

The Volunteer Lake Monitoring Program and DEP have arranged for volunteer monitors to mail samples for total phosphorus analysis to the Sawyer Environmental Chemistry Research Lab (SECRL) at the University of Maine, Orono. This 'system' has been established to accommodate volunteers who have expressed interest in obtaining additional total phosphorus data and are willing to pay \$25.00 for each analysis.

If you are interested, follow these steps:

- 1) Make arrangements through VLMP to be trained & certified to collect Total Phosphorus surface grab samples, if not already trained.
- 2) Contact Mary Lou Friedman at the Sawyer Environmental Chemistry Research Lab (mfriedman@maine.edu or 207-581-3415) to request a "Total P Kit".
- 3) SECRL will send out an insulated box containing a brown glass bottle, a chain of custody form (for sample name, billing address, sample date, etc.) and appropriate packing materials.
- 4) The volunteer fills the bottle(s) at their convenience using the following procedures:
 - A) **Pre-trip Preparations.** Before going out on the lake, label the sample bottle (using permanent ink or pencil) with the lake name, lake identification number or Midas number, date, 'SG' to indicate that it is a surface grab, and last name. Phosphorus is very easily contaminated so the sampler must take precautions to keep the sample bottle clean such as putting it in a plastic bag in a clean cooler for the trip.
 - B) **Obtain Secchi Reading.** Take a Secchi Disk reading at the regular monitoring station and record it on a field sheet to eventually pair with the phosphorus result.
 - C) **Pre-sampling Preparations/considerations.** The phosphorus sample should be collected from the transparency monitoring station. Sampler must wash his/her hands, rubbing skin briskly, to six inches above the wrists using only lake water to dislodge any dust and dirt which could contaminate the sample. Next, remove bottle cover. Rinse both the cover and bottle three times with surface water. Do not touch the inner surfaces or mouth of the jar or the cover. Plan to collect the sample on the opposite side of the boat from which hands were washed and bottle rinsed. When filling the bottle, use a smooth movement away from the boat. Avoid obtaining a sample where there is a visible oil sheen or debris floating on the water's surface.
 - D) **Sample Collection & Handling.** Invert the sample bottle and submerge to a depth of about six inches; angle the mouth of the bottle toward the surface of the water while pushing the bottle through the water away from the boat scooping it full of water such that it is full just before it is removed from the lake. Place the cap on firmly such that no water leaks out. The caps can be



brittle so avoid over-tightening which can crack the cap. Put the sample in a cooler on ice; refrigerate immediately.

- 5) Mail the sample as soon as possible (at least within a week) using the following guidelines: Enclose the completed paperwork and sample in the box the bottle arrived in and mail the sample back to the lab Monday-Thursday using U.S. Postal Service or UPS. [Please don't mail them on Friday or Saturday, as there are no weekend mail deliveries at the lab.]
Address: SECRL, 5764 Sawyer Research Center, University of Maine, Orono, ME 04469. The sample must be analyzed at the lab within 28 days of collection.

- 6) The lab will analyze the sample then mail the results. The bill will arrive in Oct.-Nov. unless otherwise requested and have payment information on the bottom (checks will have to be made out to Accounts Receivable at University of Maine, rather than SECRL).

- 7) Record the result received from the lab in the right column on the front of the multiple-date field sheet or on the back of the single date field sheet before sending the sheet to your Regional Coordinator. Or, attach a photocopy of the results to your Field Form before submitting to your Regional Coordinator. **All TP data must have a matching Field Data Form to be accepted by VLMP & DEP.**

- 8) To get the most information for your money, use the following table to target sample collections according to the number of samples for which you are willing to pay.

| Number of Samples | Month |
|-------------------|---|
| 1 | Mid-August |
| 2 | Mid-July & Mid August |
| 3 | Mid-June, Mid-July & Mid-August |
| 4 | Mid-May, Mid-June, Mid-July & Mid-August |
| 5 | Mid-May, Mid-June, Mid-July, Mid-August & Mid-September |
| 10 | Every other week May – September |

