



2015 Sunriver Community Wildfire Protection Plan



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Executive Summary

Community Wildfire Protection Plans (CWPPs) are documents that are designed by a local group of stakeholders who are invested in the wildland fire threat to their area. The group of stakeholders typically consists of a representative from the fire department, the state, any governing bodies and especially property owners. Each of these representatives should bring their concerns regarding wildland fire to the discussion and propose solutions to their concerns.

Although reducing the risk of high intensity wildland fire is the primary motivation behind this plan, managing the larger landscape to restore forest health and more resilient conditions and improving fire response by all fire agencies are also discussed and addressed in the action plan. Continued efforts have been made by county, state and federal land management agencies to reduce the threat of high intensity wildland fires through education and fuels reduction activities on public lands. In addition, private property owners have responded enthusiastically to the defensible space and preparation guidelines and recommendations to reduce hazardous fuels on their own properties by participating in programs such as Firewise and FireFree. All of these activities allow the Sunriver area to become a more Fire Adapted Community.

Wildland fire is a natural and necessary component of ecosystems across the country. Central Oregon is no exception. Historically, wildland fires have shaped the forests and wildlands valued by residents and visitors. These landscapes however, are now significantly altered due to fire prevention efforts, modern suppression activities and a general lack of large scale fires, resulting in overgrown forests with dense fuels that burn more intensely than in the past. In addition, the recent increase in population has led to a swell in residential development into forested land in the wildland urban interface (WUI).

The result of the fuel hazards and forest types in the Sunriver CWPP area is an overgrowth of trees, forest floor fuels and an abundance of dead or dying vegetation that contribute to a substantially elevated risk of wildland fires that are difficult to control. These overly dense conditions lead to fire behavior that produce flame lengths over eight feet with crowning and torching that can result in stand replacement severity fires.

Due to the sustained investment and maintenance of ladder fuel reduction, some notable trends can be examined by comparing the risk assessments from each iteration of the Sunriver CWPP. There have been improvements in the Hazard, Protection Capabilities and Structural Vulnerability which is reflected in the overall risk assessment score. Sunriver and neighboring areas have made substantial investments in community preparedness, building standards and fuel reduction, which are reducing the wildfire risk.

The community of Sunriver, Oregon is located in central Oregon, on the east side of the Cascade Mountains, 15 miles south of Bend in Deschutes County. Developed in 1968 as a residential and resort community, Sunriver is now home to approximately 1,500 full time property owners, with a population upwards of 20,000 homeowners and visitors per day during peak recreation periods.

Sunriver is known for its outstanding recreational opportunities and scenic beauty with year-round recreation activities available. Within the Sunriver CWPP area there is a significant amount of public land with developed and dispersed recreation sites, which also provide valuable recreation opportunities to both property owners and visitors. In the summer months when the wildfire risk is highest, Deschutes County estimates an additional population of up to 10,000 people enjoying the rivers, designated and dispersed campgrounds and using transportation corridors within the Sunriver CWPP area. This creates an increased seasonal challenge for those agencies responsible for fire suppression and evacuation. Sunriver Owners Association has made substantial financial investments in fuel reduction through the Ladder Fuel Reduction Plan outlined on page 12 of this plan.

Sunriver is governed by the Sunriver Owners Association, which is a not-for-profit corporation that maintains all common areas and provides local government for the community in accordance with the provisions of the legal documents, which can found at www.sunriverowners.org. The association also provides services such as: collection of assessments, environmental services, providing financial statements and collection reports, acting as a general clearing house for problem solving, communication with homeowners, providing recreation programs and facilities, maintenance of commonly owned properties including roads and pathways, and serving in an advisory capacity. The Sunriver Owners Association implements the Ladder Fuel Reduction Plan on private properties within Sunriver.

The 2015 Sunriver Community Wildfire Protection Plan will assist all agencies and Sunriver area property owners in the identification and prioritization of all lands, including surrounding public lands that are at risk from high intensity wildland fire. The Sunriver CWPP identifies priorities and strategies for reducing hazardous wildland fuels while improving forest health, supporting local industry and economy and improving fire protection capabilities.

Addressing these goals in a cooperative, collaborative manner maintains alignment with the goals outlined in the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy) – resilient landscapes, Fire Adapted Communities and safe and effective wildfire response. For more information on Cohesive Strategy, visit <http://www.forestsandrangelands.gov/>.

The Sunriver Community Wildfire Protection Plan was developed by and for the community members to enhance their understanding of their local surroundings and how their landscape determines their risk of wildland fire. Each risk assessment and recommendation in this plan has been made after careful consideration by the Steering Committee. Specific recommendations for homeowners to reduce their risk can be found on page 37 of this CWPP. The Steering Committee's recommendations to achieve more fire resilient landscapes can be found on pages 32 and 42 of this CWPP.



Declaration of Agreement

The Healthy Forests Restoration Act requires that the applicable local government, the local fire department, and the state entity responsible for forest management agree to the Community Wildfire Protection Plan. The Sunriver Community Wildfire Protection Plan was originally completed and signed in March 2005 and a revision was completed in August 2010. As directed by this CWPP, fuels reduction activities have been completed on public and private lands. These events have changed the priorities outlined in the two previous documents.

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Sunriver Fire Department

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Pat Hensley, Board President
Sunriver Owners Association

Date

Alan Unger, Vice-Chair
Deschutes County Board of Commissioners

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Anthony DeBone, Chair
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Sunriver Community Wildfire Protection Plan 2015 Update



Purpose

The purpose of the Sunriver Community Wildfire Protection Plan (CWPP) is to:

- Protect lives and property from wildland fire.
- Instill a sense of personal responsibility and provide steps for taking preventive actions regarding wildland fire.
- Increase public understanding of living in a fire adapted ecosystem.
- Increase the Sunriver's ability to prepare for and respond to wildland fire.
- Increase the Sunriver's ability to recover from wildland fire.
- Restore fire adapted ecosystems.
- Improve the fire resiliency of the landscape while protecting other social, economic and ecological values.

Originally completed in 2005, this comprehensive revision outlines a clear purpose with updated priorities, strategies and action plans for fuels reduction treatments in the Sunriver wildland urban interface (WUI). The Sunriver CWPP has been revised twice (2010 and 2015) since the original document was created in 2005. The 2015 Sunriver CWPP addresses special areas of concern and makes recommendations for reducing structural vulnerability and creating defensible space in Sunriver. It is intended to be a living vehicle for fuels reduction, educational and other projects to decrease overall risks of loss from wildland fire revisited at least annually to address its purpose.

Although reducing the risk of high intensity wildland fire is the primary motivation behind this plan, managing the Sunriver WUI for hazardous fuels reduction and fire resilience is only one part of the larger picture. Property owners and visitors desire healthy, fire-resilient forests and wildlands that provide habitat for wildlife, recreational opportunities, and scenic beauty. By

establishing a more fire adapted community through work on public and private property and a more fire resilient landscape, the local fire response will be more successful.

Wildland fire is a natural and necessary component of ecosystems across the country. Central Oregon is no exception. Historically, wildland fires have shaped the forests and wildlands valued by residents and visitors. These landscapes however, are now significantly altered from otherwise natural conditions due to fire prevention efforts, modern suppression activities and a general lack of large scale low intensity fires, resulting in overgrown forests with dense fuels that burn more intensely than in the past. In addition, the recent increase in population has led to a swell in residential development into forested land in the wildland urban interface.

The 2015 Sunriver CWPP will assist the Sunriver Fire Department and the Sunriver Owners Association in the identification of lands, including surrounding federal lands, at risk from high intensity wildland fire. The Sunriver CWPP identifies priorities and strategies for reducing hazardous wildland fuels while improving forest health, supporting local industry and economy, and improving fire protection capabilities. The action plan identifies strategies to address special areas of concern such as evacuation routes as well as recommendations that individuals can take to help protect themselves against wildland fires.



Planning Summary

The Sunriver Steering Committee completed a revision of the Sunriver Community Wildfire Protection Plan on August 10th, 2010. Since then, continued efforts have been made by county, state and federal land management agencies to reduce the threat of high intensity wildland fires through education and fuels reduction activities on public lands. In addition, private property owners have responded enthusiastically to the defensible space and preparation guidelines and recommendations to reduce hazardous fuels on their own properties.

In keeping with the strategy of the original Sunriver CWPP, the Steering Committee revisited the planning outline in *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities* (Communities Committee, Society of American Foresters, National Association of Counties, and National Association of State Foresters 2005); and Deschutes County Resolution 2004-093.

Eight steps are outlined to help guide Steering Committees through the planning process:

Step one: Convene the decision makers.

The Sunriver CWPP Steering Committee reconvened in February 2015 to review the work completed within and adjacent to the WUI boundaries on public and private lands; and reevaluate the priorities for future fuels reduction treatments. The Steering Committee is comprised of: the Program Director from Project Wildfire, Fire Chief from Sunriver Fire Department, representatives from Oregon Department of Forestry (ODF), representatives from the US Forest Service (USFS), the Deschutes County Forester, Sunriver Owners Association, and other stakeholders.

Step two: Involve state and federal agencies.

The Healthy Forests Restoration Act (HFRA) directed communities to collaborate with local and state government representatives, in consultation with federal agencies and other interested parties in the development of a CWPP. The Steering Committee recognized the importance of this collaboration and involved not only members from the USDA Forest Service but Oregon Department of Forestry (ODF) and Deschutes County representatives as well. Each agency brought a wealth of information about fuels reduction efforts planned and completed along with educational information based on current research across the nation.

Step three: Engage interested parties.

Representatives from the Sunriver Owners Association, which represents the Community at Risk, participated on the Steering Committee. The Steering Committee also included the Sunriver Service District. The Steering Committee encouraged a collaborative environment for the stakeholders to accomplish the 2015 revision of the Sunriver CWPP. Collaboration and coordination between agencies, community members and property owners is the fundamental goal of the Cohesive Strategy.

Step four: Establish a community base map.

The Steering Committee reviewed the previous maps and boundaries from the 2010 CWPP. The group approved the 2015 CWPP boundary, which no longer includes the Sunriver Business Park, which has been adopted by the UDRC CWPP Boundary to the South.

Step five: Develop a community risk assessment.

The Steering Committee relied on the ODF Assessment of Risk Factors and the Structural Vulnerability factors for the Community at Risk.

Step six: Establish community hazard reduction priorities and recommendations to reduce structural ignitability.

Based on the assessment, the Steering Committee produced a risk assessment for the Sunriver CWPP Boundary. The Steering Committee used previous plan data to assess what had been accomplished in previous years. The Steering Committee also made recommendations to reduce structural ignitability based on information in the assessment and local knowledge.

Step seven: Develop an action plan and assessment strategy.

The Steering Committee identified an action plan for key projects; roles and responsibilities for carrying out the mission of the CWPP; potential funding needs and the evaluation process for the CWPP itself.

Step eight: Finalize the Community Wildfire Protection Plan.

A draft of the Sunriver CWPP was available for public comment for 30 days prior to the final signing and approval of the plan. The Sunriver Community Wildfire Protection Plan was mutually approved by the Sunriver Fire Chief, the Oregon Department of Forestry, Sunriver Owners Association, and the Deschutes County Board of Commissioners as demonstrated in the Declaration of Agreement.



Collaboration

In 2002, President George W. Bush established the Healthy Forests Initiative (HFI) to improve regulatory processes to ensure more timely decisions, greater efficiency and better results in reducing the risk of high intensity wildfire. This initiative allowed forest management agencies for the first time, to expedite the documentation process for the purpose of reducing hazardous fuels on public lands.

In 2003, the US Congress passed historical bi-partisan legislation: the Healthy Forests Restoration Act (HFRA). This legislation expands the initial effort under the Healthy Forests Initiative and directs federal agencies to collaborate with communities in developing a CWPP, which includes the identification and prioritization of areas needing hazardous fuels treatment. It further provides opportunities and authority for federal agencies to expedite the National Environmental Policy Act (NEPA) process for fuels reduction projects on federal lands. The act also requires that 50% of funding allocated to fuels projects be used in the wildland urban interface.

Communities now have the opportunity to participate in determining where federal agencies place their fuels reduction efforts. With a CWPP in place, community groups can apply for federal grants to treat hazardous fuels and address special concerns to reduce the risk of catastrophic loss as a result of wildland fire.

Although some of the capabilities and authority under HFI and HFRA have been challenged in federal courts, all have been successfully upheld and the original intent and validations under each remain the same.

In 2009, Congress passed the Federal Land Assistance, Management, and Enhancement (FLAME) Act and called for a National Cohesive Wildland Fire Management Strategy to address wildland fire related issues across the nation in a collaborative, cohesive manner. The Cohesive Strategy was finalized in 2014 and represents the evolution of national fire policy:

To safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire.

The primary, national goals identified as necessary to achieving the vision are:

Resilient landscapes: Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.

Fire-adapted communities: Human populations and infrastructure can withstand a wildfire without loss of life and property.

Wildfire response: All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

Building a collaborative and cooperative environment with the fire department, community-based organizations, local government and the public land management agencies has been the first step in reducing the risk of loss from wildland fire. The Steering Committee pledges to maintain this cooperation with the public over the long term with the commitment of all the participants involved. The importance of collaboration with neighboring CWPPs is recognized by the Steering Committee and is referenced throughout this CWPP as documentation of collaborative efforts to maximize hazardous fuels reduction efforts in the area. The Steering Committee agrees that the Sunriver Community Wildfire Protection Plan will be a living document, intended to promote fuels reduction, educational and other projects to decrease overall risks of loss from wildland fire; it is intended to be revisited at least annually to address its purpose.

At a minimum, the Sunriver CWPP Steering Committee shall include: a member of the Sunriver Owners Association Board of Directors; SROA staff; the Program Director from Project Wildfire; a Chief Officer from Sunriver Fire Department; a representative from Oregon Department of Forestry (ODF); a representative from Central Oregon Fire Management Service (COFMS), and Deschutes County along with members of the Sunriver area public.



Updated Background Information

The community of Sunriver, Oregon is located in central Oregon, on the east side of the Cascade Mountains, 15 miles south of Bend in Deschutes County. Developed in 1968 as a residential and resort community, Sunriver is now home to approximately 1,500 full time property owners, with a population upwards of 20,000 homeowners and visitors per day during peak recreation periods.

Sunriver is known for its outstanding recreational opportunities and scenic beauty with year-round recreation activities available. Within the Sunriver CWPP area there is a significant amount of public land with developed and dispersed recreation sites, which also provide valuable recreation opportunities to both property owners and visitors. In the summer months when the wildfire risk is highest, Deschutes County estimates an additional population of up to 10,000 people enjoying the rivers, designated and dispersed campgrounds and using transportation corridors within the Sunriver CWPP area. This creates an increased seasonal challenge for those agencies responsible for fire suppression and evacuation.

Historically, much of the Sunriver CWPP area was dominated by mature ponderosa pine stands that effectively supplied the wood products industry here during the 1920s. Soon after logging, many of these stands naturally regenerated to lodgepole pine with today's forests dominated by thick, overstocked stands of lodgepole pine with interspersed ponderosa pines.

Compared to ponderosa pine, lodgepole pine is a relatively short-lived species that historically lived and died by high intensity and active crown fires. It is therefore less desirable from a wildland fire standpoint because of the risk these stands pose to the communities within them. Much of the understory consists of bitterbrush, manzanita, rabbitbrush, red currant and areas of native bunchgrass. Without management intervention, these stands become more and more overcrowded. An overcrowded stand creates a higher fire risk for the landscape and makes the trees more susceptible to beetle death and disease.

At its inception, Sunriver maintained a restrictive forestry management policy, initially preferring the untouched forested environment. Community regulations initially restricted tree and brush removal in most circumstances and wood shake roofing was typical, if not required, on structures.

The Awbrey Hall fire in 1990 in nearby Bend destroyed 3,032 acres and 22 homes and began changing minds and policies within the Sunriver community. Soon after, in 1991, SROA and the Sunriver Nature Center & Observatory drafted a Fuels Modification Plan, which would become the basis for the current SROA Ladder Fuels Reduction (LFR) Plan. The LFR plan required the

reduction of hazardous fuels from private properties and common areas. Fuels reduction became mandatory for private property owners in 1996. In 1992, the SROA Board of Directors approved a resolution prohibiting wood roofs in Sunriver by requiring all new and replacement roofs to be noncombustible with a Class A fire rating.

The 1996 Skeleton fire, a few miles to the northeast of Sunriver, burned 22,000 acres and 19 homes and further motivated the Sunriver community to action. In 1997, SROA hired staff to oversee private property inspections and fuels reduction compliance as well as manage the hazardous fuels reduction program on common areas.

The Sunriver area presents a unique challenge for the CWPP process. Community businesses and residences have been intentionally developed in or adjacent to forestlands, and as described above, are at risk of wildland fire. Thick stands of trees, landscape arrangement and substantial ground vegetation contribute to the overall wildland fire risk in the Sunriver CWPP area.

The climate in Sunriver is typical of the east slopes of the Cascade Mountains, with most of the annual precipitation coming as winter snow or fall and spring rains. Summers are dry and prone to frequent thunderstorms. These thunderstorms frequently cause multiple fire ignitions.

Sunriver lies just west of US Highway 97 and the Burlington Northern Santa Fe (BNSF) railroad, both major transportation routes through the state. As central Oregon grows, more residents, tourists and commuters use the highway and other roads, particularly during the summer months when fire season reaches its peak. As part of the central Oregon landscape, transportation routes are included in the consideration of the WUI boundary due to their critical role as travel corridors that link communities together and serve as evacuation routes.

Today, SROA actively collaborates with public land managers, Sunriver Fire Department and private property owners to improve forest health and reduce the risk of fires both inside the Sunriver community and outside the community on public lands.



Public & Private Accomplishments:

As part of the ongoing wildland fire risk management of the surrounding public and private forestlands, the US Forest Service, Oregon Department of Forestry, SROA, Deschutes County and private property owners are engaged in hazardous fuels treatment projects across the Sunriver CWPP area.

US Forest Service & Bureau of Land Management



Currently, under the combined management of the Central Oregon Fire Management Service (COFMS), the US Forest Service and the Bureau of Land Management are involved in multiple fuels projects in WUI areas that stretch across this planning area to reduce hazardous fuels and the likelihood of high intensity wildfire. The US Forest Service – Bend Fort Rock District manages 66.5% (7,851 acres) of the federal lands in the Sunriver CWPP area and continues to make great strides to increase forest health and reduce the potential for high intensity wildland fire.

It is important to note that each project area requires multiple types of fuels reduction activities to achieve the desired result including mechanical shrub mowing, tree thinning, hand piling, and under burning. Therefore, multiple entries are required in order to adequately restore forest ecosystem health and reduce hazardous fuels. The ultimate goal for these projects is to reduce the potential for high intensity fire that can spread to tree crowns, requiring costly suppression efforts and causing large losses on the landscape as well as in and around communities.

Table 1 — Current US Forest Service Projects on Public Lands

Ongoing USFS Fuels Reduction Projects within Sunriver CWPP Boundary (updated April 2015)

Project Name	Implementation Start Date	Total Acres	Thinning Planned	Thinning Complete	Thinning Remaining	Mowing Planned	Mowing Complete	Mowing Remaining	Under burning Planned	Under burning Complete	Under burning Remaining
East Tumbull	2006	1566	1451	744	707	0	0	0	1318	0	1318
Sunriver HFRA	2008	1,934	952	836	116	484	108	376	1,419	0	1,419
Oz	2008	203	203	203	0	81	81	0	81	0	81
TOTAL		3,703	2,606	1,783	823	565	189	376	2,818	0	2,818

Current Projects:

East Tumbull: East Tumbull fuels treatments are located on the west side of the Deschutes River from Sunriver. The remaining thinning work is being completed through a combination of USFS fire crews and through contracts. Department of Correction crews are completing the hand piling of thinning slash. The remainder of the slash piling is planned to be completed with machinery under a contract. Prescribed burning in this area could begin as early as 2017.

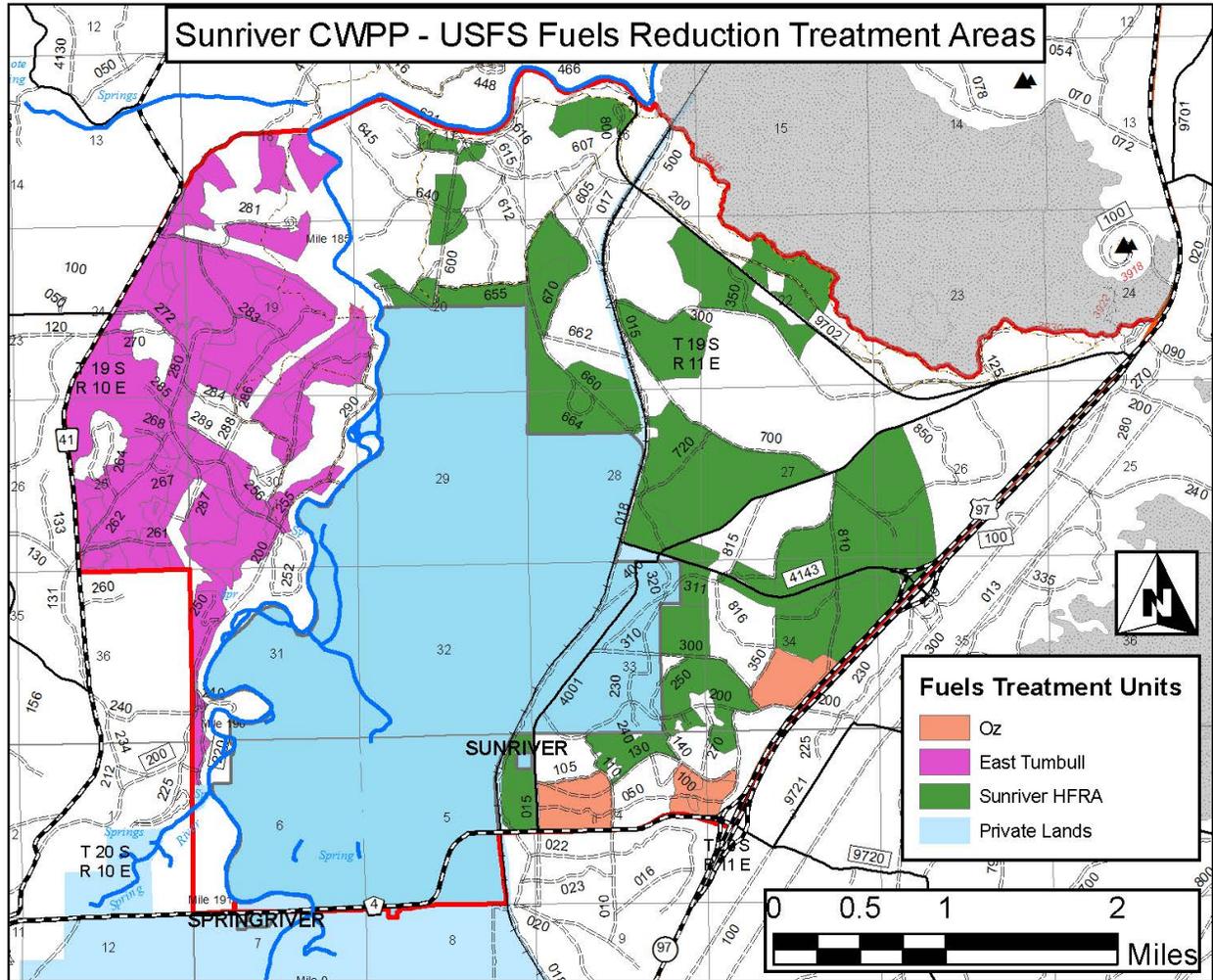
Sunriver HFRA: The Sunriver HFRA units are located on the north and east side of Sunriver. Thinning and mowing are estimated to be complete by 2017 with under burning following. The Sunriver HFRA work is being completed primarily with USFS thinning crews and equipment operators. Department of Corrections crews are completing most of the piling.

Oz: The Oz Research project is part of a study, conducted by Oregon State University, that tests stand differences in structural development over time using different silvicultural treatments. Although not designed as a fuels reduction project, the treatments associated with this study decrease crown fire potential through tree thinning and reduce surface fuel loading by underburning.

Future Projects:

Upper Deschutes River WUI Fuels Reduction Project: This project proposes trees thinning, brush mowing and prescribed burning adjacent to several subdivisions in the Deschutes River corridor. Included in the proposal is approximately 170 acres of fuels reduction treatments adjacent to Sunriver.

US Forest Service Project Map



Oregon Department of Forestry (ODF)



Sunriver Owners Association works closely with the Oregon Department of Forestry (ODF) under the Oregon Forestland Urban Interface Fire Protection Act of 1997 or commonly called Senate Bill 360. SROA developed an alternative plan, a Ladder Fuel Reduction (LFR) plan, that meets the standards outlined under this legislation.

Sunriver Ladder Fuels Reduction Plan



Sunriver Owners Association has worked cooperatively with ODF to directly address defensible space standards within Sunriver through a specific Ladder Fuels Reduction Plan that serves as an alternative plan under this legislation.

In lieu of the Senate Bill 360 certification process described above, Sunriver collaborated with ODF to develop a Ladder Fuels Reduction (LFR) Plan that is an approved alternative plan under the legislation.

The Sunriver LFR includes requirements for fuels reduction on private lands in Sunriver and SROA-owned common areas. The plan has been reviewed and approved by ODF and the Sunriver Fire Department. ODF has designated the SROA Natural Resources Director and the SROA Natural Resources staff as Accredited Assessors and directors of this program, with the authority to certify Sunriver properties under this legislation. Compliance by property owners with the Sunriver LFR Plan certifies a property under the approved alternative standards and relieves the owner of the fire cost recovery liability. In addition to landowners on private lots, the SROA completes between 100-180 acres of fuel reduction each year on SROA common areas.

Nationally, SROA is recognized for its commitment to fire prevention. SROA received the Bronze Smokey Bear award in 2002 for its ladder fuels reduction programs, fire prevention and protection rules, and community development standards. SROA also maintains an active presence on the Project Wildfire Steering Committee, focusing on the prevention of catastrophic losses resulting from wildfire in Deschutes County. This year, 2015, marks Sunriver's 35th anniversary as a designated Tree City USA, denoting a continuing commitment to forest health and educating the community about the benefits of healthy forests.

Oregon Forestland-Urban Interface Fire Protection Act of 1997

While not utilized as one of the assessment tools for this CWPP, the Steering Committee promotes the standards of the act for private lands, other than Sunriver Owners Association common areas and those properties subject to the Sunriver Ladder Fuels Reduction (LFR) Plan, explained in the previous section.

The Oregon Forestland-Urban Interface Fire Protection Act, also known as Senate Bill 360, enlists the aid of property owners toward the goal of turning fire-vulnerable urban and suburban properties into less volatile zones where firefighters may more safely and effectively defend structures and properties from wildfires. The law requires property owners in identified forestland-urban interface areas to reduce excess vegetation around structures and along driveways. In some cases, it is also necessary to create fuel breaks along property lines and roadsides.

A detailed description of the standards is available from the Oregon Department of Forestry in the handbook for the Oregon Forestland – Urban Interface Fire Protection Act of 1997. This information is also available at www.oregon.gov/ODF/fire/SB360.

Deschutes County



Deschutes County owns only two ¼ acre lots in the Sunriver CWPP area and works with Sunriver Owners Association to maintain them under the Sunriver Ladder Fuels Reduction Program. In 2010, SROA coordinated a fuel reduction project on SROA Common areas with grant assistance from Deschutes County. Deschutes County and the SROA Natural Resources Department will be collaborating on fuel reduction projects in fall 2015 and spring 2016. Deschutes County has also implemented numerous fuel reduction and Sweat Equity projects in the surrounding areas.

Firewise Communities USA



Another indication of the commitment of the Sunriver Owners Association to wildfire preparedness is the recognition of Sunriver as a Firewise Community. The Firewise Communities USA program is a national recognition program that highlights communities that have chosen to complete and maintain defensible space; ensure adequate access, water and signage; promote ongoing fire prevention education; and build or retro-fit structures with non-combustible building materials such as siding, decks and roofing. Adequate water availability and access are also required. Sunriver is a recognized Firewise Community. The Firewise Recognition was gained in 2012 and SROA has maintained Sunriver's Firewise status by actively participating in wildfire preparedness activities.

The Firewise Communities program recognizes communities that have demonstrated their commitment to wildfire preparedness. Through these steps, SROA has effectively lowered Sunriver's wildfire risk. SROA has fostered collaboration between neighbors, increased awareness and their communities' ability to respond to wildfire. Sunriver provides a safe and effective location for fire professionals to work and Sunriver property owners and visitors have dramatically decreased their odds of losing their homes and other property to wildfire.

Fire Adapted Communities (FAC)

This CWPP contributes to the over-arching framework and goal of the national Fire-Adapted Communities (FAC) program. The FAC program acknowledges that people and nature are increasingly threatened by fire, despite fire’s natural, beneficial role. At the same time,



firefighting costs are escalating and diverting money away from proactive land management. The solution is to make natural areas and communities more fire-ready so that fire can be allowed to play its natural role at a meaningful scale. This program is in direct alignment with the Cohesive Strategy goal of creating more fire adapted communities.

The Fire Adapted Communities (FAC) initiative and the FAC Learning Network are also helping homeowners, communities and land managers in fire-prone areas prepare for inevitable fires -- to “live with fire” safely. Deschutes County is recognized as a pilot community in the Fire Adapted Communities Learning Network. This network encourages the development and sharing of best practices and innovations in order to accelerate the adoption of fire adapted community concepts nationwide. The Network currently supports eighteen hub organizations and pilot communities that have committed to implementing, assessing and sharing the work that they are doing to increase their communities’ resilience to wildfire.

A fire-adapted community acknowledges and takes responsibility for its wildfire risk, and implements appropriate actions at all levels. Actions address resident safety, homes, neighborhoods, businesses and infrastructure, forests, parks, open spaces and other community assets. There is no end-point in becoming a fire-adapted community. Sustaining, growing and adapting strategies, partnerships and capacity through time are key. Visit www.fireadapted.org for more information.

Collaborative Forests Landscape Restoration Act – Deschutes Collaborative Forest Restoration Project

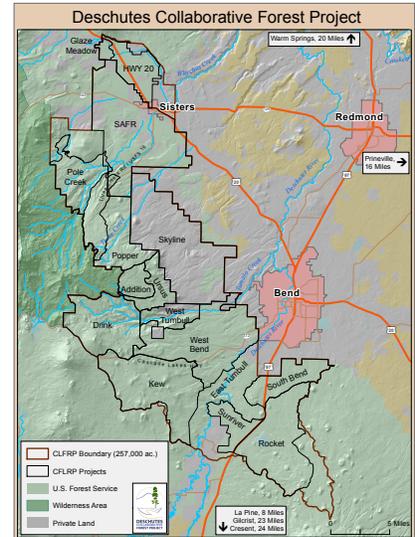


In 2010, a collaborative group of local agencies and organizations formed a proposal for funding a large, collaborative forest restoration and hazardous fuels reduction project on public lands managed by the Deschutes National

Forest. This landscape level project is known as the Deschutes Collaborative Forest Project (DCFP). Under the federal Collaborative Forest Landscape Restoration Act (CFLRA), the proposal was approved for funding up to \$10 million over the next ten years. The Steering Committee and several task-oriented sub-committees now provide input and recommendations to the Deschutes National Forest for projects located on the 257,000 acre landscape. The entire project spans the west side of the Greater Bend WUI, the western portion of the East & West Deschutes County CWPP boundary, and is also included in the Sisters CWPP boundary to the

north and the Sunriver CWPP boundary to the south. An amendment to the original boundary was approved in 2012 to include additional landscape acreage near Sunriver and Black Butte Ranch. Now portions of the \$10 million award can be expended across a broader area.

As restoration projects on this landscape are implemented, the prescriptions and guidelines identified in this CWPP will be met marking a significant treatment of wildland hazardous fuels on a landscape scale, a priority in each of the CWPPs in Deschutes County. This will also allow for the creation and realization of fire adapted communities along much of the west side of the county.



The Deschutes Collaborative Forest Project now has a website in place – www.deschutescollaborativeforest.org – along with a social media presence on Facebook to continue the stakeholder dialogue and educational outreach for this important landscape.



Community Base Maps

The Steering Committee relied on the following maps and GIS data:

- Updated Sunriver wildland urban interface (WUI) boundary and all private & public land ownership
- Fire starts from the last 10 years
- 2015 Deschutes County tax lot and population data

For updated planning purposes, the Steering Committee referenced this data and relied on recent activities and fuels treatment projects in the Sunriver CWPP area. All maps are located in the appendix.

Wildland Urban Interface Description

The Healthy Forests Restoration Act defines the WUI as an area within or adjacent to an at risk community that has been identified by a community in its wildfire protection plan or, for areas that do not have such a plan, as an area:

- extending ½ mile from the boundary of an at risk community,
- extending 1½ miles from the boundary of an at risk community when other criteria are met such as a sustained steep slope or a geographic feature that creates an effective firebreak, or is classified as fire condition class 3 land,
- or that is adjacent to an evacuation route.

The Steering Committee reviewed the WUI boundaries from 2010 and noted on the map the removal of the Sunriver Business Park area from the Sunriver CWPP area. The UDRC included this area in its planning boundary during the revision of its CWPP in 2013. The Steering Committee agreed that this is a logical inclusion and therefore omitted the Business Park from the updated Sunriver WUI boundary.

The Sunriver CWPP WUI boundary is marked on the south by the border of the Upper Deschutes River Coalition CWPP; on the north by the Greater Bend CWPP; and is bordered on the east and west by the East & West Deschutes County CWPP, respectively.

The total planning area encompasses 11,709 acres. For planning purposes, the WUI boundary and CWPP boundary are the same. Public lands include 7,851 acres managed by the US Forest Service. Private lands include 3,950 acres with 4,175 residential structures. See maps in Appendix A.

Fuel Hazards and Ecotypes

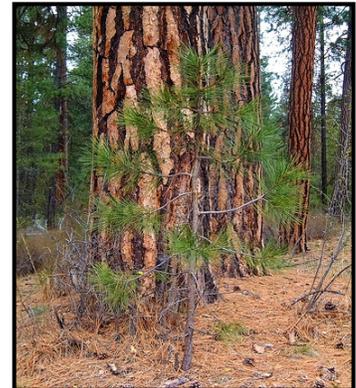
The Sunriver area has an assortment of vegetation types. The predominant species and vegetation types include:

- Ponderosa pine
- Lodgepole pine
- Manzanita
- Bitterbrush
- Riparian areas



In the Sunriver WUI there are fewer **ponderosa pine** stands than historically found. Also, by historical standards, ponderosa pine forests, which dominated the Sunriver WUI area, contained more understory grasses and shrubs and fewer small trees than are present today. These plants combined with fallen pine needles, formed fast-burning fuels that led to recurrent widespread burning. Frequent low-intensity ground fires that occurred every 11-15 years characterize the historical fire regime for ponderosa pine. The pattern of low ground fires and stand dynamics often resulted in the open park-like conditions that early inhabitants and visitors found in the region.

Insufficient stand management, logging activity, and highly effective wildland fire suppression have significantly altered the ponderosa pine forest type in the Sunriver WUI. Removal of the older, larger thick-bark pines has dramatically decreased clumpy open forests, replacing them with more evenly spaced and younger, smaller black-bark forests. Similar to other species of conifer forest types in the western United States, the suppression of fire has greatly increased the stocking levels (number of trees) and density of trees, creating ladder fuels and putting the stands more at risk of attack from insects and disease. These factors have also contributed to the potential for more intense fires in these forests in recent years.



Mature untreated **lodgepole pine** stands in central Oregon are characterized by dense, uniform stands, often with an absence of other tree species, and a general lack of understory shrub or herbs (although bitterbrush is often found with mature lodgepole pine). Lodgepole pine forests exhibit a moderate severity fire regime with a fire return interval between 60 and 80 years. Fire in lodgepole pine stands can be low, moderate, or severe over time and often result in full stand replacement.



In addition to fire, mountain pine beetles are worth noting as a significant disturbance agent as the two processes are linked. The fire cycle in lodgepole pine is 60-80 years and occurs as follows: a stand replacement fire leads to stand regeneration → Dead snags from the fire fall to the forest floor and fuels begin to accumulate → Windstorms blow more trees to the ground → Forest fires burn some of the downed logs and lead to heart rot in the standing trees → The heart rot stresses the stands and makes them vulnerable to attack by the mountain pine beetle → A major outbreak of the mountain pine beetle causes significant mortality and soon the conditions are ripe for another stand replacement fire. In recent years, the mountain pine beetle has moved from at risk forests in the northern part of Deschutes County near Sisters and Black Butte Ranch to those in the southern parts including Sunriver, La Pine and area in between.



Manzanita is a shrub that occurs throughout the Sunriver CWPP area but minimally within the community of Sunriver, usually mixed with other shrub species such as bitterbrush, rabbitbrush and red currant. Manzanita is established both through sprouts and seeds that are stimulated by fire. Fires in manzanita are conducive to rapid and extensive fire spread due to both physical and chemical characteristics. Manzanita is particularly susceptible to fire due to its stand density, presence of volatile materials in the leaves, low moisture content of the foliage and persistence of dead branches and stems.

Bitterbrush occurs throughout the Sunriver CWPP area on all aspects and elevations. Fire severely damages bitterbrush, especially if rain is not received shortly after a burn. Bitterbrush is fire dependent, but not fire resistant. It regenerates mostly from seed after a fire and is often from caches of seeds made by rodents. Bitterbrush will sprout after burning regardless of the severity of the burn and matures relatively quickly. Consequently, the Sunriver CWPP area is rich with patches of bitterbrush that provide fire-ready ladder fuels for tree stands.



A **riparian area** is defined as the strip of moisture-loving vegetation growing along the edge of a water body. The exact boundary of the riparian area is often difficult to determine because it is a zone of transition between the water body and the upland vegetation. The Deschutes River flows through the Sunriver WUI boundary creating large riparian areas in the planning area. The Sun River and Lake Aspen also have riparian areas in the WUI. Vegetation types in these riparian areas are primarily grasses, forbs and willows.



The result of the fuel hazards and forest types in the Sunriver WUI is an overgrowth of trees, forest floor fuels and an abundance of dead or dying vegetation that contribute to a substantially elevated risk of wildland fires that are difficult to control. These overly dense conditions lead to fire behavior that produce flame lengths over eight feet with crowning and torching that can result in stand replacement severity fires.



Community Assessment of Risk

The Steering Committee utilized the Oregon Department of Forestry Assessment of Risk Factors for the 2015 revision. The Steering Committee determined that using the data collected from the previous 2005 and 2010 plans would show the evolution in wildfire preparedness and mitigation in Sunriver.

ODF Assessment of Risk Factors

The ODF Assessment of Risk Factors is based on five categories of evaluation that include a variety of information designed to identify and evaluate wildland fire risk across Oregon: risk of wildfire occurrence, hazard, protection capability, human and economic values protected and structural vulnerability.

Risk of Wildfire Occurrence

The risk of wildfire occurrence refers to the likelihood of a fire occurring based on historical fire occurrence, home density and ignition sources. The calculations are based on evidence from the USFS, ODF and the Sunriver Fire Department of fire occurrences per 1,000 acres per ten years, as well as home density and ready ignition sources like dry lightning storms, debris burning, equipment use, juveniles, campfires, and arson.

The current condition of the vegetation on the federal and private lands adjacent to and within the Sunriver CWPP area pose a serious threat of high intensity wildland fire.

Hazard

The hazard rating describes resistance to control once a fire starts based on weather, topography (including slope, aspect and elevation), vegetation and crown fire potential. As stated earlier, effective wildland fire suppression has led to the extensive buildup of overstory and ground vegetation in the wildland urban interface. Though much work has been completed in the Sunriver CWPP area, the Steering Committee acknowledges the vigilance on fuel reduction and maintenance must be sustained.

Protection capability

The ratings for this category are based on fire protection capability and resources to control and suppress wildland and structural fires. The ratings also consider response times and community preparedness. A wildland fire could start within the community or in any of the forested areas adjacent to or surrounding the community. With a fire of any significance, it would be a

challenge to assemble the resources necessary to adequately address all of the fire and life safety issues that could arise in the early stages of emergency operations, especially in an extended response to a wildland fire in the Sunriver CWPP area. During extended response many resources may be called, often from out of the area, to aid with suppressing wildfires.

Fortunately, the local fire protection capability rating in Sunriver is rated as a low risk with excellent response times and active community preparedness.

Sunriver Fire Department

The Sunriver Fire Department is an all risk emergency service provider for the community of Sunriver and provides Advanced Life Support Emergency Medical Services for a 300 square mile area including and surrounding Sunriver. Sunriver Fire employs one Fire Chief, one Assistant Chief, a Training Captain and one Office Manager. The Department also employs nine (9) career firefighter/paramedics involved directly in fire operations and up to 20 reserve firefighters also dedicated to fire operations. The Department has adopted the National Incident Management Systems (NIMS) Incident Command System and all personnel have received training and continue to train in its use. All personnel have received training in wildland firefighting practices, structural fire protection, and other related topics. The Department relies heavily on its reserve firefighters and emergency medical technicians.

The Department works out of one centrally located fire station and maintains a fleet of two structural fire engines, one ladder truck, two Advanced Life Support (ALS) ambulances, one heavy brush engine, one light brush engine and three staff/utility vehicles.

The Department is a party to the Central Oregon Mutual Aid Agreement. In the event of a major structural fire, the Department may request assistance from all other fire departments that are signatory to the agreement. In addition, all Central Oregon fire departments and the wildland fire agencies including the US Forest Service, Oregon Department of Forestry, and the Bureau of Land Management are party to the Central Oregon Cooperative Wildland Fire Agreement. These cooperative agreements allow for interactive coordination in the event of a wildfire that threatens communities in Central Oregon. Conversely when these agencies need assistance, the Sunriver Fire Department assists them. Anytime an incident grows beyond the capability of the regional resources a request may be made to the State to activate the Statewide Mobilization Plan, whereupon firefighting resources may be requested from across the State.

Sunriver Fire Department, La Pine Rural Fire Protection District and Bend Fire & Rescue also participate in Automatic Aid responding to mutual response zones in certain parts of each district.

Oregon Department of Forestry

Within the Sunriver CWPP area, the private forestland is protected by the Central Oregon District of the Oregon Department of Forestry (ODF). ODF provides wildland fire response for fires burning on or threatening private forestlands paying a Forest Patrol Assessment. There are some areas within the Sunriver CWPP Boundary that receive dual protection from ODF and the Sunriver Fire Department because they are located within the rural fire protection district and are also classified as private forestland within the ODF district. In areas of dual protection, when a wildland fire occurs, the fire district provides initial response and transfers fire command to ODF personnel upon their arrival.

During fire season, typically June through October, ODF provides ten engines, one five-person hand crew and one dozer; all are available for initial attack response in the Prineville-Sisters unit. Statewide resources are also available to ODF including initial attack hand crews, dozers, water tenders, helicopters, air tankers, and overhead staff positions, depending on statewide needs. During fire season these resources are in high demand and may not always be available. In addition to Oregon Department of Forestry suppression capabilities, ODF cooperates with wildland fire protection agencies in the area including Sunriver Fire Department, Walker Range Fire Protection Association, the US Forest Service, and the Bureau of Land Management.

US Forest Service

The Forest Service provides wildland fire protection on the federal lands within the Sunriver CWPP area. Together, with the Bureau of Land Management (BLM), they are identified as the Central Oregon Fire Management Service (COFMS). COFMS includes the Deschutes National Forest, the Ochoco National Forest, the Crooked River National Grassland, and the Prineville District of the BLM. These four units are managed cooperatively under combined leadership, with an Interagency Fire Management Officer, two Deputy Fire Management Officers, and a Board of Directors including decision makers from both agencies, with Forest Service District Rangers and BLM Field Managers. COFMS has a central dispatching facility in partnership with the Oregon Department of Forestry that serves as a Coordination Center for fire and fuels operations, as well as safety and training issues for COFMS.

In total, COFMS provides the following resources: 26 engines, six initial attack hand crews, six prevention units, two dozers, two water tenders, one Type 3 helicopter, 35 smoke jumpers, two interagency Hotshot Crews (Redmond & Prineville), one Type 2 helicopter with 20 rappellers, one Type 1 helicopter, Central Oregon Dispatch Center (COIDC), Redmond Air Center, an air tanker base, a regional fire cache and required overhead staff positions. During fire season these resources are in high demand and may not always be available. Anytime an incident grows beyond the capability of the local resources a request may be made to ODF and to the Pacific Northwest Coordination Center (gacc.nifc.gov/nwcc) for additional wildland fire fighting resources.

Law Enforcement

The Sunriver Police Department has responsibility for ensuring the safe and orderly evacuation of the Sunriver community in the event of a major emergency. A number of resources have been allocated to accomplish this task including sirens and Public Address (PA) systems located throughout the community; emergency notification via the radio, television and the Sunriver Navigator Application; reverse 9-1-1 capability; Sunriver Police Department staff; and Sunriver Citizens Patrol. The Sunriver Police Department cooperates with all law enforcement agencies in Deschutes County as needed with any issues related to a major emergency.

Oregon State Police assists the law enforcement efforts and cooperates with the Deschutes County Sheriff for protection in the areas near Sunriver.

In addition to this high level of coordination, all fire departments and agencies in Central Oregon convene each year for a pre-season meeting to discuss the upcoming wildland fire season. Topics addressed at this meeting include predicted wildland fire activity, weather forecasts and how agencies can and will respond to meet the needs of fire events.

Community Preparedness

Also under the category of Protection Capabilities, the ODF Assessment of Risk examines a community's level of organization and preparedness to respond in an emergency situation. The assessment looks at whether the area has an organized stakeholder group that looks out for its own area through mitigation efforts, a phone tree, etc. Or, does the area only receive outside efforts such as newsletters, mailings or FireFree information from other groups? The Steering Committee used local knowledge to determine the level of preparedness.

SROA houses a Sunriver specific newspaper, **The Sunriver Scene**. It offers timely and relevant local knowledge on upcoming community events, emergencies & preparedness messages. The Sunriver Scene plays an integral part informing local property owners and visitors.

The **American Red Cross** offers a gamut of tools to boost community preparedness such as community presentations on emergency preparedness kits. The Red Cross gives presentations to church groups, HOAs, citizen groups, etc. Red Cross plays a vital in emergency response during large wildfire events. At any time of day or night, trained Red Cross volunteers respond to the scene of structural or wildland fires and provide food, shelter, and emotional support to those affected.

Values Protected

The human and economic values protected in the Sunriver CWPP area are based on home density per ten acres and community infrastructure such as power substations, transportation corridors, water and fuel storage, etc.

As of 2015, there are over 4,100 homes and condominiums, as well as a large resort and multiple businesses in the unincorporated area of Sunriver, with an appraised value in the billions of dollars.

The essential infrastructure in the Sunriver CWPP area includes utilities, roads, water and sewer systems and has an approximate replacement value of \$275,000 per mile for electrical transmission lines; \$150,000 per mile of electrical distribution lines; and \$2 million per electrical sub-station. Loss to water and sewer systems would be minimal because most are underground or otherwise not flammable.

If a large wildland fire occurs in this area that resulted in the closure of US Highway 97, the economic loss to local businesses and Sunriver would be devastating. The financial impact would amount to more than \$3 million each day for multiple areas in Sunriver, as well as Bend and Sisters.

Also of high importance to property owners and business owners in Sunriver is the value placed on scenic beauty and recreational opportunities that exist on private and public lands both within and adjacent to the Sunriver CWPP area.

The loss of recreational use by property owners and visitors to the area as a result of scenic quality, specifically large “burn over” areas, would have an unknown economic impact not only to Sunriver, but to the remainder of Deschutes County and neighboring cities including Bend, La Pine, Redmond and Sisters. If a large wildland fire occurs in this area, the result will be a catastrophic loss to both the developed and dispersed recreational opportunities around Sunriver.

Structural Vulnerability

Structural vulnerability refers to the defensible space and building materials used on structures. It also includes the type and amount of fire department access such as the numbers of roads in and out, road widths and signage.

As mentioned in the Background Information of this CWPP, Sunriver has developed a progressive approach to decrease the vulnerability of structures to wildland fire. Originally developed with community regulations that restricted tree and brush removal in most circumstances, Sunriver Owners Association quickly modified these plans following major wildland fires in the area. In 1991, Sunriver Owners Association and the Sunriver Nature Center & Observatory drafted a Fuels Modification Plan, which became the basis for the current Ladder Fuels Reduction Plan. The plan detailed the reduction of hazardous fuels from private properties and common areas. Fuels reduction became mandatory for private property owners in 1996.

Wood shake was initially the typical roofing choice found throughout Sunriver. Following large fires and the development of the Fuels Modification Plan, the Sunriver Owners Association Board of Directors approved a resolution in 1992 prohibiting wood roofs in Sunriver by requiring all new and replacement roofs to be noncombustible with a Class A fire rating.

In recent years, the Sunriver Owners Association and many property owners in Sunriver continue to take steps to decrease the vulnerability of structures to wildland fire. Although attitudes and behaviors towards fire continue to improve thanks to the progressive direction of Sunriver Owners Association leadership and educational programs like FireFree and Firewise, the population growth and continued development into the wildland urban interface present fresh challenges each year. The Steering Committee puts high value on the importance of making structures in Sunriver as fire safe as possible.

The adequacy of water resources was not considered in this assessment and is addressed as a priority item under Action Plan and Implementation.

The following table is the ODF Assessment of Risk with value ratings and corresponding scores. The higher the total score in this assessment, the higher the overall risk.

Risk: Describes the likelihood of a fire occurring based on historical fire occurrence, and ignition sources.

Hazard: Describes resistance to control once a fire starts based on weather, topography, and fuel.

Protection capability: Describes fire protection capability and resources based on type of protection, response times, and community preparedness.

Values protected: Describes the human and economic values in the community based on home density per ten acres and community infrastructure such as power substations, transportation corridors, water, and fuel storage, etc.

Structural vulnerability: Describes the likelihood that structures will be destroyed by wildfire based on roofing and building materials, defensible space, separation of homes, fire department access, and street signage.

Total score: A sum of all the points from each category surveyed.

Rank: An ordered numerical ranking based on the total points.

1. What is the likelihood of a fire occurring?

The risk of wildfire occurrence refers to the likelihood of a fire occurring based on historical fire occurrence, home density and ignition sources. The calculations are based on evidence from the USFS, ODF and the Sunriver Fire Department of fire occurrences per 1,000 acres per ten years, as well as home density and ready ignition sources such as dry lightning storms, debris burning, equipment use, juveniles, campfires, and arson.

	2010	2015 Actual	Score
Fire occurrence (per 1000 acres per 10 years) 0 – 0.1 (low) 5 points 0.1 – 1.1 (moderate) 10 points 1.1+ (high) 20 points	10	2.4 fire per 1,000 acres per 10 years*	20
Ignition Risk – Home Density (homes per 10 acres) 0 - 0.9 (rural) 0 points 1 – 5 (suburban) 5 points 5.1+ (urban) 10 points	5	3.5 homes per 10 acres	5
Ignition Risk – Other Factors Present (see below) < 1/3 present 0 points 1/3 – 2/3 present 5 points > 2/3 present 10 points	10	19 present	10
Total points:	25		35
Risk category rating: 0 – 13 points = Low 13 – 27 points = Moderate 27 – 40 points = High			
Rating:	Moderate		High

Other factors: Power lines or stations, logging, construction, debris burning, mining, dispersed or developed camping, off-road vehicle use, flammables, fireworks, dry grass mowing, woodcutting, equipment use, target shooting, military training, arson, cultural activities, railroad, highways, county or public access road, camps/resorts/stables, schools, business, ranch or farm, lightning prone, dumping. *Source: Deschutes County Forestry department, fire starts in the last 10 years.

2. Hazards.

The hazard rating describes resistance to control once a fire starts, based on weather, topography (including slope, aspect & elevation), vegetation and crown fire potential.

	2010	2015 Actual	Score
Weather Zone 3	40	Auto rating east of the Cascades	40
Topography - Slope 0 – 25% 0 points 26 – 40% 3 points 41% + 5 points	0	Flat	0
Topography - Aspect N, NW, NE 0 points W, E 3 points S, SW, SE 5 points	3	Equal heating on all sides	3
Topography - Elevation 5001 feet + 0 points 3501 – 5000 feet 1 point 0 – 3500 feet 2 points	1	Appx 4,100 ft.	1
Vegetation (See below) Non-forest 0 points HV 1 5 points HV 2 15 points HV 3 20 points	15	Considerable work accomplished	10
Crown Fire Potential Passive - Low 0 points Active – Moderate 5 points Independent – High 10 points	5	Moderate potential	5
Total points:	64		59
Risk category rating: 0 – 9 points = Low 10 – 40 points = Moderate 41 – 60 points = High 61 – 80 points = Extreme			
Rating:	Extreme		High

HV 1 – produces flame lengths up to 5 feet with very little spotting, torching or crowning.

HV 2 – produces flame lengths 5-8 feet high with sporadic spotting, torching or crowning.

HV 3 – produces flame lengths over 8 feet with frequent spotting, torching and crowning.

3. Protection Capabilities.

These ratings are based on fire protection capability and resources to control and suppress wildland and structural fires. They also consider response times and community preparedness. A low score in this category is preferred as it demonstrates quick response times and effective community preparedness.

	2010	2015 Actual	Score
Fire response			
Organized structural response < 10 minutes 0 points			
Inside fire district, response > 10 minutes 8 points		Organized	
No structural protection, only wildland response 15 points		Structural	
No structural or wildland protection 36 points	0	Response	0
Community Preparedness			
Organized stakeholder group, community fire plan, phone tree, or mitigation efforts 0 points		Consistent	
Primarily agency efforts (mailings, FireFree, etc.) 2 points		organized	
No efforts 4 points	0	community	0
		preparedness	
Total points:	0		0
Protection Capability Category Rating:			
0 – 9 points = Low			
10 – 16 points = Moderate			
17 – 40 points = High			
Rating:	Low		Low

4. Values Protected: Human and economic.

These ratings are based on home density per ten acres and community infrastructure such as power substations and transportation corridors, etc.

	2010	2015 Actual	Score
Homes (density per 10 acres)			
0.1 – 0.9 (rural) 2 points			
1 – 5 (suburban) 15 points		3.5 homes per	
5.1 + (urban) 30 points	15	10 acres	15
Community Infrastructure (see below)			
None 0 points			
One present 10 points		More than one	
More than one present 20 points	20	present	20
Total points:	35		35
Values Protected Category Rating:			
0 – 15 points = Low			
16 – 30 points = Moderate			
31 – 50 points = High			
Rating:	High		High

Community infrastructure – Power substations and corridors, transportation corridors, municipal watersheds, water storage and distribution, fuel storage, health care facilities, landfills and waste treatment, schools, churches, community centers, and stores.

5. Structural Vulnerability.

Structural vulnerability is based on defensible space, building materials, the type and amount of fire service access.

<u>Structural vulnerability</u>	2010	2015 Actual	Score
Flammable roofing present?			
Non wood – 0			
Wood – 30	15	107 homes with wood shake roofs	1
Meets defensible space standards?			
Meets SR Ladder Fuels Reduction Plan - 0	0	10-15 per year non-compliant	0
Non-compliant - 30			
Ingress - egress			
Two or more roads in and out - 0	0	2+ roads	0
One road - 7			
Road width			
Greater than 24 feet - 0		All roads approved by Fire District	
20 - 24 feet - 2	2		2
Less than 20 feet - 4			
All season road condition			
surfaced, < 10% grade - 0	0	Asphalt, flat	0
surfaced, > 10% grade - 1			
Non surfaced, <10% grade - 1			
Non surfaced, >10% grade - 3			
Other than all season - 4			
Street signs			
Present - 4" reflective letters - 0	0	Yes	0
Absent - 5			
Fire Service Access			
< 300 ft. with turnaround - 0		All accessible	0
> 300 ft. with turnaround - 2	2		
< 300 ft. w/o turnaround - 4			
> 300 ft. w/o turnaround - 5			
Total	19		3
Rating	Low		Low

Category rating: 0 – 30 = Low; 31 – 60 = Moderate; 61 – 90 = High

Table 1 – Comparison of Sunriver ODF Assessments of Risk

	Likelihood of fire occurring	Hazard	Protection capability	Values Protected	Structural Vulnerability	Total
2005 Assessment	40 High	78 Extreme	5 Low	50 High	15 Low	188
2010 Assessment	25 Moderate	64 Extreme	0 Low	35 High	19 Low	143
2015 Assessment	35 High	59 High	0 Low	35 High	3 Low	132

Some notable trends can be examined by comparing the risk assessments from each iteration of the Sunriver CWPP. There have been improvements in the Hazard, Protection Capabilities and Structural Vulnerability which is reflected in the over risk assessment score. Sunriver and neighboring areas have made substantial investments in community preparedness, building standards and fuel reduction, which are reducing the wildfire risk.

Areas of special concern

Critical Transportation Routes

Critical Transportation Routes do not have a standard definition in Deschutes County. For purposes of the Sunriver CWPP, the Steering Committee defines Critical Transportation Routes as:

- all routes necessary for the support of routine flow of commerce to and/or through the Sunriver area,
- all routes that could be used for potential evacuation of property owners and visitors from a wildland fire threat to public safety,
- routes needed for emergency ingress and egress to a wildland fire incident, not including unimproved or “two-track” roads,
- and, all routes needed to protect and support critical infrastructure (power substations, communication transmission lines, water and fuel storage, public service facilities, recreation facilities, etc).

The Steering Committee underscored the need to identify and protect critical transportation routes as part of this planning process. Ingress/egress issues are included under Recommendations to Reduce Structural Vulnerability. This issue is also highlighted under Action Plan and Implementation.

With up to 20,000 property owners and visitors in Sunriver per day during peak summer months and up to an additional 10,000 people using recreation sites and the transportation corridors around Sunriver, critical transportation routes are a prime concern for those agencies responsible for fire suppression and evacuation.



Hazard Reduction Recommendations and Preferred Treatment Methods

The Steering Committee agreed that the Sunriver CWPP is a living tool that can be used for multiple outcomes. The following is an outline of the preferred treatments and goals for hazardous fuels reduction under the Sunriver Community Wildfire Protection Plan.

Goals

The Steering Committee identified the following goals to meet the Purpose on page one of the Sunriver CWPP:

- Reduce hazardous fuels on public lands;
- Reduce hazardous fuels on private lands;
- Reduce structural vulnerability;
- Increase education and awareness of the wildfire threat;
- Identify, improve and protect critical transportation routes.

Preferred treatments and goals for hazardous fuels reduction

The overall goal of the Sunriver CWPP is to decrease the risk of high intensity wildland fire behavior by reducing and maintaining fuel loads to levels that will produce flame lengths of less than four feet. This enables safe and effective initial attack. The goal of the Sunriver CWPP is also to provide for a healthy, fire resilient landscape that supports the social, economic and ecological values of Sunriver area property owners and visitors. The Steering Committee recognizes the effectiveness and value of maximizing treatment efforts in areas that are adjacent to federal or private fuel reduction projects and recommends that fuel reduction project areas consider these benefits when selecting locations for treatment. The following specific standards are recommended for treatments on public and private lands within the Sunriver CWPP area.

Public lands

Federal lands make up 66.5% of the Sunriver CWPP area and are managed by the US Forest Service from the Bend – Fort Rock Ranger District.

It is the intent of the Steering Committee that the Sunriver WUI boundary is subject to expedited measures for hazardous fuels treatment and allocation of funds to protect it as stipulated by the Healthy Forests Restoration Act (HFRA).

The Sunriver CWPP area is directly adjacent to federal lands on all sides except the southern boundary. The maps in Appendix A detail the WUI boundary throughout the Sunriver CWPP area calling for protection specifically by reducing wildland fuel hazards on public lands.

The overall standard for public lands under this CWPP is to decrease the risk of high intensity wildland fire behavior by reducing and maintaining fuel loads to a level that will produce flame lengths of less than four feet in the areas within the WUI boundary. The areas where the fuel reduction projects are implemented will create a buffer or fire break that will begin at the edge of private lands (except where other land management practices prohibit it such as riparian or wetland areas) and extend onto the federal lands to the designated WUI boundary. This enables safe and effective initial attack. This standard can be achieved by the federal land management agency through a variety of treatment methodologies such as thinning, prescribed burning and mechanical treatments. Specific treatments should address fuels issues on a landscape scale rather than acre by acre.

Federal land managers are strongly encouraged to work toward the overall standard by treating Condition Class 2 and 3 lands with the goal of returning the landscape to Condition Class 1 by reducing fuel loads to a level that will produce flame lengths of less than four feet:

- Within a ¼ mile buffer of the Sunriver WUI boundary. Treatments should begin here and increase in ¼ mile increments until the WUI boundary is reached.
- Within 300 feet of any evacuation route from Sunriver.
- Although the treatments should focus on Condition Class 2 & 3 areas, maintenance of previously treated lands is also a top priority where treatment is critical to maintain Condition Class 1 status within the CWPP area. Treatment and maintenance of previously treated lands before treatment begins again in other places is an important component of keeping communities safe.

In general, the dominant strategy in all areas should be thinning from below, in an effort to restore large tree, open park-like ponderosa pine dominated forests. In exclusively lodgepole pine and mixed conifer stands where site conditions are favorable to ponderosa pine, intensive thinning should occur with a reforestation strategy to restore a proper ratio, as determined by the

agency, of lodgepole or mixed conifer to ponderosa pine. Excessive dead/down fuels should be removed followed by understory maintenance.

The Steering Committee also encourages federal land managers to work with local landowners to minimize road closures that could be used as alternate evacuation routes from Sunriver.

Private and county owned lands

Private lands make up 33.5% of the area in the Sunriver CWPP area. SROA owns and maintains common lands in Sunriver and the balance is comprised of individual private properties, a small portion owned by Sunriver Water LLC and a portion owned by Sunriver Environmental LLC. Deschutes County only owns two ¼ acre lots in this planning area. The Steering Committee recommends that these County owned lands be treated in the same manner as privately owned lands.

Lands owned by Burlington Northern Santa Fe (BNSF) Railroad encompass much of eastern boundary of the private lots in Sunriver. The Steering Committee recommends that the lands and easements owned by BNSF comply with the fuel reduction standards for private property outlined below in this CWPP. The absence of BNSF's participation in this collaborative process was meaningful to the Steering Committee. The Steering Committee acknowledged that the current state of the fuels present on these lands located on the eastern boundary of Sunriver pose a significant fire threat to the residences that border them.

Private lands and SROA Commons

On private lands with structural improvements and SROA common lands in Sunriver, the goal is for each structure and property to meet the specific standards as identified in the Sunriver Ladder Fuels Reduction Plan.

The Sunriver Ladder Fuels Reduction Plan has been accepted as an alternative plan to Senate Bill 360 and has been approved by Oregon Department of Forestry and the Sunriver Fire Department. Generally, it outlines the following standards and requirements on private lands with and without structures that are the responsibility of the landowner:

- The entire property, including areas within 30 feet of any structure (up to the property line) shall be subject to fuels reduction standards.
- All bitterbrush, noxious weeds, dead vegetation, and other flammable shrubs within 15 feet of a structure shall be removed.
- Bitterbrush and manzanita shall be cleared three feet beyond the drip line of tree branches.

- Live branches of pine trees and other flammable trees shall be removed up to a minimum of six feet and a maximum of eight feet from grade. For trees less than 20 feet tall, only the lower 1/3 of branches shall be removed.
- Trees branches of pines and other flammable trees shall be removed to create a minimum of 15 feet of clearance between chimneys and the branches.
- Roofs, gutters, and areas under decks shall be maintained free of accumulated pine needles and other debris.
- Dry grass shall be maintained to an average height of less than four inches, during the fire season (June-November) with the exception of scattered bunchgrasses.
- Firewood shall be stored a minimum of 20 feet from the structure, or at the property line, during fire season (June – November).

Additional specifications for tree cutting and retention are available in the Sunriver Ladder Fuels Reduction (LFR) Plan which can be found at www.sunriverowners.org.

As another facet of the LFR plan, Sunriver property owners are encouraged to participate in a roadside pickup of yard debris in April and October. This road pickup is coordinated by SROA's Natural Resources Department and implemented by SROA Public Works. This provides a cost-effective and efficient method for property owners to dispose of yard debris created by the maintenance of their defensible space.

Property owners can also help comply with the LFR plan by taking advantage of FireFree and Firewise suggestions to create and/or maintain defensible space, a fire-resistant buffer that allows for effective first-response firefighting and a significantly reduced risk of the spread of fire. These national education programs promote a variety of fire safe actions to help prevent the spread of fire to protect individual homes and neighborhoods. Information about these programs can be found at www.firefree.org and www.firewise.org.

SROA Natural Resources Department is responsible for the maintenance of common areas within Sunriver. The SROA Ladder Fuels Reduction Plan currently maintains a six-year cycle of treatment to reduce hazardous fuels and outlines specific treatments for specific vegetation. Generally, the standards for commons include:

- All bitterbrush and manzanita shall be removed within 15 feet of structures. In open areas an average of 30% coverage shall be maintained of all shrubs following removal of bitterbrush and manzanita to three feet beyond the drip line of tree branches.
- Live tree branches shall be removed to a minimum height of six feet and a maximum of eight feet from grade. For trees less than 20 feet tall, only the lower 1/3 of branches shall be removed.
- The canopy in Sunriver will be thinned to six to eight foot spacing for all size trees.
- All ponderosa pines shall be retained unless confirmed diseased, a hazard or in an overcrowded condition.

Additional specifications for tree cutting and retention are available in the Sunriver Ladder Fuels Reduction Plan, which can be found at www.sunriverowners.org.

Private lands outside Sunriver

On private lands with structural improvements outside Sunriver proper, the goal is for each structure to meet the specific standards for classified lands as identified in the Oregon Forestland – Urban Interface Fire Protection Act of 1997, also known as Senate Bill 360. This statute outlines standards and requirements for defensible space on private property that receives fire protection from Oregon Department of Forestry.

The Oregon Department of Forestry provides wildland fire protection in the Sunriver CWPP area and the Steering Committee supports the goals and standards of Senate Bill 360 on those lands not subject to the Sunriver Ladder Fuels Reduction plan. Five classifications are possible under the Act – Low, Moderate, High, Extreme and High Density Extreme. East of the Cascades however, only three are possible due to an automatic rating for weather. Sunriver and the surrounding lands in the CWPP planning area are classified as Extreme. The standards under Senate Bill 360 for private lands classified as Extreme are:

- Establish a primary fuel break of 50 feet around structures (100 feet for wood roofing);
- Create fuel breaks around driveways longer than 150 feet;
- Remove tree branches within 10 feet of chimneys;
- Remove any dead vegetation that overhangs a roof;

- Remove flammable materials from under decks and stairways;
- Move firewood 20 feet away from structures.

A detailed description of the standards is available from the Oregon Department of Forestry in the handbook for the Oregon Forestland – Urban Interface Fire Protection Act of 1997. This information is also available at www.oregon.gov/ODF/fire/SB360.



Recommendations to Reduce Structural Vulnerability

Structural Vulnerability

Based on the assessment of structural vulnerability for the ODF Assessment of Risk, Table 6 identifies the main hazards within the Sunriver CWPP area. For each hazard or risk listed, an action is recommended to address the threat or decrease the risk. The adequacy of water resources for fire suppression was not considered under this assessment. This topic is addressed under Action Plan and Implementation.

Table 2 – Structural Vulnerability Hazards and Recommendations

Primary Hazards	Sunriver CWPP Recommended Actions	☑
Defensible space – hazardous vegetation	Continue with LFR Compliance, FireFree, Firewise.	
Structural composition – 107 homes still have wood shake roofing	Continue education efforts to change roofing to Class A Fire Resistant roof. Comply with LFR, FireFree, Firewise.	>97% have Class A roofing
Road widths 20-24 feet	Maintain height and width clearance through LFR and SB 360 for roads less than adequate for emergency response and egress.	
Poor fire service access in some areas	Maintain height and width clearance through LFR and SB 360 for safe turnarounds.	
Unknown evacuation routes	Sign and maintain routes. Educate visitors of the evacuation plan for Sunriver.	



Other Recommendations

Education

As stated in the Purpose of the Sunriver CWPP, four out of the seven of the goals for this planning effort are focused on education.

- Instill a sense of personal responsibility and provide steps for taking preventive actions regarding wildland fire,
- Increase public understanding of living in a fire-adapted ecosystem,
- Increase the community's ability to prepare for and respond to wildland fires, and
- Increase the community's ability to recover from wildland fires.

With these goals in mind, education and outreach are top priorities for the Sunriver CWPP. The rapid influx of new property owners and vacationers is just one reason the Steering Committee places high value on the education of Sunriver area property owners. Many property owners and visitors are unfamiliar with wildland fire and have limited experience with topics such as defensible space. Property owners and visitors will continue to benefit from clear examples of what a fire adapted community looks like as well as easy access to resources that help them take action.

There are several opportunities to enhance educational efforts in the Sunriver area. Sunriver Fire Department, the US Forest Service, the Oregon Department of Forestry, the Central Oregon Fire Prevention Cooperative and Project Wildfire all provide wildland fire prevention programs through a variety of individual and collaborative efforts. Sunriver Owners Association is working with Project Wildfire to develop and enhance wildfire awareness and prevention information to distribute through mailings, displays, pathway kiosks, in offices, at owner meetings, on the websites, and in vacation rental units in Sunriver.

The Steering Committee also recommends support for projects that enhance a community's ability to communicate necessary information in the event of a wildfire. The Steering Committee will support and participate in any way necessary with Sunriver's Fire and Police Departments to practice emergency drills that comply with the current and/or future emergency plan for Sunriver.

Utilizing the information in Table 6, property owners are strongly encouraged to learn more about how they can reduce the hazards on their own property. Local property owners are

encouraged to contact SROA and their local fire department for information. Property owners may also find additional information on how they can reduce hazards and protect themselves at www.firefree.org and www.firewise.org.



Action Plan and Implementation

The Steering Committee recognizes that the Sunriver CWPP is a living tool with multiple applications. The following actions are intended to assist individuals and agencies in the implementation of this CWPP across the Sunriver CWPP area.

Priorities

The Sunriver CWPP identifies priorities and strategies for reducing hazardous wildland fuels while improving forest health, supporting local industry and economy and improving fire protection capabilities. Addressing all three of these goals maintains local property owner's commitment to aligning with national goals, which are outlined in the Cohesive Strategy.

Improving Fire Protection Capabilities

The Steering Committee will work with Sunriver Fire Department, Sunriver Police Department, Sunriver Owners Association, Deschutes County, and Oregon Department of Transportation to identify and map existing transportation and evacuation routes. The Steering Committee will assist in conducting assessments to determine the evacuation needs of Sunriver and identify potential projects developing new routes and/or improving existing routes.

The Steering Committee will continue to encourage federal land managers to work with Sunriver Owners Association to minimize closures of roads that can be used as alternate evacuation routes.

The Sunriver Service District is currently pursuing the construction of a live fire structural training facility that will provide for a variety of training capabilities including live fire structural firefighting, structural search and rescue, and vertical ventilation. This will allow the Sunriver Fire Department, and its immediately adjacent mutual aid partners, to engage in safe, regularly scheduled live fire training. In addition, the Sunriver Police Department will use this facility for a variety of its training needs. The District has successfully had the site rezoned and is currently navigating the site plan approval process through Deschutes County Community Development department.

Oregon Department of Forestry is currently in the planning phase of installing smoke detection cameras in Southern Deschutes County. The smoke detection cameras should be installed by the next revision of this plan. These cameras will aid in effective suppression response by the wildland agency resources by allowing for more accurate reporting on smoke size and location.

The hope is that local fire lookouts and Central Oregon Interagency Dispatch Center (COIDC) can use multiple perspectives provided by the cameras to effectively communicate smoke locations to resources.

Working Toward a More Fire-Adapted Community

The intention of the Steering Committee is to engage in continued discussions with landowners to facilitate fuels reduction projects on private lands through the approved Sunriver Ladder Fuels Reduction Plan and the implementation of Senate Bill 360. These actions can be accomplished through education activities and grants for specific projects on private lands. The Steering Committee will work with SROA, Sunriver Fire Department and Project Wildfire to review the educational programs available and identify potential projects for implementation.

The Steering Committee acknowledged the robust educational campaign and notification system developed by the Sunriver Owners Association and its media partners. With a healthy conduit in place for educational messages to reach property owners and visitors the Steering Committee recommended all the members of the Steering Committee focus on several themes in the next 5 years;

- Increasing the public's knowledge of prescribed fire and its necessity.
- Increasing the public's knowledge of restoration as it relates to wildfire risk and wildlife habitat for Elk and Oregon Spotted Frog.
- Boost the public awareness of wildfire preparedness in the high traffic months when Sunriver has a high number of out of area visitors.

The Steering Committee is charged with the task of engaging community members to review the Structural Vulnerability Assessment in this CWPP and identify projects that will strengthen the potential for property owners to survive a wildland fire within the Sunriver CWPP area. Groups implementing education programs can utilize the ODF Assessment of Risk and Table 6 as a resource. The above resource can also be a guide for homeowners to improve the fire resistance of their homes on an individual basis.

The Steering Committee is also charged with the task of working with Sunriver Fire and Sunriver Water LLC to identify and assess the water resources available for fire suppression in Sunriver and the surrounding WUI. The Steering Committee can make recommendations for projects to ensure adequate water resources are available for fire suppression.

The Steering Committee will pursue funding fuel reduction in visible, strategic locations throughout the Sunriver CWPP area. The Steering Committee will encourage and assist community groups in seeking funding for fuels reduction, educational, and other projects to decrease overall risks of loss from wildland fire.

Restoring Resilient Landscapes

Immediately following the acceptance and signed approval of this plan, the Steering Committee will make copies of the 2015 Sunriver CWPP available to all public land managers including the US Forest Service and the Oregon Department of Forestry. The intention of the Steering Committee is to engage in continued discussions with the Sunriver community and adjacent landowners to implement the CWPP and accomplish hazardous fuels reduction projects in the most expeditious manner possible. The Steering Committee recognizes the effectiveness and value of maximizing treatment efforts in areas that are adjacent to federal or other private projects and recommends that future projects consider these benefits when selecting areas for treatment.

Fire Regime - Condition Class

Fire Regime - Condition Class considers the type of vegetation and its departure from its historical fire return interval. Five natural (historical) fire regimes are classified based on the average number of years between fires (fire frequency) combined with the severity of the fire on dominant overstory vegetation. Fire regimes I, III and IV are represented on the landscape in the Sunriver CWPP area. Lodgepole pine for example has a 60-80 year fire interval with the potential for full stand replacement fires. Lodgepole pine therefore falls within Fire Regime IV, which describes species with fire return intervals between 35 – 100 years. Ponderosa pine has an 11-15 year natural fire interval with a low potential for stand replacement fires. Therefore, ponderosa pine falls under Fire Regime I, which describes species with fire return intervals between 0-35 years.

There are 11,709 acres in the Sunriver CWPP area. Significant fuels reduction projects continue to reduce the amount of acreage in Condition Class 2 & 3 on the landscape surround Sunriver. Achieving Condition Class 1 on public lands however, requires multiple entries on treatment sites, over a period of years. For example, thinning and mowing may occur over a 12-24 month project period. The under burning component of the project may not occur for another year while the land recovers from the thinning and mowing and produces an adequate shrub content to support prescribed fire.

Fire Regime – Condition Class applies on the landscape level. This landscape encompasses the Sunriver CWPP area. While there has been significant fuel reduction within the Sunriver CWPP area, the Steering Committee recognizes that this will not transition the landscape to a healthy Condition Class. Also, the Steering Committee recognizes US Forest Service has completed significant fuels reduction work, the need for fuels treatments to continue on the landscape as a whole. The Steering Committee supports the ongoing planning and treatment process on public lands to restore a more resilient landscape.

The following table summarizes Fire Regimes.

Table 3 – Fire Regimes

Fire Regime Group	Fire Frequency	Fire Severity	Plant Association Group
I	0 – 35 years	Low severity	Ponderosa pine, manzanita, bitterbrush
II	0 – 35 years	Stand replacement	Western juniper
III	35 – 100+ years	Mixed severity	Mixed conifer dry
IV	35 – 100+ years	Stand replacement	Lodgepole pine
V	> 200 years	Stand replacement	Western hemlock, mixed conifer wet

Condition Class categorizes a departure from the natural fire frequency based on ecosystem attributes. In Condition Class 1, the historical ecosystem attributes are largely intact and functioning as defined by the historical natural fire regime. In other words, the stand has not missed a fire cycle. In Condition Class 2, the historical ecosystem attributes have been moderately altered. Generally, at least one fire cycle has been missed. In Condition Class 3, historical ecosystem attributes have been significantly altered. Multiple fire cycles have been missed. The risk of losing key ecosystem components (e.g. native species, large trees, soil) is low for Class 1, moderate for Class 2, and high for Class 3.

The following table summarizes Condition Class.

Table 4 – Condition Class

Condition Class	Attributes
Condition Class 1	<ul style="list-style-type: none"> ▪ Fire regimes are within or near an historical range. ▪ The risk of losing key ecosystem components is low. ▪ Fire frequencies have departed from historical frequencies (either increased or decreased) by no more than one return interval. ▪ Vegetation attributes are intact and functioning within an historical range.
Condition Class 2	<ul style="list-style-type: none"> ▪ Fire regimes have been moderately altered from their historical range. ▪ The risk of losing key ecosystem components has increased to moderate. ▪ Fire frequencies have departed (either increased or decreased) from historical frequencies by more than one return interval. This change results in moderate changes to one or more of the following: fire size, frequency, intensity, severity or landscape patterns. ▪ Vegetation attributes have been moderately altered from their historic ranges.
Condition Class 3	<ul style="list-style-type: none"> ▪ Fire regimes have been significantly altered from their historical range. ▪ The risk of losing key ecosystem components is high. ▪ Fire frequencies have departed (either increased or decreased) by multiple return intervals. This change results in dramatic changes to one or more of the following: fire size, frequency, intensity, severity, or landscape patterns. ▪ Vegetation attributes have been significantly altered from their historic ranges.



Evaluation and Monitoring

The Steering Committee faced a complex task in the comprehensive revision of the Sunriver Community Wildfire Protection Plan. Implementing and sustaining the efforts outlined in the Action Plan will require a significant time and financial commitment. Building a collaborative and cooperative environment with Sunriver Fire, community-based organizations, local government and the public land management agencies has been the first step in reducing the risk of loss from wildland fire. The Steering Committee pledges to maintain this cooperation with the public over the long-term with the commitment of all the parties involved.

At a minimum, the Steering Committee shall include: a member of the Sunriver Owners Association Board of Directors; Sunriver Owners Association staff; the Program Director from Project Wildfire; a Chief Officer from Sunriver Fire Department; a representative from Oregon Department of Forestry (ODF); a representative from Central Oregon Fire Management Service (COFMS), and Deschutes County along with members of the Sunriver area public.

The Steering Committee agrees that the Sunriver Community Wildfire Protection Plan will be a living document, intended to promote fuels reduction, educational, and other projects to decrease overall risks of loss from wildland fire. The Sunriver CWPP will be revisited at least annually to address its Purpose.

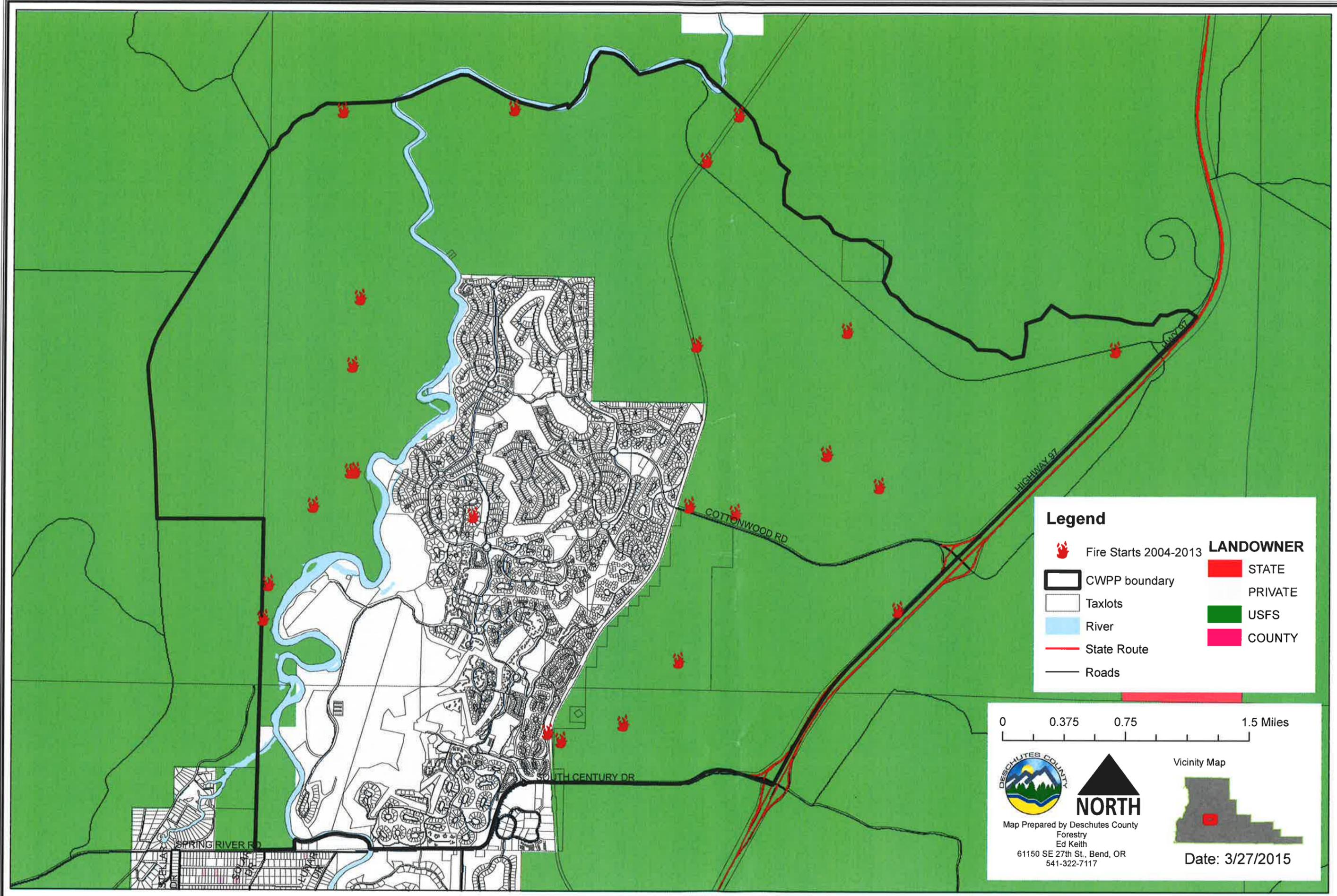
Sunriver Owners Association and the Sunriver Fire Department will work with Project Wildfire to convene the Steering Committee as often as the Steering Committee deems necessary to implement and review the Sunriver Community Wildfire Protection Plan. Topics for discussion can include:

- Identification and assessment of new or treated risks.
- Evaluation and tracking of progress toward goals.
- Updating of maps.
- Adoption of new and/or revised priorities.
- Identification of specific projects.
- Discussion of grant opportunities and determination of projects eligible for funding.
- Writing of grants.

- Identification of appropriate projects to address additional items as outlined in the Action Plan for Structural Vulnerability, Education and Critical Transportation Routes.
- Coordination of additional items, projects and assessments.

Sunriver Owners Association, the Sunriver Fire Department and Project Wildfire will ensure that the evaluation and monitoring activities listed above are addressed by the Steering Committee each year. As members of the Steering Committee change, Project Wildfire will ensure that it maintains a balanced representation of agency and public members, with a continued focus on inviting interested parties to participate in the review and planning process.

Sunriver Community Wildfire Protection Plan - Basemap



Legend

Fire Starts 2004-2013	LANDOWNER
CWPP boundary	STATE
Taxlots	PRIVATE
River	USFS
State Route	COUNTY
Roads	

0 0.375 0.75 1.5 Miles

NORTH

Map Prepared by Deschutes County
Forestry
Ed Keith
61150 SE 27th St., Bend, OR
541-322-7117

Vicinity Map

Date: 3/27/2015

Glossary of Terms

- **Assessment of Risk Factors:** Risk Assessment process developed by the Oregon Department of Forestry that allows for an objective identification and wildfire risk assessment of Oregon's Communities that is appropriate at all levels of resolution, i.e. statewide, community to individual tax lot. Includes five factors that sum to an overall score to assess and compare risk: risk, hazard, protection capabilities, values protected and structural vulnerability.
- **Cohesive Strategy:** In 2009, Congress passed the Federal Land Assistance, Management, and Enhancement (FLAME) Act and called for a National Cohesive Wildland Fire Management Strategy, also known commonly as the Cohesive Strategy, to address wildland fire related issues across the nation in a collaborative, cohesive manner. The Cohesive Strategy was finalized in 2014 and represents the evolution of national fire policy: To safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire. The primary, national goals identified as necessary to achieving the vision are: **Resilient landscapes:** Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives. **Fire-adapted communities:** Human populations and infrastructure can withstand a wildfire without loss of life and property. **Wildfire response:** All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.
- **Crown Fires:** A fire that advances from top to top of trees or shrubs more or less independent of a surface fire. Crown fires are sometimes classed as running or dependent to distinguish the degree of independence from the surface fire.
- **Defensible Space:** Defensible Space, in the context of fire control, is the natural and landscaped area around a structure that has been maintained and designed to reduce wildfire danger by using vegetation that is fire resistant.
- **Deschutes Collaborative Forest Project:** In 2010, a collaborative group of local agencies and organizations formed a proposal for funding a large, collaborative forest restoration and hazardous fuels reduction project on public lands managed by the Deschutes National Forest. This landscape level project is known as the Deschutes Collaborative Forest Project (DCFP).
- **Dispersed Campgrounds & Recreational Sites:** Campsites or recreational sites members of the public use that are outside of a designated campground or developed recreation site. These sites not have trash removal or facilities such as tables and fire pits. For more information on how to use dispersed recreational sites visit: <http://www.fs.usda.gov/>

- **Fire Adapted Community:** One of the tenants of the Cohesive Strategy. A Fire Adapted is one that acknowledges and takes responsibility for its wildfire risk, and implements appropriate actions at all levels. Deschutes County is a pilot community for the Fire Adapted Communities Learning Network. For more information visit: <http://www.facnetwork.org>
- **Fire Break:** A gap in vegetation or other combustible materials that acts as a barrier to slow or stop the progress of a wildfire.
- **Fire Prone Area:** A geographic area that can support a wildfire due to weather and vegetation.
- **Fire Resiliency:** A landscape or geographic location that is able to withstand wildfire without suffering catastrophic effects, such as loss of life, home loss or damage and/or environmental damage.
- **Fire Return Interval:** The time between fires in a defined area or landscape.
- **Fire Suppression Costs:** The financial figure that is incurred during any operations by fire fighting agencies to suppression (or put out), a wildland fire.
- **FireFree:** A local program in Central Oregon that uses ten steps to educate property owners on how to defend their home from wildfire. FireFree also provides two annual events where homeowners can dispose of debris created from wildfire preparedness activities.
- **Firewise:** A national program that provides a process that empowers neighbors to work together in reducing their wildfire risk. The National Fire Protection Association sponsors the Firewise program.
- **Hazardous Fuel Reduction:** Reducing vegetation that could accelerate a wildland fire.
- **Hazardous Fuels:** Any fuel or vegetation that will sustain or accelerate a wildland fire.
- **High Intensity:** Fire intensity represents that energy releases during various phases of the fire. High intensity fires are damaging to certain vegetation and ecosystems that are not adapted to them. Much of the lower elevation forests in Central Oregon are adapted to lower intensities.
- **Overstory:** Also called the canopy. Made up of the tallest trees that stand over the rest of the plants in the landscape.
- **Pacific Northwest Coordination Center:** The Northwest Interagency Coordination Center (NWCC) is the Geographic Area Coordination Center for the

Northwest Region, which includes the States of Oregon and Washington. Located in Portland, OR, the NWCC serves as the focal point for interagency resource coordination, logistics support, aviation support and predictive services for all state and federal agencies involved in wildland fire management and suppression in the region. Cooperating agencies include the: Bureau of Land Management, US Forest Service, Oregon Dept of Forestry, US Fish and Wildlife Service, Bureau of Indian Affairs, Washington Dept. of Natural Resources and the National Park Service.

- **Resilient Landscapes:** A landscape that is able to recover quickly or repel disturbances that may be a departure from normal circumstances.
- **Silvicultural Treatments:** A planned series of treatment that aide in achieving the goals set forth by a diverse set of values. Silviculture is the practice of controlling the establishment, growth, composition, health and quality of forests to meet diverse needs and values.
- **Stand Dynamics:** The underlying physical and biological forces that shape and change a particular area or forest stand.
- **Structural Ignitability:** Also known as Structural Vulnerability; which refers to the probability of a home igniting during a large wildfire.
- **Structural Vulnerability Factors:** Factors that can increase or decrease a homes probability of igniting during a large wildfire. Examples include: roof composition, roof cleanliness, vent covers, deck composition & cleanliness, etc.
- **Thick Bark Pine:** a local species is Ponderosa Pines. Their thick bark makes them a fire resistant species. The lower elevation forests that were/are dominated by Ponderosa Pines are adapted to low intensity fire that would burn through as often as every ten years.
- **Tree Crowns:** See overstory. Also known as the tree canopy.
- **Understory:** The layer of vegetation beneath the main canopy of a forest.
- **Wildfire Preparedness:** Changing behaviors and/or process to reduce the impact a wildfire may have on the population.
- **Wildland Fire:** Any non-structural fire that occurs in vegetation or natural fuels. An unplanned, unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.

- **Wildland Fuels:** Vegetation that is located in an area in which development is essentially non-existent, except for roads, railroads, powerlines, and similar transportation facilities. Structures, if any, are widely scattered.
- **Wildland Urban Interface (WUI):** The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Describes an area within or adjacent to private and public property where mitigation actions can prevent damage or loss from wildfire. Much of Deschutes County is considered Wildland Urban Interface.