2017 marked yet another successful year of conservation work on the Squam Lakes and in the surrounding watershed for the SLA and our many partners. Increasing conservation effort has been the consistent message in six years’ worth of Watershed Reports. The efforts undertaken are enormous, and built on the efforts of many volunteers. Our milfoil management team continues to push large infestations of variable milfoil toward the dam while keeping a careful eye on regrowth throughout the Lakes. We have expanding focus on terrestrial invasive species. We have steadily increased our water quality monitoring parameters and the number of sites we monitor. The Squam trail network is growing. Our partners report success as well. Conservation land in and adjacent to the Watershed is expanding and, while the loon population still struggles, the effort to understand and protect this iconic species continues diligently.

All this work occurred in 2017 and is represented in the pages of this Squam Watershed Report. However, many of the achievements from 2017 are not represented in this year’s report. Our successful AmeriCorps grant application and the beginning of the inaugural group of Lakes Region Conservation Corps AmeriCorps members in November 2017, is an expansion of capacity and an influx of new minds and passions to the SLA. This group of volunteers, with the addition of more members and host sites at the Squam Lakes Conservation Society and the Lakes Region Conservation Trust, represents a massive increase in conservation capability and capacity across the Lakes Region. In 2019, this will expand to other conservation organizations. The Lakes Region Conservation Corps is modeled on the Squam Conservation Internship, and will soon affect change across the state.

In the short time we have worked with AmeriCorps, members have served in a number of ways with the SLA. They have expanded our water quality program to include a plan for monitoring for harmful algae blooms. They have instituted a trails management plan and headed out onto our trails with volunteer crews. They have analyzed decades of data offering new perspective on our historic work. They’ve expanded our education programs, now offered weekly throughout the winter and have worked with school groups and afterschool programs. The impact is already apparent and growing.

In 2017 we also received funding from NH Department of Environmental Services to complete a watershed-based management plan. The completed plan makes the important connection between activities in the watershed and the resulting water quality in the Lakes. The Squam Watershed Plan will provide detailed recommendations, including actions for the SLA, homeowners, and watershed towns, to improve the health of the Squam Lakes. The plan will be finished in 2019.

We also received funding in 2017 from NH Charitable Foundation and the Davis Conservation Foundation to explore contaminants in the Squam Watershed. We are working with experts and into the scientific literature to create a monitoring plan that will help us understand the scope and scale of contaminants in Squam.

Finally, the addition of a full-time director of education ensures that we are driving home our conservation message to Squam enthusiasts of all ages, through our summer youth programs, programs for families, and school groups.

The efforts and partnerships outlined in this year’s Squam Watershed Report represent the backbone of conservation throughout the watershed. It is with this foundation that we forge into the future with new opportunities and staff that will protect this treasured resource for generations to come.
Overall, the Squam Lakes continued to exhibit high water quality in 2017. Our main indicators still include water transparency, measured with Secchi disks, as well as chlorophyll, total phosphorus, and dissolved oxygen levels. For the first time in several years, we saw several water quality sites in the lake with median total phosphorous levels above healthy water limits set by the Department of Environmental Safety (DES), however all of the sites do still fall within healthy water limits set by the DES for chlorophyll, dissolved oxygen, and transparency.

While this is not desirable, it is not necessarily an indication that overall water quality is declining in our lake, as this is only one year’s worth of data and does not yet indicate a trend. The fact that our levels have consistently been within DES limits historically is more significant at this time, as well as the fact that in 2017 our other parameters were considered within healthy limits.

Another reason these higher phosphorous levels are not cause for immediate concern is because of the limits of the sampling the SLA is able to do. We will work in the future to be more strategic in our sampling efforts, such as sampling right after rainstorms and flooding events, and sampling at near-shore sites, which could give us more insight into the factors affecting phosphorous levels in the Squam Lakes. We are also digging into our historic data and data from Plymouth State University to hopefully help us understand the reason for these higher values.

The SLA’s watershed plan currently in development will be crucial to facing these issues head on. It will identify sources of nutrient loading as well as how to reduce them. Individuals can prevent rising phosphorous levels becoming a concern for our lake in the future by always being mindful of our potential impacts on the lakes. Visit our website to read “50 Ways to Care for the Squam Lakes,” which includes tips on making sure you are not contributing phosphorous pollution to Squam Lake.
Coldwater fishery (smelt, salmon, trout)

New Hampshire Fish & Game (NH F&G) have been investigating whether the addition of larger class salmon could rejuvenate Squam Lake’s populations. In 2017 the salmon restocking efforts have been successful, showing more than a five-fold increase in salmon processed during fall netting operations. This is a strong indication that restocking efforts are a viable remedy for salmon population decline.

Warmwater fishery (large- and smallmouth bass)

The small- and largemouth bass in Squam continue to be a healthy, robust population. In 2017 NH F&G completed a study, in partnership with NH Bass Nation and in cooperation with the SLA, to see if bass that were released in Little Squam Lake would return to Big Squam. The study is now complete, and as of December 2017, 70% of the bass that were caught in Big Squam Lake, then tagged and released into Little Squam, were later detected in the channel.
The Squam Lakes Association is dedicated to conserving for the public benefit the natural beauty, peaceful character and unique resource values of the lakes and surrounding watershed. In cooperation with local and state authorities and other conservation organizations, the Association promotes the protection, careful use and shared enjoyment of the lakes, mountains, open spaces and wildlife of the Squam Lakes region.

534 US Route 3, Holderness, NH 03245; squamlakes.org, 603-968-7336

The Squam Watershed Report is compiled, designed, and edited by SLA Director of Conservation Rebecca Hanson