



ENVIRONMENT BULLETIN

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White Lake: Inlets and Outlets

White Lake contains about 75 million cubic metres of water; where does it come from?

One obvious source is rainfall. Each year, an average 0.5 metres of rain falls onto the surface of White Lake. Considering that the average depth of White Lake is 3.1 metres, that would account for about 16% of the water in the lake¹.

The remaining 84%² comes from surface runoff, ground water flow, and streams. An extensive study completed in 2018³, showed that most of the water derived from these sources comes from ground water flow (springs) and a smaller proportion comes from streams and surface runoff. Input from streams is most important during the spring melt.

Inlets:

As shown on the map below, there are over a dozen streams bringing water into White Lake. Most of these streams are unnamed because they run only in the spring and are dry for most of the year.

There are six major streams which flow continuously: Long Lake Creek, Raycroft Creek, Broad Creek, Boundary Creek, Paris Creek and Fish Creek. With the exception of Fish Creek, all of the creeks are located on the southern end of the lake.

Four of the creeks carry waters which are close in composition to that of the lake. Paris and Fish Creeks are exceptional because their waters are very soft and low in dissolved salts, especially calcium. These two creeks, and all smaller unnamed creeks between them on the western side of the lake are also soft.

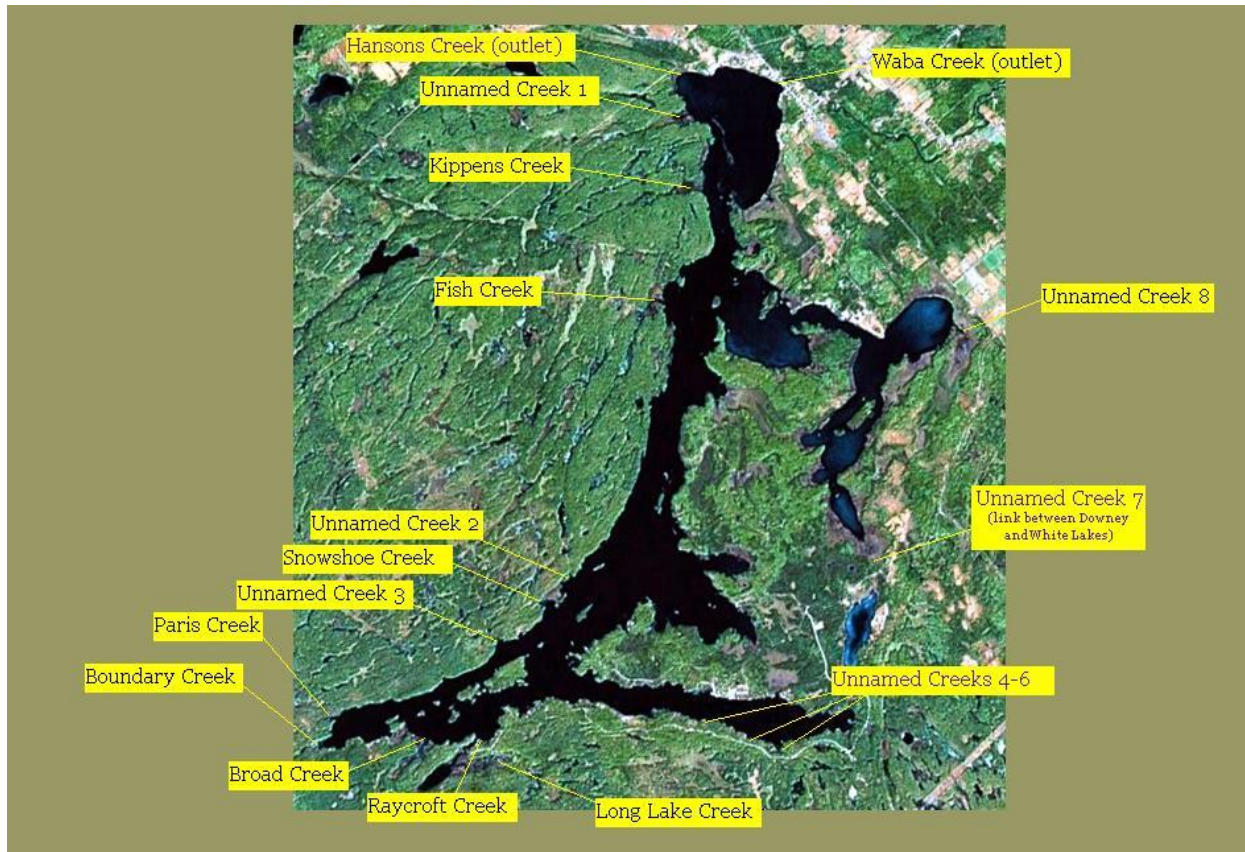
The low calcium contents of Paris and Fish Creeks prevents the growth of zebra mussels. This means that pickerel spawning grounds near these streams are not fouled by the

¹ White Lake flushes itself about once per year.

² 2017 White Lake Water Quality Monitoring Report, page 71; 2019 White Lake Water Quality Monitoring Report, page 68.

³ 2018 White Lake Water Quality Monitoring Report, pages 47 to 58.

presence of zebra mussels. This may partially explain why the pickerel fishery in White Lake has not been adversely impacted by this invasive species.



Outlets:

Most are familiar with the single active outlet on White Lake which is at the dam at Waba Creek. But in the past, there were two outlets. The second was Hanson’s Creek (upper left on map) which is no longer active since the construction of a dam at Waba Creek.

