WaterWatch: A Map-Based World Wide Web Interface to U.S. Geological Survey Streamflow Information

Xiaodong Jian, David Wolock, and Harry Lins, U.S. Geological Survey, Lawrence, Kansas, and Reston, VA, xjian@usgs.gov, dwolock@usgs.gov, hlins@usgs.gov

Abstract: WaterWatch (http://water.usgs.gov/waterwatch/) is a U.S. Geological Survey (USGS) World Wide Web site that displays maps, graphs, and tables describing real-time, average 7-day, and average monthly streamflow conditions for the United States. The real-time information generally is updated on an hourly basis. WaterWatch depicts and quantifies the severity and spatial extent of hydrologic hazards, including floods and droughts.

WaterWatch features a point-and-click interface allowing users to retrieve graphs of real time stream stage and flow data for more than 7,000 streamgages nationwide. Operation of the streamgages is funded through cooperative agreements with Federal, State, and local agencies. From a national map, a Web-site user can select a State to find streamflow data and click further to find real-time data for an individual streamgage. This feature facilitates rapid assessment of specific streamflow and stage conditions.

WaterWatch flood and high-flow maps show the location of streamgages where the water level is currently approaching or above the National Weather Service (NWS) designated flood stage. At the other flow extreme, WaterWatch drought maps highlight hydrologic regions where streamflow is below normal on a weekly (7-day average) basis.