# Walled Lake
BioBase Survey Report

On September 6th and 7th, 2018, Savin Lake Services surveyed the entirety of Walled Lake. We utilized our GPS logging capabilities and sonar data collection to use a program called Biobase where we are able to obtain a contour map, biovolume map, and a bottom hardness map of Walled Lake.

Boat Path Map

To ensure that we travel the entirety of the lakes we survey, we use a GPS technology related to agriculture applications for crops. After traveling the shoreline of the lake, we can start a linear path across lake body and produce a graph for our boat to travel. This way, every trip across the lake is equally spaced from the last, which ensures our other survey methods work correctly and covers the entire lake area. Below is the map showing our boat's route using this process.
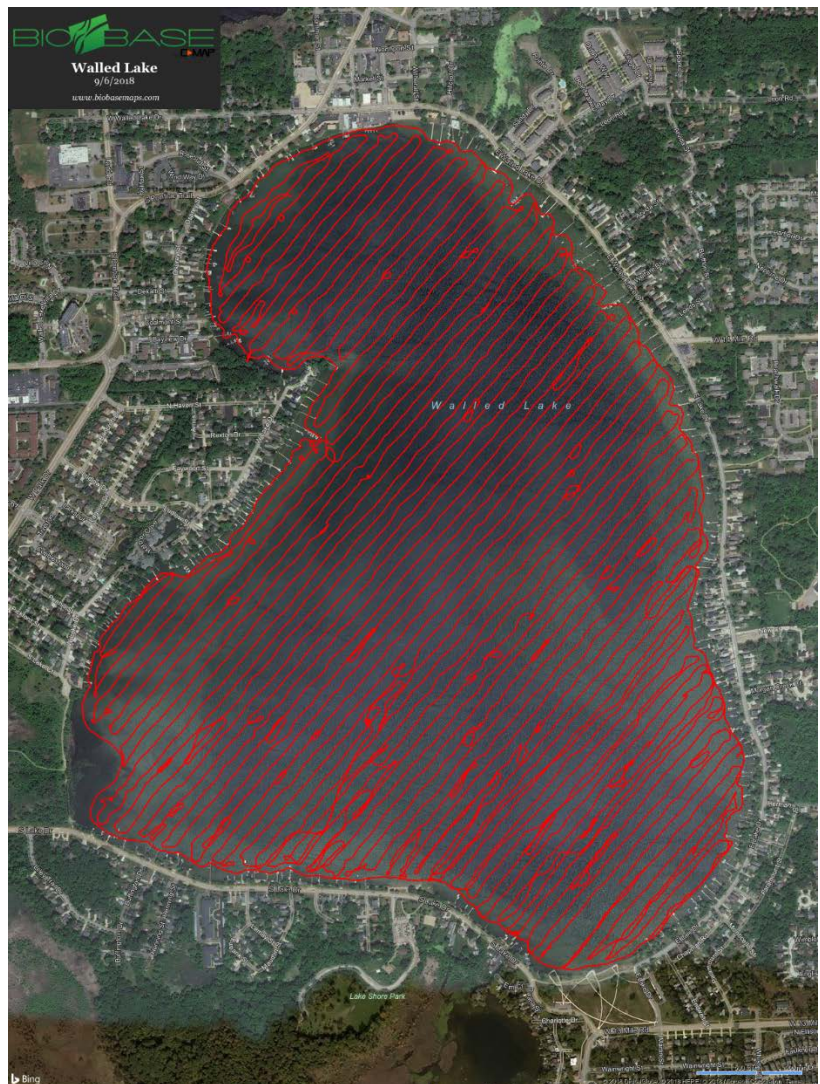
BioBase Survey

As we traveled around the lake, we logged a number of frequencies. When uploaded to the BioBase software, a number of reports are generated. The next few pages show the results of the mapping.

First is the contour map, additionally color shaded blue to show the depths of Walled Lake. The deepest location on the lake was 52' deep.

The second map shows the vegetation on the lake. It shows this by a metric called BioVolume. BioVolume is the percent of vegetation in the water column. By using this, we can see what areas of the lake has vegetation that is reaching the surface of the water or has yet to reach it. Coupled with a visual survey of the lake, we can determine what areas are problematic and what vegetation exist in those areas to properly plan management strategies.

The last map shows the bottom hardness of the lake. This is not the hardness of the water of the lake, but the actual physical characteristic of the lake sediment as being 'hard' or 'soft'. Silt and muck are generally soft, rocks are obviously hard, and sand is shown in between. However it is useful to note these are general observations and this information does not necessarily show the bottom being exactly muck, sand, or rocks.

BIOBASE

Walled Lake
9/6/2018
www.biobasemaps.com

(Depth Contour Map)

(Vegetation BioVolume Map)

BioBase C-MAP

Walled Lake
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HARD

SOFT

Walled Lake

(Bottom Hardness Map)

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