

## Lake Water Quality - 2015

The Cobbossee Watershed District (CWD) has been monitoring the water quality of Wilson, Dexter, and Berry Ponds for the past 40 years. So far, this year has been a rather poor year water clarity-wise for Wilson Pond. Through September, the water clarity, measured as Secchi disk transparency (SDT), on Wilson has been about 3.9 meters (12.8 feet), and it exhibited its worst clarity this year on September 9th with an SDT of 2.9 meters (9.5 feet).

As most of you know, Wilson Pond has been closely watched by the CWD following its worst year water clarity-wise back in 2004, when the SDT averaged 3.4 meters. The average water clarity for Wilson Pond had rebounded a bit over the previous several years and had been around 4.5 meters, so this year seems a bit alarming and there appears to be no “smoking gun” with respect to the cause of the poor water clarity.

Understandably, the CWD remains quite concerned about the water quality of Wilson Pond and will continue to take actions to address those concerns (see article discussing Grants/Projects taking place on the pond). Dexter Pond and Berry Pond, on the other hand, are exhibiting quite good water clarity, with average SDT values of 5.6 meters and 5.4 meters, respectively.



Lake water clarity is largely determined by the amount of algae that is in the lake water, which in turn, is primarily determined by the concentration of phosphorus that is in the lake. Phosphorus, the plant nutrient most responsible for impacting lake water quality, enters the ponds through storm water runoff from the watershed during rain events and serves to generate algae blooms which cause the lakes to turn cloudy green, thereby reducing water clarity. As a point of reference, the Maine DEP considers water clarity less than 2 meters to represent a “severe” algae bloom, while the CWD’s own adopted water clarity standard for all district lakes is nothing less than 3 meters (10 feet).