



November 24, 2014

The Sampler is a monthly e-newsletter produced by the Volunteer Lake Assessment Program.

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Web Highlights

This month's featured lake website is [Eastman Lakes and Streams](#), Grantham, NH

[As Snow Flies, N.H. Contemplates Using Less Salt](#)

[Allow us to Introduce the "Gloeo Gang"](#)

[Tastes Great, Less Drilling: Craft Brewers Unite to Save Beer's Most Important Ingredient: Water](#)

[Blog: Picturing Algal Blooms](#)

[117 Million Lakes Counted on Earth](#)

[A New View of Adirondack Lakes](#)

Upcoming Events

[NHANRS Annual Meeting](#)

January 30, 2015
8:30 - 4:00 p.m.
Concord, NH 03302

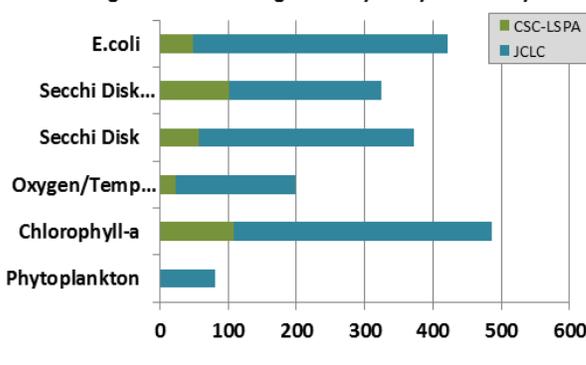
[2015 Winterfest](#)

Squam Lakes Association
534 Route 3
Holderness, NH 03245
Saturday, February 14, 2015
12:00 - 3:00 p.m.

2014 VLAP Stats

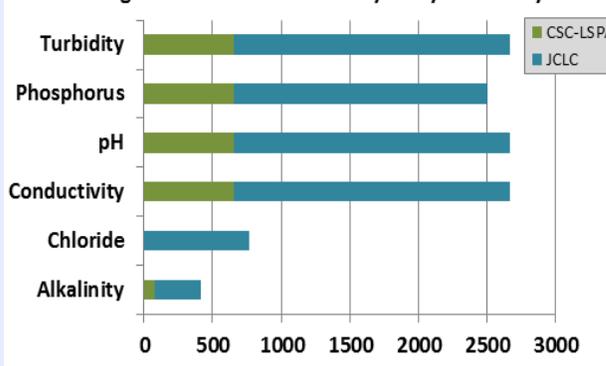
The Jody Connor Limnology Center (JCLC) and Colby Sawyer College/Lake Sunapee Protective Association (CSC-LSPA) VLAP Satellite Laboratory were busy processing thousands of samples from lakes throughout New Hampshire in 2014. Volunteers were busy collecting samples at 168 lakes and approximately 500 river/stream stations. A total of 423 sampling events occurred at VLAP lakes. Volunteers conducted a total of 302 individual sampling events and biologists assisted volunteers with an additional 121 sampling events.

Figure 1. VLAP Biological Analyses by Laboratory



Figures 1 and 2 provide a summary of water quality parameters analyzed by the JCLC and CSC-LSPA laboratories in 2014. Approximately 13,396 individual sample results were generated by VLAP; a slight decrease from 2013. This was a result of ten fewer lakes monitoring in 2014. Volunteers from 32 lakes also participated in a cyanobacteria pilot project in 2014 and collected 129 samples to help study the levels of phycocyanin, a pigment produced by cyanobacteria, in New Hampshire's lakes.

Figure 2. VLAP Chemical Analyses by Laboratory



Data quality assurance and quality control was once again a top priority for volunteer collected data. VLAP volunteers adhere to

[LoVoTecs Network](#)
Volunteers Needed
River Monitoring
Hooksett, NH

Grants

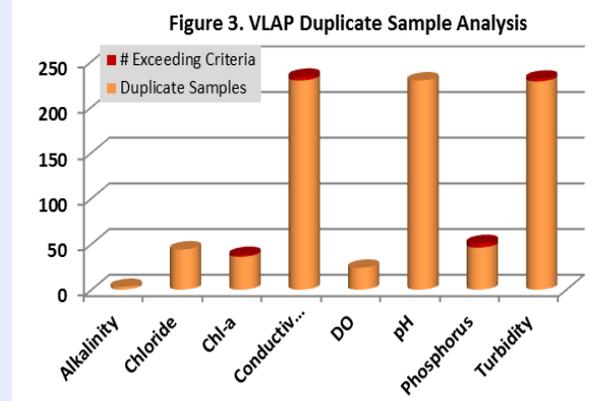
[Environmental Solutions for Communities](#)
National Fish and Wildlife Federation
Deadline: December 10, 2014

[BoatU.S. Grassroots Grants](#)
Deadline: January 15, 2014

Limno Lingo

Chlorophyll: A photosynthetic pigment produced by algae. Chlorophyll-a is the primary photosynthetic pigment present in all algae and cyanobacteria, however there are also the pigments chlorophyll-b and c in certain species. Since chlorophyll-a is present in all algae and cyanobacteria, limnologists use the measure of chlorophyll-a in the water column to provide an estimate of the amount of algal and/or cyanobacteria growth in a waterbody.

protocols approved by the Environmental Protection Agency (EPA) in the VLAP Quality Assurance Project Plan (QAPP), which underwent a five year review and approval by EPA in June, 2014. Following these protocols allows the data to be utilized in state and federal water quality reporting, and the development of watershed management plans and total maximum daily loads (TMDLs). One way in which the accuracy and precision of sample collection is measured is to collect field duplicate samples. Volunteers collect field duplicates during the annual biologist visit. Figure 3 depicts the number of duplicate samples collected versus the number that failed to meet the acceptance criteria. The majority of samples met acceptance criteria, validating the quality work of volunteers.



Lake names A-L received a biologist visit in 2014 following the biennial biologist visit schedule, and will receive a biologist visit again in 2016. Lake names M-Z sampled on their own in 2014 and will receive a biologist visit in 2015. Volunteers continue sampling on their own during the years in which their lake does not receive a biologist visit. Annual data collection is essential in establishing long-term water quality trends. These trends help determine whether water quality is getting better or worse and aid in watershed management decisions to protect and restore waters.

VLAP Volunteers Receive Spirit of NH Awards!

VLAP congratulates several citizen volunteer water quality monitors and groups who received Volunteer Service Awards at the 2014 Spirit of NH Awards ceremony on Monday, November 10th. The Spirit of NH Awards recognizes individuals and organizations throughout New Hampshire that are committed to service and volunteerism. Volunteer Service Awards were presented to Louis Pinard of the Sebbins Pond Association in Bedford, Fred Douglas of the Millen Lake Association in Washington, Janan Hays of Lakes Waukewan and Winona in Meredith and New Hampton, and the Messer Pond Protective Association of New London.

These volunteers have participated in VLAP, many for over twenty years, and cumulatively have spent several hundred hours collecting water quality data during the summer months. The data are utilized to assess the health of the lakes and establish water quality trends. The data can further be utilized to develop watershed management plans to identify and address pollution sources. Not only have these volunteers participated in VLAP but many also volunteer their time monitoring aquatic plants through the NHDES Weed Watcher Program, inspecting boats for exotic species through the NH Lakes Association Lake Host Program, monitoring loons for the Loon Preservation Committee, and developing watershed management plans.

NH Department of Environmental Services
29 Hazen Drive
PO Box 95
Concord , New Hampshire 03302
This email was sent to: sara.steiner@des.nh.gov
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