

# Changes to Streamflow

## Streamflow

This data describes trends in the amount and timing of water carried by streams.

## Background

**Claim:** Warmer temperatures can cause snow to melt faster and earlier in the year. Warmer temperatures cause some places to get more precipitation and other places to get less precipitation.

Streamflow measures the water in rivers and streams. Streams are an important resource for people and the environment. Changes in streamflow can affect drinking water and the water for watering crops, making electricity, and other needs. Many plants and animals depend on streamflow, too.



Streamflow naturally changes over the course of a year. Rivers and streams have their highest flow when snow melts in the spring and their lowest flow in late summer. Very high flows can cause damaging floods. Low flows can harm living things and mean less water for people to use. The timing of high flow is important because it affects how people store water in lakes to meet needs later in the year.

## About the Data

Scientists use devices called stream gauges to measure streamflow. Stream gauges measure the water all of the time. This data is from 192 stream gauges on streams and rivers that do not have a lot of changes made to the streams and rivers by people, like dams or canals.

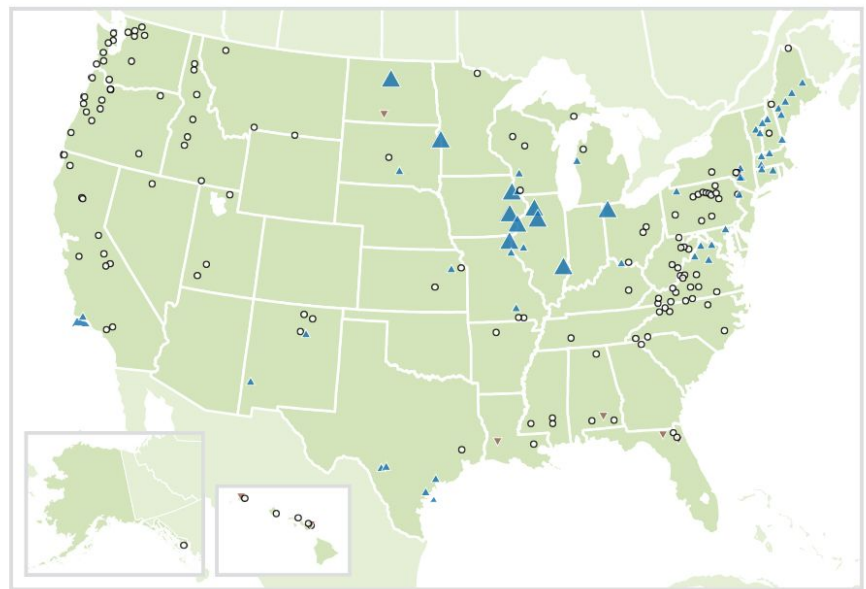
- The first map shows changes in the average amount of streamflow across the year.
- The second map shows trends in the timing of winter and spring runoff.

Sources:

Reading adapted from Environmental Protection Agency Climate Change Indicators: <https://www.epa.gov/climate-indicators/climate-change-indicators-streamflow>

This information is provided by scientists and researchers at the Environmental Protection Agency and the U.S. Geological Survey. Both are United States government departments.

### Annual Average Streamflow in the United States, 1940–2014

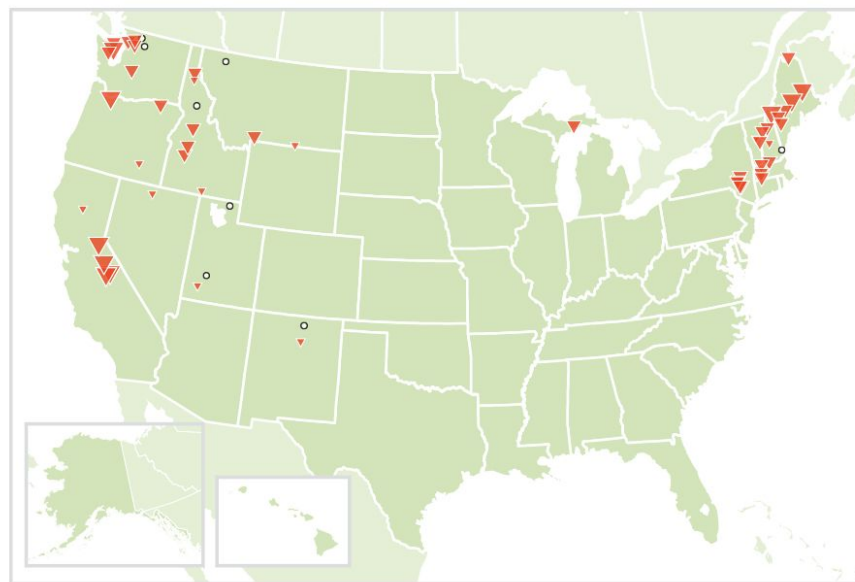


More than 50% decrease
20% to 50% decrease
20% decrease to 20% increase
20% to 50% increase
More than 50% increase

Data source: USGS (U.S. Geological Survey). 2016. Analysis of data from the National Water Information System. Accessed May 2016.

For more information, visit U.S. EPA's "Climate Change Indicators in the United States" at [www.epa.gov/climate-indicators](http://www.epa.gov/climate-indicators).

### Timing of Winter-Spring Runoff in the United States, 1940–2014



More than 10 days earlier
5 to 10 days earlier
2 to 5 days earlier
2 days earlier to 2 days later
2 to 5 days later
5 to 10 days later
More than 10 days later

Data source: USGS (U.S. Geological Survey). 2016. Analysis of data from the National Water Information System. Accessed May 2016.

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