

GRANT REPORT LPL 156815

BONE LAKE MANAGEMENT DISTRICT

This lake planning grant funded activities outlined in the Bone Lake Management Plan. Volunteer committees guided and supported this work and reported to the Board of Commissioners. Reports in pdf format provide a summary of the work for this grant. The bid package included in the report is for the 110th project design completed by Polk County LWRD.

Reports include:

Bone Lake Tributary Analysis

Water samples and flow data were collected from various areas of channelized flow around Bone Lake. The purpose of the analysis was to evaluate performance of past practices and to identify new opportunities for watershed runoff reduction projects.

Ecological Integrity Service. *Bone 2015 Tributary Analysis*

Internal Load Study

The significance of internal loading from lake sediments was examined. This study complemented an analysis of lake sediments and estimates for alum dosing completed under LPT 47515 by UW-Stout. A volunteer committee is considering the results of these studies to make recommendations to the full membership. The lake management plan will be updated accordingly pending a member vote.

Ecological Integrity Service. 2018. *Analysis of in situ internal phosphorus load: Bone Lake, Polk County Wisconsin 2015-2017*

Harmony Environmental. 2018. *Bone Lake Internal Load Studies and Alum Recommendations*

Algae Pigment Analysis

Polk County worked with the Science Museum of Minnesota to analyze algae pigments in Bone Lake sediments. This work followed an analysis of diatoms. Both were intended to estimate phosphorus concentrations and algae growth in Bone Lake in past decades.

Edlund, Mark and Jeremy Williamson. 2017. *A Paleolimnological Study of Bone Lake, Polk County, Wisconsin: Fossil Algal Pigments.*

Black Crappie Sarcoma

The Bone Lake Management District is supporting undergraduate research on Black Crappie Sarcoma on Bone Lake and other nearby lakes. Interim reports are provided by UW- Eau Claire student Kayla Boyd.

Boyd, Kayla. October-November 2018 and December. January 2019 updates. *Black Crappie Sarcoma study.*

Goose Census

Responding to resident concerns regarding populations of Canada Geese on Bone Lake, the Wildlife and Natural Beauty Committee completed an inventory of geese on Bone Lake with support of consultant, Chris Loggers, a retired US Forest Service biologist.

Bone Lake Wildlife and Natural Beauty Committee. 2018. *Results of census for Canada geese on Bone Lake, June 20-22, 2018.*