

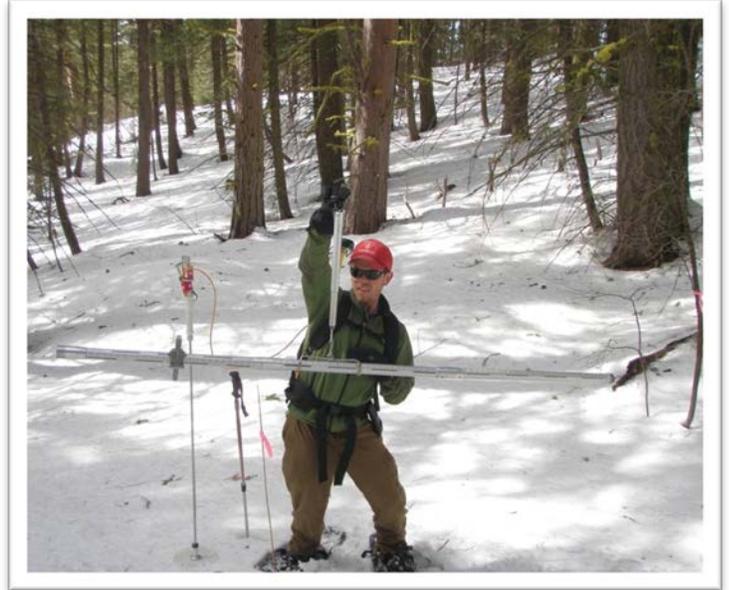
Boots in the Field

HYDROLOGIST

Hi, I'm Brian Anderson, South Zone hydrologist for the Boise National Forest. My job includes a variety of tasks related to understanding effects of land management activities on surface and ground water quality, including stream and spring surveys, snowpack assessments, soils and water quality data collection, conducting analysis and technical writing for National Environmental Policy Act and [Burned Area Emergency Response](#) projects, and helping other departments with any issues related to water.

Where were you when this photo was taken?

I was on the Mountain Home Ranger District of the Boise National Forest.



What were you doing that day?

I was conducting snow surveys to measure “snow water equivalent” or “SWE.” This is the amount of water held within a snowpack. We are trying to better understand SWE distribution in mountainous areas for water supplies.

What kind of training or education do you need for this job?

I have an undergraduate degree in environmental science and a graduate degree in hydrology. I started out as a seasonal hydrology and forestry technician with the Forest Service while I was still in college.

What is a typical day for you?

A typical day starts with coming into the office to gather the relevant field materials, whether it's a camera or GPS or monitoring equipment. From there, I'll head out to a project site. I'll collect data and consider any necessary changes for ensuring that we're complying with relevant policies. At the end of the day, I'll head back to the office to download the day's materials.

What kind of footwear do you typically wear?

I typically wear standard 10-inch fire boots or wading boots.



Brian Anderson wears wading boots when he's doing stream surveys or other data collection that calls for him to be in and out of the water.

“I’m lucky to have landed a job where I get to work in incredible places. I have great opportunities to make positive impacts on a piece of ground.”

What do you like most about your job?

I love working on complex land management issues, particularly with external partners. Truly though, getting out in the field is the best benefit of this job.

If you had to pick another occupation, what would it be?

There’s a good chance I’d still be a GS-4 hotshot or perhaps a wilderness ranger.

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HYDROLOGY

“Forest hydrology combines aspects of two separate disciplines: hydrology and forestry. Hydrology is the science that studies the waters of Earth. Hydrology seeks to understand where water occurs; how water circulates; how and why water distribution changes over time; the chemical and physical properties of water; and the relation of water to living organisms.

“Forestry is the science that seeks to understand the nature of forests and the interactions between the parts comprising a forest. In the United States, watershed protection has been an integral part of forest management since its origins. The Organic Administrative Act of 1897 stated that forest reserves were to protect and enhance water supplies, reduce flooding, secure favorable conditions of water flow, protect the forest from fires, and provide a continuous supply of timber.

“Modern forest management requires not only an understanding of forest science, soil science, and hydrology, but also principles of wildlife biology, land-use planning, and recreation planning.”

Source: www.waterencyclopedia.com

[Click here](#) to read more about hydrology careers with the Forest Service.



For more than a century, snow surveying has been an important method of collecting mountain snowpack data and forecasting streamflow for the western United States. Early surveyors wore ski boots or snowshoes to travel along snow survey courses.