



Vilas County Land & Water Conservation

330 Court Street • Eagle River, WI 54521

715-479-3747 • Fax: 715-479-3627 • www.vilaslandandwater.org

3 February 2014

Mr. Kevin J. Gauthier, Sr.,
Wisconsin Department of Natural Resources
8770 Hwy J
Woodruff, WI 54568

Dear Mr. Gauthier,

I am writing in support of the small scale planning grant proposal submitted by the Big Arbor Vitae Lake Association (BAVLA). The proposed study will investigate whether the two tributaries flowing into Big Arbor Vitae Lake which currently support beaver communities and dams are contributing excess phosphorus to the Lake. The *Vilas County Land and Water Conservation Department* supports this initiative as the results will help lake managers and riparians manage Vilas County lakes.

In 2011, the BAVLA and Onterra LLC, with support from a large-scale management planning grant, began collecting lake data to assist with the development of lake management plans. One finding from that project was the disproportionate phosphorus load in the lake, which may be contributing to the excessive plant growth and blue-green algae blooms that occur. One of the recommendations from the management plan was to investigate the phosphorus situation further and determine the causes for the excess load and help develop management plans to address this situation.

Our department strongly supports this project, which is designed to investigate possible effects of beaver dams on Big Arbor Vitae Lake. Research suggests that beaver dams may alter water chemistry in a number of ways, depending upon the unique hydrologic, geological and biochemical factors the beaver dam holds. Some dams have been shown to increase phosphorus downstream while some decrease this important nutrient. Through this project, the role of the two beaver dams on tributaries in to Big Arbor Vitae Lake will be studied to determine how they affect the water quality of the lake. Any additional information on this topic will be useful to other lake associations and riparians in Vilas County who are seeing both an increase in aquatic vegetation in their lakes and in the presence of beaver dams on tributaries into their lakes, and are wondering if there is a correlation between the two phenomena.

We also support this project because it will satisfy some of the goals set forth in the 2010-2014 Vilas County Land and Water Resource Management Plan. Specific goals addressed through the proposed project are listed here: Goal 3 *Monitor and protect surface waters from impacts of land disturbance, non-point source pollution, and degradation*; Goal 6 *Educate the public about natural resources and promote sound stewardship practices*.

The Vilas County Land and Water Conservation Department supports this proposed project and as always, we will provide assistance as needed throughout the life of the project. If you have any questions about our supporting role in the project, please do not hesitate to contact me at (715) 479-3747 or mashee@co.vilas.wi.us.

Thank you for considering this very interesting project for grant funding.
Sincerely,

Quita Sheehan

Mariquita Sheehan
Vilas County Conservation Specialist

CC: Dan Cibulka, Onterra LLC