Since 1987, water quality of Paradise Lake has been monitored by volunteers and Tip of the Mitt Watershed Council. Each year, Paradise Lake volunteers venture out to monitor water clarity, chlorophyll-a, and temperature during the summer season. Spring of 2019 will mark our 32nd year of monitoring Paradise Lake nutrients, pH, dissolved oxygen, and conductivity at the surface and bottom of the Lake. Shown below, dissolved oxygen in Paradise Lake has fluctuated but remains quite high. State standards for high fishery and water quality require a dissolved oxygen level above 7 parts per million (ppm). Values below 5ppm can place stress on aquatic life and cause the whole ecosystem to suffer. Paradise Lake has shown no sign of such condition with oxygen levels routinely between 8.5 and 12.5ppm. This is great news for game fish and water quality.

Dissolved Oxygen Trends (1987-2016)

Paradise Lake

Trophic status index (TSI) is a measure to describe the biological productivity in a lake at the time of measurement. Calculation of TSI takes into account water clarity and chlorophyll-a concentration, the base of the food chain in a lake. TSI values range from 0 to 100:

**Below 38** = Oligotrophic, very clear water, very low nutrients and productivity

39 to 49 = Mesotrophic, good water quality, moderate productivity

50 and greater = Eutrophic, relatively poor water quality, high productivity (high algal growth).

Shown below, Paradise Lake is historically in the mesotrophic category.

Trophic Status Index Values (1988-2017)

Paradise Lake