CEC performs bathymetric/hydrographic surveys using its in-house fleet of survey vessels and depth-sounding equipment to satisfy diverse industry needs for mapping underwater environments.

CEC collects comprehensive bathymetric data to assist manufacturing, mining, oil & gas, power, and transportation companies with projects requiring accurate water depth/bottom surface elevation data. Surveys are performed to assist with:

- Rivers and Harbors
- Maintenance Dredging
- Draft Verification
- Pre- and Post-Demolition Surveys
- Impoundments
- Storage Volume
- Residence Time Calculations
- Utilities
- Crossing Alignment
- Horizontal Directional Drilling (HDD)
- Trench Verification
- Planning and Design
- Harbor Facilities
- Intakes and Outfalls

**IN-HOUSE RESOURCES**

**Fleet**

CEC houses and maintains its own fleet of survey vessels. Our vessels are operated by CEC personnel with a United States Coast Guard (USCG) Captain’s License and/or safe boat operation training, and who have been trained to work in aquatic environments. In addition, CEC survey vessels are outfitted with required USCG safety equipment.

**Equipment**

CEC’s techniques and equipment are consistent with surveying guidelines outlined in the U.S. Army Corps of Engineers’ Manual No. 1110-2-1003. CEC's hydrographic survey equipment can be deployed on multiple vessels, offering greater flexibility to accommodate project needs.

- Innerspace Model 456 Dual Frequency Sounder
- Trimble Differential Global Positioning System (DGPS)
- Trimble Real-Time Kinematic (RTK) Survey-Grade GPS
- HydroLite™ Echosounder

**DATA COLLECTION**

Data logging intervals can be set to collect depth measurements and corresponding position locations every second, allowing for the collection of thousands of georeferenced soundings to provide a detailed and comprehensive survey.

CEC uses conventional land-surveying methods to provide hydrographic survey tie-in points and daily surface water elevations. Survey data is processed under the supervision of a Registered Land Surveyor.