Taylor Pond Water Quality Assessment

Written by: Scott Williams; Limnologist; Lake & Watershed Associates.

Based on historical data gathered by the Maine DEP and trained volunteer monitors, the overall water quality of Taylor Pond is slightly below average, compared to several hundred lakes throughout Maine for which data are available. This assessment is based on overall lake productivity, as determined by Secchi Transparency, Total Phosphorus, Chlorophyll-a and summer Dissolved Oxygen profiles.

Increasing lake productivity over time can lead to reduce water clarity (aka: Transparency) due to an increase in planktonic algal growth in the lake, and the potential for algal blooms to occur. Taylor Pond has experienced brief late summer "ephemeral" algal blooms associated with lake turnover/mixing.

The lake has been determined to be sensitive to NPS runoff from existing and future watershed development. Lake sediment geochemistry analysis by the Maine DEP has determined that the lake is also sensitive to the potential for internal phosphorus release under certain circumstances.

The historical Secchi transparency average is slightly below average, the average total phosphorus average is moderately high, and summer planktonic algal density, while relatively low, is close to the moderate threshold. Late summer dissolved oxygen concentration is virtually depleted in the water column in the deepest area of the lake. The chemistry of the bottom sediments is such that there is a potential for phosphorus to be released from the sediments during periods of anoxia.

The Maine DEP has classified Taylor Pond as a waterbody "Most at Risk" from watershed development, based on current water quality, and projections for development in the 14 square mile watershed.

MDEP has also classified the Taylor Pond watershed as a NPS "Threatened Priority Lake Watershed", based on multiple criteria for this classification – primarily, sediment chemistry, current water quality, and the potential for future moderate development to take place in the watershed.

Lakes are classified as "Priority Waterbodies" to help prioritize DEP NPS water pollution control efforts and attract local communities to take action to restore or protect waters impaired or threatened by NPS pollution.