

Career Connections

Alex Towne, GIS Specialist

Alex Towne is passionate about her career in **geographic information systems (GIS)**. As a GIS specialist, she creates maps, analyzes data, and develops models to help make land use decisions. She even gets to pilot drones!

Alex has loved maps and geography since great teachers got her excited about them as she grew up in rural northeast Oregon. She loved exploring the wide-open landscapes, riding horses, and shooting cans in a beautiful, remote canyon. There were more rattlesnakes in this area than people, with a population of just 175 humans! Alex was deeply influenced by her time spent outdoors. She remembers nights as a child checking on the cows with her dad (she liked to point the spotlight), hiking in the Eagle Cap Mountains with her mom, and spending countless summer days swimming in Wallowa Lake.

Alex earned a Bachelor of Arts degree in geography from Portland State University. She chose her major in part because of intriguing GIS courses. This interest motivated her to further her education with a graduate certificate in GIS from Oregon State University (OSU), where she became proficient with tools like ArcGIS Pro.

Alex's favorite book as a child was a large atlas (book of maps). "I really like the power maps have to display data in such a user-friendly way, and that geographic reasoning applies to every subject," she said. Alex's love of maps serves her well in her position with the Grand Ronde Model Watershed (GRMW), where she provides map making and data analysis services for the organization and its many partners. These include the U.S. Forest Service, Oregon Department of Fish and Wildlife, The Confederated Tribes of the Umatilla Indian Reservation, The Nez Perce Tribe, Trout Unlimited, the Bonneville Power Administration, and others.



Alex Towne pilots a drone for use in GIS.
Photo: Grand Ronde Model Watershed



Alex enjoys working in a STEM career in rural Eastern Oregon, where she grew up.
Photo: Grand Ronde Model Watershed

Alex enjoys working with GRMW because, “I believe in the work that is being accomplished, and what better place to do that than a place I love so much.” As a Wallowa County native, Alex brings insight and a unique perspective to her projects, such as the Wallowa County Atlas Project.

Alex’s favorite part of her job is assisting with field data collection, including piloting a drone to collect aerial imagery. She assists with habitat monitoring projects and pre- and post-project assessments. For instance, she does imagery classification to make models that describe what colors in an image represent different types of land cover. That helps her determine the acres of vegetation, how much area is in a floodplain, and how habitat for endangered fish species (Chinook salmon and steelhead) changes over time. An important goal is keeping water high up in streams longer, so the watershed doesn’t dry out as quickly. Increasing riparian areas (buffer zones with native plants along rivers), helps slow water and erosion and provides shade to benefit fish and other wildlife. This is a critical goal of her work.

Alex sees many opportunities for others to pursue careers in GIS no matter where they live. “It’s used in every field now, including healthcare and social services, not just natural resources,” she added. She also loves to write, which helps her produce a newsletter, *Ripples in the Grande Ronde*. You can read it and learn more about GRMW’s work at grmw.org.

When she’s not working, Alex is outside with her husband Keith, hunting, fishing, hiking, rafting, swimming, and playing with their dogs, Bailey and Bobby, and their cat, Bo. She enjoys a healthy lifestyle and working to protect the environment. Instead of sitting at her desk, she stands, with a reusable water bottle at the ready. She holds tightly to her roots.

She observes the world around her with a curious mind and uses GIS to discover patterns that can benefit people and natural ecosystems.



The Wallowa River McDaniel Project

A Passion for Rivers and a Continuing Legacy
by Winston Morton, Oregon Department of Fish & Wildlife

A Passion for Rivers

When Doug McDaniel was a boy growing up in Wallowa County, he spent a lot of his free time in the river bottoms of the Lostine and Wallowa Rivers. Whether it was with his fishing pole or with a shotgun, these rivers were places of wonder and beauty for him.

A lifetime later, Doug reminisced about those times along the river as he told me about climbing along a wood jam and over the pool created by the wood to get to a better fishing spot and finding a large Chinook salmon resting in the pool. With an ear-to-ear grin, he talked about that fish and mentioned that he would often find them in these types of locations resting after their arduous journeys returning from the ocean to the stream of their birth. After being born in these rivers, these iconic fish travel hundreds of miles to the ocean, spend two or three years in the waters feeding and becoming mature, and return by the very same path to their natal waters. This journey fascinated him.

By the time I met Doug in 2004, he had led a full life and had “retired” to cattle ranching. He also had turned his interests to the section of the Wallowa River on which he lived. The Wallowa River running through his and Gail Hammack’s place just outside of Lostine had a decent riparian area with some tall black cottonwoods. Although the area was narrow, these trees and other riparian vegetation provided shade that keeps water temperatures cooler, maintaining preferred conditions for the river’s salmonid inhabitants. The stream channel itself particularly caught Doug’s attention. It had been relocated from its historical location and channelized, held in place with a levee. It was clear to him that the river was missing the type of habitat he remembered the adult Chinook utilizing. The mile of river running through their property was just one giant riffle. There were neither

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The late Doug McDaniel fishing a restored section of the Wallowa River on his and Gail Hammack’s ranch outside of Lostine, OR. (Photo: Gail Hammack)

Alex Towne creates this newsletter as another fun part of her work with the Grande Ronde Model Watershed.



Alex Towne hiking on top of Ruby Peak in the Wallowa Mountains where she works.