WINNIPESAUKEE (ALTON)
WATER QUALITY MONITORING (2010)

A volunteer based water quality monitoring was instituted on Lake Winnipesaukee (Alton) in 1983 to track long-term water quality trends and was expanded to identify water quality threats within the Lake Winnipesaukee watershed. This pro-active approach, dedicated to educating the public and municipal officials through the collection of quantitative baseline data, will help ensure that Lake Winnipesaukee continues to be a natural resource asset for future generations.

2010 Water Quality Data

Water Quality monitoring continued in Lake Winnipesaukee (Alton) during the "summer growing season" that spanned from April 21 through October 19, 2010. Water quality monitoring focused on the collection of water quality data at five deep sampling locations that provide insight into the overall condition of Lake Winnipesaukee (Alton). The 2010 Lake Winnipesaukee (Alton) water quality data continued to exhibit conditions that are characteristic of a clear lake that experiences short-term periods of reduced water transparency and periods of increased algal growth (greenness).

Water transparency measurements are collected with a standardized eight inch diameter black and white disk that is lowered into the water column while looking through a view scope until it can no longer be seen. The scope negates the influence of waves and sun reflection to allow more precise measurement. The Lake Winnipesaukee (Alton) water transparency measurements were high during the summer months and included a maximum visibility of 37.7 feet (11.5 meters) on July 29, 2010 at Site 25 Alton and on August 2, 2010 at Site 22A Black Point.

The amount of microscopic plant growth (visually detectible as golden or green water) remained low to moderate during the summer months and remained below nuisance levels. The total phosphorus (nutrient) concentrations were generally low at each of the deep sampling locations and corresponded to the low to moderate levels of microscopic plant growth.

Dissolved oxygen concentrations, required for a healthy fishery, remained high through the water column when measured on August 4. Current and historical dissolved oxygen data collected at the Alton sampling locations have been sufficient to support a self-sustaining cold water fishery.

Lake acidity, measured as pH, was near neutrality and remained within the tolerable range for most aquatic organisms.

A more complete summary of the 2010 Lake Winnipesaukee (Alton) water quality monitoring data is included in the section "Lake Winnipesaukee (Alton) – 2010 Executive Summary."