



PONCHA PASS FOREST RESTORATION PROJECT

Chaffee and Saguache Counties, Colorado

PROJECT SUMMARY

Poncha Pass is a mountain crossing located on the border of Chaffee and Saguache counties. Since 2014, western spruce budworm and Douglas-fir beetle outbreaks have led to high mortality in the mixed-conifer forests. Starting in 2020, the CSFS has led a series of cross-boundary treatments to remove infected trees to slow the spread of the insects and mitigate wildfire risk in the area.

- The project covers both private land and Bureau of Land Management acres across two counties.
- The Chaffee County Wildfire Protection Plan identified the area as a strategic priority.
- Local contractors completed the treatments using a mix of hand and machine-based treatments, with wood sent to mills within 100 miles.
- The project protects the Rio Grande and Arkansas watersheds from runoff in the event of a wildfire.
- The treatments safeguard Highway 285, which serves as an evacuation route for residents as well as a transportation route for material goods and recreation.
- The project protects powerline infrastructure, business and homes for residents.



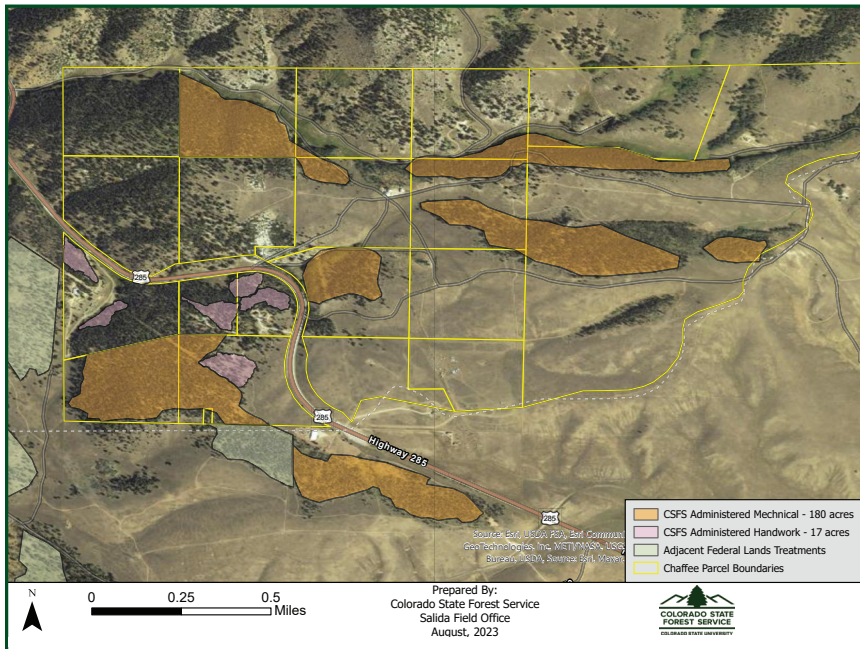
Aerial view of treatment areas on private acres of Poncha Pass. Photo: CSFS/Bulger

As of 2023, the CSFS continues to coordinate with the Bureau of Land Management to treat more acres on the west side of Poncha Pass.

PARTNERS AND LOCAL COLLABORATION

The forest treatments on Poncha Pass have involved cross-boundary coordination with landowners, local entities and the Bureau of Land Management.

The project was made possible with funding from National Fish and Wildlife Foundation RESTORE grants, Great Outdoors Colorado, Chaffee Common Ground, USFS Western Bark Beetle funds and congressionally delegated matching funds led by Sen. Bennet. With this funding, CSFS staff were able to discuss forest health issues with Poncha Pass landowners and offer treatments to reduce their wildfire risk at no cost to them. This greatly expanded the scope and impact of the forest restoration projects in the area.



Poncha Pass Forest Treatments map. Map: CSFS

CONTACT US
Colorado State Forest Service
 Alamosa & Salida Field Offices
 Adam Moore, Supervisory Forester
 Adam.Moore@colostate.edu
 (719) 587-0915

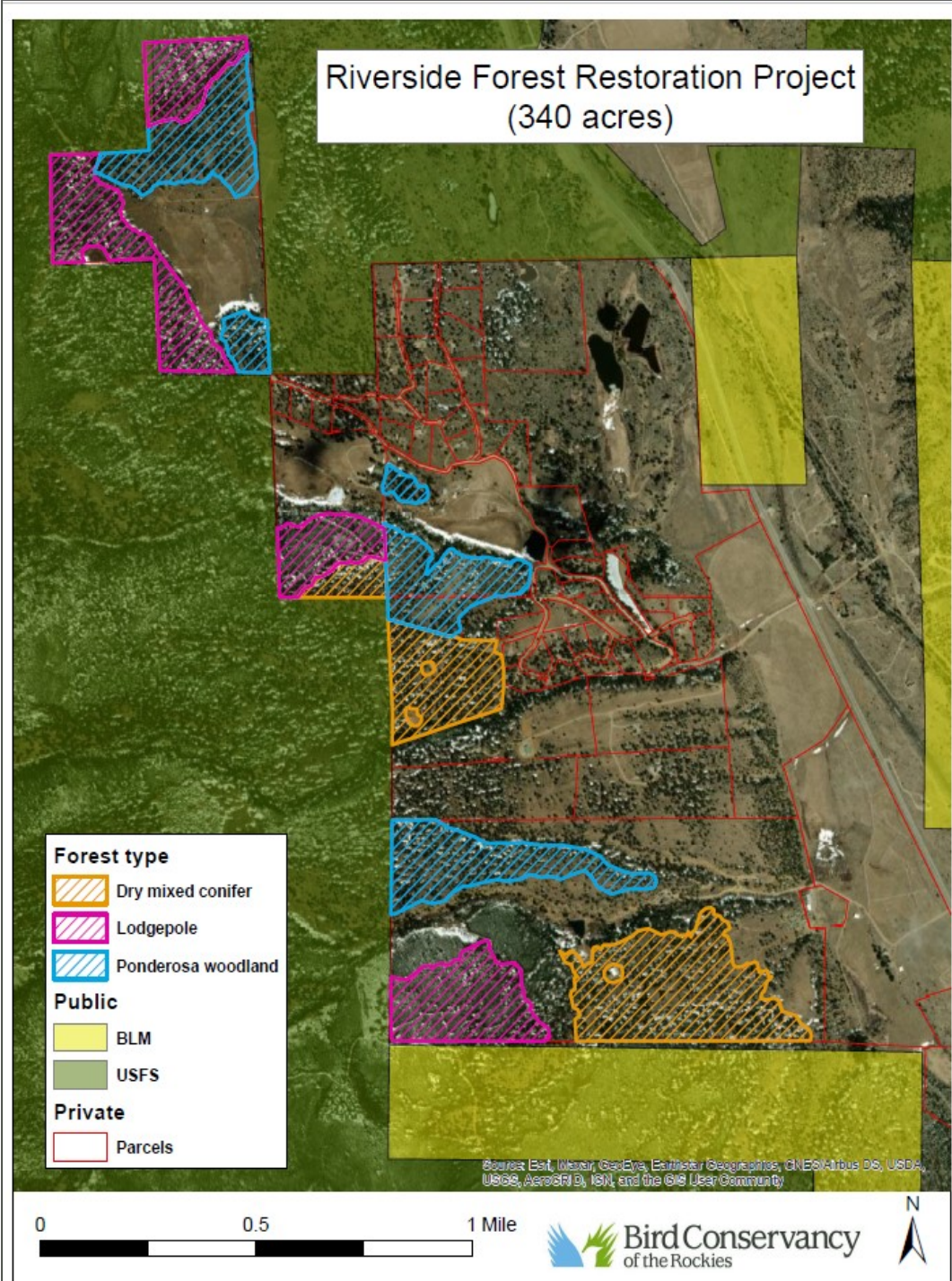
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Riverside Project overview

- 9 miles north of Buena Vista
- 304 acres private, 84 on BLM
 - Equal parts lodgepole, ponderosa woodland, and mixed conifer forest
- Big game winter range, production area, and critical habitat for other species of wildlife



Forest restoration = multiple benefits

Fire



Returns fire intensity and severity to characteristic levels within forest types.

Wildlife



Increases forage in calving areas, winter range, and migration corridors.
Increases overall biodiversity.

Water



Arkansas River adjacent. Reduces risk of post-fire sedimentation.
Reduces evapotranspiration and erosion.

Agriculture



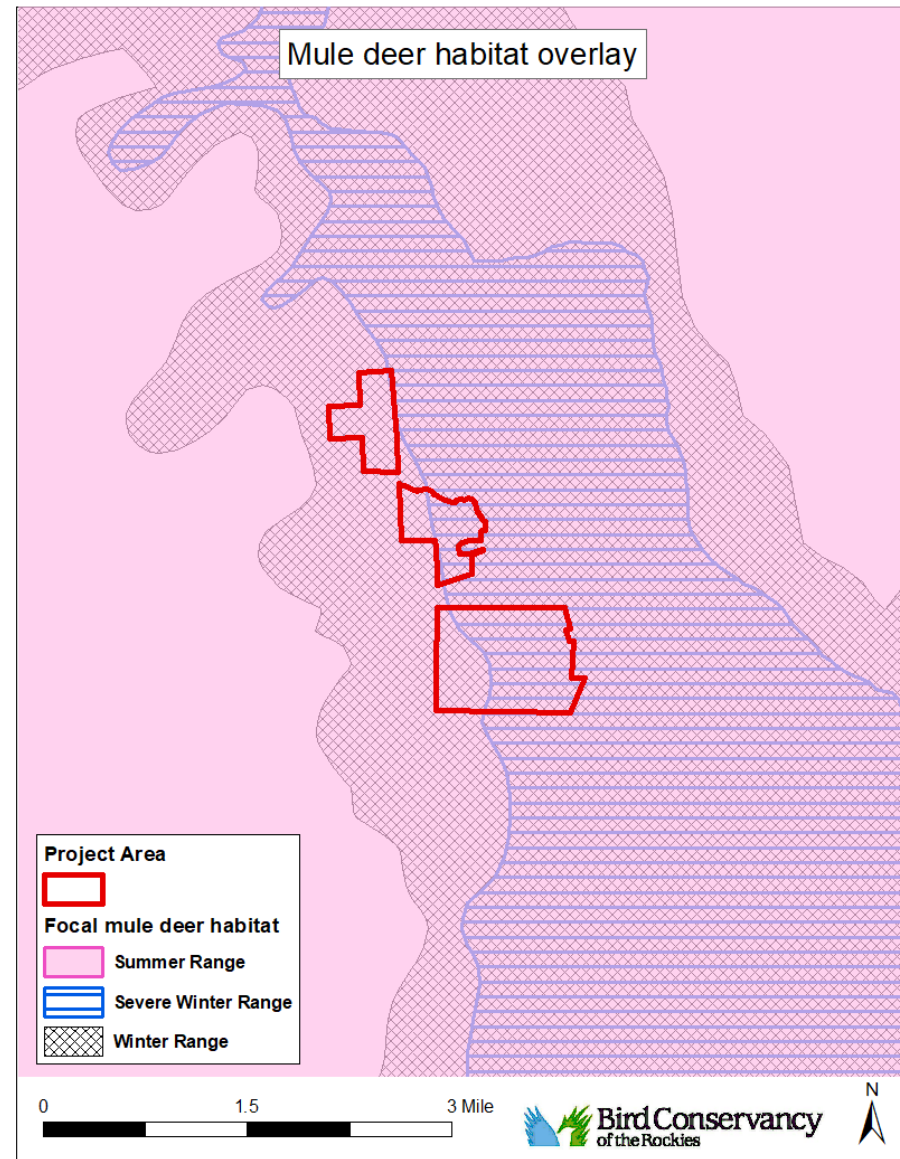
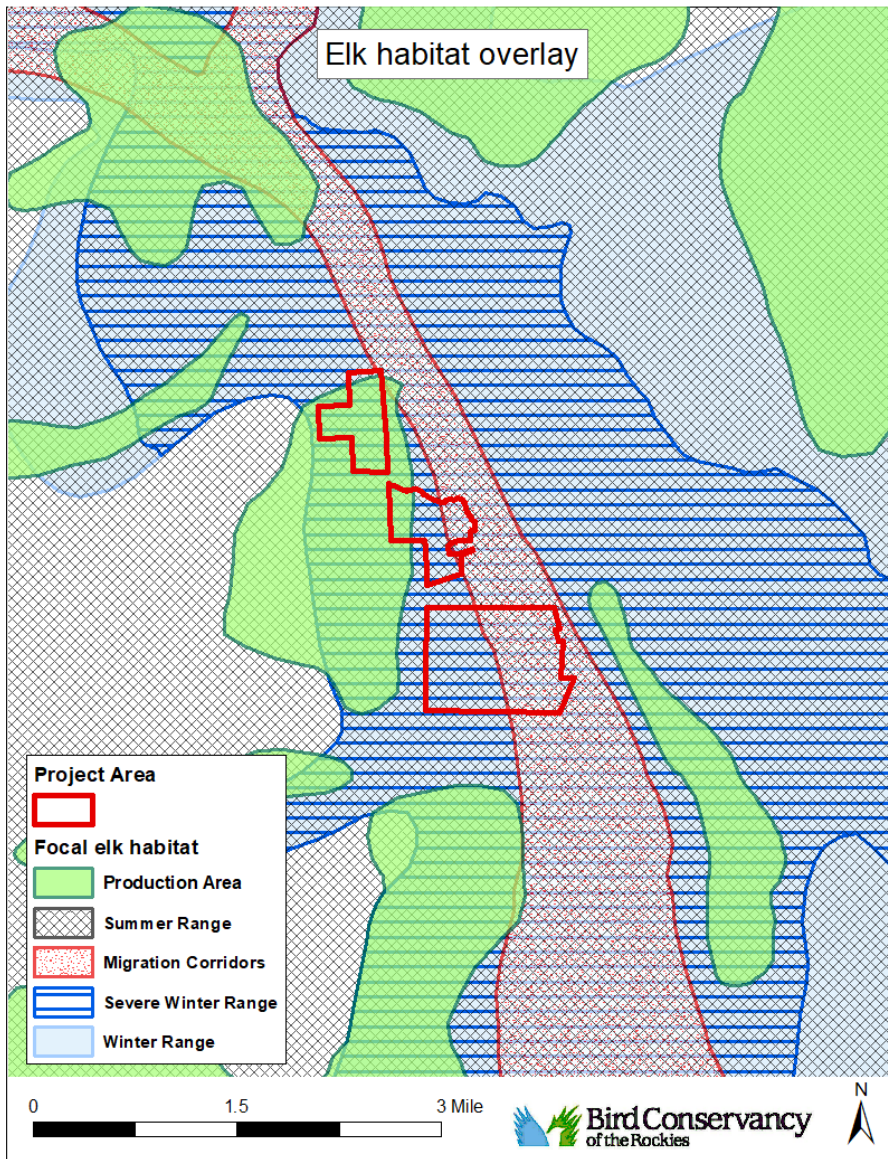
Increases forage in forest.
Reduces big game conflict with agriculture.

Forest Health



Increases resilience to future disturbance. Large, healthy trees.
Aesthetically pleasing.

Improving big game habitat



COLLEGIATE RANGE ELK MANAGEMENT PLAN

DATA ANALYSIS UNIT E-17

GAME MANAGEMENT UNITS
48, 481, 56, 561

January, 2011

“...there has been a steady and accelerating rate of conversion from agricultural status to subdivision for residential development. Much of the important winter range for this elk herd has already been converted or is vulnerable to this change in land use.”



Jamin Grigg
Terrestrial Biologist
Colorado Division of Wildlife
7405 Highway 50
Salida, CO 81201



Residential development and conversion of winter range from ranches to subdivisions is far more harmful to elk than any amount of grazing by cattle. *Photo by Marty Holmes.*

Desired Conditions - Ponderosa Pine/Mixed Conifer Stands

Ponderosa pine and mixed conifer stands are composed of individual trees, groups of trees, and openings – both transient and persistent. Tree groups are small and average 2-3 trees per group. Southerly aspects and less productive sites feature smaller group sizes (2-3) than more productive or northerly aspects (4-9). Tree groups are even aged but age varies across groups. Openings are more prevalent on less productive sites and are large enough to allow for ponderosa pine regeneration ($\geq \frac{1}{4}$ acre). Tree density reflects site-specific historical conditions approximated from existing legacy stumps, snags, and pre-settlement trees. Basal area nears 40ft²/acre on moist or “fire-safe” sites. In drier areas such as ridgetops and Southerly aspects, basal area is as low as 10ft²/acre. The dominant tree species is ponderosa pine with Douglas-fir only occurring in more productive and protected sites. Trees are represented by all size and age classes. Under the sparse canopy and within openings, a robust and diverse understory of grasses, forbs, and shrubs occurs. Seral aspen clones on the periphery of and within conifer canopy gaps have sufficient regeneration to replace decadent ramets. The stand contains old trees and biological legacies that show evidence of a historical frequent-fire regime. Snags and downed logs are numerous and provide habitat for a variety of wildlife species and add to forest complexity. Low stand density and extensive openings increase the resiliency of the stand and allow it to maintain structure, function, and ecosystem services after disturbance. Spatial heterogeneity within the stand supports the safe application of prescribed fire.

Desired Conditions – Lodgepole Pine Stands

Lodgepole pine stands contain patches of trees (reserves) interspersed with open areas. Reserves of trees range in size but average $\frac{1}{4}$ acre. The number of trees in each reserve varies from 20-1000 trees and is even aged or two aged. Most reserves are large enough to provide concealment cover and forest habitat conditions necessary for wildlife. Reserves are located in areas with heavy wildlife use or portions of the stand that contain biological legacies such as fire scarred trees or stumps. The interspersed open areas mimic stand-replacing fire on a very small scale and increase the amount of early successional habitat. Open areas are large enough to limit the crowning potential of wildfire. Early successional habitat includes expansive areas of grasses, forbs, shrubs, and eventual tree regeneration. Aspen and ponderosa pine located within open areas are regenerating and increasing the heterogeneity of the stand.