May 20, 2005
OPEN LETTER TO SFTR LANDOWNERS From C.K. Morey

Dear SFTR Members:

In the thirty years I have been the District Forester for the Colorado State Forest Service, I have fought a number of wildland fires on the property that is now yours, SFTR. After the break up of CF&I lands and consequent purchase and development of SFTR, I made an assessment of the changing environment and how it would affect future response for wildland fires in this area. What stuck in my mind and heart is that the SW corner of SFTR is a fire trap. From the intersection of Tall Oaks Drive, Owen Baldwin Parkway runs south a distance of about two miles. Essentially this part of the road is an extremely long cul-de-sac along a ridge and crosses several fire chimneys. Any fast moving wildland fire up one of these chimneys such as where the large power line crosses would cut off and trap landowners to the south with no escape route. The same danger exists along Timber Park Drive. The forests are choked with many trees with tight crown closure and a heavy understory of brush with large volumes of dead and down fuels. Predominate winds are from the South and Southwest. Any fire starting close by in New Mexico is a serious threat to SFTR. The Hobbs Fire in 1999 started about two miles south of SFTR in New Mexico and grew to 740 acres in a matter of two hours. The Fire Department and SFTR made plans for evacuation if the Hobbs Fire would have escaped containment and moved toward SFTR. The Spring Fire in 2002 started in New Mexico and made a run of 11 miles in less than eight hours. If the same foot print of the Spring Fire would have occurred 16 miles farther to the east, the south end of SFTR would have been devastated.

Because of my concern, I wrote a grant in 2003 seeking a cost-share grant to reduce fuels and establish a shaded fuel break along the south end of Owen Baldwin Parkway and east along the State Line from the SW corner of SFTR. Fishers Peak FPD agreed to put their name on the grant. This grant proposal competed with all of the 17 Western States in Competitive Fuel Mitigation grant proposals. We received word recently that about $34,000 of a 50/50 reimbursable grant funds are now available for this shaded fuel break. We have to spend the funds on this project before we can request to receive the grant fund reimbursement.

Vermejo Park Ranch is your neighbor to the south and west of SFTR in this SW corner and they want to be good neighbors. Vermejo Park Ranch Head Forester, Scott Chase, and General Ranch Manager, Marv Jensen, realize the danger of any fire starting on the adjacent Vermejo Park Ranch and crossing over property boundaries onto the SFTR. Vermejo Park Ranch has offered from their VPR forestry funds monies required to match the federal grant 50/50 requirement and to upfront the entire grant so that it does not impact the fire department cash flow.

The tentative plan is to construct a shaded fuel break up to one mile north ward along Owen Baldwin Parkway from the State Line and about one mile east along the State Line. All the work is being planned on the Vermejo Park Ranch property. No trees will be cut on adjoining SFTR properties unless the adjoining landowner wishes to participate. If adjoining SFTR property owners indicate a desire to participate in having mitigation treatment on their property there would be a separate written agreement with each involved landowner and the landowner would have the personal responsibility of the fifty per cent grant match requirement with either cash or

in-kind.

Work will be done with Vermejo Park Ranch equipment and a contractor who is experienced, fully insured, and competent. All work will be planned and monitored by Scott Chase, myself, (CK Morey) and the New Mexico State Forest Service (on the New Mexico side). A large hydro axe will be used to mulch standing brush and dwarf mistletoe infested trees. To get more accomplished, as cost saving per acre, any material that can be utilized will be salvaged for posts and poles and hauled off through Vermejo Park Ranch and other private land in New Mexico to post plant in Raton. To get the best value for any sawlog material, these could be hauled to Trinidad to the local sawmill on SFTR roads. I estimate 5-10 truckloads of sawlogs. These trucks would have about the same impact on SFTR roads as gravel trucks that are currently being used.

On the New Mexico side of the shaded fuel break, slash and unmerchantable material will be piled and burned this winter with snow cover. A fireline will be scraped to mineral soil around each burn pile. Piles will be kept at 4000 cubic feet (20ft by 20 ft by 10 ft.) or less to meet New Mexico clean air standards and burned on days with good smoke dispersal. The number of piles burned per day will be limited to conditions and no lighting of new piles after 1 PM to obtain near complete burnout before sundown.

On the Colorado side of the shaded fuel break, the tentative plan is to pile slash and burn with similar constraints under the Colorado State Department of Health Regulations. Objective would be to reduce slash pile size to 20ft by 10 ft x 10 ft. where possible. If there are landowners who oppose the piling and burning, one alternative is hauling unusable material into New Mexico and burning at a suitable site. Another alternative is to bring in a large mulcher and grind the material on site. Both these alternatives are expensive and would reduce the length of the proposed shaded fuel break. The amount of protection that we could accomplish with this grant and matching Vermejo Park Ranch matching dollars would be reduced by a significant amount if either of these alternative plan options are necessary.

So what is a "shaded fuel break"? A shaded fuel break is an area approximately 200- 400 feet wide that has trees thinned to open up the crown. The center of the shaded fuel break has tree spacing of 40-80 feet. Toward the outer edges of the shaded fuel break the tree spacing distance is reduced to "feather" or blend back into the current stand characteristics to enhance aesthetic appearance. Ladder fuels (low hanging branches and brush) are removed to prevent a surface fire from "climbing" up a tree into the crown. A shaded fuel break does not have to be in straight line, it can curve to fit the terrain or topography. This is in contrast to a regular "fuel break" where all the woody vegetation is removed in strips 100 to 1000 feet wide.

How does a "shaded fuel break" function in case of fire? Essentially when a moving crown fire hits the edge of the shaded fuel break, the open crown spacing will not support continued crown burning, and the fire drops back to the surface where it can be controlled. Also the shaded fuel break in a ready defense line where fire fighters could burn out fuels ahead of an on coming fire before it even reaches the fuel break. In addition, depending upon tree spacing and natural openings, portions of shaded fuel break could qualify for safety zones.

Main critical focus will be **SAFETY** of firefighters and property owners. One of the benefits of constructing this shaded fuel break will be the increased ability to fight Wildland fires and providing an additional exit route in the event of a major fire on or near the southwest corner of the SFTR. With the existing high risk conditions of dense tree stands with a thick understory of brush and surface fuels combined with the long roads and only one escape route firefighters could not be put into this area to fight a Wildland fire of any significant size or to position fire engines for structure protection. Once the shaded fuel break project has been completed the improved logging roads will provide an additional escape route for SFTR residents and firefighters should the primary escape routes provided by Timber Park Drive and Owen Baldwin Parkway be cut off by a fire. These roads will provide access for Wildland firefighters to get their firefighting equipment into the area and the shaded fuel break provide an area for a "crowning fire" to drop back to the ground allowing the firefighters a safer place to make a stand against a Wildland fire approaching the SFTR from the South or Southwest.

A concern some might have is that the spring cutting of trees could attract bark beetles. This would be more of a concern during drought periods but less so with our wet winter and spring. Usually bark beetles emerge and attack the nearest suitable tree, one that has been stressed or unusually weakened by drought, overpopulation, wind or lightening, or man made stress created by road or building sight preparation. Once a tree is attacked, the beetles put out pheromones to attract other beetles so the insects can mass attack a tree to overcome the trees natural defense. Sap flow is the trees defense to pitch out attacking beetles. A healthy tree with a lot of sap flow is able to defend better than a stressed tree with low sap flow. Typically the small Ips bark beetle can only fly up to one mile from the emergence tree (host tree or branch) and can have 3 to 4 generations per year. The larger bark beetles (Mountain Pine Beetle or Western Pine Beetle) can fly up to 3-4 miles from the emergence tree, but will have only one generation per year. Mountain Pine Beetles usually emerge to attack new trees in August. Western Pine Beetles fly in late September and early October. Of note, if the cutting activity did attract any bark beetles, then the possible benefit for SFTR would be "pulling" any beetles away from the SFTR property. We will monitor the situation in and around the treatment site and take the necessary action to prevent any beetle population buildup. Some may have concerns that the Ips could build up in the slash piles. Most of the larger diameter (4 inches and up in diameter) will be removed. Ips life cycle has poor success of producing large brood numbers in smaller branches which have much less cambium and phloem area for food. If we get enough Ips being produced in a slash pile with the third generation, the beetles will normally attack the nearest weak tree. Once a stand of trees is thinned, each year added growth and increase vigor of the remaining trees increases and enhances a healthy forest condition.

Another concern some landowners may express is that the slash piles may be a fire danger. From my 30 years of experience in dealing with fire behavior of over several thousand fires both large and small, I feel much safer dealing with small slash piles that have fuels cleaned up between piles than having to deal with the immense fuel load of dense forest with lots of undergrowth. The fire danger is much higher in the unthinned overpopulated forest with heavy fuel loading. A slash pile when it has dried out will burn hot, but is much easier to contain than a forest fire where fuels are distributed from the ground to the canopy. It takes some time for the slash pile to burn down which allows the fire department personnel to put out the fire using a minimal amount of water. By keeping the piles small and hauling off the large diameter material, the slash/burn

piles should not be a fire danger problem. The biggest concern that I would have with burn piles is if an arsonist wanted to cause problems by setting one or more piles on fire this fall.

There would be need of maintenance. Depending upon regrowth of brush, this would need to be cut back on 10 to 15 year intervals. This could be done mostly with a brush mower or managed grazing. Elk will frequent the shaded fuel break as there will be lot of new grass and tender brush shoots to feed on.

If you have additional concerns or comment, please feel free to contract me at 719-742-3588, mailing address is Colorado State Forest Service, P.O. Box 81, La Veta, CO 81055, or email ckmorey@lamar.colostate.edu.

Sincerely,

Clarence K. Morey
District Forester
Colorado State Forest Service