

# **Community Wildfire Protection Plan Sunriver, Oregon**



Prepared by  
**Sunriver Owners Association**  
**Environmental Services**  
in collaboration with  
**Sunriver Fire Department**

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## **I. Collaboration**

The Sunriver Owners Association (SROA) and the Sunriver Fire Department (SRFD), in consultation with state and federal agencies and other interested parties have collaboratively developed Sunriver's Community Wildfire Protection Plan (SRCWPP). The SRCWPP was created according to the guidelines of *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities* (Communities Committee, Society of American Foresters, National Association of Counties, National Association of State Foresters).

The Healthy Forests Restoration Act (HFRA) directs federal agencies to collaborate with communities in developing hazardous fuel reduction projects, and in the prioritization of treatment areas as defined by a community's CWPP. The SRCWPP will assist SROA, SRFD and Sunriver residents in the identification of internal and surrounding lands, including federal lands, at risk from severe wildfire. It identifies strategies for reducing wildfire fuels while improving forest health, supporting local industry and economy, and improving fire fighting response capabilities.

### **A. Background Information**

#### Location

The community of Sunriver, Oregon is a wildland urban interface residential and resort community located in southern Deschutes County. T. 19 S., R. 11 E.

#### History

"The forest of large ponderosa pines that dominated Sunriver's site under natural (pre-logging) conditions was cut in the 1920's. The site was then subjected to grazing, the impacts of a large World War II military training installation (Camp Abbot), and occasional wildfire, before it was acquired for development as Sunriver. The residual forest that survived is one dominated by lodgepole pines, a relatively short-lived species that precedes ponderosa pine in a natural plant succession." (SROA Sunriver Forest Policy and Forest Management Plan committee report, 1995)

Sunriver, founded in 1965, had a "hands off" forestry management policy for many years. Community Regulations prohibited tree and brush removal in most circumstances. Wood shake roofing was required on all structures. The devastating Awbrey Hall fire of 1990 in nearby Bend began changing minds and policies within the community. In 1991, SROA and the Sunriver Nature Center drafted a Fuels Modification Plan, which would become the basis for the 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. In 1992, the SROA Board of Directors approved a resolution prohibiting wood roofs in Sunriver by requiring all new and replacement roofs to have a UL Class "A" fire rating.

The 1996 Skeleton fire, which burned 17,789 acres, further motivated the Sunriver community to action. In 1997, SROA hired staff to oversee private property inspections and compliance and to manage contracted fuels reduction on common grounds according to a six-year return cycle. Today, the SROA Environmental Services Department continues to maintain and improve the fire safety and forest health of the community's urban forest, and is working in partnership with Oregon Department of Forestry and the USFS to improve the Wildland Urban Interface surrounding Sunriver.

SROA has been taking significant steps to make Sunriver properties defensible, but we are still vulnerable. The Spring River Butte fire of September 1999 emphasized the need for fuels reduction on federal lands surrounding Sunriver. The 112-acre blaze had firefighters concerned for the safety of Sunriver.

“The wind was pushing the fire right toward Sunriver,” said then Fire Chief Era Horton. “I called the Police Chief and told him to get ready, because things didn't look good.”

Central Oregon Interagency Dispatch Center spokesman Keith Clinton said, “We got a lot of fire retardant on the fire just before dark, and that really saved our bacon.”

Firefighters ultimately credited control of the fire to a previously thinned area. The fire started in a 75-acre stand of unthinned trees and quickly consumed it. However, when the fire reached a 30-acre area that had been thinned, the fire dropped from the tree crowns to the ground, and firefighters were able to stop it.

#### National recognition

Sunriver has been nationally 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.

#### Federal and State Projects

The Bureau of Land Management awarded SROA a 2002 National Fire Plan grant to help us create a buffer to federal lands on our northwestern borders. The funding allowed us to increase tree spacing in “at-risk” areas, in order to create a defensible buffer.

Hand in hand with the NFP effort on our northwestern border was the planning and implementation of the adjacent “Cardinal Bridge project.” SROA applied for Title II (Secure Rural School and Community Self-Determination Act of 2000) funds, which we then signed over to the Deschutes National Forest (DNF). The project was a cooperative effort between the DNF and Sunriver Owners Association to reduce the risk of wildfire to the community of Sunriver and restore streamside vegetation along a section of the Deschutes River. A 20-acre

area adjacent to Cardinal bridge was thinned to reduce ladder fuels, creating a safer zone adjacent to the backup emergency exit bridge for residents. Mature ponderosa pine and a rare native grove of aspen were released from lodgepole pressure.

Sunriver continues its collaboration with the Deschutes National Forest in our participation in the planning of the Kelsey, Lavacast and East Tumbull management areas, which are adjacent to Sunriver.

SROA participated in the Wildland Urban Interface (WUI) Grant Program in 2003 in cooperation with ODF and the USFS. SROA Environmental Services staff and members of the Sunriver Fire Department identified privately owned properties within Sunriver that carried heavy fuel loads and were at greatest risk to wildfire. Eighty properties were treated for ladder fuels and \$19,050.00 was distributed to homeowners as reimbursement under the grant.

SROA kept Oregon Department of Forestry staff continually updated on those properties in compliance with the Sunriver Ladder Fuels Reduction Plan and the WUI grant requirements. Oregon Department of Forestry staff performed routine inspections of said properties to verify compliance. Concurrently, SROA conducted fuels treatment on common ground adjacent to the private properties selected for participation in the WUI grant, furthering the defensibility of the entire community.

The Sunriver Ladder Fuels Reduction Plan has been revised to meet or exceed the intent of the Oregon Forestland-Urban Interface Fire Protection Act of 1997 and the International Fire Code (IFC). With requirements for fuels reduction on undeveloped lots and common ground, the Sunriver LFR Plan exceeds Oregon Fire Protection Act standards for an "Extreme" classified area. The plan has been reviewed and approved by ODF and the Sunriver Fire Department. ODF has designated the Sunriver Environmental Director and the Environmental Assistant as a Type III Accredited Assessors, with the authority to certify Sunriver properties with ODF. Compliance with the Sunriver LFR plan will also certify a property with ODF under alternative standards. Additionally, the Sunriver Fire Chief has received the appropriate training and has been certified as a Type II Accredited Assessor.

#### Composting site

A National Fire Plan grant provided seed money for a cooperative "in vessel" composting project that provides an outlet for recycling forest fuels thinning by-products, improves soil and air quality, reduces disposal costs for biosolids and yard debris. Sunriver Environmental LLC owns and operates the composting site, with oversight from the Oregon Department of Environmental Quality. The Sunriver Owners Association's Environmental Director has provided technical, public relations and marketing support. The other partners of the composting project and integral to its success, are Sunriver Resort LP, Deschutes Soil and

Water Conservation, the Sunriver Nature Center and Observatory and the Crosswater Owner's Association. The project serves three golf courses: Crosswater, Meadows, and Woodlands, and the communities of Sunriver and Crosswater. Materials formerly burned or hauled to Knott Landfill in Bend are aerobically composted on the eight-acre site. The majority of the compost is used locally and is sold to local residents for home use and to contractors for commercial applications.

### Sunriver Fire Department

Since the inception of the Sunriver Service District the Sunriver Fire Department has taken a proactive approach when dealing with wildfire and urban interface issues. As a public agency, SRFD has the authority and also the responsibility to ensure compliance with the International Fire Code as adopted and amended by the State of Oregon. The Fire Chief is now legally considered a Deputy to the State Fire Marshal relative to fire code application and compliance issues. SRFD has become more aggressive in public education in order to make the community and visitors more aware of the fire hazard potential and actions to take should a wildfire break out in or near Sunriver.

SRFD has been strengthening its partnership with the SROA Environmental Department so that the application of SROA rules and International Fire Code requirements will appear seamless to the community relative to wildland fire protection issues.

## **II. Community Base Map**

We currently have the following maps in large-scale format, which are in the process of being converted to 8 ½ x 11" size:

- Base map with fuels treatments (past, present, future)
- Historical fire starts
- Large fire history
- Created map with defined WUI and priority areas
- Fire Regime Condition Class

## **III. Community Risk Assessment**

### **A. Wildland-Urban Interface Description**

The Healthy Forests Restoration Act defines wildland-urban interface 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 area extending 1) ½ mile from the boundary of an at-risk community, or 2) 1 1/2 miles when other criteria are met, i.e. a sustained steep slope or a geographic feature aiding in creating an effective firebreak or is condition class III land, or 3) is adjacent to an evacuation route.

SROA has carefully planned and mapped the extent of its WUI as a basis for prioritized fuel treatment recommendations. The boundaries of our WUI have been defined according to slope, geographic features, condition classes, prevailing winds and other criteria.

**The Sunriver WUI is defined by Forest Road 41 to the west, the Deschutes River and lava butte lava flow to the north, Highway 97 to the east, and South Century/Spring River Road to the south.**

## **B. Fuel Hazards**

A natural fire regime is a general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning. Five natural (historical) fire regimes are classified based on average number of years between fires (fire frequency) combined with the severity of the fire on dominant overstory vegetation. Much of the SRCWPP WUI lands are historical fire regime I, which includes a 0-35 year frequency and low (surface fires most common) to mixed severity (less than 75% of the dominant overstory vegetation replaced.)

The Current Condition Class categorizes departure from the historical natural fire regime based on five ecosystem attributes. In Condition Class 1, the historical ecosystem attributes are largely intact and functioning as defined by the historical natural fire regime. In Condition Class 2, the historical ecosystem attributes have been moderately altered. In Condition Class 3, historical ecosystem attributes have been significantly altered. 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. A majority of the federal lands in the Sunriver WUI are in condition class 2 or 3, putting them at moderate to high risk for catastrophic wildfire.

Sunriver is an urban interface community of 3,374 acres that is surrounded by Deschutes National Forest land. The community has maintained a cyclical ladder fuels reduction program on common grounds and a compliance program on private properties for the past seven years that has made Sunriver significantly more defensible. However, extremely hazardous fuels conditions persist on much of the Forest Service lands bordering Sunriver, posing an immediate and critical threat to the community.

Decades of fire suppression, and the after effects of logging have altered the presettlement forest of widely spaced mature predominantly ponderosa pine and bunchgrass communities. Today, we see dense thickets of smaller diameter lodgepole and ponderosa pine, accumulations of bitterbrush (*Purshia tridentata*) and dead and down beetle killed trees.

**C. Risk of wildfire occurrence**

The current condition of the federal lands surrounding Sunriver poses an extreme risk of catastrophic wildfire. Sunriver is threatened by the likely possibility of a crown fire sweeping into the community, or by embers falling on the community from an adjacent wildfire. Due to prevailing winds, the greatest risk is from the west and southwest. However, strong winds can push fires from the east.

Wildfire could start within the community or in any of the forested areas adjacent to and/or surrounding the community. In either case, with a fire of any significance it would be difficult to assemble the resources necessary to adequately address all of the fire and life safety issues that would arise in the early stages of emergency operations. This puts the community and population at greater risk as timelines are compressed due to the swiftness with which such a fire would impact the community.

**ODF Assessment of Risk Factors ratings:**

<b>CATEGORY</b>	<b>Score</b>	<b>Rating</b>
Risk	40	High
Hazard	78	High to Extreme
Protection Capabilities	5	Low
Values Protected	50	High
Structural Vulnerability	15	Low

(See appendix A for more details)

**E. Homes, businesses and essential infrastructure at risk**

Sunriver’s value was recently assessed at over \$1 billion. Over 4,000 high value homes and condominiums are at risk, as well as a large resort and several retail businesses located in the Sunriver Village Mall.

**F. Other community values at risk**

Sunriver’s managed natural environment, parks, recreational facilities, bike paths and other amenities make the community a major tourist destination. Sunriver provides a very significant source of revenue for Deschutes County. Sunriver is located along the sensitive Upper Deschutes Watershed, which is also threatened by hazardous fuels. These values are at risk because of the condition of surrounding federal lands and would be seriously degraded by a catastrophic wildfire.

Sunriver maintains a water system that needs to be protected in order to maintain available fire flow necessary to better protect the community.

The Sunriver wastewater treatment plant located between circles 5 and 6 needs to be protected.

## **G. Local preparedness and firefighting capability**

### Emergency Preparedness

The Sunriver Fire Department is an all risk emergency service provider for the community of Sunriver and the primary ambulance/paramedic service provider for a 300 square mile area surrounding Sunriver.

The department consists of 10 career positions involved directly in fire operations and 20 reserve firefighters also dedicated to fire operations. All personnel have received training in wildland firefighting practices, Incident command procedures, structural fire protection, and other related topics.

The department works out of one centrally located fire station and maintains a fleet of two structural fire engines, two fully equipped ambulances, one heavy brush engine, one light brush engine and three staff/utility vehicles.

The department participates in the Central Oregon Mutual Aid System. In the event of a major fire the department may request assistance from all other fire departments that are signatory to the agreement. In addition to Central Oregon Fire Departments, this includes USFS, ODF, and BLM. Conversely, when these agencies need assistance and we have the resources available, we will assist them.

La Pine Rural Fire District and Sunriver participate in automatic aid as well as establishing mutual response zones in certain parts of each other's district.

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 throughout the State.

The Sunriver Police Department has responsibility for ensuring the safe and orderly evacuation of the community in the event of a major emergency. A number of resources have been allocated to accomplish this task including the placement of siren/public address systems throughout the community; emergency notification via radio and television; reverse 9-1-1 capability; Police Department staff; SROA staff and community-wide volunteers. Any other issues relative to a major emergency are addressed by the Countywide Disaster Plan.

One of the greatest challenges in Sunriver's community fire protection system is the education of the transient population on the extreme fire hazards in the area, how to prevent wildfires and what to do in the event of a wildfire impacting the community.

The community of Sunriver can have a transitory population of up to 12,000 people at any time during the year. This population fluctuation is greatest during the summer months, at the height of the wildfire season. A collaborative planning



effort is needed to address the challenge of making the transitory population aware of fire safety issues.

The Sunriver Fire Department has several long-term planning issues in addition to developing public education for transitory populations, including: evaluating the water system and alternative sources, evaluation of new construction within the community to ensure it doesn't increase local hazard and has sufficient built in protection, and completion of a deployment analysis of the fire department as part of the District's strategic planning process. The Department will also analyze present and potential evacuation routes, staging areas and protection zones.

#### **IV. Prioritized Hazard Reduction Recommendations and Preferred Treatment Methods**

##### **A. Federal**

The Deschutes National Forest lands surrounding Sunriver comprise the majority of its WUI. SROA recognizes and supports the Kelsey, East Tumbull and Lava Cast USFS projects designed to improve forest health and reduce wildfire risk. However, treatment of the Sunriver WUI should not depend on the planning and approval of these projects. Sunriver's WUI should be subject to expedited measures for hazardous fuels treatments, expedited environmental analysis, and allocation of funds to protect the community as stipulated by HFRA.

The attached map shows the WUI that the community of Sunriver has defined for protection of properties, scenic, ecological and wildlife values. The map also indicates the priorities for treatment of the WUI, based on wildfire risk.

**The priorities of the SRCWPP, in regards to federal lands within our WUI are as follows:**

- 1) **Condition class 2 and 3 lands:**
  - A) **Within the southwest and west portion of our WUI (from S. Century Drive to the north end of Sunriver)**
  - B) **Within ¼ mile of Sunriver in other portions of the WUI**
  - C) **Within 300 feet of any Sunriver evacuation route**
- 2) **Condition class 2 and 3 lands beyond ¼ mile of Sunriver, prioritized in ¼ mile increments until the WUI boundary is reached.**

##### **B. SROA**

The community of Sunriver has capabilities through SROA rules and regulations to enforce fuels reduction standards on developed and vacant private properties and maintains a six-year cycle of fuels reduction on common grounds. See Sunriver Forestry Plan, Appendix B.

**C. Private residential**

See Sunriver Forestry Plan, Appendix B.

**D. Private commercial**

The following properties within Sunriver are subject to the regulations and guidelines of the SROA Ladder Fuels Reduction Plan:

Sunriver Resort  
Sunriver Village Mall  
Sunriver Water LLC  
Sunriver Environmental LLC  
Meadows Golf Course  
Woodlands Golf Course

**E. Adjoining properties**

The following properties are outside of Sunriver and not subject to the SROA Ladder Fuels Reduction Plan. They are, however, within Sunriver's WUI, and are therefore considered interested parties. Their proximity to Sunriver makes their fuels treatment and maintenance of interest to Sunriver.

Lake Penhollow and composting site

Sunriver Environmental LLC has prepared a forest management plan for this property. A copy of the plan is available by contacting Sunriver Environmental LLC. The main goals of the plan are:

1. To reduce the fire hazard present on the property
2. To reduce the fire hazard posed by adjoining timber along the perimeter
3. To improve the health of the forest
4. To provide wood chips for on site use in the composting operation
5. To retain a visual buffer between Sunriver and the agricultural/composting areas.

Once the Sunriver Environmental LLC forest management plan has been submitted to ODF, a field review by their forester will probably be involved. Upon ODF final review and acceptance, the timing of the operations will then need to be determined. Next, a notification of activity will need to be submitted to the State Forester.

Private properties north of Sunriver

The owner of two homes north of Sunriver has been provided with copies of the SRCWPP and has been invited to comment. The homes are located within Sunriver's WUI.

## **V. Treatment of Structural Ignitability**

SROA maintains a comprehensive Ladder Fuels Reduction program, that meets and exceeds the intent of the Oregon Forestland-Urban Interface Fire Protection Act of 1997, designed to protect Sunriver structures from wildfire (see Appendix B). The plan requires owners to make their entire property a fuel break and to maintain an area of 15 feet around structures entirely free of flammable groundcover.

All landscaping plans are reviewed by SROA Environmental Services through the Sunriver Design Review Committee to ensure use of fire resistant plants and plantings.

SROA requires all roofing material used in new construction to meet a Class “A” fire rating. Class “B” rated metal roofing may be used if installed under Class “A” rated criteria. Remodels, repairs or additions of more than 20% of an existing roof require the owner to replace with Class “A” roofing.

Wood burning fireplace and stove chimneys are required to have ½” mesh spark arrestors installed, maintained and cleaned in accordance with Deschutes County Building Codes.

Owners may choose, with Design Committee approval, to build or remodel with fire-resistant siding, eaves and decking, install rooftop sprinkler systems, or take other steps to further protect their homes.

Outdoor burning is prohibited in Sunriver, and only gas or electric cooking devices or those approved by the Sunriver Fire Chief may be used outside. Smoking along any road, drive, lane, pathway, trail or on any SROA owned property is prohibited (except within an enclosed motor vehicle). The SROA General Manager may also invoke emergency restrictions further limiting smoking in Sunriver, prohibiting use of chain saws and other fuel-powered equipment, and prohibiting use of wood burning fireplaces.

## **VI. Action Plan and Assessment Strategy**

SROA will meet with the Deschutes National Forest to discuss our CWPP and the implementation of the priorities in our WUI in the most expeditious manner possible. We will track the progress of treatments on our base map. In addition, we will seek funding for fuels reduction projects through the National Fire Plan, the Secure Rural Schools and Community Self-Determination Act of 2000, and other means.

Continued protection of the community will be necessary through maintenance of treatment areas. We request a return every five years to conduct beneficial controlled underburning, and a ten-year return cycle for mechanical treatment.

**VI. Declaration of Agreement**

The HFRA 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 undersigned have reviewed this plan and agree to the completed draft.

\_\_\_\_\_  
Sunriver Owners Association President

\_\_\_\_\_  
Date

\_\_\_\_\_  
Sunriver Fire Department

\_\_\_\_\_  
Date

\_\_\_\_\_  
Oregon Department of Forestry

\_\_\_\_\_  
Date

\_\_\_\_\_  
Deschutes County

\_\_\_\_\_  
Date

This plan was created collaboratively with the assistance of:  
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**Appendices available upon request.**