Full scale test next step for GLWS

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For about three years, there has been no pumping into Gull Lake and local efforts have been underway since to figure out how to fix the situation.

In 2017, the invasive fish species Prussian Carp were found in the Blindman River, prompting Alberta Environment and Parks (AEP) to halt pumping water from the river into Gull Lake as part of the lake level stabilization program until future notice.

As a result, the Gull Lake Watershed Society (GLWS) has embarked on a search for a solution and they may be getting close.

GLWS secretary Norval Horner explained, in an interview, the society conducted a pair of tests that could keep the extremely tiny Prussian Carp eggs from entering the lake.

"Since 1975 when a stabilization system was built to keep Gull Lake around 899.16m above sea level, about 18 million cubic metres — or 25 per cent of the lake water — has been pumped in from the Blindman River. A study in 2011 predicted the shallow lake's viability for wildlife and recreation could diminish rapidly if stabilization wasn't continued. Boat launches and marinas are already being hampered," Horner said.

"When AEP suspended pumping — and was unable to find viable preventative options — over concerns of the invasive species' eggs getting through

and invading the lake, the society decided to look into some more novel solutions."

With the eggs measuring one millimetre in size, the task is a daunting one.

However, a meeting this past February with local MLAs — Lacombe-Ponoka's Ron Orr and AEP minister Jason Nixon, who represents Rimbey-Rocky Mountain House-Sundre — garnered government support for a GLWS study.

With AEP providing permits and expertise, GLWS used donated funds, equipment and about 60,000 carp eggs collected from fisherman in May and June to conduct two pilot tests this summer.

A Geotube — 200 feet long, 15 feet in diameter with a pore size of 0.4mm — succeeded in stopping the eggs, but plugged up with the fine sediment which led to it over-pressurizing.

A Forsta filter — developed for drip irrigation — also stopped the eggs, and handled the sediment as well. Another benefit is the backwash mechanism helps to clean the filter.

The issue now becomes the \$40,000 needed for a full size Forsta filter to run a full scale test, complete with temporary pipes with the water returning to the river.

"The province has shown definite interest with Nixon, Orr and Premier Jason Kenney paying a visit to project on Aug. 14. Their response was quite positive, with Nixon clearly interested

in the lake," Horner said.

"However, there was no commitment to any funding yet. The GLWS could probably raise a good part of the funds for the next step and hope the government would match it."

If the full scale test works and gets AEP approval, Horner estimates it would cost at least upwards of \$300,000 to install three filters between the pumphouse and the outlet to Gull Lake.

"Funding would need to be found for that, but this looks like a dependable solution that would allow the stabilization program to continue," he said.

"And yes, the heavy spring rains have pushed the lake level higher, over 899m and in the middle of the desired range for the lake."

However, Horner added this year is certainly not typical and a long-term



An example of just how small the Prussian Carp eggs are and the challenge GLWS has in finding a filter that would be able to catch all of these eggs in order to restart stabilization pumping in the future.

solution is still needed.

The GLWS is still finalizing its report on their tests and will be providing it to AEP as well as the counties of Ponoka and Lacombe, even though neither county funded the tests. Both counties co-manage a fund that was set up to pay for power to the pumping station and other conservation projects involving the lake.

"(The counties) were aware of the tests, but are looking to AEP to take the lead on assuring any filter is effective," he said.

GLWS will be holding its annual general meeting Sept. 12 at the Meridian Beach community hall starting at 10 a.m. where this project and the successful settling ponds on nutrient-loading streams will be discussed.



AEP minister and Rimbey-Rocky Mountain House-Sundre MLA Jason Nixon (left) and Premier Jason Kenney (right) look on as volunteers from the Gull Lake Watershed Society set up to pump water through one of their test filters on Aug. 14 on the Blindman River near Bentley.

Photos submitted