

Stream Condition of the Beaver Lake Watershed

By Dan Cox and the Stream Teams

Purpose of the Project

The purpose of the Stream Team project was to not only get high school students interested and involved in science and natural resource education, but we collected data that can be compared to the previous Stream Team data from 2006 and 2007 and be used to conclude findings that can show individuals in the conservation commission and other organizations what is happening in the watershed. This way they can use these findings to make decisions on what to do in future to preserve New Hampshire bodies of water.

Watershed Characteristics

The Beaver Lake Watershed is located in Rockingham County in south-eastern New Hampshire and the size of it and its location in Derry and part of Chester mean that it is an integral part of the area. Included in the watershed is Harantis lake and Adam's pond as well as streams such as Manter brook, Jen dickey brook, partridge stream and others. Beaver Lake itself is located off state road 102 in Derry, NH and most of the lake's shoreline is occupied with housing.



Results

The results of the data that we collected from the Stream Teams is that the streams surrounding the Beaver Lake Watershed are in Good condition according to the NHSRAT technique. We collected insects, water depths/widths, and the velocity of the flow in the streams. Some of the streams we measured were dry(dirt and rocks), and some of them did not even have any flow. However, most of the measured reaches were rocky and less eroded than expected. In addition to the physical data we visually assessed the streams and used that data to compare erosion and buffer condition of other water bodies. One piece of information regarding the insects stood out and it was that in the earlier reaches they found an abundance of mayflies and stoneflies that are sensitive to pollution and in the reaches we did in 2010, we found midge larvae that are insensitive to pollution. We also saw some areas that were more residentially developed and the buffer condition had be reduced. We also found substantial amounts of soap suds, oil, lawn waste, and garbage such as glass bottles, beer cans, recreational equipment (Baseballs, tennis balls, and a body board). On a positive note we found plenty of crayfish and other aquatic macro-invertebrates that are sensitive to pollution. We also found some areas with low amounts of erosion and good wide buffers.

Significance

Although we found some things that we less than desirable, the streams we measured were in good condition. Only a long term assessment of the watershed would give us substantial results. Because each year there are differences in the amount of rain and sunny days that can influence the results. Also this being the first year of my testing the results could be due to inexperience and differences in the crew.

Suggestions

Because the Watershed is still in good condition there is nothing to worry about yet. Educating homeowners about lawn maintenance and keeping them from directly polluting the streams with trash and lawn clipping, is the main concern. The BLIA and the GO Green Derry committee are working on educating the citizens and are doing a good job so far. A continuation of these organizations will surely help out the watershed.

Submitted by: Dan Cox on August 25, 2010