Colorado Outdoor Education Center CWPP Update April, 2011

This Community Wildfire Protection Plan Update for the Colorado Outdoor Education Center April, 2011 and is approved/concurred by the following:

Jane Sanborn, Executive Director
Colorado Outdoor Education Center — 3/9/11 Date

Rob Jolly, Director, The Nature Place — 3/8/11 Date

Chief Robert Bertram, Florissant Fire — 3-8-11 Date

Larry Long, Colorado State Forest Service — 2/18/11 Date

Teller County Commissioners — 4/14/2011 Date

Introduction

As with any long term project, experience can bring about changes in procedures, focus, and priorities. This is true for the Colorado Outdoor Education Center. The original COEC CWPP was completed in January of 2009 and the experience of the last two years has had a major impact on our approach to wildfire prevention and forest health for this property. Projects have been completed, attitudes have changed and the priorities for the years ahead need to be modified to reflect those changes. With new guidelines for CWPP content, this update is designed to provide direction for future projects and community education.

Suppression Capabilities

The COEC community reasonably expects immediate Federal, State or local fire suppression response in the event of a wildland fire start that threatens the community. When possible, aggressive initial attack, including the use of aircraft, is generally the most cost effective approach for dealing with wildfires. Occasionally, due to reasons such as lack of resources, multiple fire starts, extreme burning conditions, or firefighter safety issues, initial attack may not be successful. Each fire suppression agency will take aggressive actions to contain, control, and fully extinguish wildfires during the initial attack period and thereafter, and agrees the primary concern is the extinguishing of wildland fires.

Florissant Fire Protection District would have the responsibility to be first responder to a fire – wildland or structural -in the COEC vicinity. As a paid and volunteer department, there are significant limits to the manpower, number of responding vehicles, and response time that can be anticipated in a fire emergency. The fire department has completed an assessment of all structures and their vulnerability to wildfire which will be discussed later in this document.

Partnerships

COEC maintains permits with the USFS for group recreation as well as grazing on public lands. COEC is also providing access to the USFS for upcoming fuel mitigation projects in the vicinity. Additionally, there are agreements in place with the National Park Service to allow camp guests to access Florissant Fossil Beds National Monument by trails from COEC for educational purposes. This has fostered long-term working relationships across boundary lines with adjacent public land managers.

Projects

Prior to the first CWPP, the fuel reduction projects on COEC were small and scattered. The original plan allowed for a more systematic approach to projects and also provided an overall view of the hazards present in and around the property. The current and future plan is to connect previous projects to increase the overall size of treated areas and improve the effectiveness of the treatments. To date, 70 acres of COEC have been mitigated to reduce forest fuels and improve forest health.

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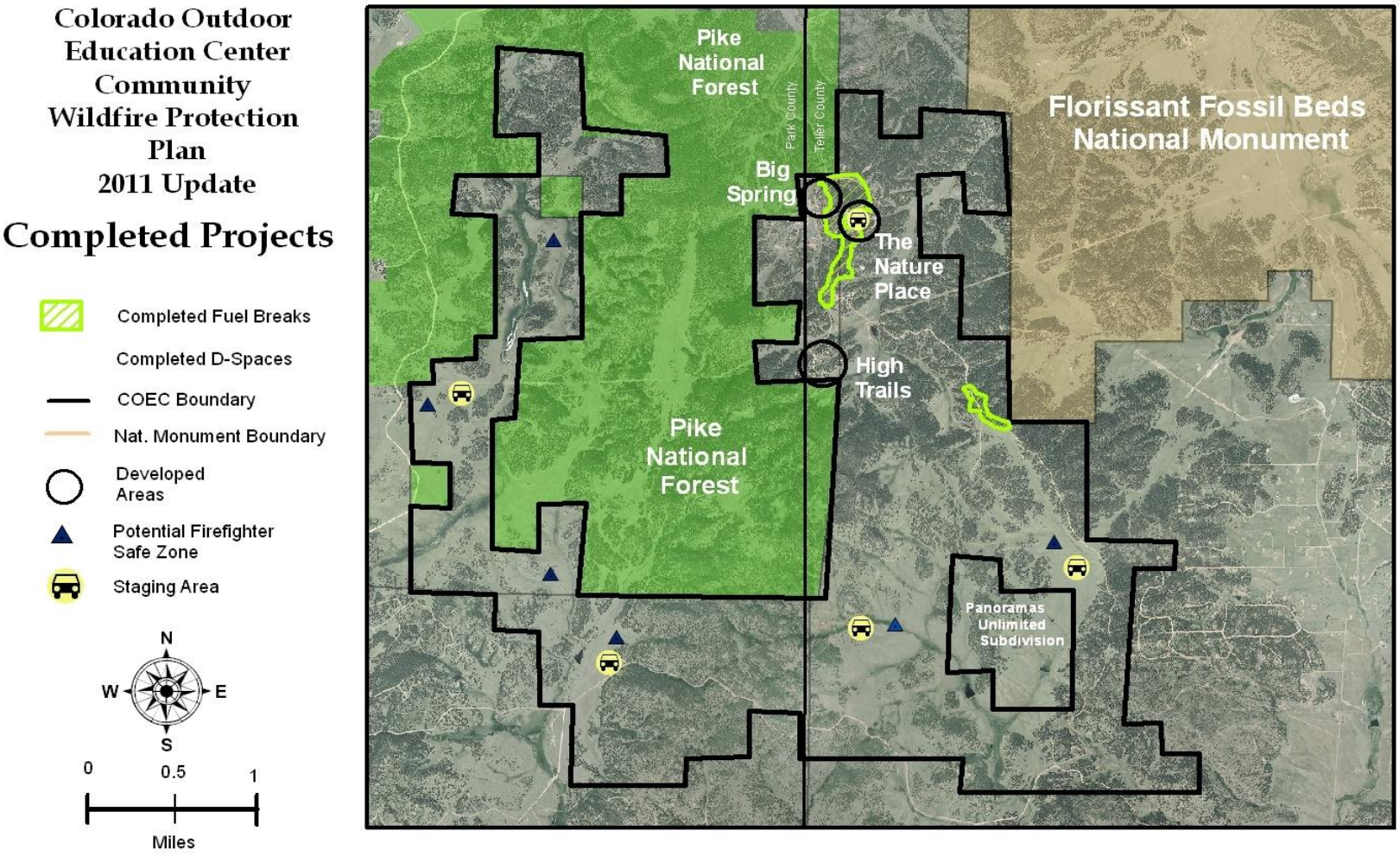
Completed Projects



In 2010, COEC received a grant through the American Recovery and Reinvestment Act and the Coalition for the Upper South Platte to treat 20 acres of heavy timber located in a critical area along access routes. This project was designed by Colorado State Forest Service with forest health as a priority. Project boundaries were established by CUSP and the work was contracted to a private local business. On the ground work began December, 2010, and was completed in Feb. 2011. An additional 10 acres have been treated with a grant from Colorado State Forest Service. The following photos, courtesy of Rob Jolly, The Nature Place, are of the project site.

The forest conditions in this treatment area included closed canopy, heavy fuels and abundant ladder fuels. The ponderosa in this area has mistletoe so maintaining the Douglas fire component was necessary. Also, there are small stands of aspen that will benefit from this treatment.

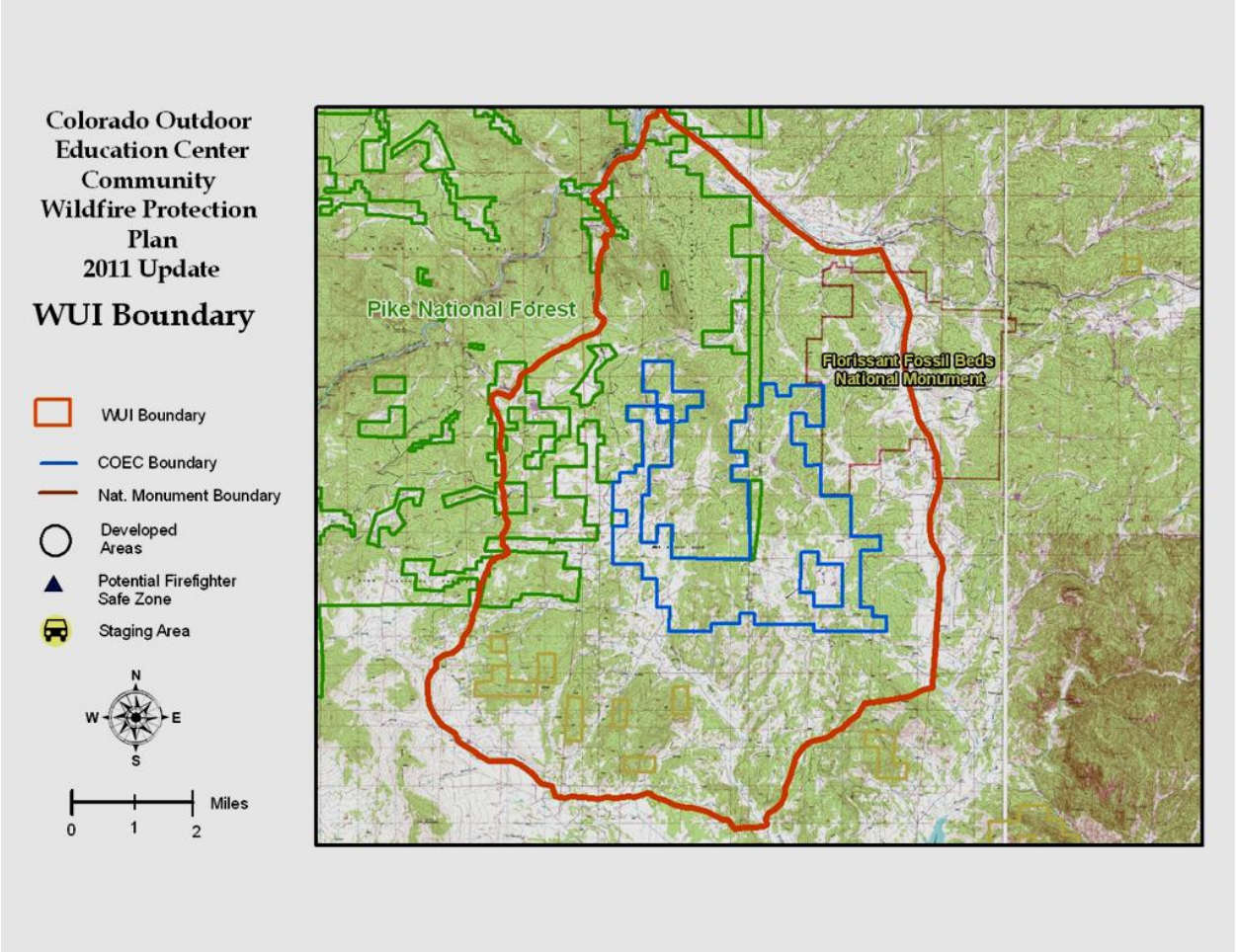
K & K Tree Service in action. Photo courtesy of R. Jolly.

Mechanical treatments of larger acreage are becoming more economical for property owners. The equipment is designed to do the work efficiently with little damage to the soil or the remaining trees. By chipping the slash in place, the mulch will help prevent erosion and return the nutrients to the soil.

Following treatment, the tree crowns are separate, the canopy is "open" and ladder fuels have been removed. There is less tree competition for sunlight nutrients and water, which will lead to healthier trees that are more resistant to insects and disease. More sunlight on the ground will increase the diversity of surface plants which will in turn encourage wildlife habitat development while reducing the risk of crown fire.


Photo courtesy of R. Jolly

Wildland-urban interface (WUI) maps have been revised to include those areas outside the camp where fire could become established and cross onto or off of camp property. Adjacent public lands are included in the WUI map and it is understood that it could be several years before funding and other requirements allow those managers to treat fuels along the boundary.

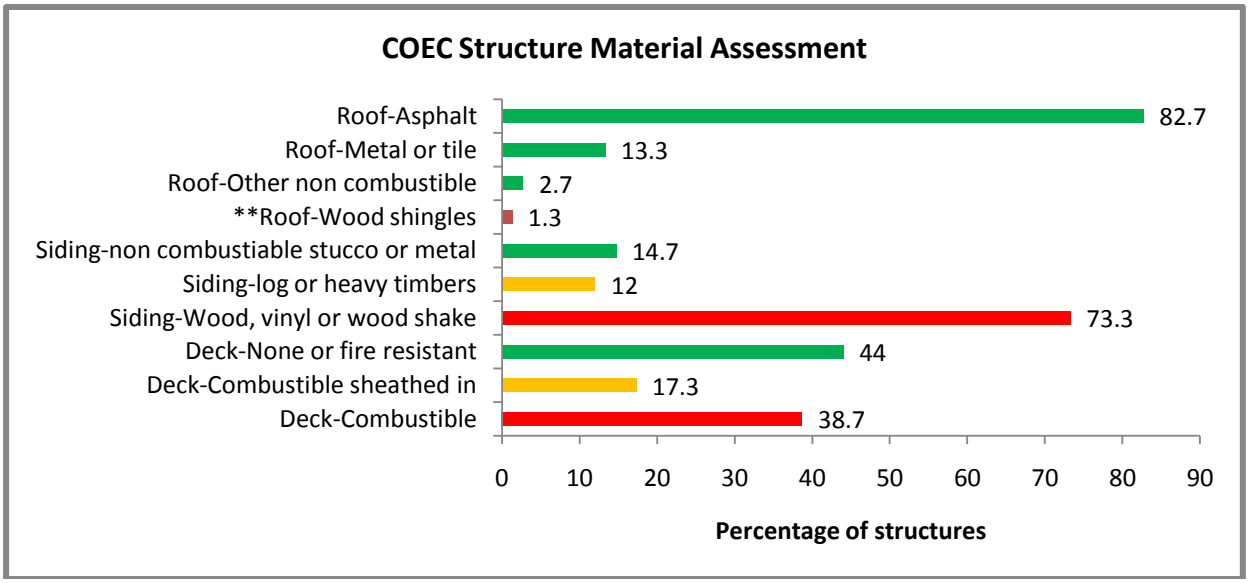


At this time, the USFS has plans in place to do several thinning and harvesting projects on over 600 acres along the main access road from the north which will also improve the safety of this community in the event of an emergency evacuation due to wildfire. Due to the proximity of these projects to the property, these areas will also provide accessible locations for additional educational opportunities for camp guests to learn about public land forest health management activities.

Structure Protection

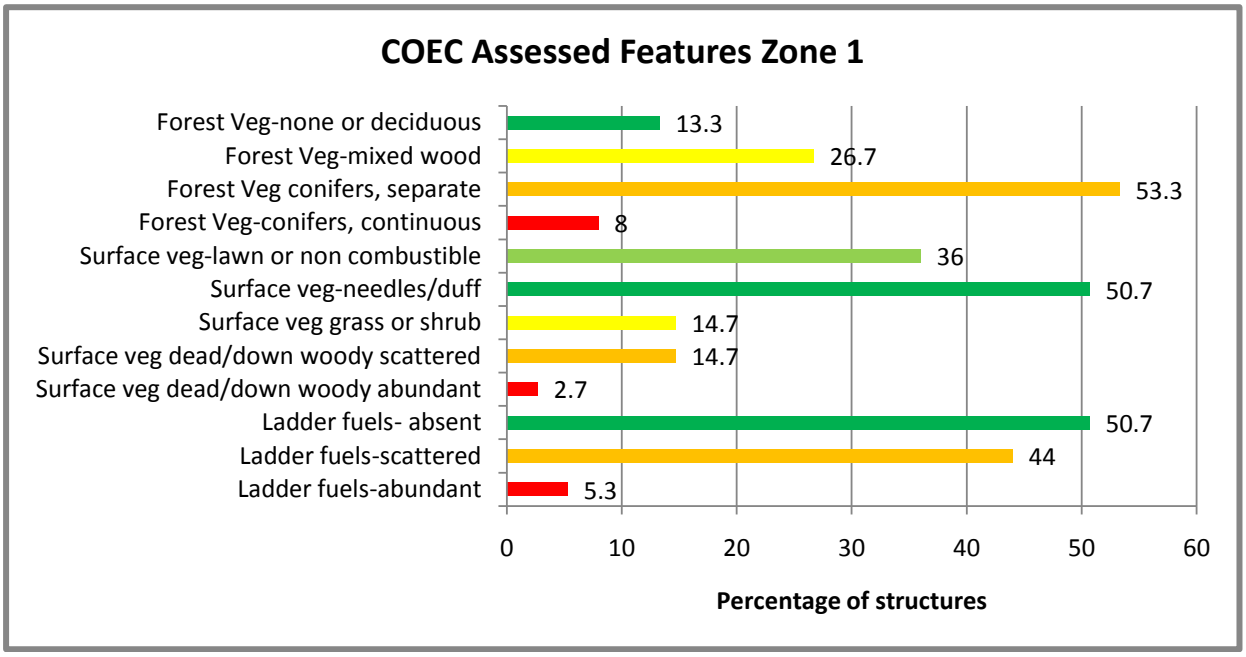
Ownership of these buildings is maintained by the COEC and residents have minimal input regarding changes or improvements beyond maintenance. However, the area surrounding the structure directly benefits from the resident labor and attention to the fuel components. In order to coordinate the work necessary to improve structure safety and defensible space around the COEC buildings, the staff of Florissant Fire assessed each structure using a standard survey format and Red Zone© software. Research has shown that a structure has the best chance to survive a wildfire if the treatment extends at least 100 feet in all directions from the building. This software produces a report for each structure as well as the statistics for all structures in the "neighborhood". These statistics are presented here in chart format. The same color key was used for hazard rating in all charts: Very Low, Low, Average, High, Very High.

The first areas evaluated are the factors relating to the ignitability of each structure as determined by the building materials used. Roofing materials on COEC structures, for the most part, present a minimal hazard. Many of the structures in COEC are older and have siding materials that are vulnerable to fire. Decks, especially those that are not enclosed with screen both above and below the deck surface are very combustible in a wildfire event and can lead to the loss of the structure. (Note: **the wood shake roof has been replaced with asphalt shingles and a large asphalt roof replaced with metal since this assessment was completed)

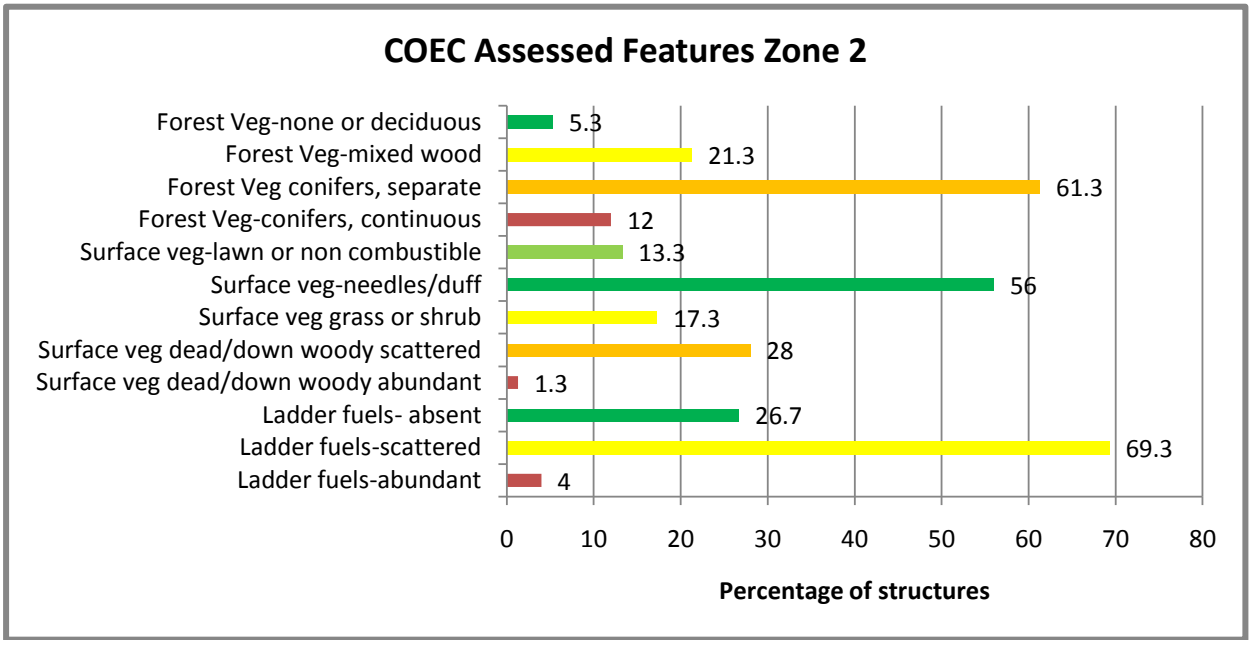


The next area assessed is the vegetation – placement with regards to the structure, type, and location and these same features are evaluated in the three primary zones. The area evaluated begins with Zone 1, or the 30 feet immediately surrounding the building. The structures that should receive priority treatment are those that have conifers with branches touching, heavy amounts of surface fuels – branches, dead or down woody debris, or ladder fuels – in close proximity to the structure. Less than 10% of the buildings fall into the extreme hazard category, additional effort is needed if the rating is high. The primary responsibility for the removal of this

vegetation lies with the building resident if it is a private structure or with camp staff is it is a common building.

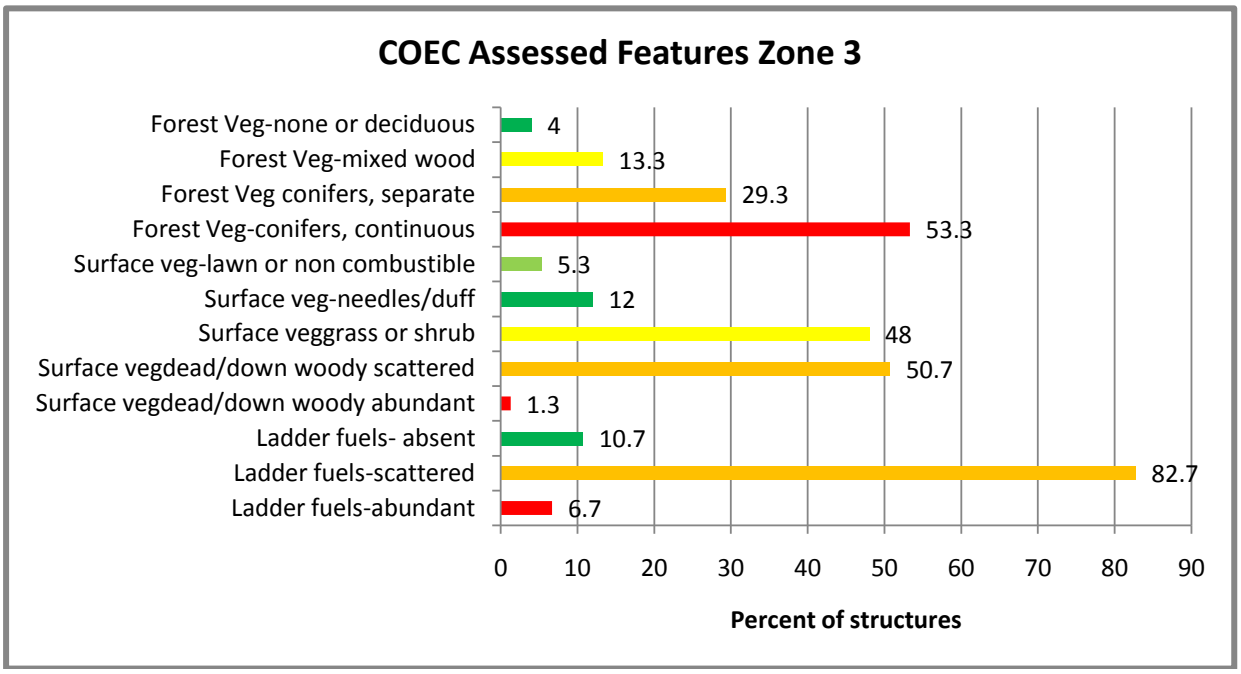


Zone 2 is the area 30-50 feet from the structure. While less frequently maintained than Zone 1, this Zone is critical to keeping fire away from the structure. Priority should again be given to buildings that have conifers with branches touching (closed canopy), heavy amounts of surface fuels – branches, dead or down woody debris, or ladder fuels in Zone 2 around the structure.



Evaluation of Zone 3 – 50 to 100 feet from the structure

The assessment demonstrates that this has not been as high a priority for work as the two previous zones. Over 50% of structures are within the critical 100 feet of heavy, continuous fuels. Effort should be made to thin closed canopy timber in this zone and reduce the surface and ladder fuels.



Appropriate treatment in Zones 1-3 will not only increase the survivability of a structure in a wildfire event, it allows safe working space for fire department personnel to address a structure fire and prevent it from moving into the forest and becoming a wildfire.

Specific structure mitigation needed

38.7%	Post visible Address
30.7%	move firewood & combustibles
17.3%	skirt deck and openings
16%	remove forest veg around home
8%	Improve Drive or access road
6.7%	Mow/rake near home
6.7%	Remove surface/ladder fuels
6.7%	General clean up of property
4%	Close eves/screen vents
2.7%	Clean roof and gutters
1.3%	Clean under decks

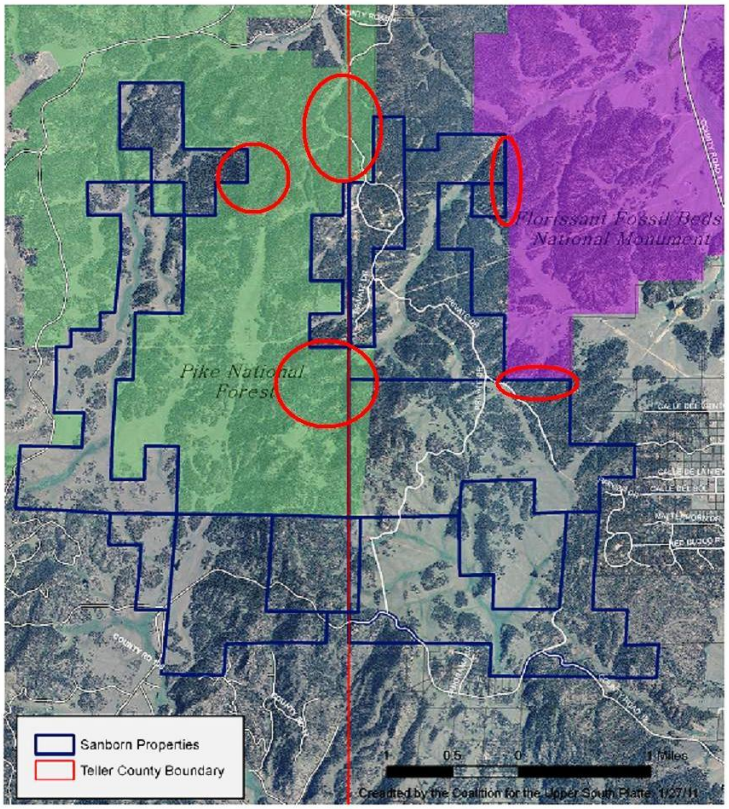
An additional feature of the assessment software is a list of actions that should be taken at each structure location. The following are the recommendation of the fire department for actions that include the safety of having the addresses posted for emergency response.

Residents will be provided the individual assessment report so they are aware of the necessary actions to protect the home they occupy. A list will be created and maintained for maintenance staff to address these same issues at common buildings.

Overall, this assessment considers that 85% of the structures have adequate mitigation in Zone 1 and 15% are inadequately mitigated. Combined with the other assessment factors, precise and detailed plans can be made for continued mitigation and maintenance of defensible or survivable space for all structures.

COEC Updated Priority Areas for Treatment

Areas of heavy timber along boundary with public lands are of particular concern and these areas are identified in the map below. The common prevailing wind direction here is from west to east. A large portion of USFS lands lie within the COEC boundaries and a wildland fire pushed by prevailing winds would pose a significant hazard to those sections of the camp that contain structures and emergency routes. Access to these areas is difficult and cooperation with USFS and COEC will be necessary to develop a collaborative solution.



Conclusion

The three primary objectives of the 2009 CWPP have been guiding the projects and will continue to do so. Maintenance and improvements in both structure protection and forest fuel reduction are ongoing. COEC is maintaining partnerships with local land managers and fire protection professionals to continue to improve safety and forest health conditions. The previous goals to reach the objectives are still appropriate with minor adjustments to reflect the progress that has been seen.