TAMARACK
— WILDFIRE CONSULTING —

Wildfire Mitigation Plan
Tetherow Owners Association
Common Areas

August 2023

GENERAL SITE DESCRIPTION

Boundary Description
This plan addresses a number of parcels (or "common areas") owned and managed by the Tetherow Owners Association (TOA) within the footprint of Tetherow. Tetherow is located in unincorporated Deschutes County and abuts the southwest side of the City of Bend.

Fire Protection
The entire Tetherow subdivision is within Deschutes County Rural Fire Protection District #2. The District provides fire protection through a contract with Bend Fire and Rescue. It is also in the Central Oregon District, Prineville-Sisters Unit, of the Oregon Department of Forestry for wildland fire protection. In the event of a wildfire, the closest wildland fire resources will respond for initial attack.

General Site Information
The majority of Tetherow sits in the Awbrey Hall fire scar of 1990. This is important to note, since many of the subject parcels have fewer trees per acre than neighboring properties not impacted by the fire. Due to the high severity of the fire, most trees were killed which made it more difficult for the next generation of trees to re-establish. Instead, the burn scar has been dominated by the regrowth of native shrubs like manzanita, bitterbrush, and rabbitbrush. This regrowth has gone relatively unchecked by wildfire or mechanical reduction for decades.

Description of Local Ecosystem and Wildland Fire Characteristics
Tetherow sits in a high desert ecosystem dominated by a ponderosa pine overstory supported by sandy soils and only 12" of precipitation per year. Before settlement, ponderosa pine was widespread with ample spacing between clusters of trees, shrubs were less numerous, and there were more grasses and wildflowers. On average, a wildfire would burn through the area every 11-15 years. Due to the ponderosa pine's fire-resistant characteristics (thick, segmented bark that flakes off when burned, few lower limbs), fires would stay on the ground and burn with low to moderate intensity through grasses and dead pine needles.

After settlement, decades of logging, grazing, and aggressive fire suppression drastically changed the composition of major plants and trees in the area. Ponderosa pine is still the predominant tree in the Tetherow area, but existing trees are much younger on average and have been exposed to little or no fire. The lack of fire has allowed various native shrubs to proliferate.

Lack of wildfire has also allowed western juniper to move into forested areas from their historic range in the drier soils to the east. Western juniper is very flammable and is adept at out-competing neighboring trees and plants for water which limits the ability for grasses and other forbs to grow near them.

The most common shrubs found in the Tetherow area are bitterbrush and manzanita which are both native but quite flammable. Sagebrush and snowbrush can also be found, which are flammable. Wax currant and rabbitbrush were also observed in the area - they are both native but less flammable.

RECOMMENDATION

It is recommended to treat the common areas of the TOA to mimic more historic vegetation composition and spacing. This includes breaking up the canopy of trees, removing some junipers, and increasing spacing between shrubs (removing the more flammable species while retaining the more fire-resistant ones when possible). This will not eliminate the chance of wildfire on these parcels, but promote an environment where any fire that might occur would stay on the ground and be significantly more receptive to firefighting efforts.

TREATMENT SPECIFICATIONS

The following section details treatment specifications for the common areas of the TOA.

Trees

Native trees within Tetherow are ponderosa pine, western juniper, and quaking aspen. Junipers present the highest fire hazard followed by smaller ponderosas that serve as ladder fuels. Aspens are a low fire hazard when managed properly. The treatment objective here is to prevent fire from traveling up to and through the crowns of the trees.

- Remove juniper trees that are less than 12 inch DBH (Diameter Breast Height). Consider removing other larger junipers if there are more than 3-5 present per acre.
- Thin conifer trees to provide for a 12-15 foot spacing between crowns of individual or small groups (2-10) of trees.
- Remove conifer trees that serve as ladder fuels.
- Retain smaller ponderosas where possible.
- Prune conifer trees to a minimum of 6 feet above ground level or no more than 20% of the live crown of the tree on smaller trees.
- Prune and/or remove shrubs and trees such that a space of at least 3 times the height of the shrub exists between the shrubs and the branches of the trees.

Brush

Native shrubs in Tetherow consist of manzanita, bitterbrush, sagebrush, snowbrush, wax currant, and rabbitbrush. Manzanita, bitterbrush, sagebrush, and snowbrush are all highly flammable shrubs, while wax currant and rabbitbrush are somewhat fire-resistant. The treatment objective for brush is to reduce fire intensity and reduce fire spread rates.

- Prune and/or remove shrubs and trees such that a space of at least 3 times the height of the shrub exists between the shrubs and the branches of the trees.
- Rocky areas/steep slopes: brush should be thinned such that any retained small groups (not to exceed 6 feet in diameter) must be separated by at least 3 times the diameter of the brush clump. Favor wax currant and rabbitbrush over manzanita, bitterbrush, sagebrush, and snowbrush. Remove thinned brush from the site.
- Large flat areas - mow in patches or patterns to reduce overall brush by 50-70%. Alternate treatments every 3-7 years. *Example*: In a given area, mowing occurs in 2024. In 2029, brush that was not mowed in '24 is mowed.

Slash Piles
Several slash piles (piles of dead logs and branches) left over from the Awbrey Hall Fire are within the common areas. These piles are very flammable and should be removed.

Priorities
Tamarack will work with TOA staff to prioritize treatment areas. Priorities will be driven by:
- Proximity to homes.
- Fuel loading.
- Accessibility by firefighting resources.

Tamarack Wildfire Consulting will flag the parcels for trees and brush that need to be removed and be available to discuss treatment methods and objectives with contractors. Treated areas should be re-evaluated every three years by a fire professional to outline any additional treatments and the schedule of on-going treatments.

SUMMARY

The current fuel conditions on this parcel would be susceptible to a wildfire; either from a fire starting on the property or from a fire ignited on adjacent land. By implementing the hazardous fuel reduction recommendations, fire intensity and severity will be greatly reduced and the safety and successful suppression of the fire by first responders would increase significantly.

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About Tamarack Wildfire Consulting, LLC

Tamarack Wildfire Consulting specializes in wildfire mitigation work in Central Oregon and throughout the West. Our team has decades of combined wildland fire experience and takes a whole systems approach to fire and land management. We work with both public and private sector clients to create resilient communities in fire-dependent ecosystems.