



HUBBARD BROOK WATERSHED REPORT 2022

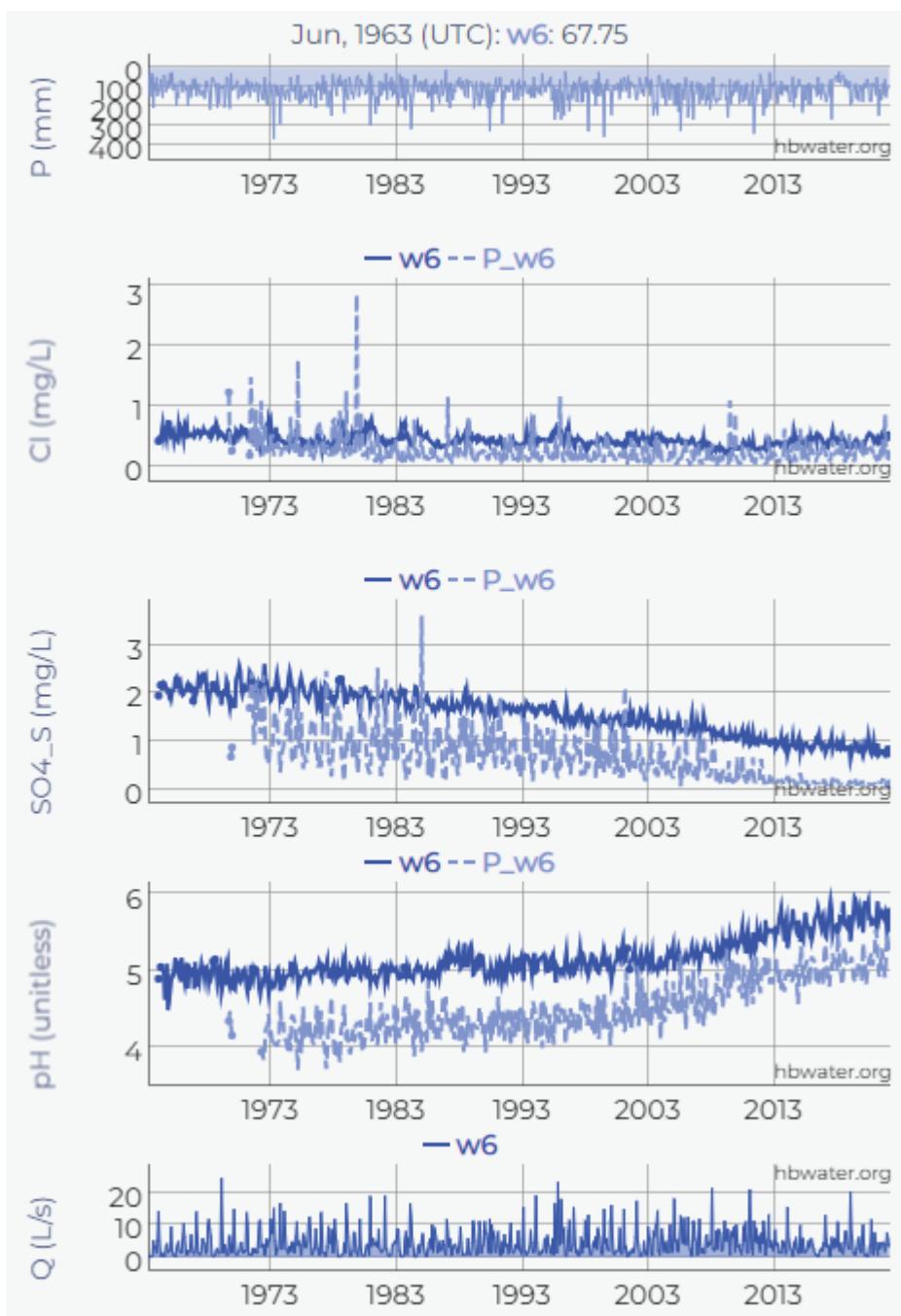
WHAT IS HBWATER?

The Hubbard Brook Watershed Ecosystem Record is a dataset of chemical concentration data for precipitation and streamwater samples that have been collected weekly since the summer of 1963 from streams and precipitation gauges throughout the Hubbard Brook Experimental Forest, a research forest in the White Mountains of New Hampshire. HBWaTER currently collects weekly samples from nine gauged watersheds, the mainstem of the Hubbard Brook watershed, into which each small stream drains, and three long-term precipitation collection sites. The supporting LTREB funding for the HBWaTER data collection and analysis has been renewed for the next 5 years and was well received by the review committee.

Thank you for your support of this community endeavour!

A BRIEF HISTORY

In 1963, 4 visionary scientists (Gene E. Likens, F. Herbert Bormann, Robert S. Pierce, and Noye M. Johnson) began collecting and analyzing stream water and precipitation (rain and snow) at a Forest Service property in the White Mountains of New Hampshire. They had a simple idea that by comparing watershed inputs in rain and snow to watershed outputs from streams, they could measure the behavior of entire ecosystems in response to atmospheric pollution or forestry practices. The record they began in 1963 has been added to every week up to the present day. Insights gained from studying this long-term chemical record led to the discovery of acid rain in North America, and the effectiveness of federal clean air legislation in reducing coal-fired power plant emissions was documented (see Figure on the right). This long-term record has become one of the most iconic and influential environmental data sets, featured in hundreds of scientific and popular press articles.



Solute and Flow Timeseries exported from HbWater.org These graphs show us (1) the amount of weekly precipitation as rain or snow; (2) Chloride in the precipitation (light blue) and streamwater (navy); (3) the concentration of sulfates in streamwater (navy) and precipitation (light blue); (4) the pH of streamwater (navy) and precipitation (light blue); (5) the average streamflow every week since July 1963 in watershed 6. Notice that precipitation and streamwater have become less acidic and lower in sulfates over time.

EXPLORE THE HBWATER AT [HBWATER.ORG](http://hbwater.org)