

Waban center focusing on stormwater run-off at Bauneg Beg Lake

**Sanford news and Fosters.com
Thursday, August 8, 2013**

Editor's Note. This is the ninth installment in a series about Waban Project's Team-building Recreation and Environmental Education (TREE) program.

SANFORD — There was a prolonged, heavy downpour at Waban's TREE Center on Bauneg Beg Lake the morning of July 23, as flash-flood warnings were issued by the National Weather Service for across York County and parts of Maine.

Fortunately, there were no emergencies, injuries or major flooding that day, but Waban Adventure Program participants fishing along the TREE Center's waterfront witnessed another serious concern as water cascaded off lakeside lawns and beaches: stormwater runoff.

"Runoff is a real issue for Maine lakes," said Ann Rossignal, the director of the TREE Center. "The surplus of nutrients and other pollutants that pour into lakes with the excess water can have serious consequences."

According to the website for Maine Lakes Volunteering Program (MLVP), a statewide nonprofit organization that monitors the health of Maine's lakes, run-off is a top threat to the quality of watersheds in the state of Maine. The site states that "stormwater run-off from developed areas of lake watersheds is a potential threat to water quality."

Run-off is a complex problem with many different facets. Its genesis begins as humans remove forested landscapes creating lawns, roads, parking lots and other areas with hard-packed impermeable surfaces.

"Nature has created its own buffer system," said Cynthia Peedin, the TREE Center's environmental educator. "Trees, plants, moss, decomposing vegetation and forest debris — all of this filters and soaks up rainwater runoff. When you remove the natural buffers and replace them with bare lawns and tar, the water has to go somewhere and it goes directly into the water system bringing with it pollutants that are present in oil, gas, and some lawn fertilizers."

Once in the watershed, these excess nutrients wreak havoc on the natural balance of the watershed's ecosystem.

The MLVP website offers a clear explanation of this process. As nutrients are flushed into the water, there is more algae growth than normal.

"Excess algae in lake water can cause a disturbance to the normal equilibrium of the aquatic ecosystem. As algae die and decompose, bacteria consume oxygen that is dissolved in the water. Increased algae growth can lead to a decline in oxygen levels, especially in summer months," according to the site.

Like other watershed groups across the state, The Bauneg Beg Lake Association has been monitoring the quality of the lake for three decades. In recent years, TREE Center environmental education groups have also looked closely at the effects of stormwater runoff in the lake's fragile ecosystem.

In the upcoming weeks, the TREE Center will look at the health of Bauneg Beg Lake using indicators like dissolved oxygen content, pH, temperature and water clarity.

The TREE Center is a social enterprise of Waban. For more information about water testing and the TREE Program, send an email to tree@waban.org or check out www.facebook.com/TREEctr.



**Leadership Development Coordinator Jon Stimmel guides St. Thomas School students and Adventure Group member Paul Sicotte in testing the turbidity of water at Bauneg Beg Lake, one of the many routine tests conducted by Waban's TREE Center to monitor the health of the watershed.
(courtesy photo)**