



# Aquatic Ecology Monitoring

**CEC offers aquatic ecology monitoring services to help clients meet regulatory requirements pertaining to Clean Water Act Section 404 and 401 permits, functional assessments, stream and wetland mitigation, NPDES permits, cause and effect determinations, impact studies, and ecological risk assessments.**

CEC aquatic ecologists are intimately familiar with state and federal rapid bioassessment protocols and have performed hundreds of fish surveys and collected and analyzed thousands of benthic macroinvertebrate samples in waterways ranging from headwater streams to large rivers and lakes. CEC maintains aquatic scientific collecting permits and certifications as Professional Wetland Scientists, Certified Benthic Taxonomists, Certified Fisheries Professionals, and Certified Professionals in Erosion and Sediment Control. CEC aquatic biologists are also approved by the U.S. Fish & Wildlife Service and state wildlife agencies as surveyors for threatened and endangered aquatic species.

CEC owns and operates a fleet of work boats ranging from 12-foot jon boats to a 22-foot Duracraft work boat for larger river surveys. These boats are equipped with an extensive array of testing and sampling gear for bathymetric surveys, side-scan sonar imaging, electrofishing, bottom trawling, and sediment sampling. CEC also maintains an aquatics laboratory for in-house sample processing and identification, sample storage, and archiving of aquatic and wetland plants, benthic macroinvertebrates, fish, and amphibians.



## AQUATIC ECOLOGY MONITORING SERVICES

### Aquatic Studies

- Aquatic Functional Assessment
- Fish and Benthic Macroinvertebrate Surveys
- Water and Sediment Sampling
- Bathymetric and Hydrographic Surveys

### Endangered Species Surveys

- Freshwater Mussels
- Fish
- Rare aquatic and wetland plants

### Environmental Planning, Reporting, and Permits

- Section 404 CWA Permits
- Section 401 CWA Water Quality Certifications
- State Stream and Wetland Permits
- Mitigation Plans
- NEPA Environmental Impact Statements & Assessments

