Hydrologists

SOC: 19-2043 • Career Profile Report

■ Key Facts

$92,060	6,300	+0.0%
Median Salary	Employment	Growth Rate

■ Requirements & Salary Range

Education: Bachelor's degree

■ Automation Risk Assessment

Low Risk - 8.0% probability of being automated in the next 10-20 years.

This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■■ Work-Life Balance

7.5/10 - Good work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	6.2/10	**Investigative**	9.4/10
Artistic	5.6/10	**Social**	6.4/10
Enterprising	4.8/10	**Conventional**	6.4/10

■ Top Skills Required

Analytical skills, Communication skills, Critical-thinking skills, Interpersonal skills, Physical stamina, Problem-solving skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Hydrologists typically perform the following tasks: • Prepare written and oral reports describing research results, using illustrations, maps, appendices, and other information. • Design and conduct scientific hydrogeological investigations to ensure that accurate and appropriate information is available for use in water resource management decisions. • Measure and graph phenomena such as lake levels, stream flows, and changes in water volumes. • Conduct research and communicate information to promote the conservation and preservation of water resources. • Coordinate and supervise the work of professional and technical staff, including research assistants, technologists, and technicians. • Study public water supply issues, including flood and drought risks, water quality, wastewater, and impacts on wetland habitats. • Apply research findings to help minimize the environmental impacts of pollution, waterborne diseases, erosion, and sedimentation. • Study and document quantities, distribution, disposition, and development of underground and surface waters. • Install, maintain, and calibrate instruments such as those that monitor water levels, rainfall, and sediments. • Develop computer models for hydrologic predictions. • Study and analyze the physical aspects of the earth in terms of hydrological components, including atmosphere, hydrosphere, and interior structure. • Evaluate research data in terms of its impact on issues such as soil and water conservation, flood control planning, and water supply forecasting. • Collect and analyze water samples as part of field investigations or to validate data from automatic monitors. • Prepare hydrogeologic evaluations of known or suspected hazardous waste sites and land treatment and feedlot facilities. • Evaluate data and provide recommendations regarding the feasibility of municipal projects, such as hydroelectric power plants, irrigation systems, flood warning systems, and waste treatment facilities. • Develop or modify methods for conducting hydrologic studies. • Review applications for site plans and permits and recommend approval, denial, modification, or further investigative action. • Monitor the work of well contractors, exploratory borers, and engineers and enforce rules regarding their activities. • Answer questions and provide technical assistance and information to contractors or the public regarding issues such as well drilling, code requirements, hydrology, and geology. • Investigate properties, origins, and activities of glaciers, ice, snow, and permafrost.