National Weather Service Hydrologist

Hydrology is the scientific study of Earth's water. Hydrologists study the occurrence, circulation, distribution, and properties of the waters of the Earth and atmosphere.

The job duties of NWS hydrologists vary depending on office, region, and time of year. Much of their work involves analyzing large amounts of data, such as precipitation amounts and river gauge measurements, to model and predict flooding.

Hydrologists also collect data; provide guidance to other federal, state, and local agencies about flooding events; conduct research; and develop methods for integrating new science and technology into the forecast process.

The NWS employs about 300 hydrologists, who work alongside meteorologists to analyze, study, and predict river levels and flooding events. Most Weather Forecast Offices (WFOs) have a Service Duty Hydrologist on staff and many other hydrologists staff the NWS's 13 River Forecast Centers (RFCs). NWS hydrologists often conduct fieldwork to collect data and install or service river gauges and equipment. Shift work is occasionally required and can include nights, weekends, and holidays.

SALARY \$40,000 - \$120,000+



Benefits

Flexible Work Schedules and Paid Holidays* Life Insurance Options Incentives and Awards Medical Benefits Employee Resource Groups Health and Wellness Annual, Sick and Family Leave Retirement and Savings Plans

*Some positions require working on holidays.

Learn more at: noaa.gov/nws-careers





National Weather Service Requirements for Hire

Hydrology Series 1315 Individual Occupational Requirements

Degree: physical or natural science, or engineering that included at least 30 semester hours in any combination of courses in hydrology, the physical sciences, geophysics, chemistry, engineering science, soils, mathematics, aquatic biology, atmospheric science, meteorology, geology, oceanography, or the management or conservation of water resources. The course work must have included at least 6 semester hours in calculus (including both differential and integral calculus), and at least 6 semester hours in physics. Calculus and physics, as described above, are requirements for all grade levels.

or

Combination of education and experience -- course work as shown in above, plus appropriate experience or additional education.

Evaluation of Experience: Acceptable experience must have included performance of scientific functions related to the study of water resources, based on and requiring a professional knowledge of related sciences and the consistent application of basic scientific principles to the solution of theoretical and practical hydrologic problems. The following is illustrative of acceptable experience: field or laboratory work that would require application of hydrologic theory and related sciences such as geology, geochemistry, geophysics, or civil engineering to making observations, taking samples, operating instruments, assembling data from source materials, analyzing and interpreting data, and reporting findings orally and in writing.

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Skills

Communication skills Computer programming Hydraulic modeling Geographic Information Systems (GIS)

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