottom of the lake and the lake is considered well-oxygenated. During the extreme heat wave that affected much of Western North America from late June through mid-July 2021, there was an effect on lake temperatures and a resulting decrease in oxygen below 6.5 mg/L at 4.5 m depth. This may have been one cause of the whitefish kill recorded in early July.

The WWMC continues to work with ALMS to sample water this summer and better understand the chemistry of the lake.



## Donations

The WWMC gratefully thanks the following people who have donated to the WWMC to continue our work protecting the health of Wabamun Lake: Kelly and Mary Aldridge, Todd Baldwin, Rob Cowley, Sandy Drummond, Neil Fleming, Colleen and David Judge, Doris Kent and John McIvor, Kobytko Family, Don Meredith, Julia Nelson, Cliff Richard, Roberts Family, Bill & Kate Russell, Denise and Bernie Wade.

## Corporate Members

The WWMC thanks the following businesses, governments and organizations for joining the WWMC as corporate members and helping the council achieve its goals. Go to [Get Involved](#) for more information about Corporate Membership.

### Gold Members



### Silver Members



### Bronze Members



**Falher Drugs, Seba Beach Ice Cream Stop, Hamlet of Wabamun, Camp Oselia Society  
Wabamun & District Lions Club, Seba Beach Heritage Society, Wabamun ATB Financial**