



When fully implemented, NSIP will provide Nation-wide streamflow information and understanding needed by a wide range of users.

See <http://water.usgs.gov/nsip/>



“Nationwide, the benefits.....greatly exceed the cost of collecting the data through NSIP.”

*National Hydrologic Warning Council, 2006*

For current streamflow conditions  
<http://water.usgs.gov/waterwatch/>



To learn more about USGS surface water and streamgaging activities, visit:

**For real-time streamflow data**

<http://waterdata.usgs.gov/nwis/rt/>

**For historical streamflow data**

<http://waterdata.usgs.gov/nwis/sw/>

**For surface-water information**

<http://water.usgs.gov/osw/>

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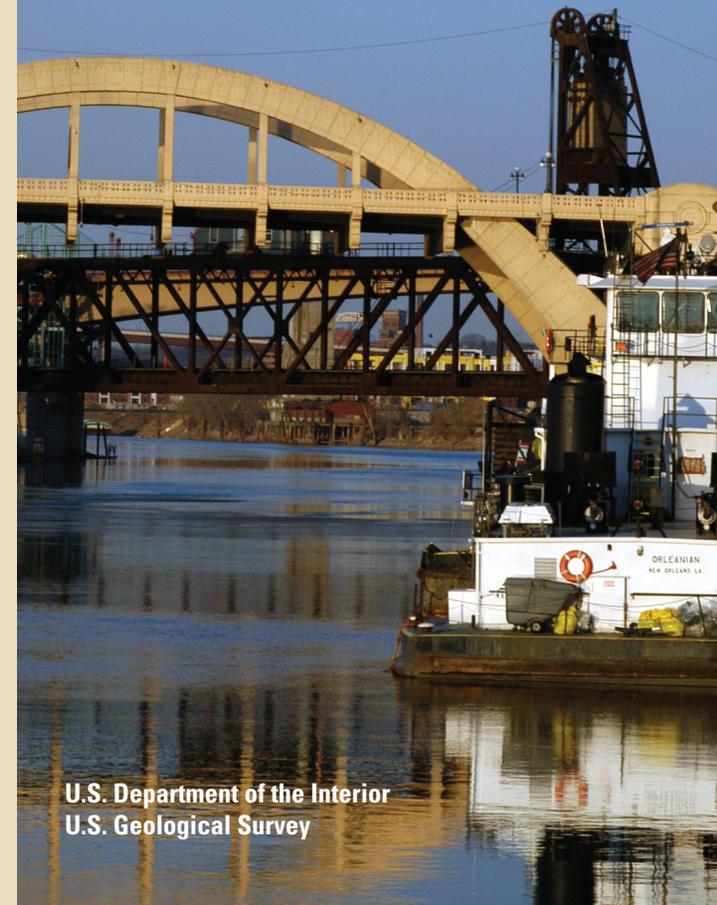
Office of Surface Water  
703-648-5301

General Information Product 70

Cover. Photo courtesy of Werner Horn.



# The National Streamflow Information Program



U.S. Department of the Interior  
U.S. Geological Survey

# National Streamflow Information Program (NSIP)

## What is streamflow?

## How is streamflow information used?

### MISSION

Provide the streamflow information and understanding required to meet local, state, regional, and national needs.

### Goals

- ◆ Develop and operate a Federally funded stable network of streamgages to meet national needs
- ◆ Improve the timeliness, reliability, and convenience of the streamflow information
- ◆ Improve understanding of floods and droughts through expanded measurements and analyses
- ◆ Complete regional assessments of streamflow information to quantify resource, estimate water availability and identify trends
- ◆ Perform and fund research and development activities to advance equipment technology and measurement and analysis techniques

Streamflow is the amount of water moving in a stream or river past a given point through time and is typically reported in cubic feet per second, or million gallons per day. You can see the amount of water currently flowing in a river near where you live or elsewhere in the Nation by going to <http://water.usgs.gov/nwis/rt>.

The USGS currently operates about 7,500 *streamgages* nationwide. Streamgages are the monitoring tools used to track the movement of water in streams and rivers.



### How is streamflow measured?

Streamflow information is usually obtained by

- ◆ measuring *stage* (water height) continuously,
- ◆ measuring streamflow periodically,
- ◆ defining a relation between stage and streamflow, and
- ◆ using the stage-streamflow relation for a continuous streamflow record.

This information is then available to users in real-time 24 hours a day.

- ◆ Flood planning and warning
- ◆ Streamflow forecasting
- ◆ Impact on streamflow from
  - Land use
  - Water use
  - Climate
- ◆ Design of
  - Bridges, roads, culverts
  - Water treatment plants
  - Navigation
- ◆ Water-resource appraisal and allocations
  - Water supply plans
  - Interstate agreements
- ◆ Operation of locks and dams
- ◆ Power production
- ◆ Water-quality evaluations
- ◆ Habitat assessments
- ◆ Recreation safety and enjoyment



Photo courtesy of  
Vom Dart Haus German Shepherds