

## **Scope of Work**

### **Pine Ridge HOA Wildfire Mitigation Project 2023**

#### **Purpose**

- Fuels reduction and timber stand improvement treatments on private land.
- Reduce wildfire hazards by reducing Gambel oak and tree densities, removing ladder fuels, creating openings, and modifying stand structure.
- Improve overall forest health by decreasing stand density to reduce competition and promote tree vigor among residual trees.

#### **Location and General Description of Work**

- The Pine Ridge Homeowner's Association is located in the SE Quarter, Section 5, Township 7, Range 67 of Douglas County, CO. The community lies at the western end of the city of Castle Pines, CO.
- The project area consists of one (1) common area block within the HOA that is located between Daniels Park Road to the west, and HOA residences to the east.
- Work involves fuels reduction and timber stand improvement via mechanical and hand thinning in a predominantly ponderosa pine and Gambel oak forest.
- The Colorado State Forest Service (CSFS-Franktown Field Office) Forester will serve as the Project Administrator for this project.

#### **Unit Description**

The forest type in the project area is predominately Ponderosa pine with a dense Gambel oak understory. Work to be completed will involve treating a 20 acre common area block within the HOA community. Rocky sections with sparse vegetation are present within the project area, therefore the anticipated area of treatment implementation will be approximately 18 acres. Some steep slopes are also present where mechanical operability will be limited. The Project Administrator will GPS the treated areas to determine final completed acreage and appropriate payment.

Project area maps are attached below for reference.

#### **Project Marking:**

Project boundary:	Pink flagging
Tree removal:	Red/orange paint
Photo point retention trees:	Black & yellow stripe flagging

## **Project Overview**

The project will involve performing timber stand improvement and fuels mitigation treatments of forested areas (ponderosa pine trees and Gambel oak) on the property. The desire is to ultimately develop stand structure to improve forest health and to reduce the risk of severe wildland fire behavior by reducing stand density, removing ladder fuels (fuels that are considered aiding to potential crown fires), and creating openings in contiguous oak clumps. Clearing and thinning shall be accomplished using hand crews, chippers, and/or brush mower equipment. Mechanical mastication will not be allowed.

Where possible, contractor will harvest salvageable trees and remove from the property. Slash disposal shall be by means of chipping/brush hog mower and broadcast dispersal of chips back onto the ground. Trees that are not salvageable will be thoroughly mulched. Chips and chunks will be well-distributed across the project area with a desired average of 3-inches or less. All tops and slash must be processed on site via chipping

Use of equipment that is comparable to a rubber tired Bobcat with a mower deck attachment or DR mover is specified for this project. Other equipment such as chipper, trailers and chainsaws are also required.

## **Prescription**

- Ponderosa pine trees that are poorly formed, suppressed, in dense pockets, damaged or show signs of insect and disease will be marked for removal to adequately reduce density and improve forest health.
- All residual trees will be pruned up 6 feet or 1/3 the height, whichever is less.
- The target basal area for the residual stand is 40-60ft<sup>2</sup> per acre.
- Trees targeted for removal will be concentrated within the 0-8" in diameter range, which will be treated via chipping.
- Trees greater than 8" dbh range that need to be removed will be harvested and removed from the property. The trees will be felled, limbed, and slash chipped in the treatment block.
- Log deck locations, skid trails and staging areas for equipment and crew vehicles or trailers will be determined before work begins by the Project Administrator.
- Woody debris (chips and chunks) will be well distributed across the project area with a desired average depth of less than 3 inches.
- All healthy single standing ponderosa pine trees will be retained in the 8 inch and less diameter range to maintain diversity and age structure if they are not considered a ladder fuel and are located 30 feet (stem spacing) from residual trees.
- If present, retain 2-3 snags per acre with a minimum diameter of 8 inches for cavity nesting birds. Any vegetation with active nests will be retained and left undisturbed.
- All down and dead, damaged, poor formed and wind thrown trees that are on the ground which are within the diameter limit (8 inches and less dbh) will be left intact

with limbs removed and chipped if within 10 feet of the dripline of residual overstory trees.

- All tree stumps will be 4 inches or less in height as measured on the uphill side. All Gambel oak stumps will be flush cut to the ground.
- Gambel oak will be treated using the following guidelines:
  - Target old, dead, decadent patches, especially those with significant top kill.
  - Remove all oak from underneath residual trees and within 10 feet of the dripline of residual trees.
  - Goal is to break up the continuous stands into a mosaic pattern with 2.5 times the height of the residual oak between clumps.
  - Any healthy free-standing clumps (not underneath or near ponderosa pine or Douglas-fir trees) will be retained if it does not act as a ladder fuel. These clumps will be at least 25 feet away from residual trees.

### **Additional Performance Standards**

- Camping will not be allowed on the property.
- Parking of trucks and equipment will be determined beforehand and will be agreed upon with the Contractor and Project Administrator before any work occurs.
- Trash and litter will not be left by the Contractor on the property. Daily hauling of any trash generated by the Contractor or crew is the Contractor's responsibility.
- Roads/trails and other improvements will be repaired to the same condition as found prior to the start of work. Prior to final acceptance of completion of the project all roads and trails will be inspected and in working condition. If deemed necessary by the Project Administrator roads will be graded and waterbars installed.
- In areas where machines have used a path repeatedly waterbars will be installed if the Project Administrator determines necessary.
- Gates, fences, or signs damaged by the Contractor will be repaired to a like or better condition, or replaced by the Contractor, at the discretion of the Project Administrator and landowner.
- The Project Administrator may suspend or limit operations if excess damage is occurring due to mud, snow, extreme fire danger, etc. or due to the following situation(s): failure to meet contract specifications.
- The Contractor will wash the undercarriage of all trucks and equipment before entering the Unit to reduce the spread of noxious weeds from other projects.
- Any soil contaminated by loss of fuel, oil, grease, hydraulic fluid, coolant or other fluids shall be removed and placed in covered drums or other acceptable containers for proper disposal by the contractor.
- Areas with excessive rutting caused by the turning of tracked equipment, as determined by the Project Administrator, shall be raked smooth to the original slope of the ground.
- Smoking will only be allowed in vehicles. Each vehicle must have a properly serviced Class A, 10 pound fire extinguisher and a minimum of one fire tool per crew member. All vehicles must utilize effective manufacturer-certified spark arresters and muffler systems.
- The work site will be left in a safe manner at the end of every work day:

- Equipment properly and safely stored, ignition keys removed from machinery
  - All vehicles and equipment left on site will be safely parked on level ground with the wheels chocked
  - Chainsaws, gasoline, and oil will be stored and locked inside a vehicle or secured in a locked metal box at the end of each work day
- All subcontractors must be approved by the Project Administrator in writing prior to contract signing and bid approval.

### **Plan of Operations**

The Contractor will submit a Plan of Operations with the bid for this project. The Plan of Operations will include the projected start and end date for the project, and equipment to be used.

### **Damage Penalty**

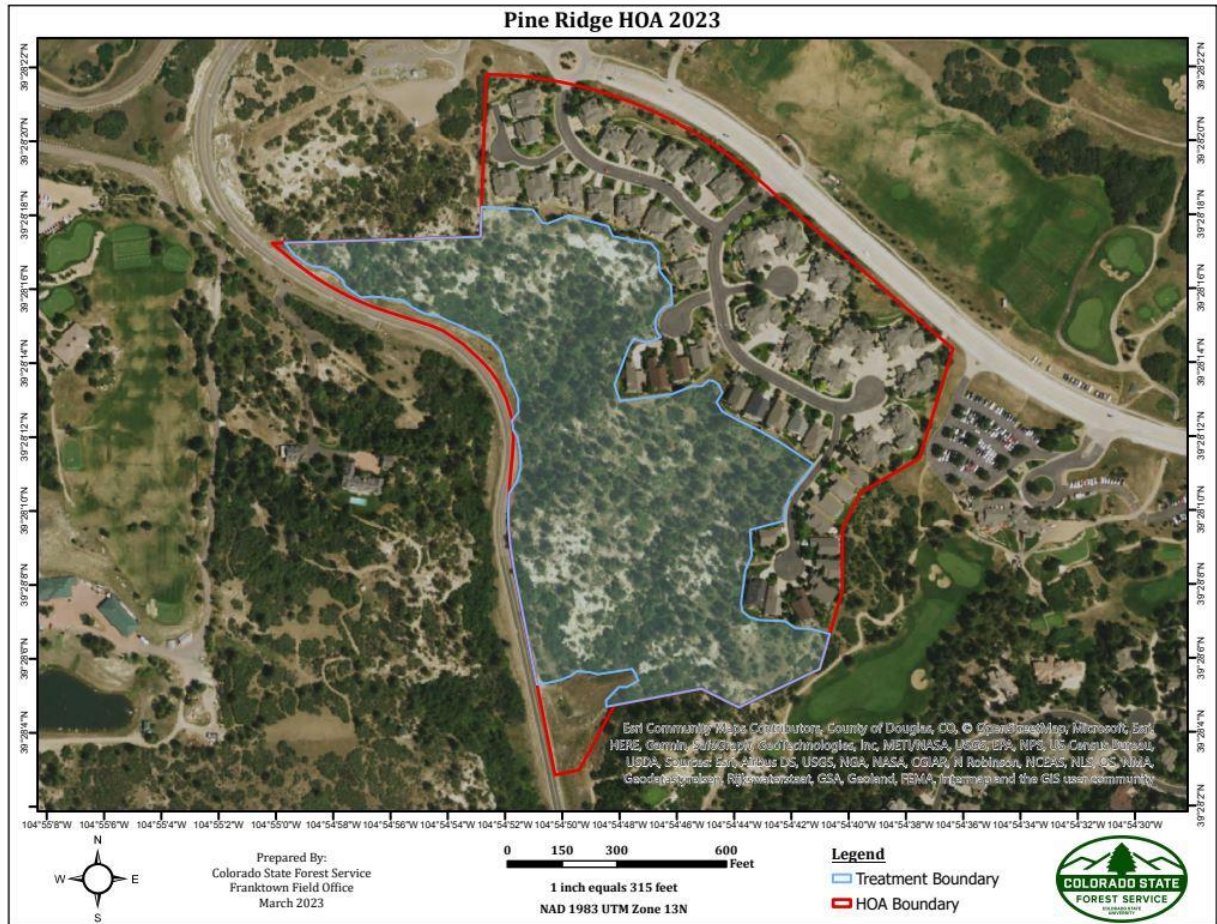
Excessive damage to the remaining forest stand or the removal of undesignated products will be paid for at the rate of \$50.00 for each significantly-damaged tree that is 6 inches dbh or greater. Penalties may also be assessed for damages to soils, improvements or other elements of the forest stand. Determination of damage is at the sole discretion of the Project Administrator.

### **Insurance**

Contractor shall obtain, and maintain at all times during the term of the project, insurance in the following kinds:

- 1.) Workmen's Compensation Insurance as required by state statute
- 2.) Commercial General Liability Insurance
- 3.) Automobile Liability Insurance

## Maps





# Pine Ridge HOA 2023 Slope

