

Hydrologist

Work out where water goes: floods, droughts, groundwater and the rivers a city drinks from.

TYPICAL PAY

\$104,000

a year, full time

PAY RANGE

\$64k to \$208k

starting to experienced

TIME TO QUALIFY

4 to 8 years

after high school

DEMAND

Good

job outlook

LICENCE NEEDED

No

anyone can do it

WHERE YOU WORK

**Government water agencies,
consulting firms, conservation aut...**

How you get there

- 1 High school** Grades 11 and 12
Physics, chemistry, calculus and geography. Water science borrows from all of them.
- 2 Bachelor's degree** 4 years
Environmental science, earth science, geography with a physical focus, or civil and environmental engineering. Engineering opens more doors but is a harder program.
- 3 Summer field work** Summers
Conservation authorities, provincial water surveys and consulting firms hire students to measure streams and install equipment.
- 4 Master's degree in hydrology or water resources** 1 to 2 years
The normal step for modelling, forecasting and research work. Usually funded.
- 5 Professional registration, if your role needs it** About 4 years of work
Engineers register as a professional engineer, geoscience-trained hydrogeologists as a professional geoscientist, after about four years of supervised experience and an ethics exam.

Pros and cons

- + Mix of outdoor fieldwork and technical office work
- + Demand is rising as flood and drought risk grows
- + Clear ladder into licensed, well paid senior roles
- Emergencies do not wait, so flood season means long hours
- Cold, wet field days measuring rivers in March
- Senior roles need a professional registration you have to plan for

Optional boosts

Hydrogeology. Flood forecasting. Snow and cold regions hydrology. Water quality.

Good to know

Canada holds a fifth of the world's fresh water

Canada has roughly 20% of the planet's fresh water, though much of it is locked in glaciers and northern lakes far from where people live. The Water Survey of Canada runs the national network of gauges that tra...

The 2013 Alberta flood changed the rules

Flooding in Calgary and the Bow River valley became one of the most expensive natural disasters in Canadian history. It pushed provinces to rebuild flood maps and forecasting systems, and hiring for water s...

Where these numbers come from

Job Bank: Hydrologist in Canada, wages (updated Nov 2025)
Government of Canada: water overview and monitoring
University of Saskatchewan: Global Institute for Water Security
Association of Professional Engineers and Geoscientists of Alberta

Numbers checked September 2026. Pay figures are typical full-time annual amounts in Canadian dollars, based on Government of Canada Job Bank wage data and published salary grids. They vary by province, employer and experience. Tuition is for domestic students. Sources, links and the click-through version: <https://career.help/ca/careers/hydrologist>



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