

SUMMARY

Timber Ridge Ranch Wildfire Hazard Mitigation Assessment

November 3, 2011

A wildfire hazard mitigation assessment of 34 homes and common space within Timber Ridge Ranch was conducted on November 3, 2011 by Kent Grant, CSFS District Forester; Scott Wagner, USFS Forester; Pam Wilson, FireWise Program Director; and residents Barbara and Wayne Kennedy. We visited with homeowners at approximately one third of the properties that we assessed. Below is a summary of our findings; a detailed assessment of each property was provided to Barbara and Wayne.

VEGETATION:

Native vegetation within Timber Ridge Ranch primarily consists of ponderosa pine, Rocky Mountain juniper, and Gambel oak with a few pockets of Douglas-fir and an occasional white fir. There are also areas of open grassland with scattered oak, pine, and juniper. Most of the vegetation looked to be relatively healthy, although there was some dwarf mistletoe (parasitic plant) found on pine and some of the oak that had been “top-killed” by frost.

COMMON SPACE:

These areas are generally in fairly good shape but all need some level of treatment, primarily removal of “ladder fuels,” which is where vegetation that is growing below larger trees could carry a fire up into the tree crown. Within Timber Ridge Ranch, this problem primarily involves juniper and/or Gambel oak growing beneath large ponderosa pine, or Gambel oak growing adjacent to or underneath juniper. The oak is generally 1-4 inches in diameter and 3-6 feet tall. Juniper is especially flammable, and would quickly carry fire up into the crown of an overtopping pine tree. It should be removed where it is adjacent to or beneath the crowns of ponderosa pine. The lower branches of ponderosa pine could be pruned up to a distance of 8-10 feet from the ground to get enhance separation of surface fuels and lower ladder fuels from tree crowns.

Since Juniper is quite common throughout the subdivision and because of its flammability there are areas where it needs to be significantly thinned. The lower limbs of juniper that are retained could be pruned 2-4 feet off the ground to get separation of surface fuels from tree crowns. Much of the Gambel oak within the common space also needs some thinning or clumping, and removal of dead stems. We saw many areas where it would be easy to “clump” the oak, thinning out remaining stems and leaving 10-15 feet between the oak and nearby pine or juniper. There should also be adequate separation from other clumps of oak (see recommendations in “Creating wildfire Defensible Zones, #6.302”). Thinning out smaller stems will encourage the remaining oak to grow into larger trees. As the oak leafs out in the spring, residents should watch for oak that has been “top-killed” by frost and consider thinning those stems back to promote healthy growth and reduce fire danger. Oak typically prolifically sprouts after cutting and so readily comes back, so most oak treatments require frequent maintenance.

Much of the needed work within the common space could probably be accomplished through volunteer work days if the residents were so inclined. The HOA could rent a chipper for a day and move from common space to common space chipping small diameter materials that had been previously cut. Chips could be spread over areas of exposed ground to help stabilize the soil and

prevent erosion. While chips will burn and are not recommended next to structures, the fire would be on the ground where it is easier for firefighters to suppress or manage.

HOME ASSESSMENTS:

Homeowners within Timber Ridge Ranch are to be commended for using ignition-resistant building materials. Many of the assessed (and observed homes) had stucco, hardy plank, LP SmartSide, or rock. Many had rock wainscoting along the bottom portion of the house and many homes appeared to have Class A roofing materials (metal or asphalt shingles). Many homes had a good amount of green grass that would serve as a fuel break. We also observed a number of homes that had rock, concrete, or other inorganic material for a distance of five feet around the home. Having this barrier of inorganic material around the home is critical as recent research shows that most homes burn when flying embers land in a vulnerable receptacle near the home. That being said, there were several assessed homes that had mulch that ran right up to the base of the home. These homeowners should be encouraged to pull that back at least 4-5 feet, further if the side of the home faces a slope.

Another factor near the home for residents to consider is screening in decks and steps, especially those that sit just 1-3 feet off the ground. It is easy for pine needles and leaves to accumulate under the deck or for grass/weeds to grow in this area, providing a ready receptacle for flying embers during a wildfire. A 1/8" metal screen, corrugated metal, or rock is recommended to close off these areas.

We didn't find many homes with ornamental junipers next to the home, but there were a couple and we encouraged homeowners to remove those junipers because of their flammability. This is especially critical if the home has wood siding or the junipers sit below windows.

As with the common spaces, the primary vegetation issue facing most homes was the presence of ladder fuels. It is essential that homeowners be encouraged to remove the small juniper, oak, and other brush that will help carry a fire up into the crown of a tree.

As noted on individual home assessments, we also found some areas where trees near the home needed to be thinned. Unless an insurance agent requires something different, it is okay to have a couple trees near the home as long as the lower limbs have been pruned up 8-10 feet (on pine), there is non-flammable material below the tree (no mulch, pine needles/leaves, or ladder fuels), and roofs and gutter are kept free of pine needles and leaves. Many sites also had oak that needed to be thinned and clumped, as recommended for the common spaces.

OTHER COMMENTS:

Something noted while doing the assessments were the erodible soils within the subdivision. These will need to be taken into account when planning and implementing treatments. Vegetation should be retained on steep slopes where it is helping to stabilize soil and prevent erosion, although some treatments could be carefully conducted where needed and feasible. Use of mechanized equipment may need to be minimized or excluded from some areas.

There are piles of old woody debris scattered on some of the lots and common spaces from past road construction and lot clearing. Many of these piles have excessive dirt in them that would cause them to burn poorly and only partially. As an alternative, these piles could be picked up and hauled away to a landfill that accepts this type of material, or the material could be hauled to an open, safe location within the subdivision and re-piled into one or more larger piles to be burned when conditions are suitable for doing so. A burning permit is required by the Pagosa

Fire Protection District and it can be contacted for permit details and possible assistance in conducting a pile burn.

We now know that ember showers rather than the flaming fire front are responsible for the loss of many homes during wildfires. Sometimes fires are ignited by hot embers that are falling well away from the main fire, and there may not be anyone near to put them out if the subdivision has been evacuated and firefighters are away trying to protect homes closer to the main fire. It is important to eliminate fuel beds of wood chips, dried grass, pine needles, oak leaves, etc. that could be ignited by burning embers away from structure foundations, wooden decks, and roof gutters or valleys. It is also prudent not to leave any “fuses” of fuels that could lead a smoldering fire right up to a house or other combustible structure.

As we discussed, decades of aggressive fire suppression in the fire-adapted ecosystems of southwest Colorado (such as the ponderosa pine/Gambel oak vegetative type predominant within Timber Ridge Ranch), has resulted in unnatural vegetative conditions that are more prone to serious wildfires. Had fires been allowed to burn, these ecosystems would appear and burn much differently than they do today. Many of the vegetative treatments recommended here are in essence returning the forest to conditions more similar to those of earlier times. The intent of fuels treatments is to reduce fire intensity and facilitate easier control, which helps to protect life and property during a wildfire. Since fires will continue to occur in fire-adapted ecosystems, it makes sense to acknowledge it will happen and prepare for it.

Although there are no guarantees, creating defensible space around structures will certainly help save them in the event of a wildfire. It increases their chance of survival even if no one is around to suppress the fire. It also makes it much safer for residents to “shelter in place” if a fire has cut off evacuation routes or if the choice was made to stay put and sit it out. In addition, it improves the odds that firefighters will be successful in defending your home and gives them a safer place to make a stand in order to do so. Since we do not have enough structure protection engines in the area to position one at every house in a subdivision, firefighters will put their effort where it makes the most sense to do so. They will often drive by a home they feel there is little chance of saving or it would be unsafe to attempt to do so.

The Colorado State Forest Service is available (for a small fee) to do more detailed assessments for homeowners with very dense vegetation or those just starting to build a home. There is also a wealth of information for homeowners on our website at: www.csfs.colostate.edu. If you have any questions about this summary please call me at 247-5250.

Thank you for allowing us to conduct an assessment at Timber Ridge Ranch. We applaud and support your efforts to make your community better prepared to survive a wildfire.

Kent Grant, District Forester
Durango District, Colorado State Forest Service