COASTAL & HYDRAULICS LABORATORY

WHAT WE DO

CHL's strength is found in our people who solve problems and initiate scientific discovery through a multi-faceted approach that includes field and laboratory data collection and instrumentation development, physical modeling, computational science, and data analytics. Our researchers that collaborate on these multi-faceted problems have strengths in our core competencies:

- **hydrology**
- **river & estuarine engineering**
- **coastal engineering**
- **fluid-structure interaction**
- **maritime operations**

mission

Deliver solutions to our Nation's most challenging coastal and hydraulics problems through research, development, and application of **cutting-edge science, engineering,** and **technology**.

goals

INSPIRE A WORLD-CLASS WORKFORCE

DEVELOP & DELIVER INNOVATIVE SOLUTIONS

ADVANCE WORLD-CLASS RESEARCH FACILITIES

ANTICIPATE & DISCOVER TRANSFORMATIONAL TECHNOLOGY

CONNECT TO STRENGTHEN THE ENTERPRISE

vision

To be a **World-Class** Research & Development Organization that **Discovers, Develops,** and **Delivers** Coastal and Hydraulics Science and Engineering to Make the World **Safer** and **Better** Every Day.

WHY WE DO IT

CHL works collaboratively across ERDC, the USACE, and with other government agencies, industry, and academic partners, to deliver world-class products that advance coastal and hydraulics science and engineering in the service areas of:

navigation

To enhance safe, reliable, efficient, and environmentally sustainable waterborne transportation systems for movement of commerce, national security, and recreation.

flood & coastal risk management

To quantify the risk-based performance of natural, engineered and hybrid systems threatened by long-term changes including extreme drought and flood and storm-induced hazards.

water management

To support decision making considering the spatial and temporal distribution of water and to optimize hydropower generation in an environmentally-sustainable manner.

sediment management

To beneficially manage sediment resources, including use of natural processes to solve engineering problems and enhance natural resources while balancing national security and economic needs.

coastal & hydraulics military engineering

To provide advantage in multi-domain operations against adversaries in the area of force projection and maneuver support in complex water environments.