USGS StreamStats: Hydrologic and Geospatial Data Integrated to Support Water Science and Management
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Overview

StreamStats (http://streamstats.usgs.gov) is a U.S. Geological Survey web-service-based geographic information services application that provides information used by engineers, hydrologists, managers, planners, and others to make informed decisions on water-related activities. It integrates multiple datasets, such as the National Hydrography Dataset (NHD), the Watershed Boundary Dataset, and the 3D Elevation Program, to allow users to delineate a watershed for a stream point of interest. The principal benefit of StreamStats is that the delineation process that used to take hours can now be accomplished in minutes, and is replicable between users. StreamStats users can also calculate flow statistics for the watershed of interest and compute basin characteristics such as National Land Cover Dataset land use/land cover values and average precipitation. Future enhancements will include network navigation tools to trace up and downstream on the NHD flowlines, as well as time of travel.

What can I do with StreamStats?

StreamStats (http://streamstats.usgs.gov) is a tool that can be used to:
• Delineate a watershed for a point of interest
• Find information about landscape and weather in a basin
• Calculate flood and average water flow information

Who can use StreamStats?

StreamStats is not just for hydrologists! It has been used by:
• Designers of bridges, roads, and other structures
• Water quality managers
• Burned Area Emergency Response (BAER) teams
• Riverkeepers and watershed associations
• Land conservancies and conservation commissions
• Trout fishermen
• Water tubing outfitters
• Hikers and kayaking enthusiasts

Workflow examples

Step 1: Identify your study area

Users can click on a point on the display, and draw a section across the map to display the terrain profile for their area of interest.

Step 2: Calculate scenarios for your watershed

This tool provides further information about a gage shown in the map. Users can click through to the NWIS Web and StreamStats gage page information for the station.

Step 3: Generate report

Users can click on the display, and draw a section across the map to display the terrain profile for their area of interest.

Combining datasets for water information

StreamStats services

Further Reading


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