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Emerald Lakes Village, Oakland County

January 8<sup>th</sup>, 2018

## Emerald Lake Inlet Pipe - Water Quality Report

The goal of this testing protocol was to monitor various water quality parameters of the incoming water at the Emerald Lake Inlet Pipe, compare results to historical data, and identify any potential risks to the health of Emerald Lake. Water samples were taken directly from the inlet pipe and tested for various parameters. Field tests and water samples were taken on July 19<sup>th</sup>, 2017. This report describes conditions at the time the samples were taken. The quality of the water was tested only to the parameters listed below.

Parameter	July 19 <sup>th</sup> , 2017	Emerald Lake Data	Target Range
Alkalinity	144 ppm	122 ppm	0 – 250 ppm
Total Salinity	520 ppm	510 ppm	0 – 500 ppm
Chloride	181 ppm	113 ppm	0 – 230 ppm

### Discussion

The quality of the inlet pipe water was tested for only these three parameters. The alkalinity was at healthy level and was higher than the water in the lake already. The salinity of the inlet pipe water was above the target range and was slightly higher than the water in the lake already. The more specific chloride test showed the same result, but remained within the target range.

Based on this data, it appears that the inlet pipe is contributing more salt, good (alkalinity) and bad (chloride), to the lake. Unfortunately, there is not an easy way to remove salts from the water entering the lake through this pipe. It is our recommendation to continue to monitor the lake and the inlet pipe and to watch for any significant changes that could pose a threat to the aquatic ecosystem.

Completed and Certified by:

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