

# Statement of Purpose

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Dear Sierra Nevada Foothill Resident,

We live in the Wildland Urban Interface (WUI)—the boundary between “wild” forested lands and inhabited, human-built communities. Some of us actually live in what we now call the “intermix”, a more diffuse boundary between forested lands and the “true” WUI. Either way, we all may live here for different reasons; the solitude, living in nature, living off-the-grid, enjoying a certain way of life, or just because we find the area beautiful. But one thing doesn’t differ among residents of the WUI: the responsibility that comes with living in this landscape to be a steward and responsible land manager. If we want to live—and thrive—in an area increasingly experiencing drought, flooding, and catastrophic high-severity wildfire, we can’t just live in the landscape “as-is”. Forests are dynamic. Sierra Nevada forests are fire-prone and fire-adapted. And the Sierra foothills are highly fire-prone and dynamic, requiring constant management—by natural processes or by us—in order to be healthy.

Fire is a cohabitant of our landscape, and our homes and properties in the WUI are on the front lines when it comes to determining whether a fire will “transmit” from the wildland into residential areas. But just as it’s our responsibility to manage fuels and reduce likelihood of fire transmission, it’s also our responsibility to understand our place in the greater forested landscape. How does fire move across the land? How does fire move across the land before and after it moves across your land? You can thin and cut and burn and reduce fuel in every way possible on your land, but if your neighbors don’t, then it won’t matter in the grand scheme of things. Further, if you remove all of the fuel, you don’t have a forest, but your neighbor still will! Just like fire, forests, wildlife habitat, drought, flood, fuels, and all aspects of a healthy forest operate at the landscape scale, ignoring property boundaries.

The purpose of this document is to (hopefully, if we do a good job) not only increase your comfort level and knowledge of forest stewardship, fire, and treatment options to reduce likelihood of high-severity fire on your property, but also to introduce you to landscape-scale forest dynamics. The best way to think of this is to take a bird’s eye view of the landscape and your property, even when treating it from ground level. For example, when you come upon a dense wall of vegetation so thick you can’t see what’s on the other side (nor how far it goes), your first thought may be “dense fuel...I should treat that”. In most circumstances, this would probably be correct (depending on the treatment type you choose to employ). But when we think of landscape-scale forest dynamics, we need to think about that dense wall of vegetation in the context of the surrounding forest; maybe there’s a large clearing on the other side—in fact, maybe there’s a large clearing all around it, and it’s an isolated “island” of dense vegetation. If that’s the case, we can leave the island of dense vegetation as it is, as wildlife habitat, knowing its transmission of fire would be unlikely given its surroundings, or knowing it’s okay for that island to burn during a fire.

Remember: we treat to invite low-severity fire, not to prevent it. Fire is a healthy part of this landscape, and if our forests are healthy and carrying a reasonable amount of fuel, fire becomes a tool and does the follow-up treatments for us!

Taking (or imagining) a bird's eye view of the forested landscape also allows us to consider one of the most important predictors of fire behavior and severity: "heterogeneity", or how variable a forest's structure is. Density matters, but it matters more when fuels are connected to each other. When we treat, we need to think about not just how a single "ladder fuel" (fuels that connect ground fuels to tree canopies) tree is connected to the fuels above it, but actually how our parcel is connected to those around it. Where are the gaps on the greater landscape? The clumps? The long connected walls of vegetation? These are the corridors, buffers, and islands that we really need to consider.

As you read through this document, and hopefully commit portions to memory or save a link to the online version for continued reference, I hope you do so with one primary philosophy in mind: there is no single right answer to the problem of fire in the Sierra foothills. A history of fire suppression, heavy fuel loads, increasing temperatures, reduced precipitation (or conversion from snow to rain)—these all have significant impacts on getting us to the breaking point that many of us feel we've reached. But by approaching forest treatment and management from a community-wide, landscape-scale perspective, we can work together to return these forests to the healthy, vibrant systems we know and love. We can be comfortable knowing that if and when a fire burns into our area, our properties are prepared, and the forest—and our homes—are resilient, because we have embraced the fact that fire, forest health, the WUI, and we as community members, are dynamic.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Lauder". The signature is fluid and cursive, with a large initial "J" and "L".

Jeff Lauder, PhD  
Executive Director  
Sierra Streams Institute