

# Nevada Water-Resources Data

The U.S. Geological Survey's (USGS) mission is to provide reliable scientific information about the Nation's natural resources. An integral part of that mission is to provide consistent, long-term water-resources data to customers, cooperators, and the public. The first streamflow measurements by the USGS in Nevada were collected in 1889. Since then, the USGS Nevada Water Science Center (NWSC) has built a state-wide, cooperative hydrologic data-collection network.

To assist customers, cooperators, and the public in understanding and managing Nevada's water resources, the USGS NWSC operates a widespread surface- and ground-water data-collection network that includes:

- maintaining a comprehensive network of streamgaging stations;
- monitoring stage in ponds, lakes, and reservoirs;
- measuring flow on rivers and streams periodically;
- collecting water-quality data for surface- and ground-water sites; and
- making periodic measurements at regionally representative well networks.

The data collected are stored and archived in a national database, the USGS National Water Information System (NWIS). Public access to the database is available through the NWIS web site (NWISWeb). Because the data collected by the USGS are critical to managing Nevada's water resources, much of the data are available on NWISWeb in near real-time or at periodic intervals <<http://waterdata.usgs.gov/nv/nwis/nwis>>. Data also are compiled and published annually in the Nevada water-data report. To better meet the needs of customers, cooperators, and the public, the water-data report for Nevada will now be published only on the USGS NWSC web site. <<http://nevada.usgs.gov/adr/index.htm>>

## Surface Water

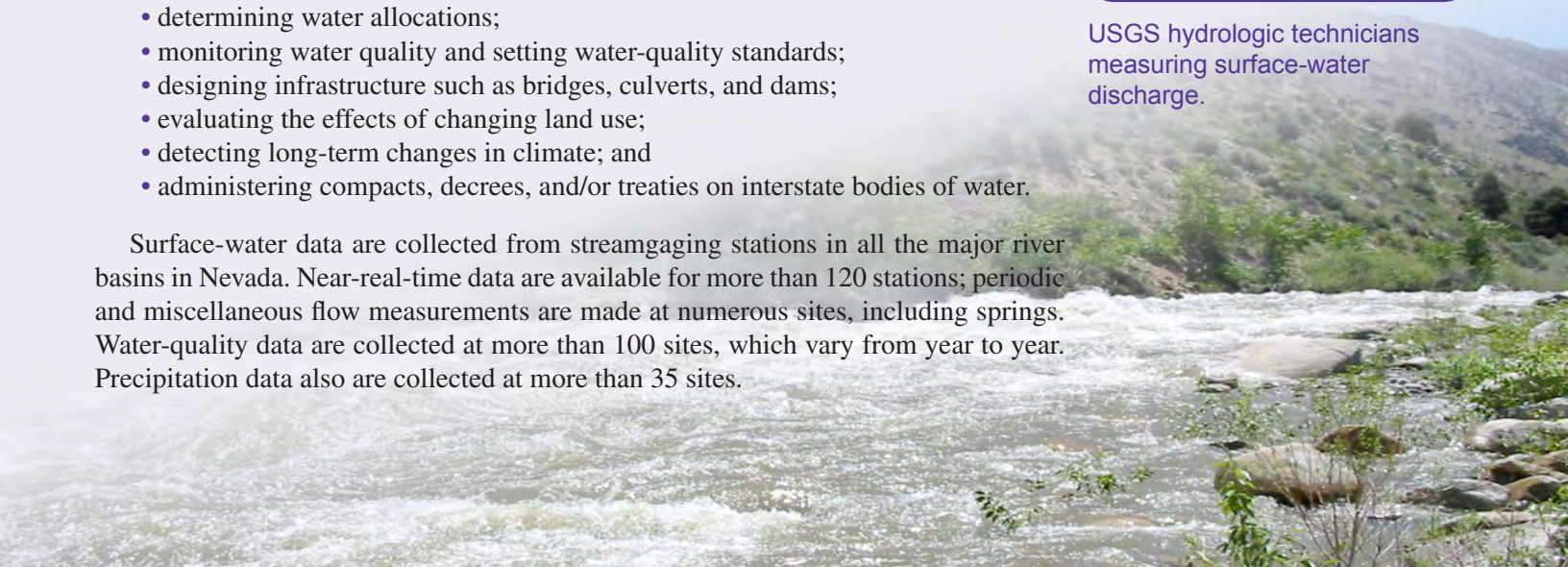
Surface water in Nevada varies both areally and seasonally. Total precipitation in Nevada averages less than 10 inches per year, making Nevada the driest state in the Nation. To effectively manage the limited water resources within the State, information about flow and stage of streams, as well as stage and volume of lakes and reservoirs, needs to be collected and compiled. This information can then be used by a wide variety of water-resources projects and programs including

- warnings for and assessing floods;
- operating reservoirs;
- determining water allocations;
- monitoring water quality and setting water-quality standards;
- designing infrastructure such as bridges, culverts, and dams;
- evaluating the effects of changing land use;
- detecting long-term changes in climate; and
- administering compacts, decrees, and/or treaties on interstate bodies of water.

Surface-water data are collected from streamgaging stations in all the major river basins in Nevada. Near-real-time data are available for more than 120 stations; periodic and miscellaneous flow measurements are made at numerous sites, including springs. Water-quality data are collected at more than 100 sites, which vary from year to year. Precipitation data also are collected at more than 35 sites.



USGS hydrologic technicians measuring surface-water discharge.



## Ground Water

How regional aquifers respond to changes in climate and stresses to the aquifer system, such as pumping over long periods of time, is largely unknown in Nevada. Understanding, planning, and managing Nevada's water resources requires long-term data to define trends, uncover issues, and take corrective actions. Ground-water data are collected from regionally representative well networks that allow for the measurement of water levels in most aquifers within the State. Measurements of recharge to, and discharge from, ground-water systems provide data to assist in evaluating the effects of managing, developing, and determining future water supplies.

Continuous well measurements are made at more than 15 wells throughout the State. Periodic well measurements are made at more than 800 wells but the number of wells can vary from year to year. Periodic measurements are made at approximately the same times each year to reduce seasonal effects. Water-quality data are collected at more than 130 wells and can vary depending on project needs. New wells are added to the network as old wells are destroyed, local land use changes, and other needs arise.



USGS hydrologic technician collecting ground-water data from a well.

## Data Availability

Surface-water records and ground-water levels were initially published as USGS water-supply papers. For water years<sup>1</sup> 1961 through 1974, streamflow data were released in annual reports on a state-by-state basis. Water-quality records for water years 1964 through 1974 were similarly released, either in separate reports or in conjunction with the streamflow records. Beginning in 1975, surface-water, ground-water, and water-quality data for each state were compiled into an annual water-data report by water year and were released each spring.

Beginning in calendar year 2005, the water-data report for Nevada will be published on the USGS NWSC web site rather than printed as a book <<http://nevada.usgs.gov/adr/index.htm>>. The water-resources data web site can be navigated through a series of map interfaces or station lists. Data tables, formatted as in previously published water-data reports, are available as individual Portable Document Format (PDF) files; the entire book also is available for downloading or printing. In addition to the data tables, new hydrologic summary graphs have been added for surface-water stations throughout the State. These graphs show annual daily mean discharge, monthly streamflow statistics, annual mean streamflow, annual minimum 7-day average streamflow, and annual peak streamflow. The new web site also includes photographs of stations (if available) and links to near-real-time, historic, daily-value, and water-quality data (if available). Publishing the Nevada water-data report on the NWSC web site allows data to be compiled and reported throughout the year; statistical summaries will be available at the end of each water year.

Because the Nevada water-data report will no longer be published as a book, a limited number of compact discs containing the 2004 water-data report are available. To request a compact disc, please contact the USGS NWSC Public Information Assistant at (775) 887-7649 or by sending email to [GS-W-NVpublic-info@usgs.gov](mailto:GS-W-NVpublic-info@usgs.gov).

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<sup>1</sup> Water year is the 12-month period beginning October 1 and ending September 30 and is designated by the calendar year in which it ends. For example, the water year from October 1, 2003 to September 30, 2004 is designated as the 2004 water year.

NWISWeb Data	Station Information
<a href="#">NWISWeb Site Description and Data</a>	<a href="#">Station Location and Daily Data (PDF file)</a>
<a href="#">Realtime Data (if available)</a>	<a href="#">Hydrologic Summary (Graph format)</a>
<a href="#">Daily Data (period of record)</a>	<a href="#">Water Year 2004</a>
<a href="#">Daily Data (previous 18 mos.)</a>	<a href="#">Water-Quality Data</a>
	<a href="#">Water Year 2004</a>

Screen image of a station from the water-data report available on the USGS NWSC web site.

For more information on the USGS NWSC data program, please contact:

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