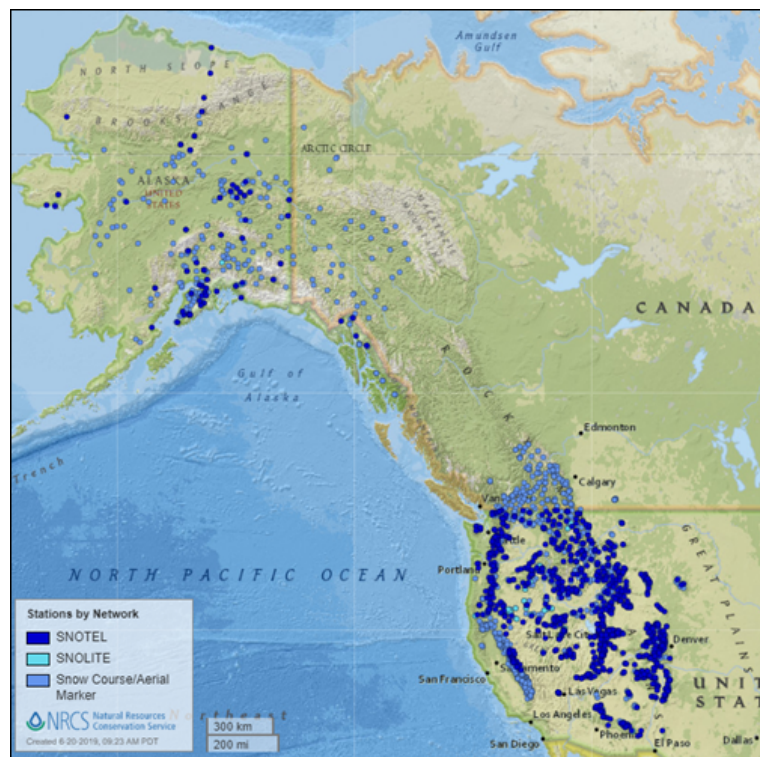


Snow Program Overview

In 1935, the Natural Resources Conservation Service established a formal, cooperative **Snow Survey and Water Supply Forecasting (SSWSF) Program** to conduct snow surveys and develop accurate and reliable [water supply forecasts](#) for the western U.S. With the vast majority of water in the West coming from the melting of winter snowpack, data on snow provide information critical to water managers, agriculture, dam operations, recreationists, and business.

In the early days of the SSWSF Program, snow surveyors on skis or snowshoes manually measured snowpack along a series of remote, high-elevation [snow courses](#). The invention of over-snow machines, such as snowmobiles, made travel to snow courses less challenging. Some years later, [aerial markers](#) were introduced, allowing for snow measurement using airplane flyovers. The Program currently measures more than 1,300 snow courses and aerial markers.

In 1977, the automated [Snow Telemetry \(SNOTEL\)](#) system was introduced. SNOTEL sites are designed to operate continuously and unattended for up to one year. Since its inception, the network has grown to include over 800 automated SNOTEL and 50 semi-automated SNOLITE data collection sites across the West.



Snow courses, aerial markers, SNOTEL, and SNOLITE sites.

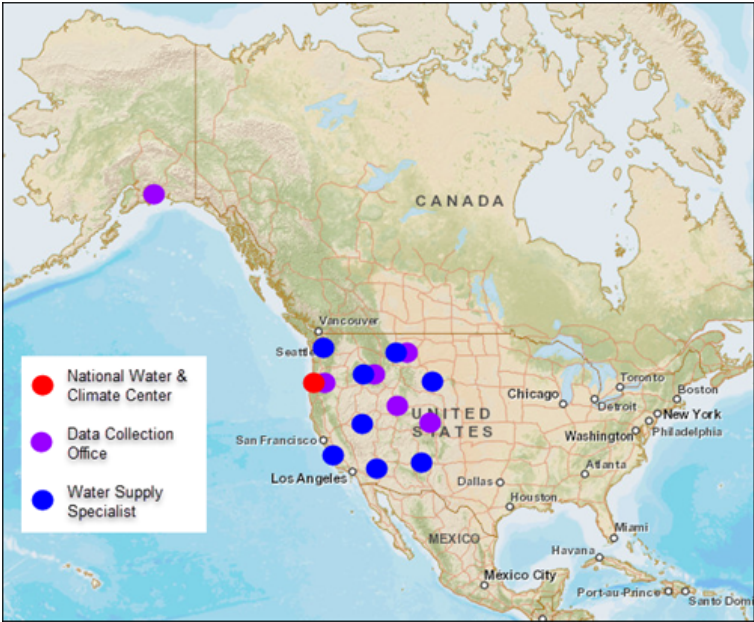
In addition to the data collected through the automated and manual collection processes, the SSWSF Program also incorporates precipitation, streamflow, and reservoir data from the U.S. Army Corps of Engineers (USACE), the U.S. Bureau of Reclamation (BOR), the Applied Climate Information System (ACIS), the U.S. Geological Survey (USGS), various water districts and other entities.

All the data collected are quality-controlled and placed in a comprehensive database known as the [Water and Climate Information System \(WCIS\)](#).

Program Organization

Organizationally, the SSWSF Program is composed of two major operations:

- A network of **Data Collection Offices (DCOs)** located in key areas of the western U.S. Each of the western states and Alaska have teams of snow surveyors, water supply specialists, hydrologists, and technicians who gather, analyze, and disseminate snowpack and climate data for their respective regions.
- A centralized [National Water and Climate Center \(NWCC\)](#). The hydrologic data collected by each of the DCOs are analyzed by a team of forecast hydrologists at the National Water and Climate Center. During the January-June snowpack season, NWCC staff produce detailed water supply and streamflow forecasts for the 13 western states. Each state uses these data to produce monthly Water Supply Outlook Reports.



Location of the National Water and Climate Center, Data Collection Offices, and Water Supply Specialists in the western U.S.

More Information

[History of the SSWSF Program](#)