

Western Carolina University's Geosciences Students Collect Groundwater Data for State Records at Gribble Gap Research Area

By Avery Luft

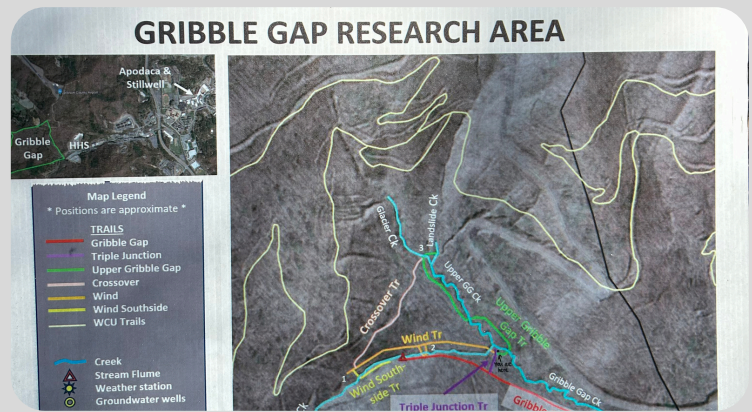
It is a warm day in March as WCU graduating senior students Hunter Gibbs and Lucas Soloman prepare to take groundwater samples around campus. They wear tinted sunglasses and carry a square backpack holding a water level meter; essentially a large yellow measuring tape that Gibbs dips into the wells until it beeps, signaling ground-water depth. Gibbs and Solomon are part of an eight-person team that records the data collected from more than forty wells; most of which are near streams.

“We’re one of the only schools in North Carolina that regularly collects groundwater data that is sent to the North Carolina Department of Environmental Quality,” Gibbs says as he feeds the tape measure into a brown metal well. “Our



The Geoscience and Natural Resource majors at Western have access to a variety of research opportunities, and groundwater recording is a gateway into more experiences. “Hunter and I just finished up a project we began last May, that attempted to answer the question of if certain conditions were changed before Hurricane Helene, how bad would the storm have been around here? Because of the groundwater data, we learned we were in a drought before the hurricane hit,” Solomon explains.

Gribble Gap is a watershed owned by Western Carolina University, housing a large plot of mostly undisturbed land, save for a few trail systems, a weather-recording machine, and groundwater tracking instrumentation. Walking through the restricted-access paths, one can see stream-bed plumes installed to track volume of flowing water, weather dials that spin like twirling rockets, and student-research wells made of PVP pipes, dug into the earth like stakes.



There is an outside classroom settled onto a concrete pad that we sit at, joined by Austin Hutcherson, another Geoscience major at WCU. The Gribble Gap Research Station is used by several departments on campus. Biology and Environmental Science classes frequently visit the area, along with Timber Sports Club and the Natural Resource Conservation research students. The access to instrumentation and a physical research area is vital in providing this immersive learning experience to the students at WCU.

“A lot of the stuff we are able to do out here is usually only allocated to grad students at other schools. To be able to do something like this at an undergrad level is very unique. Western is special like that,” Solomon states. Most schools do not allow students to work so freely on projects without graduate school training.

“Not a lot of schools have instrumentation to this level whatsoever,” Hutcherson confirms. “Being able to put our degrees into practice actively makes me feel so lucky because I feel more prepared for graduate school or the workforce. It builds your confidence as a scientist.”

Though Gribble Gap was bought more than 20 years ago, one of the weather recorders is new. In fact, it was one of the only surviving weather-trackers in the area after Helene, and that data was essential in hydraulic research after the storm passed.

“I feel like Gribble Gap itself is a good example of our tuition dollars at work,” Gibbs states. “Having something like this is really beneficial to those who use it, and those who use it really see the value in the facility itself.”

