Acknowledgments

The authors would like to thank the City of Shawnee for assistance and support in planning and conducting this bathymetric survey.

Introduction

The City of Shawnee operates Shawnee City Lake Number 2, which is a reservoir located in Pottawatomie County, Oklahoma. This reservoir is primarily used for recreational purposes, including fishing, boating, and water sports. The lake has a history of water level fluctuations due to the needs of the City of Shawnee. The water levels are subject to changes in precipitation, evaporation, and water use.

Methods

Bathymetric surveys were conducted using a dual-frequency acoustic Doppler current profiler (ADCP) mounted on a small boat. The survey was conducted during low water levels to ensure accurate measurements. The data was processed using specialized software to generate a detailed bathymetric map of the reservoir.

Quality Assurance

The quality of the bathymetric data was ensured through rigorous data processing and analysis. The results were validated using existing bathymetric data and ground control points. The data was also compared with historical records to ensure accuracy.

Results

The bathymetric survey data is presented in the form of a bathymetric map and tables. The data includes information on the lake's depth, area, and volume. The bathymetric map provides a visual representation of the lake's bottom topography, which is crucial for understanding the lake's hydrology.

Summary

The City of Shawnee operates Shawnee City Lake Number 2, a reservoir located in Pottawatomie County, Oklahoma. The lake is primarily used for recreational purposes and has a history of water level fluctuations. A detailed bathymetric survey was conducted to understand the lake's bottom topography and its impact on the lake's storage capacity.

References

[References are provided as citations at the end of the page.]

[Map data is provided as an insert at the end of the page.]

Technical Information


Assumptions

- Bathymetric survey data is accurate to within 1% of the true values.
- The water levels were measured at low water levels to ensure accurate measurements.

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Conversion Factors

[Conversion factors are provided as a table at the end of the page.]

Data

Data is provided as a map and tables. The map shows the lake's extent and topography, while the tables present detailed bathymetric data.

Bathymetry and Capacity of Shawnee Reservoir, Oklahoma, 2016

[Map and tables are provided as inserts at the end of the page.]

[Map legend and scale are provided as inserts at the end of the page.]