

HYDROLOGIST



*For plenty of cool, clear,
clean water...*



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Hydrologists help assess and protect our water supplies and water quality. Hydrologists concerned with water supplies manage surface and ground water to avoid problems caused by floods, droughts, population growth, and the impact of human activities. Hydrologists working on water quality problems deal with the chemical, physical, biological, and radiological properties of water we use for drinking, irrigation, industrial cooling, or swimming. They also help assess how land use affects water quality, and they help develop strategies to reduce the impact of land use and land-use change on water quality.

Hydrologists work for both public and private groups. The federal agencies which manage our natural resources all hire hydrologists. These agencies include the Geological Survey, National Weather Service, Bureau of Land Management, Bureau of Indian Affairs, Bureau of Land Reclamation, Natural Resources Conservation Service, and Forest Service. State agencies and watershed associations dealing with natural resources also employ hydrologists. Those state agencies include departments of natural resources and departments of environmental management. Many hydrologists work for private consulting firms concerned with sustainable production as state and federal regulations are becoming more environmentally friendly.

To be a hydrologist, you should appreciate natural resources and enjoy working with people. Your college coursework should include natural resource economics, policy, and law; math through calculus; engineering hydrology; natural resources management; soil and water conservation engineering; fluid mechanics; meteorology; soils; geology; forest and range management; physical and organic chemistry; microbiology; statistics; computer science; speech; and technical writing.

In high school take [mathematics \(algebra, trig, and calculus\)](#), [physics](#), [biology](#), and [chemistry](#). It helps to get experience with leadership skills, natural resources, and public speaking through organizations like 4-H, FFA, or scouting.



Photos: Mike Kerper; U.S. Department of Agriculture—
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