MONITORING AND FORECASTING

In all aspects of water resources management, monitoring and forecasting are critical services that help managers make informed, analytical decisions.

Our advanced hydrometeorological monitoring and hydrologic forecasting services provide actionable information for flood warning, hydropower operations, water allocation, agriculture operations, and more. These services can help you make critical water resources decisions based on real-time conditions, as well as conditions that are hours, days, weeks, or seasons into the future.

We provide both on-site forecast systems built on the latest science and technology, data sources, analysis, and product delivery methods as well as web-based subscription services that are customized based on your needs, data availability, and location.

Providing timely and relevant information about current and future water resources conditions
FEATURED PROJECT

Design and Implementation of a Flood Warning System

Client: New York State Canal Corporation (NYSCC)
Country: United States
Sector: Floods
Related Services: Risk Assessment, Data Management, Planning and Allocation; River Basin Operations

RTI International led the design and implementation of a Flood Warning and Operations System (FWOS) to help NYSCC evaluate flood impacts in real-time and provision automated warnings to local and state emergency management operations.

Prior to the project, NYSCC did not have access to many observations and suitable forecasts in the canal area, resulting in limited situational awareness and limited time to prepare its infrastructure and warn canal users of imminent flooding. NYSCC, with RTI’s help, implemented (1) an expanded hydromet monitoring network for precipitation, river, and lake water levels and (2) a client server–based FWOS using DHI MIKE OPERATIONS technology. This included the integration of real-time data feeds for over 10 sources; development and deployment of National Weather Service, DHI MIKE 11, and DHI MIKE 21 models; and the configuration of NYSCC interfaces for data visualization and flood forecasting.

ADDITIONAL MONITORING AND FORECASTING SERVICES

Designing, improving, installing, and maintaining monitoring networks of precipitation, temperature, and streamflow gauges

Gathering, storing, and manipulating field-collected and remotely sensed data

Integrating existing data sources, models, and operational systems with new data and technologies to deliver enhanced water resources information

Providing training, documentation, manuals, procedures, and monitoring and evaluation frameworks