Water Clarity (Secchi)

Water clarity is an important variable for both water health and aesthetic and economic value of Whitefish Lake. Secchi is measured by lowering a black and white disk into the water until it dispears, that depth is then marked as the Secchi depth. Thus, the best water clarity creates the deepest Secchi depths. Whitefish Lake has maintained consistent high water clarity and does not have a strong trend of decreasing water clarity. The long-term average Secchi depth is 23 ft.

Summer Surface Temperature

There is no long-term trend in whitefish lake surface temperature. The long-term average surface temperature is 62 degrees. Higher lake surface temperatures can lead to more algal production.

Whitefish Total Nitrogen

Nitrogen is a nutrient used in algal production and high levels of nitrogen can often result in algal blooms. Increases in nutrients such as nitrogen are often due to human influence. Whitefish lake has a long-term decreasing trend in total nitrogen, recent years have been below the long-term average of 91 ug/L. Overall, Whitefish lake has low nitrogen levels.

Whitefish Total Phosphorus

Phosphorus is a nutrient used in algal production and can often come from human driven sources such as septic leachate, fertilizer, or detergents. Whitefish lake has a long-term decreasing trend in total phosphorus, although some monthly values have been above the long-term summer average. The long-term average for phosphorus in Whitefish lake is 4.2 ug/L which is considered low.

Whitefish Chlorophyll

Chlorophyll is a pigment within algae, and it is used as a proxy to measure lake algae production. Whitefish lake does not have a long-term trend in chlorophyll indicating that the mid-lake algae levels have remained consistent throughout the last decade. Near shore algae may not be reflected by this trend though as the long-term sampling locations are in well mixed deep regions of the lake. The long-term average for chlorophyll in whitefish lake is 1.6 ug/L which is low indicative of whitefish lake’s low nutrient levels.

Summer Deep lake temperature

This represents the lake temperature in the bottom 5 meters of the lake. This is the coldest area of the lake and important fish habitat. Whitefish lake does not have a strong long-term trend in bottom of the lake temperature indicating that this important fish habitat is not at risk of being lost due to an increased temperature.

Summer Deep DO Temperature

Dissolved oxygen at the bottom of the lake is important for fish habitat. In many lakes due to longer and warmer summers in deep waters, dissolved oxygen is decreasing. In Whitefish Lake dissolved oxygen levels are remaining high. The summer average of dissolved oxygen saturation is 84%