

Corps Water Management System (CWMS) – Modeling for Real-Time Water Management

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Extended Abstract

The Corps Water Management System (CWMS) serves water managers at District and Division offices of the U.S. Army Corps of Engineers (USACE) by providing real-time data acquisition and hydrologic and hydraulic modeling capabilities. CWMS is a comprehensive data management system and modeling system for water management decision support.

Through HEC-DSS (Data Storage System), CWMS facilitates the real-time use of observed and forecasted precipitation, observed flows and stages, and other meteorological and hydrologic data. CWMS also allows the integration of HEC-MetVue (Meteorological Visualization Utility Engine) for viewing and manipulating meteorological datasets, HEC-HMS (Hydrologic Modeling System) for forecasting flows throughout a watershed, HEC-ResSim (Reservoir Modeling System) for simulating reservoir operations and release decision, HEC-RAS (River Analysis System) for forecasting river stages and producing flood inundation maps, and HEC-FIA (Flood Impact Analysis) for estimating potential flood impacts on life safety, agriculture, and urban infrastructure.