



Programs & Places Spotlight

Grand Ronde Model Watershed



On a sunny spring day in the Grande Ronde valley, Carrie Caselton-Lowe explained to students how collecting scientific data about the local streams is an act of reciprocity. She started by reading a story passed down from elders and recorded by [Charles F. Sams III](#), the [Director of the National Parks Service](#) and an enrolled member of the Confederated Tribes of the Umatilla Indian Reservation. The story is how Salmon gave its body and voice to humans at creation. In return, Salmon asked that humans protect them for future generations. Studying water quality and sampling macroinvertebrates in tributaries of the Grande Ronde River is one way, Carrie told students, that we can protect salmon and the interconnected web of life.



Carrie and her colleagues Kayla Morinaga and Alex Towne from Grande Ronde Model Watershed worked with students from Elgin that day testing the dissolved oxygen, temperature, and turbidity (murkiness) of the stream. Students added their data to that of over 800 community members throughout the Grande Ronde watershed. It's all part of the Qapqápnim Wéele / Grande Ronde Community Science Project.

Qapqápnim Wéele means the “Cottonwood Stream” in Cayuse Nez Perce, and the project integrates Indigenous ways of knowing with Western science practices. This community science project is a program of the Grande Ronde Model Watershed (the local watershed council) and collaborates with the Confederated Tribes of the Umatilla Indian Reservation, various local, state, and federal agencies, regional schools, and Nak nuwílama Tiičámna - Caretakers of the Land. The project is guided by this statement from the Way-Kan-Ush-Pum Curriculum: “We need to look at the entire river system to restore the river, rather than trying to fix just one element of that ecosystem.”

This particular program happened during Elgin’s Outdoor School program at the Blue Mountain 4-H Center north of La Grande. The little creek they studied was an unnamed tributary of Frizzell Creek. Carrie and Kayla introduced students to EPA quality assured protocols developed by the University of Idaho Extension IDAH20 Program. The kids worked in pairs to go through the process of water quality testing. High school leaders from Elgin moved from group to group, helping them with the tests and the data recording.

Meanwhile downstream, Alex demonstrated to students how to use an aquatic “D-net” to collect macroinvertebrates. Students looked a bit skeptical as they started, moving up and downstream because they weren’t “getting anything.” Once Alex showed students how to let their samples settle in the collection tub and watch for movement, the excitement began. Suddenly students were captivated by tiny mayfly and dragonfly nymphs, spinning water beetles, and jumpy water striders. Students used an identification tool to draw conclusions about the water quality based on the macroinvertebrates they found in the stream.

Students often talk about how learning science at Outdoor School feels more real to them. As members of this Community Science Project, students from all over the Grande Ronde watershed are doing real science while performing an act of reciprocity.