

Project Report, February 1st – April 30th, 2019

Project Name: Grand Lake Bathymetry

Begin Date: February 1st, 2019

End Date: June 30th, 2020

Project Number: SH00MEZ

Project Chief: Jason Lewis, Shelby Hunter, Kevin Smith

Cooperator: Grand River Dam Authority

Principal Cooperator Contact: Darrell Townsend, Grand River Dam Authority, Vinita, OK

Objectives:

Bathymetric survey and area capacity table of Grand Lake O' the Cherokees:

- 1) Conduct a bathymetric survey,
- 2) Construct a detailed bathymetry map of the lake,
- 3) Using the gathered data, develop Elevation-Area-Volume tables for Grand Lake, and
- 4) Compare differences between this study and any previous studies done on the lake,
- 5) Publish a USGS scientific investigations Map report.

Scope: The proposed project area includes all of Grand Lake O' the Cherokees (Grand Lake). Grand Lake covers approximately 41,779 acres with approximately 667 miles of shoreline and has beneficial uses of public and private water supply, hydropower, and recreation. Multibeam bathymetric data will be collected throughout the lake area and include an overlap at both the Twin Bridges area as well as the Elk River area bathymetric studies completed by the USGS in 2017.

Progress:

- February and March were spent planning and making sure bathymetric equipment were installed on the boat and calibrated properly.
- Bathymetric survey began on Sunday March 30th, 2019.
- As of April 30th, the bathymetric survey progress is shown on Figure 1.

Plans for Next Quarter:

- Continue to survey up the lake in a northeast direction.

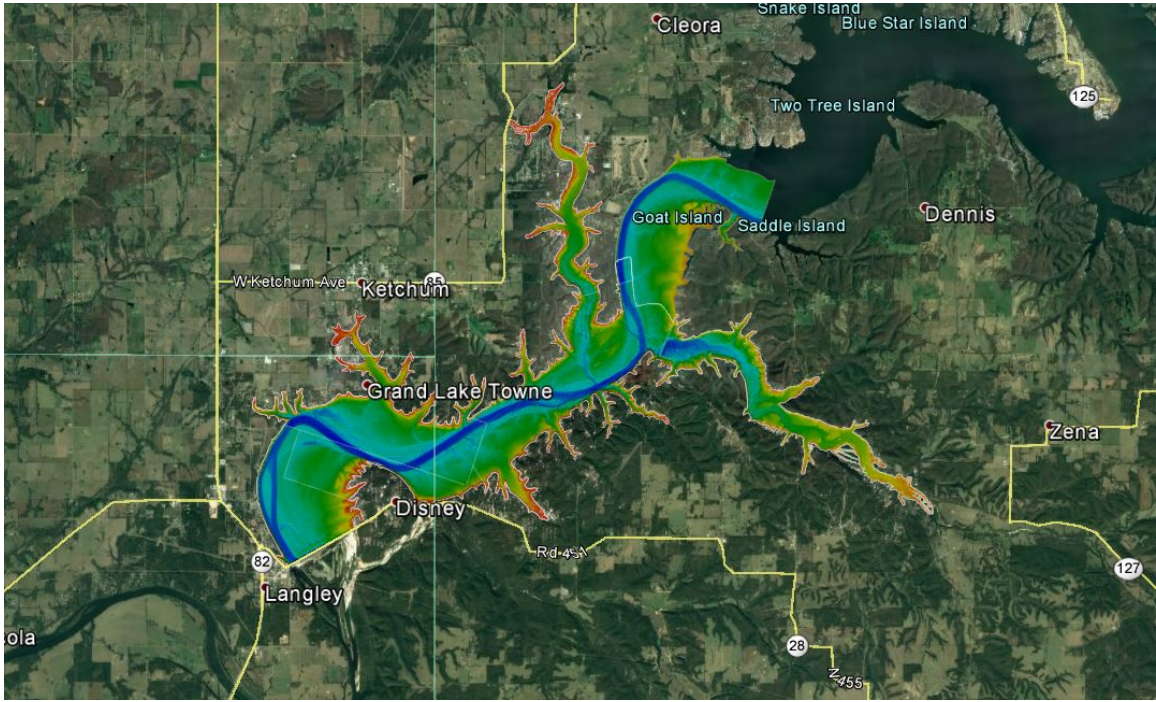


Figure 1. Bathymetric survey progress as of May 1st, 2019.