

**White Oak Pond Watershed Association (WOWPA)
Water Quality Sampling Committee Report - July 22, 2011**

Last year's sampling showed no major changes in the water quality results. The report we received from the VLAP program in 2010 was an Interim report which is a briefer report with no statistical analysis. The full report is available at the WOPWA website: www.wopwa.org

We continue to review our sampling to determine that we are being efficient and effective in our sampling. Lamb swamp represents a large percentage of the watershed which is not represented by our current sampling locations. Therefore, we will add the Lamb Swamp inlet location back and sample once in June, and sample again only if we observe issues with the June sample.

The following are highlights of the report:

- Samples were analyzed for chloride in 2010 as recommended by the VLAP program. The recommendation was based on noting that conductivity has increased in the pond and tributaries, particularly at the 'Dump tributary'. The levels of conductivity seen at the 'Dump tributary' are generally associated with pollutants from human sources.

The 'Dump tributary' is consistently an area of concern and the recommendation is to do further analysis of the dump tributary area and further sampling along the length of the tributary to better determine the source of the high levels of conductivity.

- Dissolved oxygen (vital to fish and amphibians) was again low even though we sampled earlier in the summer, as recommended. While the historical trend is for dissolved oxygen to decrease over the summer months, we will sample even earlier next year (2012) to determine if there is any point in the season that the pond has more desirable levels of dissolved oxygen.

The low levels of dissolved oxygen, along with high levels of phosphorous in the upper levels of the pond are an indication of a process called internal phosphorous loading. From the report "*since an internal source of phosphorous in the pond may be present, it is even more important that the watershed residents act proactively to minimize phosphorous loading from the watershed*".

External phosphorus sources include septic system effluents, animal waste, lawn fertilizer, erosion and natural wetlands. Thus, residents maintaining septic systems, minimizing lawn fertilization, minimizing shoreline erosion and adhering to the Shoreline Protection Act remain important aspects of maintaining the water quality of the pond. Information about best practices around the shoreline and the Shoreline Protection Act is available at the WOPWA website and the NH DES website: <http://nh.des.gov>