

NEVADA FOREST HEALTH HIGHLIGHTS 2025



Photo of White Pine Mortality from Mountain Pine Beetles in Lamoille Canyon, Ruby Mountains Northeastern Nevada

The Forest Resource

Nevada's forest types span from pinyon-juniper woodlands, mixed conifer forests, and the alpine forests found at the highest elevations. They comprise 314 forested mountain "islands" separated by wide non-forested basins, which make Nevada a unique western state regarding forested lands. Eighty-six percent of the state is non-forest and approximately 86% of the land is federally owned. Although forests cover a small area, they are invaluable, providing recreational, economic, and aesthetic benefits to Nevada's diverse population. Nevada's estimated 10.64 to 11.52 million acres¹ of forestland produces little commercial timber; however, they provide other wood products, watershed protection, wildlife habitat, and recreational opportunities. Together with the urban forests in the state's communities, Nevada's forests are a critical resource in this sparsely forested state.

Most of the forested lands are owned by the federal government, with approximately 806K acres (~7%) of forestland in state or private ownership (estimate excludes urban forests). The US Forest Service conducts aerial detection surveys over millions of acres across Nevada each year, the bulk of which are carried out in the Humboldt-Toiyabe National Forest.

Map 1 shows Nevada's major terrestrial ecosystems to illustrate the unique geography of the mountain island forests in the state and Table 1 shows how those ecosystems are divided by jurisdiction.

The purpose of this report is to summarize current health conditions in Nevada and highlight key forest health projects undertaken by the Nevada Division of Forestry in cooperation with partners.

¹ The US Forest Service's [Forest Inventory and Analysis](#) webpage has a figure of 10,645,728 forested acres in Nevada in 2019. [The State of Nevada's Forest, Range and Watershed Action plan](#) from 2020 has 11,527,678 acres when urban forests are included or 11,248,869 acres if urban forests are excluded. Forested acres vary year to year due to fires, habitat change, development, etc. Therefore, an exact number is difficult to ascertain.

Map 1 Nevada's Major Terrestrial Ecosystems

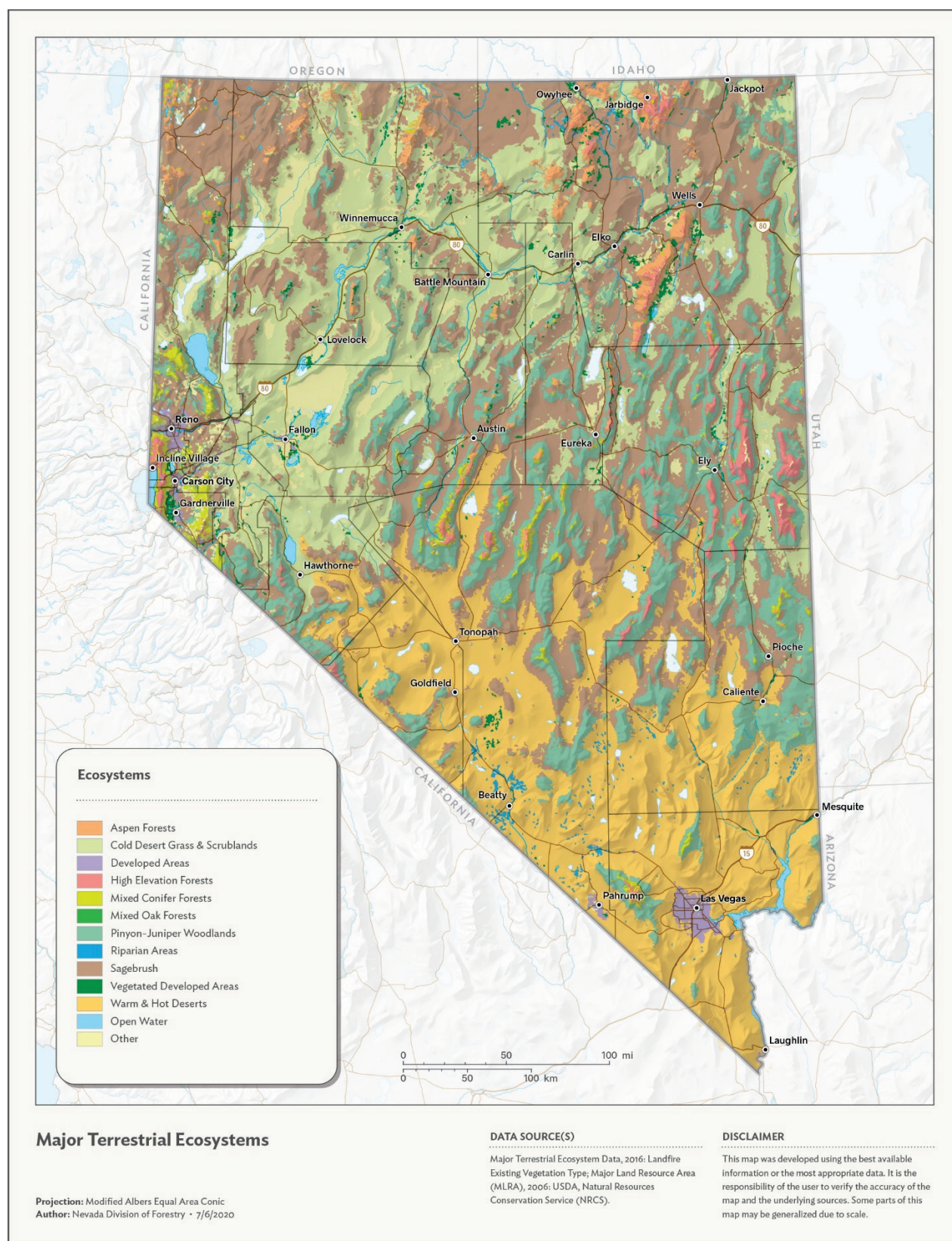


Table 1: Acres of Major Terrestrial Ecosystems in Nevada by Jurisdiction

Ecosystems	Private & Local Acres	State Lands Acres	Tribal Acres	Federal Acres (w/o BIA)	Total Acres	% of Total Area
Cold Desert Grass and Shrublands	3,164,267	73,998	528,545	11,037,646	14,804,456	20.93%
High Elevation Forests	17,670	5,715	987	531,977	556,349	0.79%
Mixed Conifer Forests	91,841	6,057	16,249	611,477	725,623	1.03%
Pinyon-Juniper Woodlands	376,336	11,912	61,574	8,078,068	8,527,889	12.06%
Riparian and Floodplain Areas	99,419	3,784	8,924	645,553	757,680	1.07%
Sagebrush Ecosystems	2,911,523	34,591	413,059	21,584,888	24,944,060	35.27%
Upland Quaking Aspen	94,798	1,873	9,268	575,389	681,328	0.96%
Urban and Community Forests	237,754	1,531	5,261	34,263	278,809	0.39%
Warm and Hot Desert	631,900	88,928	90,779	14,536,486	15,348,093	21.70%
Other*	1,407,363	78,860	187,208	2,424,387	4,097,819	5.79%

(Map 1. And Table 1. Referenced from [The State of Nevada's Forest Range and Watershed Action Plan](#) 2020)

Forest Health Highlights

Forest health issues vary from year to year. In 2025, the acres affected by insect-caused mortality increased compared to 2024, but remained below 2023 levels, as confirmed by the Aerial Detection Survey (ADS) conducted by Forest Health Protection. This survey covered approximately 3.4 million acres of Nevada in

2025. Pests/diseases were detected on 1.2% or 4,386 flown acres (See Map 2). The most common pest accounting for 85% of the damaged acres is Mountain Pine Beetle, *Dendroctonus ponderosae* (detected on 3,644 acres on mountain islands across the state). Pinyon Ips beetles comprise 3% of the damaged acres, while fir engraver beetles account for 4% of damaged acres. Unknown Aspen decline accounted for 2% or 111 acres of damage (as viewed in Map 2), these were the top four forest health agents found on the surveyed acres. Insect pests detected in 2025 increased by 2,700 acres from the 2024 ADS acreages (acreages are reported as severity acres not traditional footprint areas, as they were prior to 2023 see Egan et. al. 2019 https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd696759.pdf). Moisture holdovers from the 2022-2023 and 2023-2024 winters were beneficial for forest resiliency. The past few high moisture and low fire years likely increased tree resistance to bark beetle infestations although fungal and other foliar disease spread tends to increase with moisture. Only 395,265 acres burned across the state in calendar year 2025 (According to the BLM Nevada Fire and Aviation report for 2025 on the Great Basin Coordination Center's website <https://www.nevadafireinfo.org/blmfireyear2025> .

White Pine Blister Rust

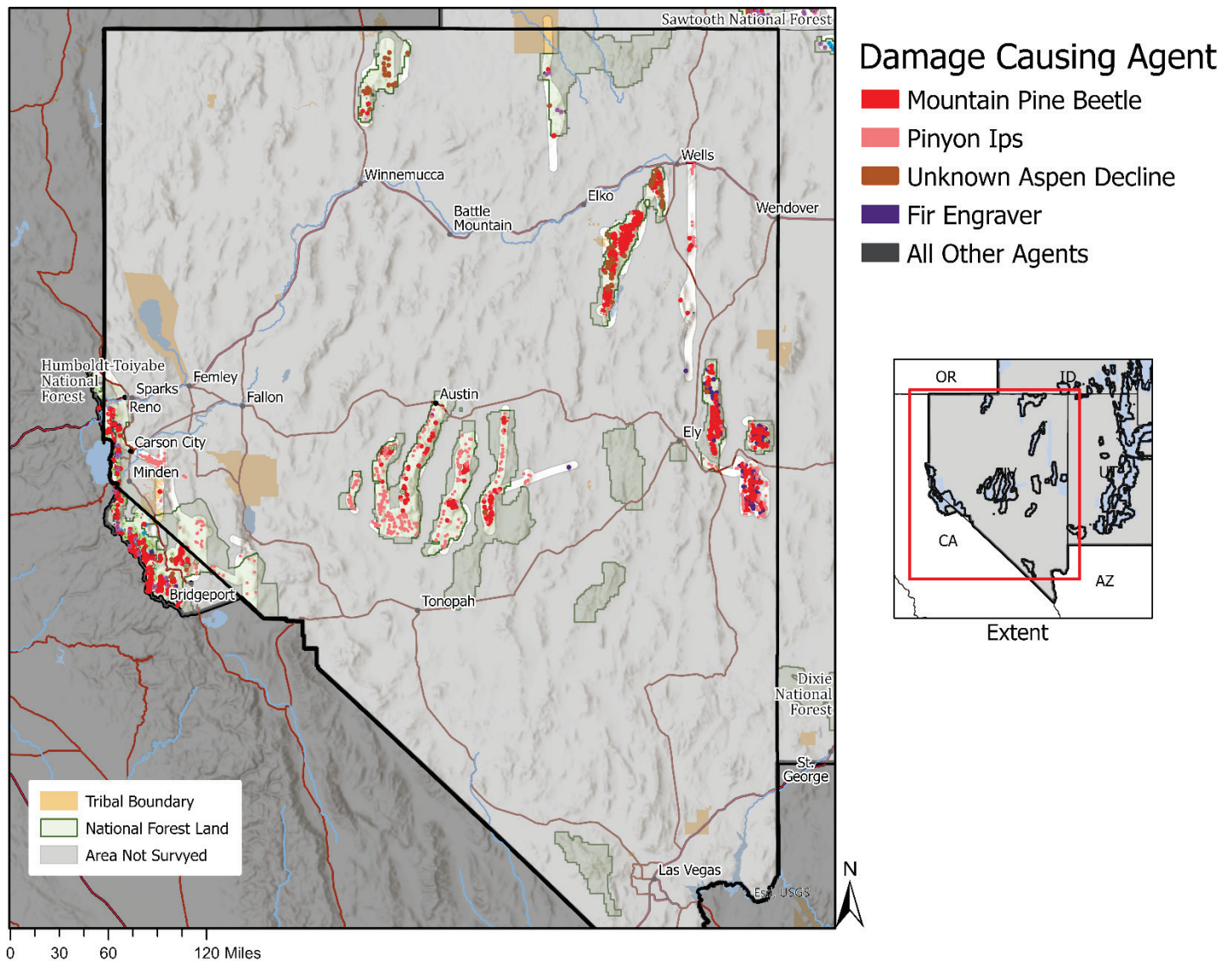
White pine blister rust (*Cronartium ribicola*) continues to spread through Nevada's high-elevation forests. Although its distribution is limited to mountain-island areas where susceptible hosts occur, the pathogen is now established across multiple ranges. While the Aerial Detection Survey (ADS) did not target this disease in 2025, field observations by colleagues and me confirm ongoing expansion, prompting mitigation efforts in the Eastern Sierra Nevada and the Ruby Mountains.

In the Eastern Sierra Nevada, the pathogen primarily infects western white pine, sugar pine, and whitebark pine. At the Mt. Rose Ski Area, a thinning project is underway in stands with high levels of white pine blister rust infection and concurrent mountain pine beetle activity.

In the Ruby Mountains, the pathogen infects whitebark and limber pines. A joint assessment by Forest Health Protection (Ogden Field Office) and Humboldt-Toiyabe National Forest staff in September 2025 documented infection in 12.5 percent of trees within a 100-tree sampling plot, with low canker severity (0.63 cankers per tree). However, intensive belt-transect surveys in the Jarbidge Bear Creek northwest area recorded a substantially higher infection rate of 51.4 percent.

Collectively, these observations from multiple high-elevation forest types across the state demonstrate the widespread and expanding presence of white pine blister rust in Nevada. Future research and techniques to mitigate this disease are needed.

Map 2 Nevada areas Flown with Top Damage Agents in 2025 (Map courtesy of USFS Aerial Detection Team)

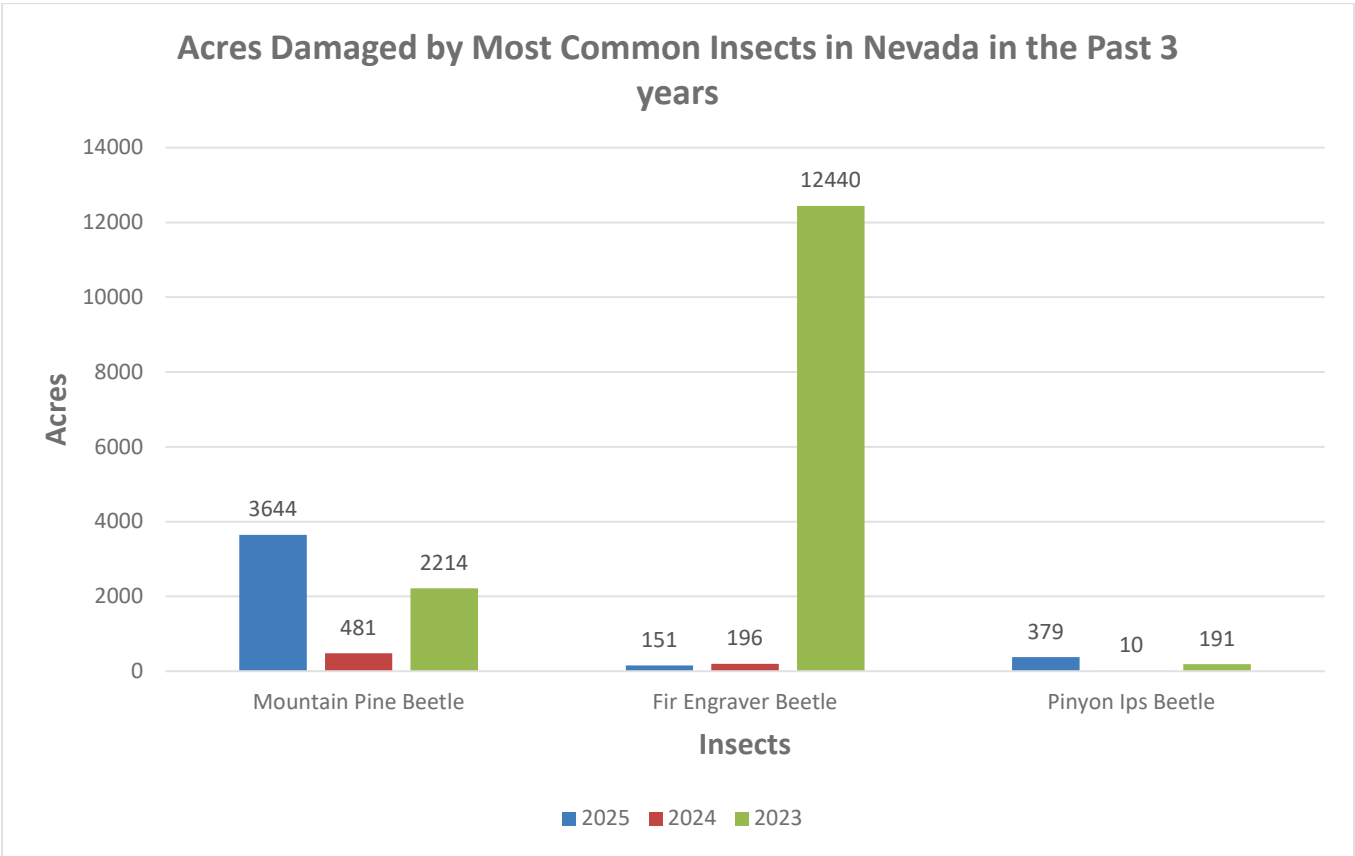


Mountain pine beetle host trees in the state of Nevada include the following pines: lodgepole (*Pinus contorta*), whitebark (*Pinus albicaulis*), western white (*Pinus monticola*), sugar (*Pinus lambertiana*), limber (*Pinus flexilis*) and rarely bristlecone (*Pinus longaeva*). Mountain pine beetle (MPB) caused mortality was mapped across 3,644 acres, a substantial increase from the previous two years (2,214 acres in 2023 and 481 acres in 2024; Figure 1.), however a caveat exists within the numbers. When the Jarbidge area North of Elko is included in the ADS survey the number of acres for MPB greatly increases. This is a remote mountainous wilderness area in Nevada and as such has various tree species susceptible to MPB attacks. A “Ready Set Go” fire grant, managed by colleagues, was used to do thinning on 40 acres around the community in 2023. Although some forest management is happening in the area, more acres could certainly be treated. The challenge is linked to the remoteness of the area, and the short window of road accessibility in the warm months.

Pinyon Ips beetles, *Ips confusus*, caused tree mortality was mapped across 379 acres, the majority of which were detected in central Nevada. However, in prior years Pinyon Ips outbreaks were more widespread across the state with some severe infestations in the southwestern region of the state especially in the Minden, Gardnerville and Smith Valley areas, where forest health Pinyon Ips thinning projects occurred in 2023. Although different acres are flown for ADS each calendar year, we can look at overall trends across the state and see that insect caused mortality decreased in 2025 when compared to 2023, as visually represented in Figure 1.

Fir Engraver beetle (FEB), *Scolytus ventralis* caused tree mortality was mapped across 151 acres, most of which was detected in Eastern Nevada, near the Utah border. Fir engraver beetle infestations commonly fluctuate with moist wet years and dry drought-stricken years. Fir engraver beetle infestations occur across the state; forest health projects have assisted in thinning infested trees and will continue to do so in the years to come.

Figure 1.



Source: Forest Health Protection, Aerial Detection Surveys

Note: The severity acres metric was used for all three years in the chart; however different transects and a different total number of acres were flown each year, thus the data is not directly comparable.

Forest Health Project Highlights

Spring Mountains Ranch State Park Burro Exclosure project for Arizona Ash Regeneration

Arizona Ash (*Fraxinus velutina*) is not a common species in the state of Nevada, generally it grows South of our state boundaries. However, in Southern Nevada near Red Rock Canyon, west of Las Vegas, there is an ancient Arizona Ash grove that is naturally aging out. About 8-9 years ago some of my predecessors working with State Park rangers sleuthed out why the trees were not regenerating by undergoing a few tasks. First, they collected seeds and attempted to grow them out at the Las Vegas State Tree Nursery. They wanted to know if the seeds were viable or if they had a disease. They grew! Hence, they were viable! So, the team went back to the Ash grove and observed what else could be the culprit and low and behold in walked these wild burro's munching on the tender Ash shoots. Alas, the problem was identified! A fence was constructed around a main part of the Ash grove; 80 seedlings were planted in the fenced area and 8 years later they're growing well, along with natural regeneration (Photo 1 left). SMRSP and the project site were visited in early 2025 and I saw that the fence exclosure was a major success for the regeneration of Ash trees. However, below the exclosure fence more Ash shoots were trying to regenerate but so heavily browsed they looked like low bushes hidden in the grass (Photo 1 right). Thus, a new fenced area is almost finished being constructed. We worked with the park rangers to make sure the wild burros can still move through the area and access the water from the nearby stream. Nevada Division of Forestry's Three Lakes Conservation Camp Crew are constructing the fence. This has been a collaborative and successful project with Nevada State Parks.

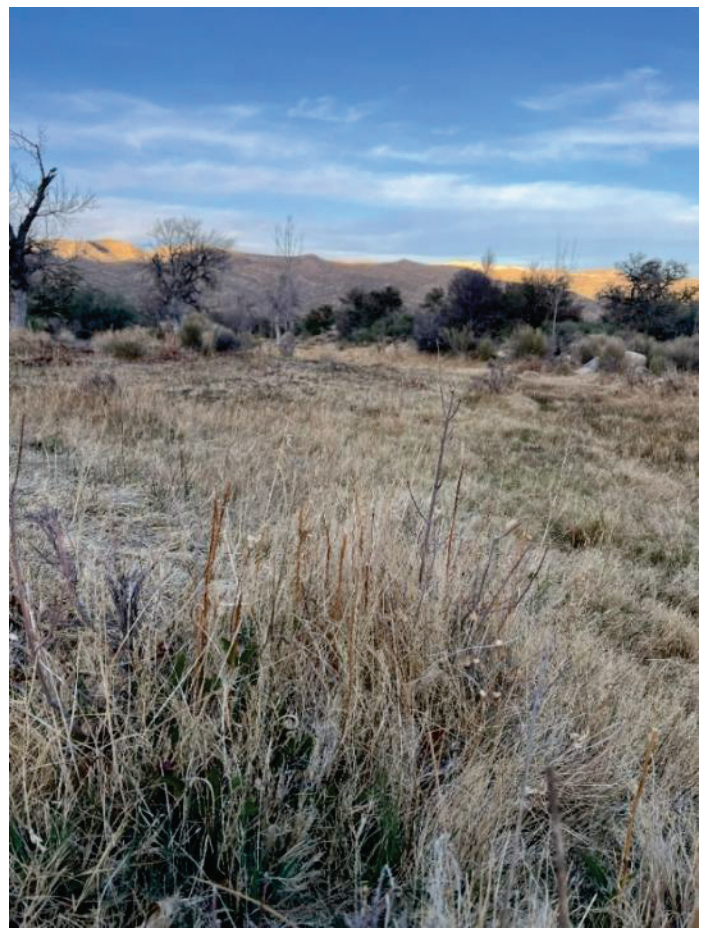


Photo 1 (left) depicts successful regeneration of Arizona Ash trees in the enclosed area; (right) browsed Ash trees looking like shrubs in an open space that Burros have access to.

Spooner Backcountry/Hannah's cabin Fir Engraver Beetle Sanitation and Riparian Restoration project

A fir engraver beetle sanitation and riparian restoration project on 23.75 acres in Spooner Backcountry, Nevada State Park, in the Eastern Sierra's, was supported by multiple Forest Health funding sources and completed in the Fall of 2025. An additional 16 acres directly in this area were treated using Multi-event Disaster Assistance federal funds (from the American Relief Act) allocated to the Eastern Sierra Front (please note my colleagues are using more of these funds to continue to thin large tracts of land in Spooner Backcountry). Dead and dying pine and fir trees were marked for removal as well as trees in the riparian corridor for thinning and rehabilitation purposes. Nevada State Parks asked the Nevada Division of Forestry for Forestry Management assistance (e.g. thinning and Forest Health concerns) with Spooner Backcountry. The area is a priority due to its proximity to the Tahoe Basin, Washoe Valley and Carson City (e.g. the Wildland Urban Interface). The area is a favorite recreational site for many outdoor enthusiasts and includes an endangered historic structure called "Hannah's Cabin." Preserve Nevada listed the cabin (Photos 2 left and

right) as one of the most endangered historic places in the state in 2024. This thinning project removed trees posing a hazard to the historic structure and made the area safer for hikers, cyclists, and backcountry campers visiting the area (Photo 3 left and right).

Photo 2 (left) close-up of Hannah’s cabin, a historical structure in Spooner backcountry; (right) landscape view of Hannah’s cabin and signage in the forest of Spooner Backcountry





Photo 3 (left) Overgrown riparian area before thinning (right) Riparian area during thinning with the creation of burn piles.

Jeffrey Pines Riparian Restoration and Beetle Sanitation in Davis Fire Scar

Riparian ecosystems only make up about 1% of Nevada’s overall landmass, as such they are a priority landscape in the state’s Forest Action Plan. After the Davis fire ripped through the Eastern Sierra’s in 2024, Forest health funding has been allocated to assist with riparian ecosystem rehabilitation. The Jeffrey pines project is in Washoe Valley, Western Nevada, in the Davis fire scar. Burned and water stressed trees attract beetles hence an uptick in beetle infestation has occurred since the fire. The project area encompasses 18 acres for treatment. Approximately 8 acres in a riparian area with steep hillsides was treated in the summer and fall using Nevada Division of Forestry Fire crews. Burnt and dying trees prone to beetle attack, were cut contour to the slopes and felled into cup trenches, creating log erosion barriers to assist in soil erosion control; on a burnt landscape these provide a benefit to the overall function of the riparian ecosystem. Brush, tree trunks with small diameters and tree limbs were chipped and broadcast across the soil. In November, local school children in collaboration with the Sugar-Pine foundation planted approximately 300 locally sourced Jeffrey Pine seedlings in the restored area. There was a local media blast about the school kids engagement in the project which may be viewed using this link <https://mynews4.com/news/local/eagle-valley-students-get-hands-on-lesson-in-rebuilding-davis-fire-burn-scar>. NDF also posted it on their facebook page <https://www.facebook.com/NevadaForestry>.

The remaining acres are currently being treated. The non-profit Sugar-Pine Foundation has 500 Jeffrey Pine seedlings allocated for spring planting on the treated areas. Additional work is being done in the Davis fire scar at Davis Creek Regional Park with beetle infested trees and Riparian restoration in the Browns Creek trail area (to be discussed in the 2026 Forest Health Highlights report).

Photo 4 Log Erosion Barriers





Photo 5 Newly planted Jeffrey Pine Seedling at a Forest Health Project

Statewide Insect Trapping Program

The Nevada Division of Forestry (NDF) cooperates with the Nevada Department of Agriculture (NDA) on insect trapping activities. NDF focuses their trapping efforts on native bark beetle populations for monitoring purposes. In 2025, NDF set out four bait Lindgren funnel traps in Galena, NV (western Nevada, Eastern Sierra foothills approximately 5,500 feet in elevation) in a pocket of conifer mortality located on private land. Lures placed in the traps included: MPB, *Ips tri*, Ethanol, and Alpha Pinene. Traps were installed on June 5th, and trap contents were collected approximately every two weeks until November 20th. Unfortunately, a local bear in the area tampered with the traps frequently during the trapping season rendering several traps void of contents on collection days. Additionally, three traps with Ethanol, *Ips Tri*, and Alpha Pinene lures were set up at Mt. Rose Ski Resort in areas with bark beetle infestations (8,260+ feet in elevation in the Eastern Sierra Mountains). These traps were set up on June 24th with samples collected approximately every two weeks until October 20th when snow started falling. Observations of collections indicate that fewer insects were flying during the trapping season in the Eastern Sierra's in 2025. Trap content is collected and passed over to the Nevada Department of Agriculture for taxonomic identification. As of late March 2026, the taxonomic identification was yet completed.

For more information about NDA's trapping programs visit their website at:

https://agri.nv.gov/Plant/Entomology/Entomology_Home/

Photo 6 Lindgren 12 funnel trap systems are getting ready to be placed in Galena, May 2025



For More Information:



USDA-Forest Service,
Forest Health Protection
4746 S. 1900 E
Ogden, UT 84403
Ryan Davis & Dan Ott
ryan.davis@usda.gov &
daniel.ott@usda.gov



Nevada Division of Forestry
Forest Health
885 Eastlake Blvd
Washoe City, NV 89704
Michelle Roberts
miroberts@forestry.nv.gov