LAKES
GULL & SILVER
RESIDENT'S ASSOCIATION

Silver & Gull Lakes
Water Levels Explained

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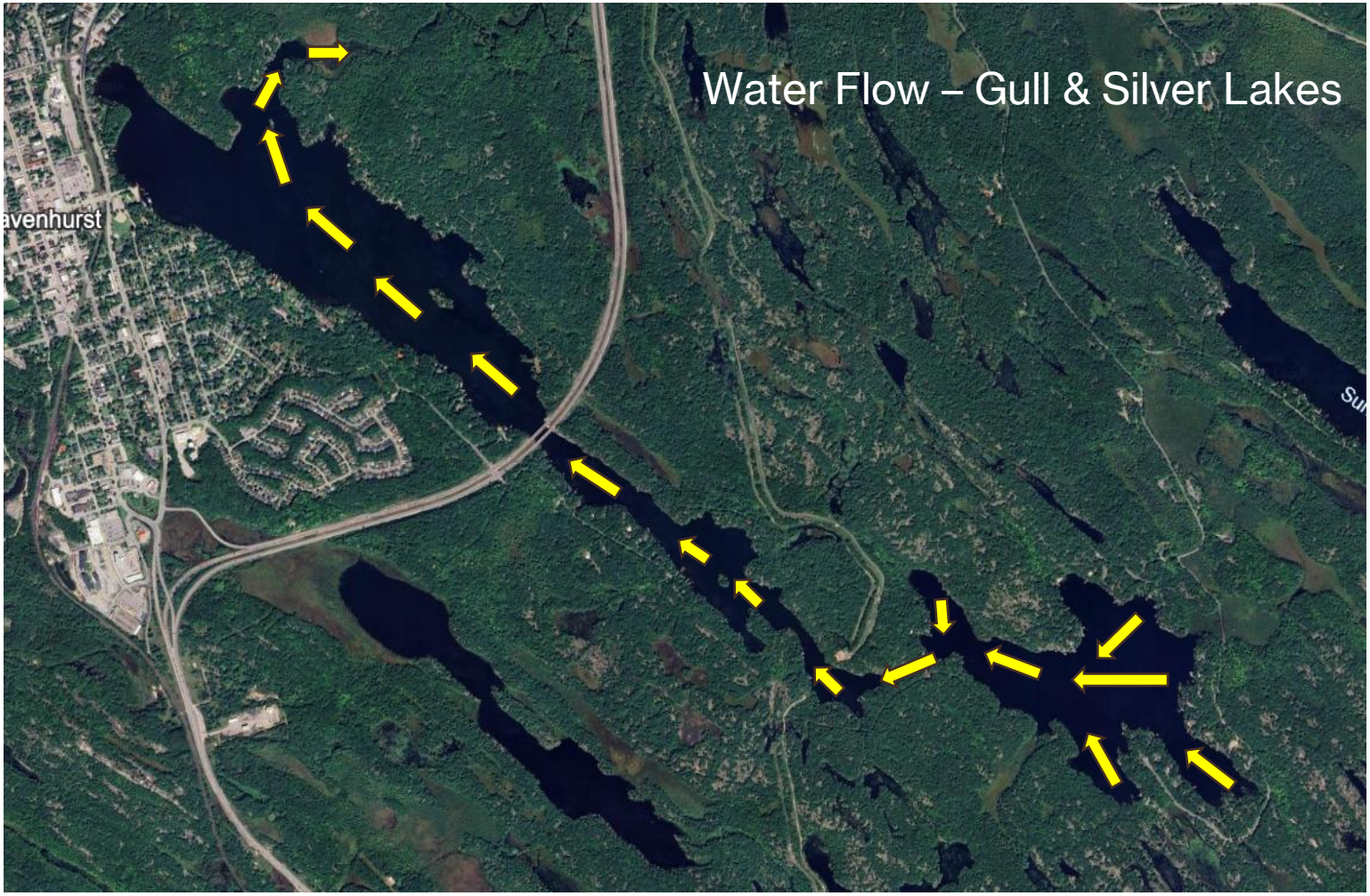
- The water in Silver and Gull Lakes comes from only two sources:
  - The annual melting of the snowpack – technically called the Spring Freshet.
  - Rain
- No significant lakes or rivers drain into Gull or Silver Lakes. We are essentially isolated from the Muskoka Watershed in terms of sources of the water in our lakes coming from other lakes and rivers in Muskoka.
- The water in Silver Lake flows into Gull Lake, via the Gull / Silver Lake Narrows, and the water in Gull Lake flows north to Lake Muskoka, via the Hoc Roc River.
- The water levels in our two lakes are not controlled by any level of government or agency. The water levels in some of the larger lakes in Muskoka (Muskoka, Rosseau, Joseph) are controlled by the Ontario Ministry of Natural Resources and Forestry, primarily to ensure water supply to power hydro-electric plants on the Moon River.

GULL & SILVER LAKES
RESIDENT'S ASSOCIATION

Silver & Gull Lakes
Water Levels Explained



Silver & Gull Lakes
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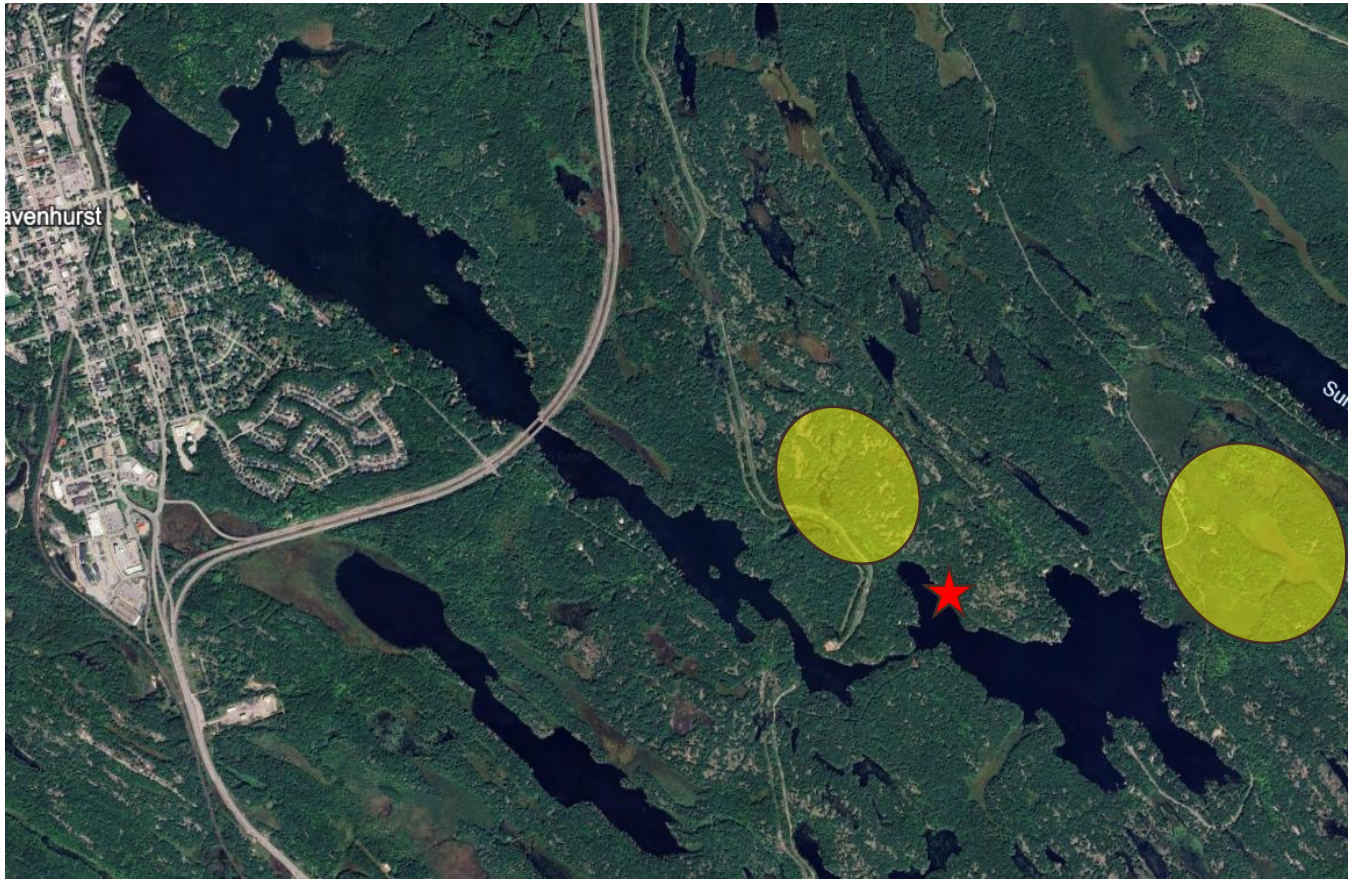
- Typically, at the of the end of the Spring Freshet each year, our lakes are at their high water level.

- Depending upon rainfall, the water levels begin to drop over the course of the spring and summer.

- When we do get significant rain, water that collects in wetlands adjacent to Silver Lake, flows into Silver Lake. See yellow highlighted areas.

- After heavy rains, a large amount of water also flows into Silver Lake, down the shoreline rock face on the north – west bay. The “water fall” can flow for many days. See red star for the waterfall location.



The Key Fact: If we get little or no rain, the water levels in Gull and Silver Lakes will continue to drop, especially over the course of a very hot, dry summer like the one we are now having.

Silver & Gull Lakes
Water Levels Explained

- What about the dam on the Hoc Roc River? Does it control the outflow from Gull Lake?

- Yes, there is a very small dam (or weir) on the Hoc Roc River – but it has little effect on controlling the water levels in Gull and Silver Lakes. Built in the 1920's, for reasons unknown today, it can not be adjusted to allow more or less water to flow. In a normal year, water flows unabated over the dam. This year, the water level in the Hoc Roc River is about 5 inches below the top of the dam. See pictures below taken on August 19, 2025.

Silver & Gull Lakes
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So where has our water gone?

- As illustrated in the photos in the previous page, the water from Gull and Silver Lakes is no longer flowing to Lake Muskoka via the Hoc Roc River and our water levels continue to decline.
- The water in Silver and Gull has vanished into thin air! The process is called “lake evaporation.”
- A study conducted by the International Atomic Energy Agency (IAEA), revealed *“that overall, about 20% of water inflow in lakes is lost to evaporation”*. Click here for Eos.org article on lake evaporation.
- There are numerous factors that determine the rate of lake evaporation. Researchers found that precipitation, salt content, wind speed, relative humidity, and solar radiation are predominant controls on lake isotope composition and evaporation.

Silver & Gull Lakes
Water Levels Explained

Can we do something about our low water levels?

- No.
- As the Muskoka Lakes Association discovered, when they petitioned the Ontario Ministry of Natural Resources and Forestry (MNRF) to change their Water Management Plan, after three devastating floods in the recent past, the MNRF was unwilling to alter the way they controlled water levels on the big Muskoka Lakes, where they can do so with the dams that currently exist.
- It is very unlikely that the MNRF would build an adjustable dam on the Hoc Roc River to keep our water levels up. It would be an expensive project and produce little of no benefit for the Muskoka Watershed, based upon how they currently assess their priorities. And even if we had an adjustable dam, in the absence of summer rains, we would still lose a significant amount of water due to evaporation.
- The hard reality of our low water situation is little consolation of those of us that find our crib docks are uncomfortably high. But our hope is that this summer has been somewhat of an anomaly, and that future summers will return to more normal rain patterns.