



NORTH STAR FIRE DEPT.

Fuels Management

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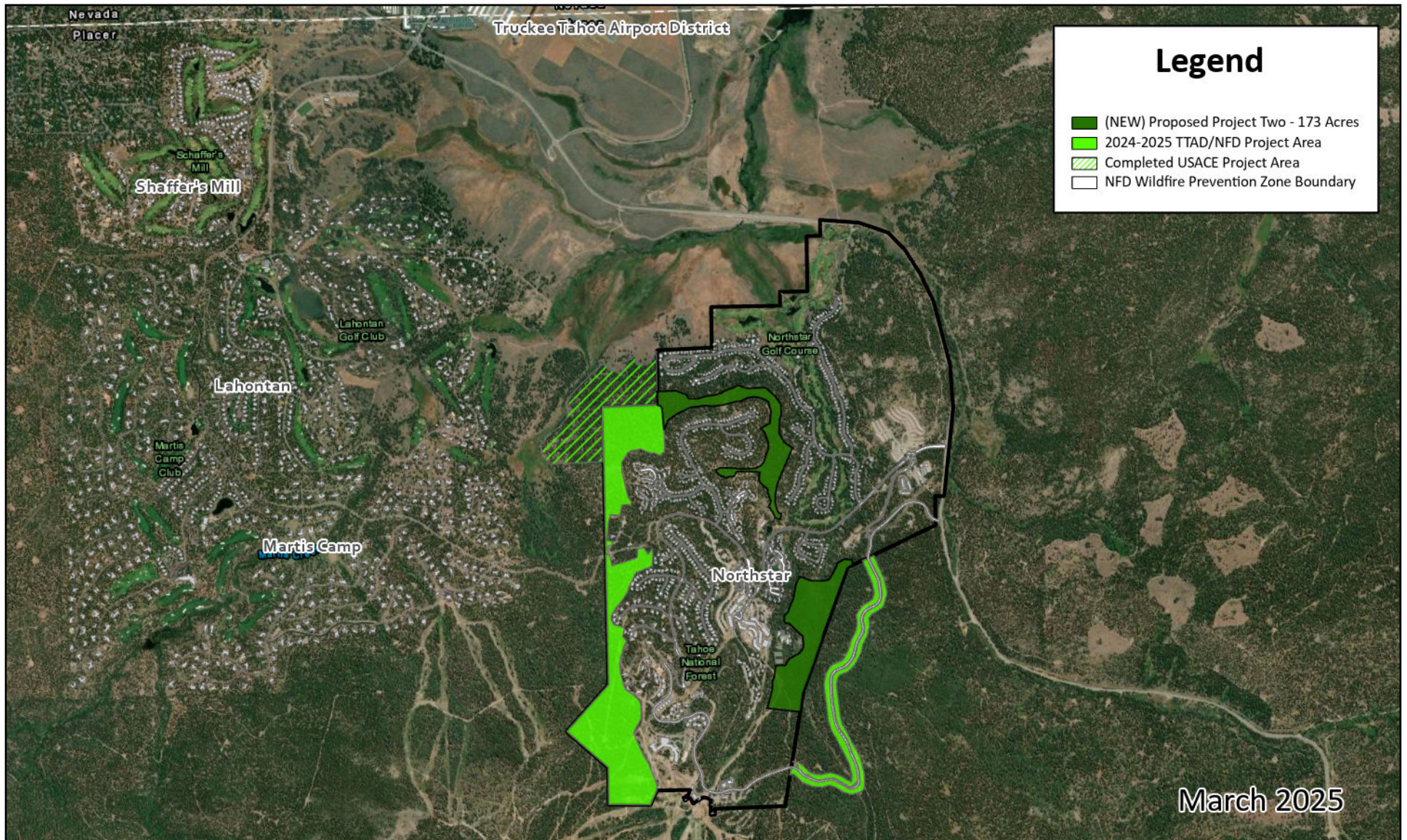
WEBSITE:
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2025-2026 Tahoe Truckee Airport District Forest Fuels Reduction Project

March 2025

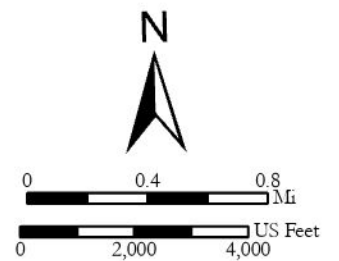
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NCSD/TTAD Proposed Fuels Reduction Projects

- Large scale fuel break project proposing to treat 111 acres in a "Very High Fire" severity zone.
- Total estimated cost: \$400,000.00. Average cost to treat per acre: \$3,500.00-\$4,000.00.
- Project areas will prioritize open common spaces in proximity to habitable structures and infrastructure.
- Will reduce forest fuels, improve forest health, and strengthen defenses on both eastern and western boundaries of Northstar by tying multiple phases of fuels reduction together.
- Meets the objectives of Priorities 1, 3, 4, and 6 of NFD CWPP.



Scope of Work:

The Tahoe Truckee Airport District Project, Phase II is a project designed to treat priority acres for forest fuels reduction within the Northstar Fire Department's Wildfire Prevention Zone.

The breakdown of the project is as follows:

1. Two proposed project areas are presented, totaling 111-acres.
2. The proposed project acres are within the Northstar Community Service Districts, Wildfire Prevention Zone (WPZ).
3. The recognized acres proposed for treatment are recognized as Priority Number's 1, 3,4 and 6 within the 2022 Northstar Community Wildfire Protection Plan (CWPP).
4. The proposed cost for treating 111-acres ranges from \$3,500 to \$4,000 per acre at a total cost of \$400,000.
5. Acres to be treated are identified as beyond the 300' zone.
6. Methods of treatment will consist of:
 - a. Mastication using a skid steer-based machine to reduce flammable brush components, small diameter conifer trees and downed forest fuels.
 - b. Use of a hand crew consisting of 7-10 people performing tree thinning. Tree thinning will remove conifer trees ranging from 1.0" – 14.0" at Diameter Breast Height (DBH).
 - c. Hand crews will create burn piles within areas where the removal of biomass is limited or the topography will not allow material to be chipped or masticated.
 - d. Conifer trees will be limbed from a range of 6' to 15' depending on slope, and forest fuels arrangement.

- e. Project permitting will be in combination with the use of Categorical Exemptions within areas where non-merchantable material will be treated. Within areas where material can be harvested, the use of a CAL FIRE 1038 Exemption will be used. It is likely that the use of the Exemption will be used to harvest split-wood/fuelwood products (firewood).
- f. Target conifer species for thinning for forest fuels reduction will focus on white fir (*Abies concolor*), Jeffrey pine (*Pinus jeffreyi*) and lodgepole pine (*Pinus contorta*).
- g. Conifer tree species to be removed that are identified as dead, diseased, dying or pest infected will be removed to mitigate the spread of tree mortality and increased forest fuel loading.

Photos:

The photos on the following pages have been taken within the proposed project areas and demonstrate:

1. The need to statistically reduce the threat of wildfire by mitigating a crown fire, rate of travel and flame length. Reducing the wildfire threat will help a safe and efficient community wide evacuation while allowing the Northstar Fire Department to make a defensive stance and provide time for outside resources to enter the community.
2. Project areas hold overstocked forest stand components with a stand density ranging from 180-280 square feet of basal area. A desired forest stand density level for this part of the Sierra Nevada on Site III land is 75-90 square feet of basal area.
3. The white fir (*Abies concolor*) species is prescribed as the primary conifer species to be thinned and is over-stocked, which increases the potential for a crown fire. Conifer tree thinning will reduce tree mortality, pest attacks and forest disease, and help transition the historical stand composition back to a pine dominated forest over-story and a true fir under-story.
4. Project work will restore riparian habitat, which is diminishing in North America.
5. Project work will protect historical and pre-historic sites which are considered significant to the history of the Martis Valley including Western Migration and the Washoe Tribe.
6. Project work will enhance wildlife species by promoting shelters, foraging and hunting.

Photo 1



Photo 1- The photo above which was taken on March 12th, 2025, demonstrates the proposed project area on the southeast which depicts an over-stocked forest stand with conifer encroachment of the white fir conifer species existing within a riparian area. Conifer encroachment is outcompeting riparian species with ladder fuels and stand density. This photo shows the potential for a crown fire event.

Photo 2



Photo 2- The photo above was taken on March 12th, 2025, demonstrates the proposed project area showing a combination of downed forest fuel loading at an estimated 10,000 – 15,000 tons per acre. The desired forest fuel loading is at a level of 2,000 – 3,000 tons per acre. Additionally, the photo depicts the need to reduce ladder fuels, stand density reduction, reduction of white fir, while promoting pine and Quaking Aspen species. Tree mortality is occurring due to an over-stocked stance, pest attack and forest disease. The forest disease present is identified as *Phytophthora cinnamomic* which is infected within the forest soil causing root rot of trees. Enhancing the forest stand will help reduce stand mortality.

Photo 3

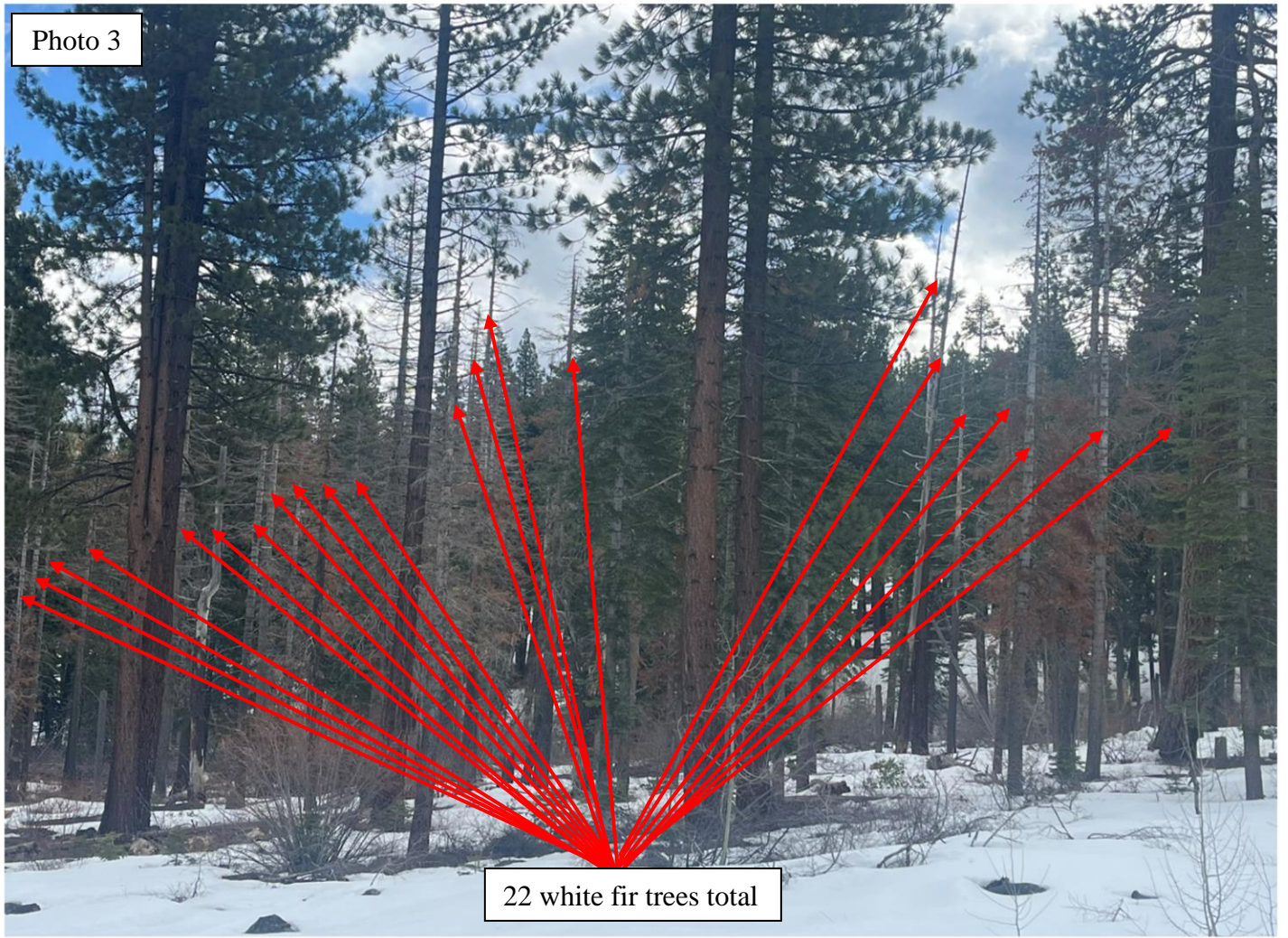
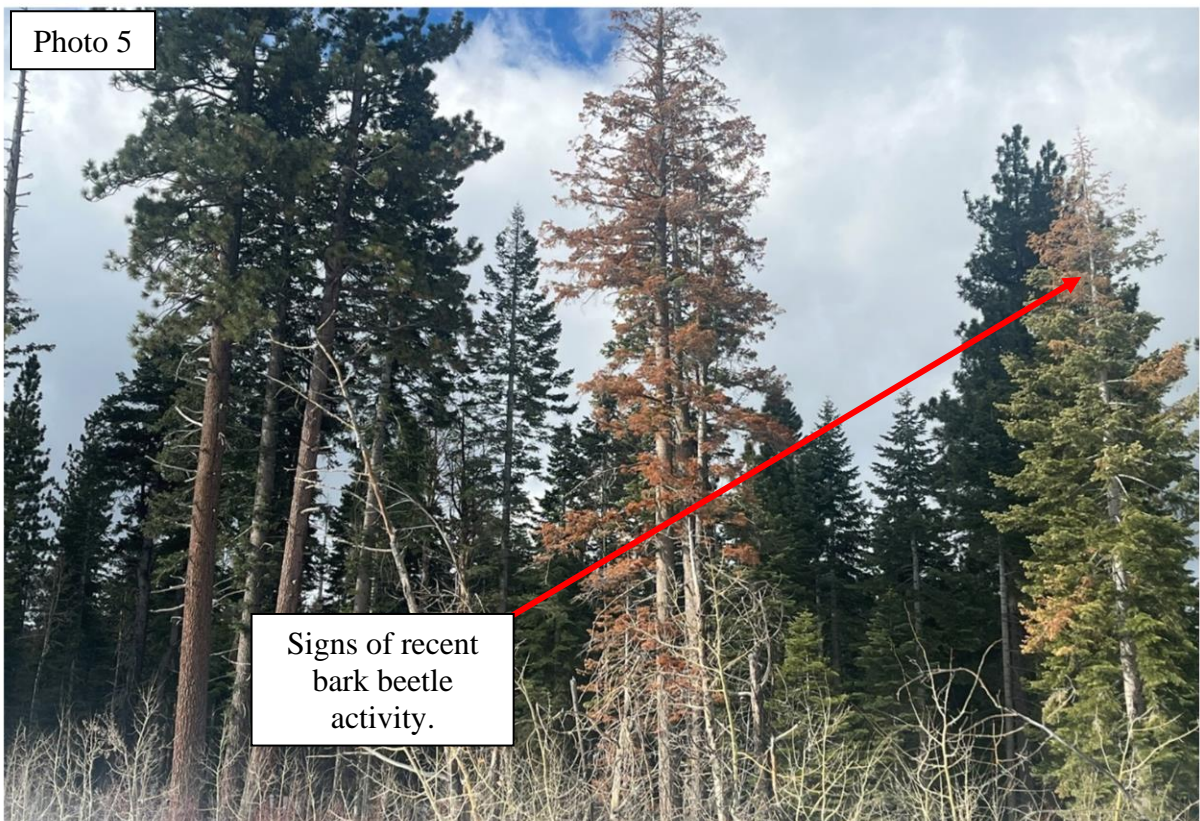


Photo 3- The photo above was taken on March 12th, 2025 and demonstrates the number of dead, diseased, dying and pest infected conifer trees within the proposed project areas. The number of dead conifer trees is increasing the wildfire potential. For this project area, the objective will be removing the appropriate number of dead trees while leaving 1-3 dead trees per acre for wildlife habitat. In addition, thinning the residual white fir trees will enhance the forest stand by increasing canopy spacing and promote pine back to the historic forest over-story. This in turn will restore the forest ecosystem and make the stand more resilient to fire, pest attacks and disease.

Photo 4



Photo 5



Signs of recent
bark beetle
activity.

Photos 4 & 5 – The two photos above were taken on March 12th, 2025 and are demonstrations of recent tree mortality from active bark beetles.