

Lake Protection Grant LPT 45715

Bone Lake Management District

2019 Report

Internal Load Committee

The Internal Load Committee and sub committees met several times in 2019. The committee's mission was to evaluate the use of alum to treat Bone Lake's internal load and to make a recommendation to use or not to use alum to the board of commissioners and District membership at the 2019 annual meeting. While the committee voted against recommending alum for the 2019 annual meeting, interest in an alum treatment led to ongoing work by the committee and a planned vote for the 2020 annual meeting. The spring and fall 2019 newsletters contain articles which summarize the committee's work.

http://www.bonelakewi.com/docs/BLMD_Newsletter_Spring_2019.pdf

http://www.bonelakewi.com/docs/BLMDNews_Fall_2019_web.pdf

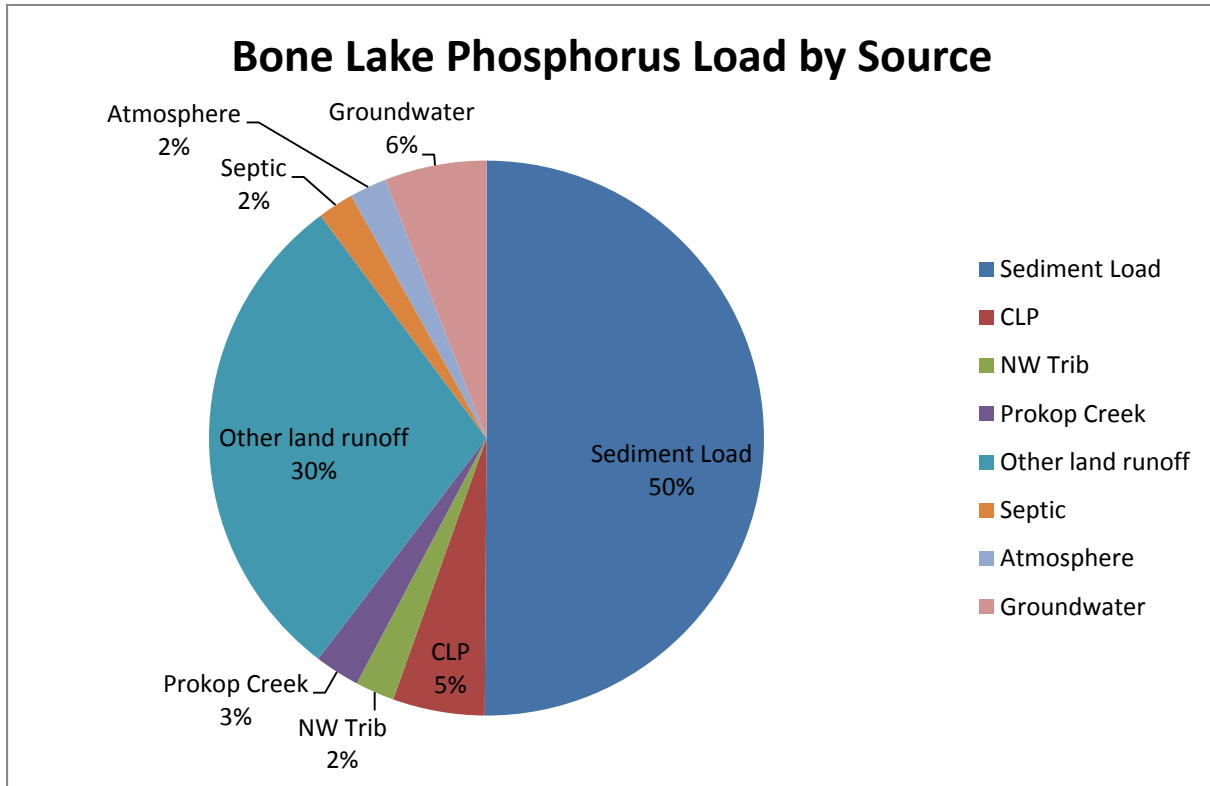
A full committee report is found on the website:

http://www.bonelakewi.com/docs/ALUM/BLMD_AlumCommitteeReport4.16.19.pdf

Groundwater Study

The phosphorus load was estimated by using the groundwater flow multiplied by the average concentration of phosphorus in groundwater samples to determine a mass of phosphorus flowing into the lake via groundwater. Groundwater flow was estimated in winter months by measuring tributary inflow and outflow and volume from lake level measurements. Well samples were taken and data analyzed to estimate groundwater contributions to Bone Lake's phosphorus budget.

Updated Phosphorus Budget including groundwater study results:



Volunteer Support

Volunteer efforts were supported with awards, support for WI Lakes Conference attendance, and mileage reimbursement.

Outreach and Education

Outreach and education supported by the grant included packets of publications mailed to new lake residents and outreach to owners of properties of medium and high priority for waterfront runoff mitigation.

Best Management Practice Installation

A rock plunge pool was installed at the outlet of a pond tributary to Bone Lake on the Musial property. Scott Geddes, Polk County LWRD, designed this project.



North Landing Porous Paver Replacement

Plastic porous pavers were replaced with a concrete geogrid at the Bone Lake North Landing. The plastic pavers did not stand up to regular boat and trailer traffic and snowmobiles in the winter.



Waterfront Projects

One waterfront native planting project was repaired due to shoreline erosion from high water (Literski).

Site visits were completed for 6 owners: 4 native planting recommendations, 1 rain garden design, 1 rock infiltration trench design. Two owners installed native planting projects in 2019, but they were installed past the fiscal year reporting period.