Decision support for dam and reservoir water inflow/outflow operations

GateOps™ is a set of automated management tools in OneRain Contrail hydro-meteorologic management software that provides real time guidance for operating a reservoir through a rainfall or inflow event based upon the standard operating procedures for a reservoir or dam.

OVERVIEW

The goal of operations during a rainfall or high flow event is to properly manage the event from beginning to end without jeopardizing the integrity of the dam structure and without adversely impacting life or property downstream. The event is not over until the reservoir is back to nominal pool elevation.

GateOps automatically makes calculations and analyses based on real time rainfall, streamflow, stage and water level sensor data, along with other variable formulas, and presents recommended minimum and maximum outflow rates and prescribed discharge adjustments to help operators effectively manage the event and eventually return the reservoir to nominal pool elevations.

GATEOPS CALCULATIONS AND GRAPHICAL DISPLAYS

With real-time processes in GateOps, operators are guided to take appropriate actions and follow guidelines and procedures. GateOps eliminates manual calculation and possible process errors.
REAL-TIME DATA MANAGEMENT AND DECISION SUPPORT

Customized real-time dashboards show actionable decision-making data when monitoring conditions and indicators that impact reservoir control and gate operating procedures.