

Limed Waters Survey – Multiple, see below
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Region 5 Fisheries annually surveys a subset of cold-water ponds that meet the criteria to be part of the NYS DEC Limed Waters Program. The program was initiated to combat the negative impacts of acid precipitation on surface waters and aquatic organisms. The goal is to raise the pH of treated waters in order to improve suitability and re-establish fish communities.

During the 1980s and into the 1990s several research projects investigated acid rain deposition and the ecology of acidic waters. From that research and data collected across the Adirondacks the Department prepared an Environmental Impact Statement (EIS) and Statement of Findings to help draft the Limed Waters Policy. Certain waters that were historically included in the program were dropped for various reasons such as having a natural acidic bog plant community, or a high flushing rate.

Seven waters in the program were surveyed in 2020, Table 1. Each of these waters have been limed in the past and continue to be monitored to evaluate the effective length of the application.

<u>Survey Number</u>	<u>Pond Name</u>	<u>Pond Number</u>
520057	Benz Pond	SLC-P221
520060	Echo Pond	C-P136
520056	Federation Pond	C-P148
520050	Holmes Lake	UH-P169
520051	Icehouse Pond	B-P876
520061	Sunrise Pond	C-P117
520059	Black Pond	C-P130

Benz Pond, located within the Madawaska Flow – Quebec Brook Primitive Area, was treated with 19 tons of pulverized limestone in February of 2020. Fisheries staff worked with a group of Paul Smith’s College students to transport the limestone from a nearby snowmobile trail to the pond and distribute across the ice. The pH and acid neutralizing capacity (ANC) of the pond both responded favorably to the treatment with a measured pH of 7.25 and ANC of 81.99 (Figure 1 & 2.). The water quality of the pond will continue to be monitored periodically to assess the long-term effectiveness of the treatment.

The remaining six waters sampled in 2020 have exhibited relatively stable pH and ANC values above the re-treatment thresholds over the last 10 years. These waters can be sampled on a biennial schedule to continue monitoring but reduce effort required to continue the program. Water quality will be measured at Holmes Lake in 2021 as part of a fishery sampling effort there.



Figure 1. pH values since 2007

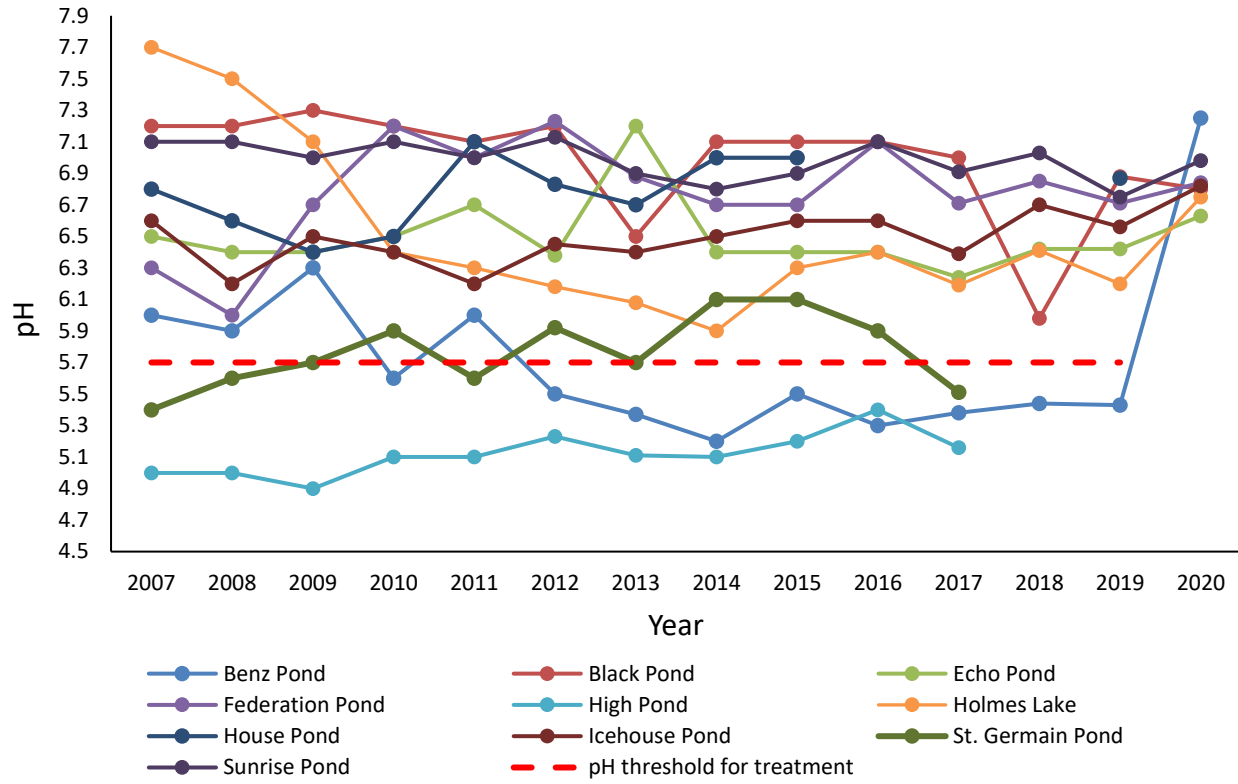


Figure 2. Acid Neutralization Capacity ($\mu\text{eq/L}$) since 2007

