

IN THE SPOTLIGHT: DANA WALSH

Setting Fire for Forest Resilience



A childhood climbing trees, swimming in rivers, and wandering through Sierra Nevada forests inspired Dana Walsh's career in silviculture.

DANA WALSH is a [Silviculturist](#) for the US Forest Service on the North Zone of the [Eldorado National Forest](#). Growing up with the Sierra Nevada as her playground, Dana was inspired by her love of the outdoors to pursue a career focused on making the forest healthier and more resilient. After completing her degree in Forestry from Humboldt State University, she began working permanently for the US Forest Service on the Eldorado National Forest, where she continues to plan and develop vegetation management projects.

The forests in California's Sierra Nevada Mountains have been severely modified by historic mining and logging activities, decades of fire suppression, and damages from invasive species. As a result, today's forests are not as resilient to fire, drought, or insects as

they would be in their natural, undisturbed state. To address these issues, forest managers like Walsh are taking an active management approach to ecological [restoration in national forests](#). For example, tactics such as prescribed fire and forest thinning help to reduce and maintain forest fuel loads (i.e. how much stuff is available to burn). Maintaining forest structures — that is the proportion of of different sized trees and shrubs within the forest — for resilience, forest cover, and wildlife habitat is another important tact to encouraging the health of forest ecosystems.

Forest Health Is A Team Sport

Improving forest health and resilience requires both careful project design and stakeholder buy-in. Through collaboration with expert scientists, the wood product industry, environmental groups, neighboring landowners, and other partners, the Forest Service has been successful in implementing

projects in a way and at a scale that improves how forests respond to fire and other disturbances, and protects habitat and forest resources. Dana has worked with multiple teams during her tenure with the Forest Service to plan and carryout restoration efforts on thousands of acres of national forest lands. “The Eldorado National Forest continues to plan and design projects using science and the best available technology to identify and protect important ecosystem and cultural components,” Walsh says.

Part of the efforts being made at the Forest Service to improve forest health and resilience for the future includes working with research scientists to advance “strategic and climate-smart post-fire restoration.” Following the 2014 King Fire, which was uncharacteristically severe and burned tens of thousands of acres of Sierra Nevada forests, Dana and her colleagues on the Eldorado implemented forest restoration efforts with an eye to future climate. Walsh says that active, climate-informed management can help the Forest Service meet its mission “to sustain the health, diversity, and productivity of the nation’s forests and grasslands to meet the needs of present and future generations.” Looking to the future, [climate-smart and resilience-focused restoration](#) will provide for a continuity in wildlife habitat, cultural sites, recreational opportunities, and forest cover even in the face of future wildfires.



*Dana working a burn on the Eldorado National Forest.
Photo courtesy Dana Walsh.*

The Future of Forest Management

According to Walsh, the future of active forest management will continue to rely on improvements in technology and the expansion of partnership efforts. “[Lidar technology](#) has [improved] project planning, and research has continued to expand what we know about how the structure of the forest plays into ecosystem processes and benefits,” Dana says.

For her part, Walsh stresses the importance of active forest caretaking. “The forest provides so many of the things we need to survive,” she says,

noting that forests don’t just provide lumber or hiking trails, the clean water so critical to California agriculture, and the clean air that is an asset to everyone. All of the integral [benefits that forests provide](#) could be damaged or lost without thoughtful management from professionals like Dana, and California is fortunate to have her and her colleagues working to protect our public resources.

See more on Dana’s work in post-fire restoration efforts!

Check out this [video](#) on restoration after the King Fire courtesy the Sierra Nevada Conservancy. Read more about Dana’s work in [this feature](#) from American Forests.

The California Climate Hub will occasionally spotlight our collaborators or impactful research projects relevant to California agriculture, forestry, and rangelands. If you know of a researcher, resource manager, producer, or project that should be highlighted, please let us know. For recommendations or more information, contact Lauren Parker at leparker@ucdavis.edu