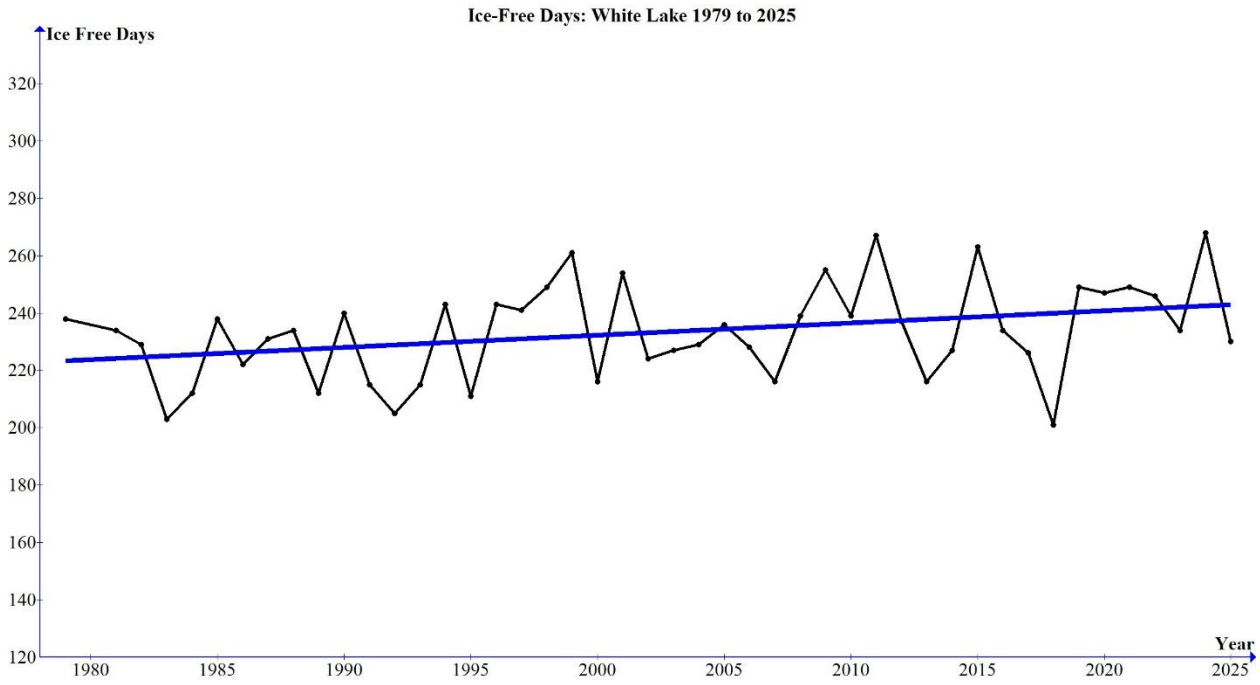
WHITE LAKE

PROPERTY OWNERS ASSOCIATION
ENVIRONMENT VOLUNTEERS

Decline In Duration of Ice Cover on White Lake Since 1979 [1]

Even before the formation of the White Lake Property Owners Association, White Lake cottagers and residents were keeping track, on an annual basis, of the duration of the ice cover on the lake. Useful data sets were recorded starting in 1979 and are presented in the table below.

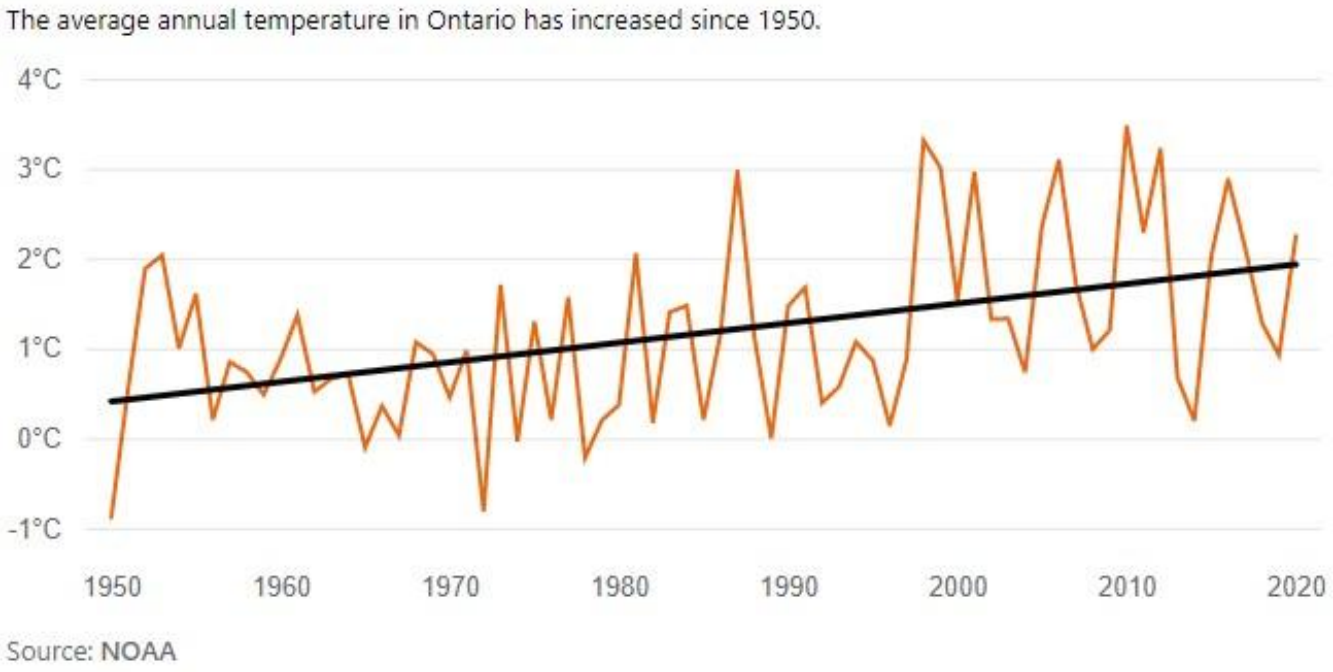
The significance of this data is not evident from the table, however when presented graphically, new information can be gleaned. The black line in the graph below shows the number of ice-free days on White Lake by year. This line shows significant annual variation that is, to some extent, caused by changing weather patterns. When the same data is subjected to a least squares statistical analysis, a straight 'best fit' line is produced (in blue) which clearly shows that the number of ice-free days is increasing with time. In fact, since 1979, the number of ice-free days on White Lake has increased by 19



[1] Data Source: White Lake Property Owners Association

days. This change in ice cover times is very likely the result of climate change which, in turn, effects the weather.

The graph below shows the change in the average annual temperatures in Ontario since 1950 and includes the period during which our data was collected. The straight line (least squares) shows that the average temperature has increased by 1.6 °C since 1950. These increased temperatures validate the trends that we observe in our own ice-date data.



A shift towards longer ice-free seasons can impact the physical and chemical properties of the lake. We now have an extra 19 days of cottaging or lake-time during which additional nutrients can enter the lake. The longer ice-free season will promote the growth of aquatic plants and increases in water temperature could promote conditions that will be favourable to the growth of algae including blue-green algae (cyanobacteria).

The table below contains all Ice-In and Ice-Out Dates for White Lake from 1979 to 2025[2]

Note: We are indebted to Karen and Brian Cairns who have, for many years, been keeping tract of ice-in and ice-out dates for White Lake.

[2] Observations recorded when Main Water Body (opposite Pickerel Bay) is completely covered or ice free. Other parts of the lake may freeze or become ice-free on different dates.

Year	Ice-Free Date	Ice-In Date	# Ice-Free Days
2025	April 19	December 4	230
2024	March 21	December 14	268
2023	April 17	December 7	234
2022	April 12	December 19	246
2021	April 13	December 17	249
2020	April 14	December 17	247
2019	April 29	December 21	249
2018	April 29	November 17	201
2017	April 18	December 11	226
2016	April 12	December 8	234
2015	April 20	January 1	263
2014	April 27	December 3	227
2013	April 19	November 29	216
2012	March 27	December 12	237
2011	April 14	December 20	267
2010	April 4	December 9	239
2009	April 4	December 15	255
2008	April 21	November 29	239
2007	April 21	November 24	216
2006	April 14	December 5	228
2005	April 20	December 6	236
2004	April 19	December 5	229
2003	April 22	December 3	227
2002	April 12	December 2	224
2001	April 22	December 22	254
2000	March 31	November 24	216
1999	April 18	December 18	261
1998	April 13	December 23	249
1997	April 27	December 10	241
1996	April 27	December 26	243
1995	April 5	November 25	211
1994	April 22	December 4	243
1993	April 27	November 23	215
1992	May 2	November 18	205
1991	April 11	December 4	215
1990	April 25	December 7	240
1989	April 14	November 23	212
1988	April 14	December 4	234
1987	April 12	December 2	231
1986	April 10	November 20	222
1985	April 23	December 4	238
1984	April 29	November 21	212
1983	April 27	November 19	203
1982	April 24	December 12	229
1981	April 4	December 14	234
1980	April 15	—	-
1979	April 22	December 10	238
1978	April 22	—	—
1977	April 13	—	—
1976	April 19	—	—