



U.S. Army Corps of Engineers (USACE)
BUILDING STRONG®

Hydrologic Engineering Center (CEIWR-HEC)

Mission, Roles, Responsibilities

Background Mission

- Founded in 1964, CEIWR-HEC is an element of USACE, Institute for Water Resources (CEIWR). CEIWR-HEC has served as a USACE Technical Center of Expertise (CX) in several technical areas for USACE for almost fifty years.
- Through programs in research, software development, training, and technical assistance, CEIWR-HEC provides technical expertise to USACE offices throughout the nation.
- CEIWR-HEC products are state-of-the-art software systems and analysis procedures, which have become standards of the profession in the United States and the international community.

Technical Specialty Areas

- hydrologic statistics risk analysis
- planning analysis
- real-time water control management
- reservoir system analysis
- river hydraulics sediment transport
- surface groundwater hydrology

Technical Expertise

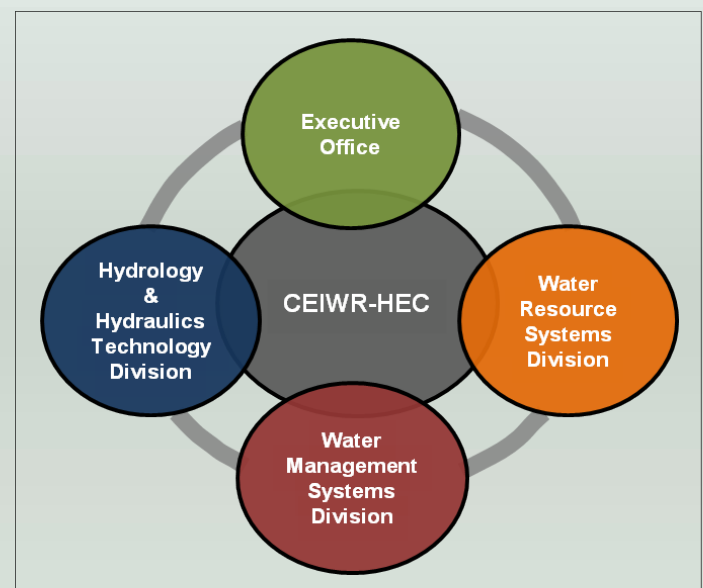
- data management
- flood drought statistics
- flood risk management
- reservoir sizing operation
- river hydraulics
- water resources planning
- watershed hydrology

Roles

CEIWR-HEC's primary goal is to support the Nation in its water resources management responsibilities by increasing USACE technical capability in hydrologic engineering and water resources planning and management. Essentially, CEIWR-HEC's quest is to move the state-of-the-art into the state-of-the-practice. CEIWR-HEC provides services primarily to HQ USACE, USACE District and Division offices and laboratories. However, subject to appropriate agreements, services are also available to other Federal and local agencies, and the U.S. private sector in support of international work and international institutions.

Responsibilities

- Currently CEIWR-HEC is organized into an Executive Office and three Divisions.
 - The CEIWR-HEC subject matter experts serve on cross-functional teams across the Center and USACE.
- support development of CEIWR-HEC systems based software
 - development application of the Corps Water Management System (CWMS) software
 - USACE Communities of Practices (CoPs)
 - USACE Civil Works (CW) Business Lines
 - MSC (Major Subordinate Command) Regional Integration Teams (RITS)
 - MMC (Modeling, Mapping Consequence Center)
 - MSC Planning Expertise Centers





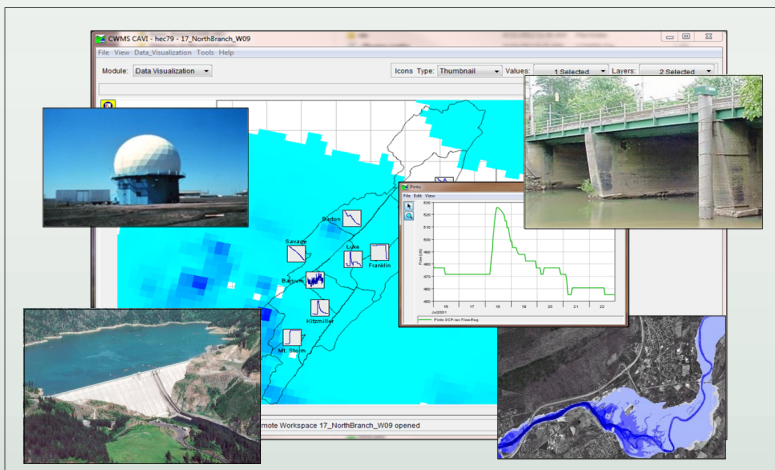
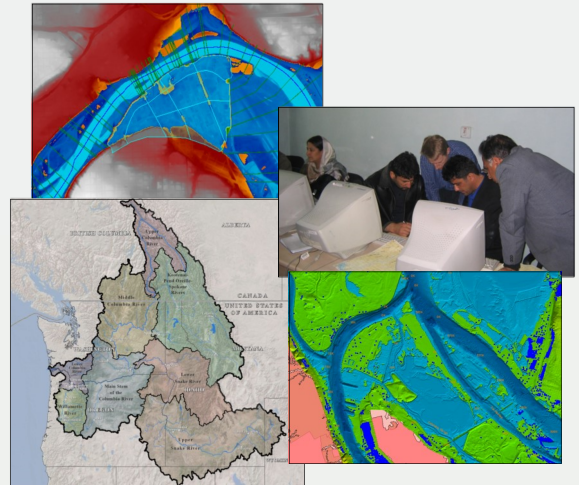
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Activities

- The CEIWR-HEC program includes developing engineering methods and software, performing research, and providing training, planning analysis and technical assistance to USACE MSC and district offices.
- CEIWR-HEC's mission focuses on serving the USACE engineering practitioners at the field level and to enable the districts to successfully accomplish civil works studies, projects and operations.
- CEIWR-HEC aims to build technical capacity throughout USACE, facilitating technology transfer of HEC products, and helping to elevate the overall capability of the USACE engineering profession by bridging the gap between the academic community, practicing hydrologic engineers and planning professionals.

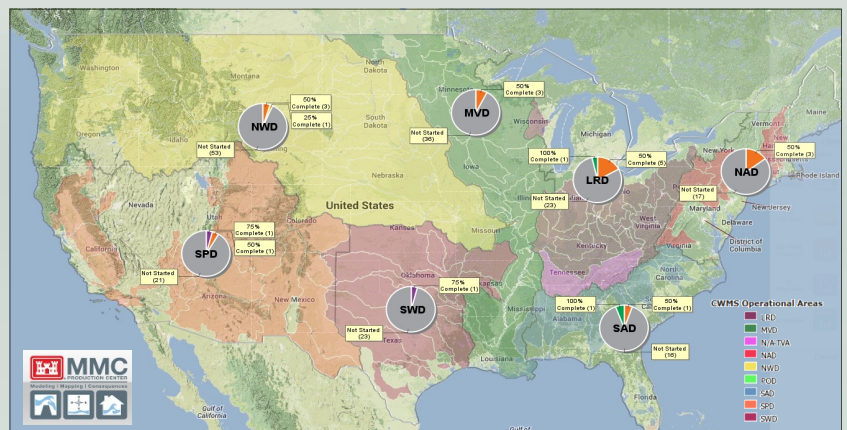


Achievements

- Continued development of the CEIWR-HEC suite of software (HEC-RAS, HEC-HMS, HEC-FDA, HEC-WAT, HEC-ResSim, etc.)
- Providing leadership in establishing risk analysis as the foundation technology for flood risk management planning and analysis
- Development and deployment of CWMS, the real-time forecasting and decision-support system that is used 24/7 in execution of the USACE CW water resource, water management mission.

2018 Events

- CWMS National Implementation Plan
- ACT/ACF
- Sustainable Rivers Project
- International Activities
- Integrated Water Resources Science Services (IWRSS)
- Technology Transfer - PROSPECT Program (9 courses); District workshops; webinars; technical guidance development; website
- Support: MMC; Dam Levee Safety program
- Deployment of CWMS



- Continuous development maintenance for CEIWR-HEC software through the entire systems development life-cycle: research; development; training support; technical assistance.