White Oak Pond Watershed Association
Water Quality Sampling Committee Report - July 17, 2009

We continue to sample the pond during the summer months of June, July and August and sample tributaries during spring runoff. We use the spring runoff sampling results as a guide to determining whether any additional areas should be sampled again during the summer.

In 2008, we accomplished the spring runoff sampling and only 2 summer month sampling dates. We received an Interim Report from VLAP summarizing the 2008 data (statistical analysis of the historical trend is provided only in alternate years). Overall, the results showed no outstanding changes and they continue to show a pond in relatively good health. Unfortunately, there was no data on cyanobacteria for 2008 (it was present in the pond 2007) due to a sampling error (by the biologist).

The parameters continue to show a pond that has some internal phosphorus loading and thus is somewhat vulnerable to external phosphorus inputs. Excessive phosphorus can lead to algae growth. 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 keeping the pond in the state it is in.

The following were recommendations made in the 2008 report that we will implement:

- Ensure the phytoplankton sampling is done correctly. The phytoplankton sampling is a good measure of the overall lake quality but will also provide information on cyanobacteria which we can use to compare to the 2007.
- Have the biologist visit later in the summer to allow a dissolved oxygen profile to be taken later in the summer. The data suggests the dissolved oxygen levels are decreasing over the summer months in the lower layer of the lake and this will allow quantification of how much they are decreasing.
- The Dump Trib and the Cocchiaro Inlet sampling locations showed high levels of conductivity during spring runoff. High conductivity indicates high levels of ions from metals, salts and minerals. High levels are not being found at the dump inlet or the pond deep spot during the summer months, but we will attempt to resample the tributaries during a summer runoff event (they often dry up) in order to obtain more data about whether those levels are staying elevated throughout the season.

One further goal we have this year is to map the sub-watersheds and gain a better understanding of which portion of the watershed each of our sampling locations represents. This will allow us to better evaluate whether our sampling points are representative of the entire watershed.

The website (www.wopwa.org) will have a link to the full 2008 report when it is made available by DES and has links to other useful information about water quality.