



# Forest Restoration on Private Lands

October 2023

## Context





The US Forest Service doesn't manage all forests in the US. The Bureau of Land Management, tribes, state agencies like Colorado Parks and Wildlife and local governments manage forests too - and so do private landowners. In order to achieve the landscape-scale forest restoration, it is vital for private landowners to participate, especially in this part of the state, where there are large swaths of private land in the wildland-urban interface, and where restoration can have the biggest impact for communities. Jurgan and Anita Goldmann are doing exactly that - forest restoration on their property near Chimney Rock, funded through a program of the Natural Resource Conservation Service (NRCS) called the Environmental Quality Incentives Program (EQIP).

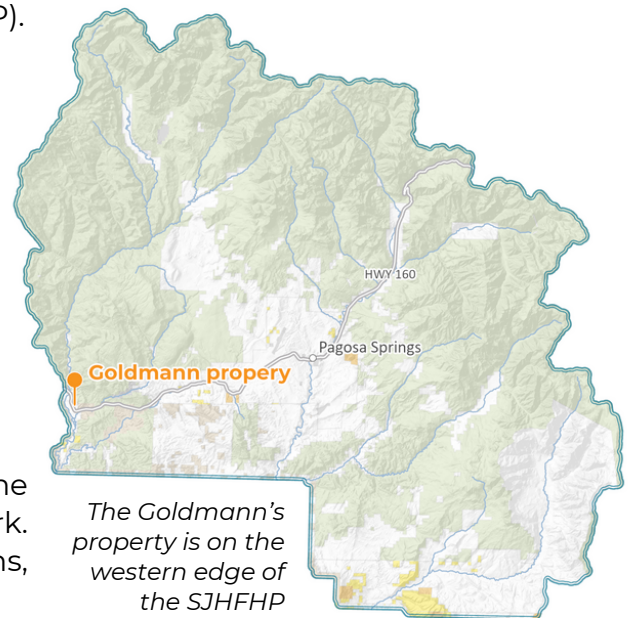
## The property

The Goldmann's property is 72 acres, and contains no structures, other than the swing pictured on the next page. The forest is made up of ponderosa pine and an understory of Gambel oak. Before restoration, the average basal area was 108 sq. ft./acre, with some pockets reaching up to 250 sq. ft./acre.

## Forest restoration

The NRCS wrote a prescription for restoration and the Goldmanns chose a local contractor to perform the work. The prescription, written with input from the Goldmanns, called for forest stand improvement in the overstory and mastication of slash across over 50 acres of the property. Mechanized equipment was used for this work, and the goal was to mimic the natural process of fire. So, what does this look like?

-  Trees are thinned out so crowns are not touching. This will promote growth in the remaining trees.
-  Oak in the understory is dramatically thinned, leaving some clumps and larger individuals.
-  Logs are hauled offsite and used for firewood or turned into lumber by a local sawmill.
-  Remaining biomass (tree tops, branches, bark, etc.) are masticated so the landowners don't have to burn slash piles.



## WHAT IS BASAL AREA?

Basal area (BA) is a measurement of the cross-sectional area of trees (square feet) per land area (acre). Imagine a pepperoni pizza, with each pepperoni representing the cross-section of a tree, and the crust is the land area. In this forest restoration project, the objective was to reduce BA by removing trees, encouraging the forest to adopt a more suitable BA.



## Outcomes

Treatment was completed in early fall of 2023. The average basal area was reduced to 34 sq. ft./acre. This has been recognized as a unique project because landowners typically don't want to remove that many trees, although it is the appropriate tree density for a ponderosa pine forest like this. Anita and Jurgan are happy with the results, and the NRCS was pleased to work with them.



*This property is visible along HWY 160 near Chimney Rock, and has captured the attention of Headwaters partners who have been heard making comments like "Wow, have you seen that property by Chimney Rock? It's looking great." Photo by Kyle O'Neill.*



*Tarantulas were not part of the agenda for the day, but this Grand Canyon Black Tarantula (*Aphonopelma marxi*) walked right through our circle during its annual search for a mate. This species is very common in southern Colorado, but is rarely seen outside of mating season.*



## Landowner perceptions

Anita and Jurgan's introduction to the process of wildfire mitigation was through a site assessment by Wildfire Adapted Partnership years ago. When they were selected for EQIP funding through the NRCS, they began the planning process for restoration. The Goldmanns credit Kyle O'Neill, forester with the NRCS, for spending time with them to explain the intricacies of forest health and the needs for restoration on their property, using science-informed decisions. Kyle brought Jurgan along for the pre-inventory process, empowering him to be part of the management of his forest. The Goldmanns were hesitant at first, but the NRCS worked hard to build trust from the beginning, ultimately convincing the landowners that forest restoration is not just a fad. They are pleased with the results and had great things to say about working with the NRCS.

*Left: Julia Ledford swings on the Goldmann's swing. Photo by Bob Milford.*

*Interested in participating in the next SJHFP tour or meeting? Email Alex Handloff, the Coordinator, to get involved or learn more: [alex@mountainstudies.org](mailto:alex@mountainstudies.org)*