

2018 Bone Lake Survey Summary

In September 2018 a survey was mailed to five hundred and fifty-three property owners of the Bone Lake Management District. The survey had a great response rate, with 262 surveys returned (47%). A similar survey was mailed in 2013. This summary provides highlights from the 2018 survey and includes comparisons from the 2013 survey for questions which were similar between the two years.

Property ownership

Respondents have owned their property on Bone Lake for an average of 23 years (unchanged from 2013) and primarily use their property on weekends, vacations, and holidays year-round (31%) or seasonally (32%). Twenty-one percent of respondents use their property as a year-round residence (9% increase from 2013).

The vast majority of respondents are satisfied with owning property on Bone Lake. Three-fourths are highly satisfied (72%, 6% increase from 2013) and one-fourth are somewhat satisfied (24%) with owning property on Bone Lake.

Concerns for Bone Lake

Survey respondents were asked to rank their degree of concern with six different issues. A score of four would indicate everyone ranked the concern has high, three as medium, two as low, and one as issue exists but is not a concern. The issue of greatest concern was new invasive species entering the lake, followed by aquatic plant growth, unsafe boat or personal watercraft safety, lack of water clarity in late summer, and noise level on the lake. The level of concern for each issue was similar between the two surveys.

Degree of concern	2018	2013
New invasive species entering the lake	3.4	3.6
Excessive aquatic plant growth	2.8	3.0
Unsafe boat or personal watercraft safety	2.6	2.4
Lack of water clarity in late summer	2.5	2.6
Noise level on the lake	2.2	2.0
Bright shoreline lighting	1.6	1.8

Changes impacting recreational use

The survey asked if a list of characteristics of Bone Lake had improved, remained the same, or worsened since respondents have owned their property on Bone Lake.

Aquatic plant growth

Half of respondents indicated that aquatic plant growth has remained the same (43%) and a further 10% were unsure how to describe the change. More respondents indicated growth had worsened (30%) versus improved (17%). When compared to the 2013 survey, aquatic plant growth is perceived to be improving in Bone Lake. More

respondents indicated growth had improved (8% increase) and fewer respondents indicated growth had worsened (16% decrease).

Quality of pan, musky, and bass fishing

One-third of respondents described the quality of pan fishing as worse (35%), unchanged (33%) or were unsure how to describe the change (30%). Only 2% of respondents indicated an improvement in pan fishing.

Half of respondents were unsure how to describe the change in musky fishing (52%). One-fourth of respondents described the change as worse (27%) or the same (18%). Only 2% of respondents indicated an improvement in musky fishing.

Half of respondents were unsure how to describe the change in bass fishing (45%) and one-fourth indicated the quality was unchanged (27%). Fewer respondents indicated bass fishing had improved (17%) as compared to worsened (11%).

Water clarity

Half of respondents described the water quality of Bone Lake as unchanged (44%), one-third indicated an improvement (29%), and one-fourth indicated the clarity had gotten worse (21%). As compared to the 2013 survey, many more respondents described the water clarity as improved (25% increase from 2013).

Quality of motorized and non-motorized boating

Half of respondents indicated that the quality of motorized boating has remained the same in the time they have owned their property (49%). Many more respondents described the quality of motorized boating as worse (36%) versus improved (4%).

Half of respondents described the quality of non-motorized boating as the same (56%) and an additional 20% of respondents were unsure how to describe the change. More respondents described the quality of motorized boating as improved (17%) versus worsened (7%).

Diversity of wildlife

Two-thirds of respondents described the diversity of wildlife on Bone Lake as unchanged (59%) and an additional 17% were unsure how to describe the change. More respondents indicated that the diversity of wildlife has improved (19%) versus worsened (5%).

Reducing waterfront runoff

The District's educational campaign to reduce nutrient runoff is having a positive impact.

The practices most often installed by respondents include: not fertilizing or using zero phosphorus fertilizer (78%), water diversions (21%), and larger shoreline plantings (21%).

Over half of respondents are familiar with but have not installed the following practices: rain gardens (74%), 10x35 feet shoreline plantings (74%), larger shoreline plantings (65%), infiltration pits or trenches (56%), and water diversions (51%).

The practices that survey respondents are most unfamiliar with include: infiltration pits or trenches (32%) and water diversions (28%).

For each landscaping practice, the percentage of respondents familiar with the practice increased from 2013 to 2018. Additionally, for many practices the percentage of respondents who had already installed a practice remained the same or increased from 2013 to 2018.

Percent increase or decrease	Unfamiliar	Familiar, not installed	Already installed	Planning to install
Rain garden	9% ↓	3 % ↑	5 %↑	2% ↑
10x35 feet shoreline planting offered by the Bone Lake District	22% ↓	14% ↑	7% ↑	1% ↓
Shoreline native plantings larger than 10x35 feet	14% ↓	9% ↑	7% ↑	2% ↓
Infiltration pits or trenches	16% ↓	16 % ↑	1 % ↓	1% ↑
Water diversions	9% ↓	10 %↑	No change	1% ↓
Not fertilizing or using zero phosphorus fertilizer	1% ↓	6% ↑	5 % ↓	No change

The survey asked respondents to indicate reasons preventing them from installing practices to reduce waterfront runoff from their property. Half of respondents indicated that the reason they haven't installed a practice is that their property is level at the lake and has no waterfront runoff (49%, 18% increase from 2013). Ten percent or less of respondents indicated other options (i.e. cost, time, neighbor approval, space, etc.) were preventing them from installing a practice. However, the percentage of respondents unsure how to install a practice did decrease by 13% from 2013 to 2018.

The majority of respondents indicated that they were aware that Bone Lake offers free, no obligation site visits (84%, 16% increase from 2013).

Respondents were also asked what would motivate or convince them to install a practice to reduce waterfront runoff on their property. The largest motivators are: improving the water quality of Bone Lake (37%), financial assistance (20%), providing habitat for birds and wildlife (19%), no-cost technical assistance (18%), and increasing natural beauty (18%). However, the number of respondents for each indicator decreased from 2013. This could indicate that it may be more difficult to motivate residents who haven't already installed a practice to do so in the future or it could be a result of more people having installed practices since 2013.

Factors motivating respondents to install a practice

practice	decrease
Improving the water quality of Bone Lake	14% ↓
Financial assistance	9% ↓
Providing habitat for birds and wildlife	15% ↓
No-cost technical assistance	5% ↓
Increasing natural beauty	13% ↓

Management Activities

Survey respondents were asked if seven different activities should be continued by the District to improve Bone Lake. More than three-fourths of respondents feel that the District should continue to implement: programs to deter new aquatic invasive species (95%), incentives to upgrade non-conforming septic systems (90%), treatment for curly leaf pondweed (88%), programs to encourage rain gardens and waterfront plantings to reduce waterfront runoff (83%), and programs to promote stream bank stabilization to reduce runoff from the watershed (77%). Half of respondents felt that the north and south boat landings should be improved (55% and 54%, respectively).

Members of the District were also asked if the District should consider implementing five additional activities. Three-fourths of respondents indicated that the District should implement additional ways to improve water clarity (78%) and increase education regarding boat regulations (71%). Two-thirds of respondents indicated that the District should increase education to boat owners regarding loud music (68%) and increase enforcement of boating regulations (60%). Half of respondents thought the District should increase the number of acres of curly leaf pondweed treated with herbicide (56%, 11% decrease from 2013).

Canada geese

The survey asked a number of questions regarding Bone Lake's Canada goose population. Half of respondents are annoyed by Canada geese visiting their property (51%), feel there are too many geese nesting and raising young around the lake (43%), are aware that the goose population was surveyed in 2018 (48%), and feel that the District should take measures to reduce/control the number of geese around the lake (53%). One-third of respondents aren't annoyed by geese visiting their property (36%) and weren't aware of the population survey (39%). Fewer respondents indicated there are too many geese nesting and raising young (19%) and that the District should take measures to reduce/control the number of geese (19%).

In a question stating that geese prefer lawn over tall/native shoreline vegetation, only 5% of respondents said they would convert the lawn along the shoreline to repel geese. However, 38% of respondents indicated their shoreline is already tall/native shoreline vegetation. One-third of respondents indicated they would not convert their shoreline (34%); whereas, one-fourth of respondents were unsure (22%).

Alum treatment

The survey provided background information on Bone Lake's phosphorus issue (specifically internal loading) and the voting results from the 2018 annual meeting to

form an alum committee. Half of respondents were unfamiliar with alum treatments being completed on other lakes (56%). Respondent's perceptions of alum were mixed. Combined, over half of respondents were undecided (27%) or not familiar with alum treatments (27%). More respondents had favorable opinions of alum (33%) as compared to unfavorable (13%). The majority of respondents agreed with the formation of a Bone Lake alum committee (86%).

Communication

The preferred method for receiving information from the District continues to be the newsletter (78%) followed by email (41%). One-fourth of respondents prefer to receive information from the website (27%, 7% increase from 2013), Bone Lakers Facebook page (26%), and annual meeting (23%, 7% increase from 2013). Fewer respondents (9%) indicated they preferred eNews.

Respondents were asked to indicate if the Bone Lake Annual Meeting has met their needs in the past three years. Half of respondents indicated that they haven't attended any annual meetings over the past three years (55%). One-third of respondents indicated the meetings have met their needs (38%) and a further 2% indicated the meetings have exceeded their needs. Very few respondents (5%) indicated that the meetings had not met their needs.