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Greater Redmond

Community Wildfire Protection Plan

2022

Prepared in cooperation with:

Copies of this plan are available at: http://www.projectwildfire.org/cwpps/

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Executive Summary

Purpose and Goals

Community Wildfire Protection Plans (CWPPs) are documents that are designed to be developed 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 forest management agency, local governments and especially property owners, in collaboration with federal land managers. 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 impacting the community 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 Greater Redmond Area to become a more Fire Adapted Community.

Since its creation in December 2006, the Greater Redmond CWPP has been revised three times (2011, 2017, 2022) by a local steering committee with the intention of decreasing the risks of high-intensity wildfire in the Greater Redmond Area.

The 2022 Greater Redmond CWPP will assist in the identification and prioritization of wildfire risk on all lands, including surrounding public lands. The Greater Redmond CWPP identifies priorities and strategies for reducing hazardous wildland fuels while improving forest health, reducing structural vulnerability, 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 purpose of the Greater Redmond CWPP is to:

- Protect lives and property from the negative impacts of wildland fire;
- Instill a sense of responsibility among property owners, visitors, conservation groups and federal, state and local agencies to take preventive actions regarding wildland fire;
- Provide guidance to federal agencies for implementing fuels reduction treatments;
- Prioritize the use of limited funds for the treatment of hazardous fuels;
- Grow and sustain fire-adapted community efforts;
- Increase public understanding of living in a fire-adapted ecosystem;

- Increase the Greater Redmond's ability to prepare for, respond to and recover from wildland fires;
- Restore fire-adapted ecosystems;
- Improve the fire resiliency of the landscape while protecting other social, economic and ecological values.

The Greater Redmond CWPP integrates information from a variety of sources to present a comprehensive picture of risk and possible treatments on the landscape and enables community organizations and their partners to act in a coordinated fashion. A completed plan also allows the adjacent federal land management agencies to make use of the expedited authorities provided by the Healthy Forest Initiative (HFI) and the Healthy Forest Restoration Act (HRFA). In addition, for communities seeking most federal grant funding, a completed CWPP is commonly a requirement. Lastly, developing a CWPP is a powerful tool to help get local property owners and visitors involved in fire protection efforts.

Planning Area Description

The Greater Redmond CWPP is multi-jurisdictional and addresses all lands and all ownerships within the boundaries of the plan area. Greater Redmond is located in the northern portion of Deschutes County and includes the City of Redmond in its entirety in addition to the surrounding rural lands protected by Redmond Fire and Rescue and lands protected by the Lower Bridge Rangeland Fire Protection Association. US Highway 97 and US Highway 26, major transportation routes through the state, intersect the plan area. The southern edge of the boundary is the northern boundary of the Greater Bend CWPP. The northern part of the WUI is the Jefferson County CWPP boundary. The west side of the WUI is met by the Greater Sisters Country CWPP boundary and the east side is met by the Crook County CWPP.

Redmond, Oregon is located east of the Cascades and is the social, economic and recreational hub of Deschutes County. Deschutes County is the fastest growing county in Oregon and currently the Greater Redmond Community Wildfire Protection Plan Boundary is home to an estimated 44,019 residents. Situated between between 2,700 and 3,700 feet in elevations, in a classic wildland urban interface environment, the greater Redmond area is also home to abundant wildlife including deer, elk, and many species of birds and fish. Within the planning area there is also a significant amount of public land with developed and dispersed recreation sites, which provide valuable recreation opportunities to both residents and visitors. In the summer months, Deschutes County estimates an additional transient population of up to 20,000 people that occupy these areas creating a seasonal challenge for those agencies responsible for fire suppression and evacuation.

Historically, the Redmond area included a mix of open stands of western juniper, bitterbrush, sage and grasslands, which were maintained by frequent low to moderate intensity fires. Today, with more development into the wildland urban interface and effective wildland fire suppression, the greater Redmond area is characterized by widespread stands of dense western juniper, bitterbrush, sage, and grasses

For the purposes of this plan, the area considered wildland urban interface (WUI) and the CWPP planning area are coincident. The Greater Redmond CWPP boundary is approximately 199 square miles or 124,907 acres.

The CWPP planning area boundary lies within the larger area of the eastern Cascade slopes and foothills. The Deschutes River is a notable landmark that runs north/south through the planning area. The larger area is dominated by western juniper, sagebrush, and grasses on the high desert as well as transitions from ponderosa pine to mixed conifer and lodgepole pine. The vegetation is adapted to the prevailing dry climate and is highly susceptible to wildland fire with major threats to the area each year. Volcanic cones and buttes dot the landscape across much of the region. Most of the communities in the area lie at an elevation of approximately 3,000 feet.

The climate in Redmond is considered semi-arid and typical of the east slopes of the Cascade Mountains, with most of the annual precipitation (8"-12") coming as winter snow and rain in the fall and spring. Summers are dry and prone to frequent thunderstorms with lightning storms producing multiple fire ignitions.

The community of Redmond presents a unique challenge for the wildfire planning process. Although the core urban area is not at significant risk from wildfire due to the amount of development and lack of vegetation, the areas adjacent to the core of Redmond are characterized by dense stands of trees, topographical challenges and thick ground vegetation that contribute to its scenic beauty as well as the overall wildland fire risk. There are extensive areas of hazardous wildland fuels intermixed with homes and businesses across the planning area that in the event of a grass or brush fire, could sustain a wildland fire event with catastrophic losses likely. Redmond is also home to many agricultural areas, which have the capacity to carry significant ground fires.

Wildland Fire Risk Assessment

The CWPP steering committee used the Oregon Wildfire Risk Explorer tool that was created in partnership with the Oregon Department of Forestry (ODF) and the Institute for Natural Resources at Oregon State University (OSU) to undertake a wildland fire risk assessment and gauge the relative risk and hazard due to wildland fire for the lands and communities within the planning area. This tool is intended to direct the implementation of wildfire mitigation activities to the highest priority areas and promote cross-boundary coordination. The full risk assessment can be found in Appendix A.

Action Plan and Implementation

The Steering Committee recognizes the Greater Redmond CWPP is a living tool that can be used for multiple outcomes. The plan contains recommendations consistent with the three goals of the Cohesive Strategy (safe and effective wildfire response, Fire Adapted Communities and resilient landscapes), as well as prioritized recommendations and preferred treatment methods.
With critical needs assessed and priority areas identified through the risk assessment process, the Steering Committee identified the following recommendations to meet the purposes of the Greater Redmond 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

Declaration of Agreement

The Greater Redmond Community Wildfire Protection Plan (CWPP) was originally completed and signed in May, 2006. Subsequent revisions were approved in 2011 and 2017. As directed by this CWPP, fuels reduction activities have been completed on public and private lands. Recent wildland fires have also impacted the landscape.

Under the Healthy Forests Restoration Act, the CWPP is approved by the applicable local government(s), the local fire department, and the state entity responsible for forest management. The plan makes reference to rules and regulations that may be legally binding, however this plan is not legally binding, as it does not create or place mandates or requirements on individual jurisdictions. It is intended to share information and serve as a planning tool for fire and land managers and property owners to assess risks associated with wildland fire and identify strategies and make recommendations for reducing those risks.

Pat Dale, Interim Fire Chief — Date: 7/11/2022
Redmond Fire and Rescue

Carol Penhollow, Board President — Date: 7/11/2022
Redmond Fire and Rescue

George Endicott, Mayor — Date: 8/2/22
City of Redmond

Ben Duda, Unit Forester — Date: 06/22/2022
Oregon Department of Forestry

Patti Adair, Chair — Date: 6/29/2022
Deschutes County Board of Commissioners

Tony DeBone, Vice Chair — Date: 29JUN22
Deschutes County Board of Commissioners

Phil Chang, Commissioner — Date: 6/29/22
Deschutes County Board of Commissioners

Acknowledgements

In the true spirit of collaboration, the following people are acknowledged for their participation and commitment resulting in the 2022 Update of the Greater Redmond CWPP.

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Kyle Roberts	Redmond City Planning
George Endicott	Mayor of Redmond
Mike Mulligan	Ridge at Eagle Crest
Joyce Baker	Ridge at Eagle Crest
Karen Roberts	Odin Falls
Patty Cassidy	The Cliffs Redmond
Robin Galloway	Lower Bridge RFPA
Jeff Dowell	Pronghorn
Kyle Collins	Deschutes CDD
Jeff Blackburn	Tetherow Crossing
Keith Witcosky	Redmond City Manger
Jeff Hawthorne	Redmond School District
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Boone Zimmerlee	Deschutes County Fire Adapted Communities Coordinator
Terrance Highfield	Burlington Northern Santa Fe Railroad
Nathan Garibay	Emergency Manager, Deschutes County Sheriff's Office
Heather Miller	Office of State Fire Marshal

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www.projectwildfire.org/cwpps

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Purpose

Originally created in December 2006, the Greater Redmond CWPP has been revised three times (2011, 2017 and 2022). This 2022 comprehensive revision maintains the original purpose and outlines the updated priorities, strategies and action plans for fuels reduction treatments in the Greater Redmond area wildland-urban interface (WUI). This CWPP also addresses special areas of concern and makes recommendations for reducing structural vulnerability and creating defensible space. It is intended to be a living document for fuels reduction, educational, and other projects to decrease overall risks of loss from wildland fire and should be revisited at least annually to address its purpose, goals and associated outcomes.

Although reducing the risk of high-intensity wildland fire is the primary motivation behind this plan, managing the Greater Redmond WUI for hazardous fuels reduction and fire resilience is only a 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.

The purpose of the Greater Redmond CWPP is to:

- Protect lives and property from wildland fires;
- Instill a sense of personal responsibility 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, respond to and recover from wildland fires;
- Restore fire-adapted ecosystems;
- Create and maintain fire adapted communities; and
- Improve the fire resilience of the landscape while protecting other social, economic and ecological values.

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 property owners and visitors. These landscapes, however, are now significantly altered due to fire prevention efforts, modern suppression activities and a general lack of 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, adding to the wildland-urban interface.

The 2022 Greater Redmond CWPP will assist the City of Redmond, Redmond Fire and Rescue, residents of Redmond, local, state and federal governments in the identification of lands at risk from high-intensity wildland fire. The Greater Redmond CWPP identifies priorities and strategies for reducing hazardous wildland fuels while improving forest health, supporting local industry and economy and improving fire protection capabilities. It also identifies strategies to address special areas of concern such as evacuation routes as well as outlines actions that individuals can take to

help protect themselves against the threat of wildland fires.

Planning Summary

CWPP Planning Process

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

Step one: Convene the decision makers.

The Greater Redmond CWPP Steering Committee reconvened in March 2022 to review the work completed within the WUI boundaries on public and private lands and reevaluate the priorities for future fuels reduction treatments. The Steering Committee is comprised of representatives from Redmond Fire and Rescue, the Oregon Department of Forestry (ODF), The City of Redmond, the United States Forest Service (USFS), Deschutes County and other stakeholders and members of the public.

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 USFS but 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.

The Steering Committee included representatives from the Communities at Risk, members of local businesses, road districts, homeowner/neighborhood associations, and other organizations and individuals. The Steering Committee encouraged a collaborative environment for the stakeholders to accomplish the 2017 revision of the Greater Redmond CWPP. Collaboration and coordination between agencies, community members and landowners if 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 2017 CWPP. The group approved the 2022 CWPP boundary.

Step five: Develop a community risk assessment.

The Steering Committee relied on the Oregon Wildfire Risk Explorer tool to create an Advanced Report (Appendix A).

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

Based on the report, the Steering Committee produced priorities for fuels reduction treatments on

public and private lands. The Steering Committee also made recommendations to reduce structural ignitability based on information in the assessments 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 purpose 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 Greater Redmond CWPP was available for public comment for 30 days prior to the final signing and approval of the plan. Interested parties provided comments during this period. Redmond Fire and Rescue, Oregon Department of Forestry, The City of Redmond and the Deschutes County Board of Commissioners, mutually approved the Greater Redmond Community Wildfire Protection Plan as demonstrated in the Declaration of Agreement.

Policy Background Related to CWPPs

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 to expedite the documentation process for the purpose of reducing hazardous fuels on public lands.

In 2003, Congress passed historical bi-partisan legislation: The Healthy Forests Restoration Act (HFRA). This legislation directs federal agencies to collaborate with communities in developing a CWPP that includes the identification and prioritization of areas needing hazardous fuels treatment. It further provides authorities to expedite the National Environmental Protection 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 community-defined 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.

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 and states in part.

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.

History of the Greater Redmond CWPP

Since its creation in 2006, the Greater Redmond CWPP has been revised two times in 2011 and 2017 with the intention of decreasing the risks of high-intensity wildfire in the Greater Redmond area. The last revision of the Greater Redmond CWPP was finalized in 2017. Since that time continued efforts have been made by city, 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 Greater Redmond CWPP, the Steering Committee reconvened in 2022 and revisited the planning outline in Preparing a CWPP: A Handbook for Wildland-Urban Interface Communities (Communities Committee, Society of American Foresters, National Association of Counties, and National Association of State Foresters 2006); and Deschutes County Resolution 2004-093.

The Greater Redmond CWPP Steering Committee includes representatives from Redmond Fire and Rescue, The City of Redmond, ODF, USFS, BLM and Deschutes County along with members of the Greater Redmond area public.

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 Greater Redmond CWPP will be a living document, intended to promote fuels reduction, education, 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.

Planning Area Description

Redmond, Oregon is located in central Oregon and is a rapidly growing social, economic and recreational destination in Deschutes County. Deschutes County continues to be the fastest growing county in Oregon, according to Portland State University. In just the past year Deschutes County's population has grown by 2.1%. The combined population of the City of Redmond and that portion of Deschutes County within the Greater Redmond Community Wildfire Protection Plan Boundary are home to 44,019 residents.

US Highway 97, a major transportation route through the state, runs north to south, through the middle of the city of Redmond. US Highway 126 also intersects the city of Redmond, running east and west in the middle of town. As central Oregon grows, more residents and tourists crowd the highway and increase congestion, particularly during the summer months when fire season reaches its peak. As part of the central community, transportation routes are included in the consideration of the WUI boundary due to their critical role as roads and travel corridors that link communities together and serve as evacuation routes.

Historically, the Redmond area included a mix of open stands of western juniper, bitterbrush, sage and grasslands, which were maintained by frequent low to moderate intensity fires. Today, with more development into the wildland urban interface and effective wildland fire suppression, the greater Redmond area is characterized by widespread stands of dense western juniper, bitterbrush, sage, and grasses.

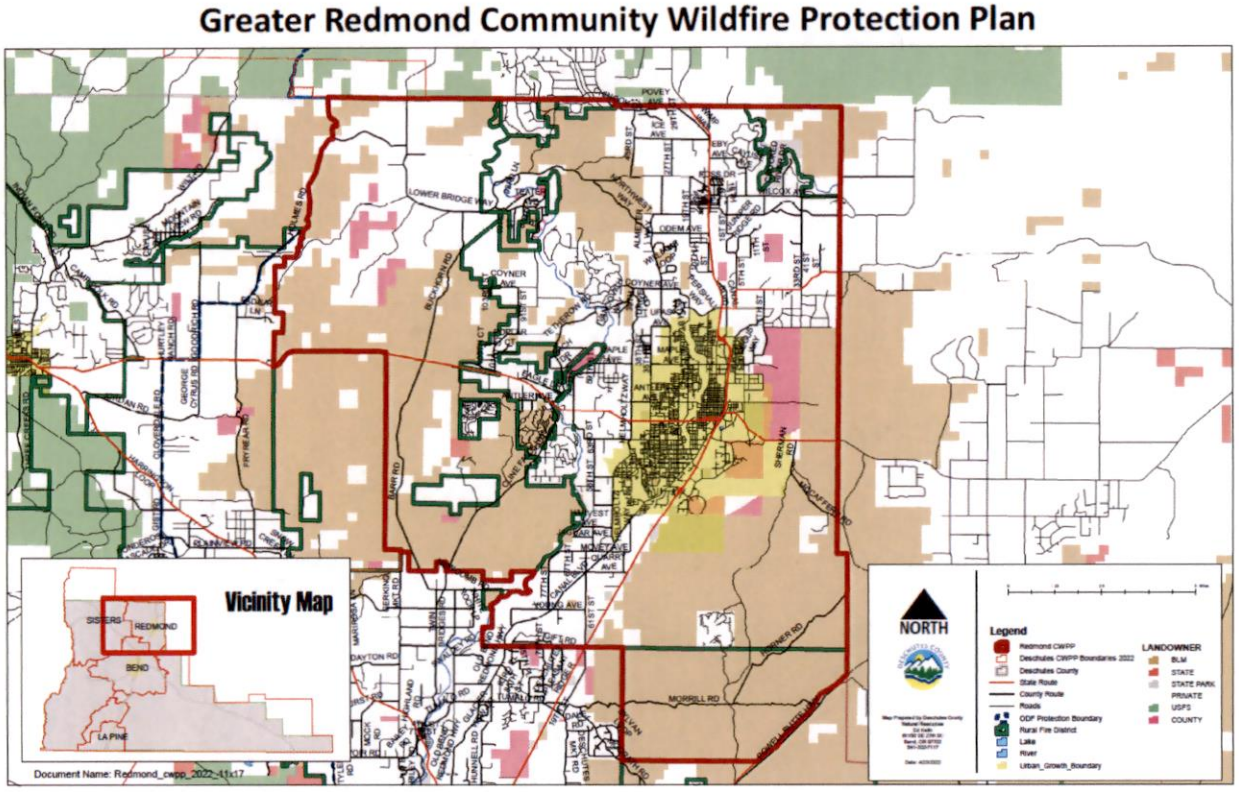
Developed in a classic wildland urban interface environment, the greater Redmond area is also home to abundant wildlife including deer, elk, and many species of birds and fish. Within the planning area there is also a significant amount of public land with developed and dispersed recreation sites, which provide valuable recreation opportunities to both residents and visitors. In the summer months, Deschutes County estimates an additional transient population of up to 20,000 people that visit these areas and the city of Redmond creating a seasonal challenge for those agencies responsible for fire suppression and evacuation.

The climate in Redmond is considered semi-arid and typical of the east slopes of the Cascade Mountains, with most of the annual precipitation (8"-12") coming as winter snow and rain in the fall and spring. Summers are dry and prone to frequent thunderstorms with lightning storms producing multiple fire ignitions.

The community of Redmond presents a unique challenge for the wildfire planning process. Although the core urban area is not at significant risk from wildfire due to the amount of development and lack of vegetation, the areas adjacent to the core of Redmond are characterized by dense stands of trees, topographical challenges and thick ground vegetation that contribute to its scenic beauty as well as the overall wildland fire risk. There are extensive areas of hazardous wildland fuels intermixed with homes and businesses across the planning area that in the event of a grass or brush fire, could sustain a wildland fire event with catastrophic losses likely. Redmond is also home to many agricultural areas, which have the capacity to carry significant ground fires.

Community Base Map

The steering committee reviewed the planning area base map and confirmed the boundaries that the Greater Redmond CWPP addresses. This area is shown in the base map below and was also used for the purposes of producing the risk assessment in the Oregon Wildfire Risk Explorer.



Communities at Risk

The Healthy Forest Initiative (HFI) and the Healthy Forests Restoration Act (HFRA) define a "community at risk" from wildland fire as one that:

- is a group of homes and other structures with basic infrastructure and services (such as utilities and collectively maintained transportation routes) in or adjacent to federal land;
- has conditions conducive to large-scale wildland fire; and
- faces a significant threat to human life or property as a result of a wildland fire.

For the purposes of this plan, the lands and associated homes and structures within the planning area boundary of the Greater Redmond CWPP constitute the Community at Risk.

Wildland Urban Interface Definition

The Steering Committee defines the WUI as any developed area where conditions affecting the combustibility of both wildland and built fuels allow for the ignition and spread of wildfire. The Steering Committee reviewed and approved the WUI boundaries of the 2022 CWPP. The Greater Redmond CWPP joins the Jefferson CWPP on the north edge, the Greater Bend CWPP borders to the south, the East West Deschutes County CWPP borders the plan to the east and the Greater

Sisters CWPP borders it to the west. For the purposes of this plan, the area considered wildland urban interface (WUI) and the CWPP planning area identified on the above base map are coincident. The Greater Redmond CWPP boundary is approximately 199 square miles or 124,907 acres.

Fuel Hazards and Ecotypes

The majority of the vegetation in the Greater Redmond WUI includes:

- Sagebrush
- Western juniper
- Bitterbrush
- Cheatgrass & noxious weeds



Sagebrush is found throughout the Redmond planning area and is of great concern as ladder fuel intermixed with stands of western juniper trees. Sagebrush is highly susceptible to fire and rarely re-sprouts. Under historic conditions, sagebrush took approximately 20 years to reach pre-burn densities following a wildfire event. Without periodic fire, sagebrush reaches an uncharacteristic old-growth form with increased height, woody stems, and thick accumulations of leaves – all highly flammable. Changes in fire occurrence along with fire suppression and livestock grazing have contributed to the current condition of sagebrush in the planning area. Introduction of annuals, especially cheat grass, has increased fuel loads so that fire carries easily, increasing the potential for significant and dangerous fire behavior.



Western juniper is the predominant overstory species that occurs across the Redmond area landscape. During its first few decades, western juniper is extremely susceptible to wildfire and spends most of its resources putting down major root systems instead of developing thick bark or other fire resistant characteristics. Prior to settlement of the western United States, juniper was frequently killed by wildfires that moved through the landscape approximately every 30 years. As a result, it grew almost exclusively in rocky areas and outcrops where fire could not burn it. Over the past century, western juniper has established itself outside the rocky outcrops and into much of central Oregon, including the greater Redmond area. Specifically, the increase in its range is attributed to more effective fire suppression which has allowed stands to grow unchecked by fire and past grazing practices of domestic livestock which has decreased the amount of ground vegetation needed to carry a fire.

Bitterbrush occurs throughout the Redmond planning area on all aspects and elevations and is frequently found with sagebrush and western juniper. 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 often sprouts 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 Redmond wildland urban interface area is rich with patches of bitterbrush that burn well on their own and provide fire-ready ladder fuels for taller tree stands.



Ladder fuels: Bitterbrush, manzanita, sagebrush and other flammable vegetation that can provide a direct path or "ladder" for fire to travel to trees or structures.

Noxious weeds and cheatgrass are found across the planning area and present yearly challenges for residents, agricultural users and fire suppression agencies. Cheat grass and other noxious weeds typically occur where the ground has been disturbed to create roads, paths, or other plantings. Once established, they return perennially and can reach heights of three feet or more creating an easily ignitable fuel bed once they dry out during summer months. Fires that occur in this type of fuel spread quickly and can direct fire to other fuels such as trees or structures.

Cheatgrass provides a flammable link in the brush and forests vegetation types. It cures early in the fire season and ignites readily during dry periods because of its very fine structure that responds readily to changes in the atmospheric moisture, tendency to accumulate litter and invasive nature. Cheatgrass promotes more frequent fires by increasing the biomass and horizontal continuity of fine fuels that persist during the summer lightning season. Its expansion has dramatically changed fire regimes and plant communities over vast areas of western rangelands by creating an environment where fires are easily ignited, spread rapidly, cover large areas, and occur frequently. Fire in these habitats can have severe effects on native species of plants and animals.





Historic fire seasons occurred between July and September, with the middle to end of August being the period of the most extreme fire conditions. Cheatgrass matures by July, while most native species it replaces mature in late August. With Cheatgrass dominant, wildfires tend to occur earlier in the season, when native perennials are more susceptible to injury by burning. These fires are larger and more uniform, with fewer patches of unburned vegetation remaining within burns. Cheatgrass thrives in grounds that have been disturbed by activities such as recreation or building. There are many areas within the Redmond CWPP Boundary that have Cheatgrass invading the landscape, in some cases creating ladder fuel adjacent to homes in the WUI. Cheatgrass is recognized as a noxious weed in Deschutes County.

The result of the fuel hazards and forest types in the greater Redmond area is an overgrowth of trees and ladder fuels with 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 produces flame lengths over eight feet with crowning and torching that can result in stand replacement severity fires.

Not only have large, stand replacement fires not occurred, but also the more frequent low intensity fires have not been allowed to burn either. This practice of fire exclusion along with insufficient vegetation/fuels reduction has resulted in the buildup of excessive live and dead fuels.

Recent Wildfires

The Greater Redmond community has experienced many large fires in the last 100 years. In 1996 the Smith Rock Fire charred 300 acres and one home. Each year Redmond Fire and Rescue reports dozens of brush fires that reach 20+ acres, as well as many that are less than 100 acres that threaten lives and property. Eagle Crest has had their own experience with fire in past years consuming structures and another burning within the river corridor threatening evacuations. Within the past 5 years additional fires impacting and provoking evacuations included, the Grandview Fire in 2021 burning 5,938 acres and the East Antler Fire prompting evacuations, closing Redmond Airport and scorching 200 acres.

Public & Private Accomplishments

As part of the ongoing wildland fire risk management of the surrounding public and private forestlands, the USFS, the BLM, ODF, Deschutes County and private landowners are engaged in hazardous fuels treatment projects across the planning area. Noting these accomplishments informs the risk assessment and action plan found later in this document.

Federal Lands

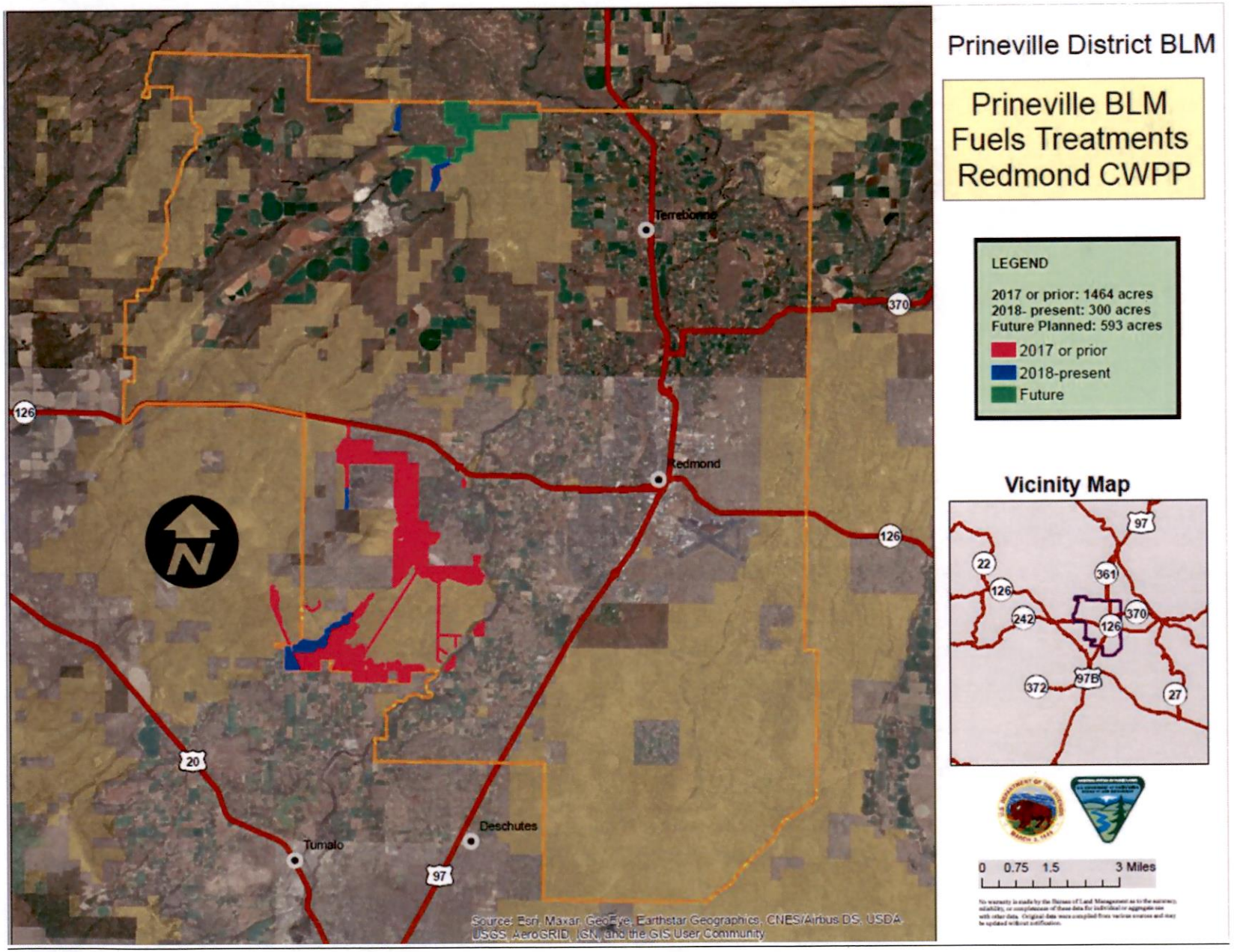
The Bureau of Land Management – Prineville District manages 45,511 acres of public land in the greater Redmond area and continues to pursue increased forest health and reduced potential for high intensity wildland fire.

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 prescribed burning. Therefore, multiple entries are required in order to adequately reduce hazardous fuels and restore forest ecosystem health. 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.

Bureau of Land Management

The Bureau of Land Management will be pursuing supplemental funding to aid in implementing fuel reduction projects in the Cline Buttes and Crooked River Ranch areas. Since 2012, 1,740 acres of fuels treatments have been completed including cutting, piling, lop and scatter, and prescribed burning. Of those 1,764 acres, 1,464 were completed prior to 2017 (last CWPP update) and 300 acres which have been completed since 2018 to the present. There is currently an additional 593 acres planned in the Crooked River Ranch area.

Project Area	Prior to last CWPP Update	Since last CWPP Update	Future Planned
All Years/All Treatments	2012-2017	2018-present	2022-Beyond
Cline Buttes	1464	211	593
Crooked River Ranch	0	89	0
Total	1464	300	593


Prineville District BLM
Prineville BLM
Fuels Treatments
Redmond CWPP
LEGEND
2017 or prior: 1464 acres
2018- present: 300 acres
Future Planned: 593 acres
2017 or prior
2018-present
Future
Vicinity Map
Terrebonne
Redmond
Tumalo
Deschutes
126
370
20
97
0 0.75 1.5 3 Miles
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

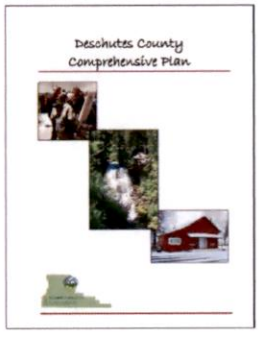
Oregon Department of Forestry

The Oregon Department of Forestry (ODF), Central Oregon District, Prineville-Sisters Unit provides wildland fire protection and technical forestry assistance to private landowners and non-federal agencies. Although the Greater Redmond CWPP does not fall within the ODF Central Oregon Forest Protection District,2 assistance is provided working with partner agencies that have direct responsibility in the area.

Deschutes County

Deschutes County owns approximately 3% of all the privately owned land in the greater Redmond WUI, however in addition to working on County lands, the County works with private landowners to cooperatively address wildfire risk reduction. In 2021, Deschutes County secured grant funding for the Greater Redmond Area from a FEMA Hazard Mitigation Grant. The funding was used to implement projects located at the Ridge at Eagle Crest and on County lands east of Redmond. Once completed these projects will treat approximately 657 acres.

Deschutes County Comprehensive Plan



The Deschutes County Comprehensive Plan is a statement of issues, goals and policies meant to guide the future of land use in the County that covers a 20-year period from 2011-2030. The Plan is intended to recognize the expectations and rights of property owners and the community as a whole. It also provides a blueprint for land use conservation and development. This is accomplished through goals and policies that tell a cohesive story of where and how development should occur and what places should remain undeveloped. The plan has several natural hazard policies that focus on wildfire:

- Coordinate with stakeholders to support forest management projects that contribute to public safety by treating wildland hazardous fuels particularly in the designated Wildlland Urban Interface...
- Protect people, property, infrastructure, the economy and the environment from natural hazards.
- Survey and map wildfire hazard at risk areas
- Support forest management practices that reduce severe wildfire hazard areas
- Support local fire protection districts and departments in providing and improving fire protection services.
- Review and revise County Code as needed to:
    - Address wildfire concerns to and from development, through consideration of site location, building construction and design, landscaping, defensible space, fuel management, access and water availability.
    - Require new subdivisions and destination resorts to achieve Firewise Standards from the beginning of the projects and maintain those standards in perpetuity.

Natural Hazard Mitigation Plan

A Natural Hazard Mitigation Plan (NHMP) is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. A local government must have a mitigation plan approved in order to receive pre- and post-disaster mitigation grants. Deschutes County last updated the NHMP in 2021. The plan focuses on reducing or alleviating the losses of life, property, and injuries resulting from natural hazards through long and short-term strategies. The plan reduces the risk from natural hazards by identifying resources, information, and strategies for risk reduction. The NHMP is also intended to guide and coordinate mitigation activities throughout the county. Wildfire is County's second highest threat (winter storms is ranked first). The plan identifies the projects and efforts overseen by Project Wildfire, Firewise Communities, and Community Wildfire Protection Plans.

Project Wildfire

Over the last eighteen years, Project Wildfire, in cooperation with the Deschutes County Sheriff's Office of Emergency Management Program has coordinated evacuation route signage for the Greater Redmond Area. Project Wildfire has also helped property owners find grant funding to reduce hazardous fuels on private lands. Providing home assessments for individuals on how vulnerable a structure will be during a wildfire, then offering recommendations that should be taken so the home will have a better chance to survive a wildfire is a free service Project Wildfire offers. As property owners work on proactive planning in preparation for wildfire, they help achieve Project Wildfire's mission to prevent deaths, injuries, property loss, and environmental damage resulting from wildfires in Deschutes County.

In partnership with Deschutes County and Republic Services, Project Wildfire plans and implements two FireFree events every year in the spring and the fall. The spring days are completely free for property owners to drop off yard debris at landfills and transfer stations throughout Deschutes County. The public has come to expect these FireFree events and there is a high level of participation each year. The events are an easy and cost-effective way for homeowners to create and maintain their defensible space. In 2021 there was 55,473 cubic yards of debris dropped off.

Land Use Planning for Wildfire Prepared Communities

The Deschutes County Community Development Department (CDD) has coordinated efforts to establish planned communities with wildfire mitigation as a primary objective. In 2017, County staff facilitated the establishment of the Miller Tree Farm cluster development along the City of Bend's western Urban Growth Boundary. The Tree Farm development incorporates standards from the National Fire Protection Association (NFPA) and Firewise Communities for defensible space, fuel treatments, and construction material guidelines for all new development which occurs onsite. These standards are codified as conditions of approval for the Tree Farm master plan, and ultimately serve as a benchmark for all residential developments which occur in the Wildland Urban Interface moving forward.

Additionally, in 2019 CDD led the adoption of a new zoning district in Deschutes County. The Westside Transect Zone (WTZ) serves as a transitional buffer between the City of Bend's western edge and heavily forested parcels further west. The WTZ is a unique zone in the County and serves as a major piece of compromise legislation between various interests in the region including developers, private property owners, environmental stewardship organizations, and wildfire protection officials. Like the Tree Farm development, the WTZ incorporates National Fire Protection Association (NFPA) and Firewise Communities standards for all new development. All land divisions, which occur in the WTZ, are required to submit Wildfire Mitigation Plans prepared by a professional forester, which outline the specific wildfire risks within the subdivision area, and must include direct strategies for mitigating those risks. Mitigation strategies can include a defensible space program for individual properties, roofing and other fire resistant building material standards, and road access requirements for citizens and firefighting personnel. Measures outlined in individual Wildfire Mitigation Plans are ultimately included as conditions of approval and upheld by designated Homeowners Associations. These plans and designated mitigation actions must be evaluated on a regular basis or at the request of CDD. This ensures that any changes to wildfire risk are adequately captured and factored into new and existing development plans.

Wildfire Mitigation Advisory Committee and New Development Standards

In 2019, Deschutes County was awarded a $25,000 technical assistance grant from the Department of Land Conservation and Development (DLCD) to evaluate proposals for increasing wildfire mitigation programs across the County. From 2019 through 2020, the County convened a Wildfire Mitigation Advisory Committee (WMAC) to discuss possible Wildfire Mitigation programs that could be implemented at a regional scale. The WMAC consisted of 12 members representing a variety of interests in Deschutes County, including fire protection officials, developers, and private citizens. In April 2020, the WMAC presented a report to the Deschutes County Board of Commissioners reflecting their findings and recommendations concerning the adoption of new fire resistant building standards, possible County-wide defensible space programs for residential development, and updates to the adopted Deschutes County Wildfire Hazard Zone. The fire resistant building standards are based on the Oregon Building Codes Division's (BCD) updated Wildfire Hazard Mitigation standards, also known as ORSC - R327.

Based on the findings in the WMAC report, in late 2020 CDD staff hosted a series of open houses to gather public input on new wildfire mitigation programs and proposals. The open house events were done in conjunction with two public surveys to gather additional input. Ultimately, CDD staff found that a majority of citizen respondents were supportive of additional building or defensible space requirements to reduce wildfire risk in Deschutes County. The results of the public outreach effort were presented to the Deschutes County Board of Commissioners in February 2021 along with a timeline for future steps to further evaluate these issues.

Firewise USA®



Another indication of the commitment of the Greater Redmond residents to wildfire preparedness is the recognition of the multiple communities as Firewise USA® sites. The Firewise USA® program is a national recognition program which 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. In 2017, the Greater Redmond CWPP area was the home of 3 sites, in the past 5 years 1 more site was added bringing the total number of Firewise Recognized sites within the planning area to 4.

The Firewise USA program recognizes communities that have demonstrated their commitment to wildfire preparedness. Through these steps, communities throughout Redmond have effectively lowered Redmond's wildfire risk. Partnerships across the Greater Redmond area has fostered collaboration between neighbors, increased awareness and their communities' ability to respond to wildfire. Since the last revision of this plan (2017) Firewise sites within the greater Redmond area have invested $549,545 in preparing for wildfire. These activities included preparing for evacuations, fuels reduction, improvements in defensible space, and the replacement of flammable landscaping around structures.

As part of the accomplishments made by Firewise Communities, The Ridge at Eagle Crest is one of the county's most active Firewise sites with multiple accomplishments over the recent years.

The Ridge at Eagle Crest; 2017-2022. Annually in the month of May and in conjunction with Deschutes County Project Wildfire, completed a Community focused FireFree effort to enhance Homeowner defensible space. In addition, during this five-year period, the following significant accomplishments have occurred:

- 2017-2019 (Phase II): "Heavy Fuel Reduction" dominated fuels work conducted on 160 of the 230 Common Area acres designated for defensible space treatment under the formal Ridge Community Wildfire Protection Program.
    - 2018-2019/Back-up Generators. In coordination with the Eagle Crest water and waste-water system provider (Oregon Water Utilities), all system water wells (four) and booster pump servicing the Ridge were up-graded with back-up electrical generator capability.
- 2020-2021 (Phase III): Planned transition years moving from Heavy Fuel Reduction to Sustaining Wildfire Abatement forecast for 2022. Each year treated grasses and noxious weeds on ~90 acres in the Commons designated for continuing defensible space treatment.
    - 2020/Evacuation-Access. Sponsored and provided oversight to the installation of an additional Emergency Evacuation-Access gate.
    - 2021/Incident Response Support. Complementing focused grass-brush management in the Commons, prepared a potential Incident Response site in conjunction with wildfire treatment on a designated Common Area.
    - 2021/Evacuation-Access. Amended an existing Ridge at Eagle Crest Owners Association (RECOA)/Bureau of Land Management (BLM) Memorandum of

Understanding (MOU) that provides for conduct of prescribed wildfire protection measures on BLM lands.

- 2022 (Phase IV). Initiated Sustaining Wildfire Abatement: In support of a FEMA Hazard Mitigation Grant Program (HMGP) award to Deschutes County in 2021, pursued a Contract with Deschutes County Project Wildfire to expand fuel reduction coverage on Eagle Crest property. RECOA Community Wildfire Protection jointly planned, implemented, and completed additional fuels reduction wildfire protection treatment on 91 acres (78 previously untreated acres directly adjacent to residential properties and an additional 14 acres on up-slope terrain previously treated).

Fire-Adapted Communities

This CWPP is just a piece of the over-arching framework and goal of Fire Adapted Communities. 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 we can allow fire to play its natural role at a meaningful scale. The Fire Adapted Communities (FAC) initiative and the FAC Learning Network are helping homeowners, communities and land managers in fire-prone areas prepare for inevitable fires -- to "live with fire" safely. 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. Working toward being more fire adapted by developing a CWPP addresses one of the three prongs outlined in the larger goal of the National Cohesive Wildland Fire Management Strategy.

Fire Protection Capability

In considering the overall risk, the ability to provide a fire protection response must be considered. One structural fire district that provides fire response within the planning area. In addition, wildland fire agencies provide fire response for areas of state and federal protection. When local resources are fully engaged, all agencies can request additional resources through the State of Oregon and request federal resources through the Pacific Northwest Coordination Center.

In addition to this high level of coordination, all structural fire departments and wildland 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, lessons learned, weather forecasts and how agencies can/will respond to meet the needs of fire events.

Redmond Fire and Rescue

In 2011, Redmond Fire and Rescue successfully transitioned from a municipal fire department to a fire district. Under the leadership of its five-member elected board of directors, Redmond Fire and Rescue provides fire suppression services within its 150-mile service district and extends Emergency Medical Services (EMS), including Advanced Cardiac Life Support transport, within a 450 square mile service boundary.

The District provides specialized firefighting coverage for Redmond Municipal Airport at Roberts Field. Redmond Fire and Rescue adopted the National Incident Management Systems (NIMS) and all personnel have received training and continue to train in its use.

Redmond Fire and Rescue is a career department that employs one Fire Chief, one Deputy Chief, three Battalion Chiefs, 50 line firefighter/paramedics, one Fire Marshal and one Deputy Fire Marshal, and five administrative staff members. The department also manages a strong student volunteer program with three student volunteers and seven regular volunteers.

Through its four stations, Redmond Fire and Rescue's frontline fleet of firefighting and EMS apparatus including: three structural engines, one interface engine, one ladder truck, one water tender, two light brush engines, one light rescue truck, four ambulances, two hazardous materials response vehicles and trailers, two Aircraft Rescue Fire Fighting (ARFF) engines, two command vehicles and six staff vehicles.

In addition to the firefighting resources, Redmond Fire and Rescue puts a portion of its workforce towards fire prevention. The fire prevention team is comprised of one Fire Marshal and one Deputy Fire Marshal that provides enforcement of local fire codes and ordinances, new construction plan review to ensure there is adequate firefighting apparatus access and adequate water supply, as well as provide public education across the district. This team is responsible for conducting origin and cause investigations to determine the cause of a fire and providing information about the fire so the district can focus on a prevention messages, and code development to prevent those fires in the future.

The district is a party to the Central Oregon Mutual Aid Agreement. In the event of a major fire the district may request assistance from all other fire departments that are signatory to the agreement. In addition to Central Oregon Fire Departments, this includes the US Forest Service, Oregon Department of Forestry, and the BLM. Conversely, when these agencies need assistance and the District has resources available, it assists them. Redmond Fire and Rescue is also a party to Automatic Aid Agreements with Bend Fire and Rescue, Cloverdale Fire District, Crooked River Ranch Fire and Rescue, Jefferson County Fire District No. 1, Crook County Fire District, US Forest Service and ODF. Through a streamlined Computer Aided Dispatch (CAD) center, Redmond Fire and Rescue responds automatically to certain calls in areas up to five miles beyond the fire district.

Local Ordinances provide the district with the control of burning practices. This step alone has contributed positively to the decrease in the amount of fire calls and reduced the threat of wildfire in the greater Redmond area.

Local building codes and fire codes also reduce the catastrophe from wildfires as they allow the district to restrict the use of combustible roofing materials, design new communities with adequate and proper access (ingress/egress) for emergency vehicles as well as adequate water supply and hydrant distribution. These opportunities give firefighters an expedient route to fires and assist residents in safe evacuations.

All of these enforced code and ordinance provisions help reduce the number and severity of fires in the greater Redmond area.

Oregon Department of Forestry

The Prineville-Sisters Unit does not provide direct wildland fire protection within the entire CWPP area. Although the Unit does provide protection to Oregon State Parks including Smith Rock State Park and Cline Falls State Park. The Unit staffs 10 wildland fire engines, one five-person crew and one dozer to respond to wildland fires throughout the fire season. Under mutual aid agreements with federal partners and Redmond Fire and Rescue support is provided during wildland fire emergencies within the area.

The Prineville-Sisters Unit also provides support in fuels mitigation in the CWPP area. This support is provided through technical assistance with development of Firewise communities. Through close partnerships with federal and local agencies the Unit assists in numerous other projects and prevention efforts within the area.

COFMS -USDA Forest Service & BLM

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

In total, COFMS/federal agencies include the following resources: 26 engines, six initial attack hand crews, six prevention units, two dozers, two water tenders, one Type 3 helicopter, 35-50 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. Additionally, Type 1 and/or nationally shared resources, are dispatched and prioritized at a regional/national level through the Northwest Coordination Center (NWCC) and the National Coordination Center (NICC). Anytime an incident grows beyond the capability of the local resources a mutual aid request may be made to ODF as well as submitting resource requests to the Northwest Coordination Center for additional wildland fire fighting resources from outside the area.

Areas of special concern

Law Enforcement & Evacuations

The City of Redmond Police Department and Deschutes County Sheriff's Office provide police services for the Greater Redmond area. Both entities have 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 public address systems on vehicles; emergency notification via radio and television; emergency notification system; Police and Sheriff's Office staff; Redmond Fire and Rescue staff and community-wide volunteers. The Countywide Emergency Operations Plan and the Deschutes County Sheriff's Office Emergency Services Unit address any other issues relative to a major emergency.

The Deschutes Alert System (DAS) can be used to notify the public with important information during an emergency. DAS can notify land-line telephones as well as those who opt in to the system in up to ten different contact paths including: Voice over Internet Protocol (VoIP) telephones, cellular/mobile phones, texts, email and TTY/TDD devices. In the event of an emergency, Deschutes County officials can identify an affected area and, if necessary, send a message that describes the situation and recommend protective actions property owners should take. The DAS system will automatically call out to all land-line and opt-in contact paths within that geographic area and deliver the message. The system can contact multiple paths and repeat if necessary until the recipient confirms they received the message. If an answering machine or voice mail system picks up the call, an emergency message will be recorded. Property owners can register their phone number at: www.deschutesalerts.org

Oregon State Police assists the law enforcement efforts and cooperates with the Deschutes County Sheriff's Office for protection in the areas near Greater Redmond.

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.

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 role 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.

Critical transportation routes

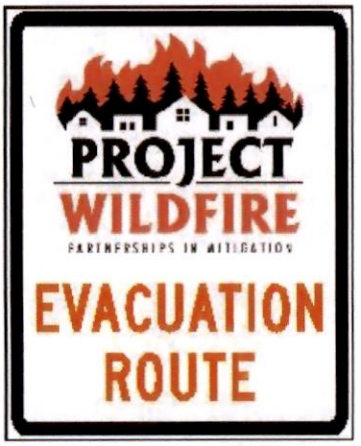
For purposes of the Greater Redmond CWPP, the Steering Committee defines Critical Transportation Routes as:

- all routes necessary for the support of routine flow of commerce to and/or through the Greater Redmond 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,
- in addition, all routes needed to protect and support critical infrastructure (power substations, communication transmission lines, water and fuel storage, public service facilities, recreation facilities, etc.).

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

As noted in previous plans, the Steering Committee is concerned with the lack of maintained roads leading in and out of the high risk areas in the WUI. Should an evacuation be necessary, the Steering Committee expressed great concern over the quality of the evacuation routes. Many of the egress routes are dirt roads that contribute to substantial dust and debris clouds as vehicles attempt to use them. During the summer months, after a few cars travel the road, the dust is so dense that it is not safe for vehicles to continue using the road until the dust settles. Lack of maintenance has led to deteriorated road surfaces with large potholes, ruts and washboards that slow evacuation efforts and cause some vehicles to break down, further complicating a mass departure from the area. The current condition of some of the evacuation routes is a life safety issue.



Working with Deschutes County and Project Wildfire, several neighborhoods within the Communities at Risk have taken advantage of a signage program to increase visibility of evacuation route signs along roads. The signs are made from high intensity reflective material and indicate proper exit routes from these neighborhoods.

The Steering Committee underscored the need to continue to identify, develop 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.

Burlington Northern Santa Fe (BNSF)

Burlington Northern Santa Fe (BNSF) Owns and operates railroad tracks that bisect the CWPP area running North and South. These tracks have been of concern for wildfire in this and other CWPP areas. BNSF recognizes this concern and has taken steps to help mitigate the potential risk. Currently, BNSF follows industry guidelines on fire prevention and mitigation while performing any hot work. As well as following any RED Flag warnings that pertain to industrial work.

BNSF also has firefighting resources available on an as needed basis. These resources include two 500 gallon water tanks on freightliner trucks equipped with hyrails for being driven up and down the track. A 30k gallon water tank on a train car with a deck gun and pump in Klamath Falls Oregon. A fire train in Wishram, Washington equipped with 45k gallons of water with 3 deck

guns, 3 pumps, and tie sprayers on the caboose. BNSF employees assigned in this area are wildland fire trained every year with the class focused on supporting local fire efforts and communication between resources.

Community Preparedness

A business resiliency study conducted by FEMA in 2012 presents statistics for small businesses that have been impacted by a natural disaster such as a large wildfire. All of the statistics apply to those businesses that did not have a business continuity plan or an emergency plan:

- 43% of companies never reopened.
- 51% of companies closed within 2 years.
- 80% of companies that do not recover from a disaster within one month are likely to go out of business.
- 75% of companies without a business continuity plan fail within three years of a disaster.
- Companies that aren't able to resume operations within ten days (of a disaster hit) are not likely to survive.
- Of those businesses that experience a disaster and have no emergency plans, 43% never reopen; of those that do reopen, only 29% are still operating two years later.

A large wildfire can have lingering effects that last for months to years and the largest impacts lasting for at least a month. With much of the local economy tied to small local businesses that depend on the local surrounding forest environment, the consequences of a wildfire that closed major recreation and tourism opportunities would be catastrophic. Business resiliency of the local small businesses is a critical piece in creating a more fire-adapted community. Based on a statewide economic impact study of the spending losses to the travel and tourism industry due to wildfires in 2017, Deschutes County lost an estimated $16 million. Specific action items for business owners are located in the Action Plan.

The essential infrastructure in the Greater Redmond 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.

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

The loss of recreational use by visitors to the area as a result of scenic quality, specifically large "burn over" areas, will have an unknown economic impact not only to the area but to the remainder of Deschutes County and neighboring cities like Redmond and Redmond. If a large wildland fire occurs in this area, the result will be a catastrophic loss to both the developed and dispersed recreational opportunities in the Greater Redmond area.

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.

In recent years, many neighborhoods in the greater Redmond area have taken steps to decrease the vulnerability of structures to wildland fire. Although attitudes and behaviors towards fire are changing thanks to 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 a high value on the importance of making structures and neighborhoods in the Greater Redmond area as fire-safe as possible by reducing structural vulnerability through home hardening and creation of defensible space. Recommendations to reduce structural vulnerability can be found in the prioritized recommendation section.

Recent Legislation

During the 2022 state legislative session, a number of bills were introduced related to wildfire mitigation. On June 26, 2022, Senate Bill (SB) 762 was passed by the Oregon legislature, which has significant impacts on wildfire mitigation efforts across all jurisdictions in Oregon including Deschutes County.

While details are still unknown, SB 762 contains a broad range of regulatory and non-regulatory approaches to address wildfire risk. The bill focuses on the following areas:

- Plans for public electricity utilities to reduce risks associated with wildfire
- Statewide mapping of wildfire risks
- Defensible space standards for new and existing development
- Building code guidelines to reduce risks associated with wildfire
- Programs to support local communities in detecting, preparing for, communicating, or mitigating the environmental and public health impacts of wildfire smoke
- Emergency response and disaster recovery associated with wildfire events
- Programs to reduce wildfire risk through the restoration of landscape resiliency and the reduction of hazardous fuel on public or private forestlands and rangelands and in communities near homes and critical infrastructure
- The creation of an Oregon Conservation Corps Program to reduce wildfire risk to communities and critical infrastructure and to help to create fire-adapted communities
- Requirements for Counties to ensure all lands have a baseline level of fire protection
- Creation of a Wildfire Programs Advisory Council

The steering committee will continue to monitor the impacts of SB762 and update the Greater Redmond CWPP as necessary.

Action Plan and Implementation

The Steering Committee recognizes the Greater Redmond CWPP is a living tool that can be used for multiple outcomes. What follows is an overview of recommendations consistent with each of the three Cohesive Strategy goals, as well as prioritized recommendations and preferred treatment methods for the Greater Redmond CWPP.

Safe and Effective Wildfire Response

Redmond Fire and Rescue, wildland fire agencies and the Community of Greater Redmond are charged to identify and assess opportunities to improve coordinated wildfire response including an assessment of the water resources available for fire suppression in the Greater Redmond CWPP area. The Steering Committee will make recommendations for projects to ensure adequate water resources are available for fire suppression. The benefits of looped lines, fire hydrants, redundant power supplies, protected wells, reservoirs and the surrounding landscape should be considered.

In addition, the Steering Committee will assist in conducting further assessments to determine the evacuation needs and identify potential projects developing new routes and/or improving existing routes.

Improving Fire Protection Capabilities

Oregon Department of Forestry is currently in the planning phase of installing smoke detection cameras in Deschutes County. These cameras are monitored though fire season and aid in effective suppression response by the wildland agency resources by allowing for more accurate reporting on smoke size and location.

The recent addition of the Lower Bridge RFPA will also improve fire capabilities within the planning area. As equipment and training is being acquired by the RFPA, response and effectiveness will continue to improve.

The Steering Committee will continue to encourage federal land managers to work with the Greater Redmond residents to minimize closures of roads that can be used as alternate evacuation routes. The Steering Committee will work with Redmond Fire and Rescue, Redmond Police Department, Greater Redmond residents, Deschutes County, and Oregon Department of Transportation to identify and map existing transportation and evacuation routes.

Fire Adapted Communities

The Steering Committee is charged with the task of engaging community members to review the risk assessment including the overall fire risk in this CWPP (Appendix A) and identify projects that will increase the potential for property owners to survive a high-intensity wildland fire within the Greater Redmond area. Property owners can utilize the information in this document as a resource to improve the fire resistance of their homes on an individual basis.
The intention of the Steering Committee is to engage in continued discussions with landowners to facilitate fuels reduction projects on private lands utilizing the data in Appendix A. These actions can be accomplished through educational activities or grants for specific projects on private lands.

<u>Specific Action Items</u>

- If there are hazardous fuels present, all landowners are urged to mitigate their fuels to create a fire resilient and healthy landscape.
- Given the historical and recent fire occurrence, the crown fire potential is high. Property owners are urged to create and maintain defensible space, reduce ladder fuels and thin where necessary.
- Ensuring the access and evacuation routes are clear of vegetation will ensure access for emergency personnel during large wildfires and/or other emergency incidents.
- Property owners should develop evacuation kits for their families in case of a large wildfire.

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.

One important piece of a Fire Adapted Community is preparing for the recovery process after a wildland fire occurs. There are many resources for property owners who are recovering from a wildland fire that can impact their small business and home. Building community and business resiliency is the key to being fully adapted to fire. Post-fire recovery resources can be found in Appendix C of this document.

Restoring Resilient Landscapes

The intention of the Steering Committee is to engage in continued discussions with the Greater Redmond 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.

There are 124,907 acres in the planning area. Significant fuels reduction projects continue to improve the overall health and fire resiliency of the landscape. Achieving a resilient healthy landscape, 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 3-5 years while the land recovers from the thinning and mowing and produces an adequate shrub content to support prescribed fire.

Therefore, the Steering Committee recognizes that although significant fuels reduction work has been completed, the need continues on the landscape as a whole. The Steering Committee supports the ongoing planning and treatment process on public lands, especially an increase in the use of prescribed fire. There are multiple prescribed fire techniques that land managers may use to best suit the area they are working within. The ultimate goal is to restore low-intensity fire to the local ecosystem, which has been historically dependent on fire for its health.

Treating ground fuels is a critical component of any effort designed to reduce fire threats, and it has added ecological benefits, such as recycling nutrients. Once an area, or unit, has been thinned and the slash has been treated, the site can be broadcast burned. Fire practitioners prepare the area by constructing firelines and/or use natural breaks such as roads or existing trails for containment

lines for the prescribed burn. Where site objectives dictate that standing dead trees and large downed woody material need to be protected, they can be either hand-lined or otherwise excluded from the burn block. Extra protection measures may not be necessary for many cultural or archaeological sites: treating these areas with prescribed fire has the advantage of protecting them from emergency suppression activities during a wildfire. Generally, the target flame length is under four feet, although some sites require a hotter burn to achieve the resource objectives.

As the demands to boost prescribed fire use increase, utilizing as many burn windows, or days when the weather conditions are favorable, will be a critical piece in achieving restoration goals. Burning outside of the historical time frame, however, is more challenging to use prescribed fire and will depend on the availability and preparedness of appropriate resources and weather.

Burn operations usually begin by mid-morning following the break-up of the nighttime temperature inversion and the establishment of the daytime wind pattern. Completion of ignition should be targeted early enough to ensure adequate smoke dispersal prior to the onset of cooler nighttime temperatures.

Extensive public notification is an essential element of the prescribed burn program. The Central Oregon Fire Management Service uses social media, including Twitter where their handle is @CentralORFire and a comprehensive website, Central Oregon Fire, www.centraloregonfire.org, is used to notify local property owners of prescribed burns and wildfire. The website includes news about upcoming prescribed fires, interactive maps of planned fires, information on air quality and what property owners can do to protect themselves from smoke impacts. Residents can also sign up for text alerts by sending the text "COFIRE" to 888777.

Once thinning, slash treatment, and burning has been completed, the treated area constitutes an effective fuel-break for the next several years. Follow-up thinning and maintenance burns must be scheduled as necessary to ensure the treated areas remain free of the risk of catastrophic wildfire. Adequate access must be assured, not only to conduct needed follow-up treatments but also to permit the rapid response of fire suppression forces.

For the Greater Redmond CWPP area, it is not a question of if a wildfire will occur, but when, where, and how much damage will result. Experience with wildfires burning in previously treated areas demonstrates the following:

- Improved public and firefighter safety
- Improved access for firefighters and apparatus
- Increased efficiency when locating and constructing firelines
- Easier detection and suppression of spot fires
- Decreased mop-up time and effort
- Reduced fire intensity, torching, and mortality
- Reduction of loss
- Reduction of smoke emissions

Prioritized Recommendations and Preferred Treatment Methods

With critical needs assessed and priority areas identified through the risk assessment process, the Steering Committee identified the following hazard reduction recommendations to meet the purposes listed on page one of the Greater Redmond CWPP:

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

Hazardous fuels reduction

The overall standard of the Greater Redmond CWPP is to decrease the risk of high-intensity wildland fire behavior by reducing and maintaining fuel loads to that which can produce flame lengths of less than four feet. This enables a safe and effective initial attack. The overall goal is to reduce the potential for crown fires and provide for a healthy, fire resilient landscape that supports the social, economic and ecological values of Greater Redmond 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 projects and recommends that future projects consider these benefits when selecting areas for treatment. The following specific standards are recommended for treatments on public and private lands within the Greater Redmond planning area.

Public lands

Public lands are managed by the BLM and occupy 41% of lands in the Greater Redmond planning area Also, the Oregon Military Department leases 22% of the lands for its Biak Training Center in the Southeast sub region. The Steering Committee includes the training center lands within the WUI boundary and in this section for fuels treatment recommendations.

State owned lands represent only 2.71% of the planning area but include the valuable recreation and scenic areas of Smith Rock State Park and Cline Falls State Park. The state also owns blocks of land in the Northwest and Southwest planning areas. The parks are managed by Oregon State Parks and the blocks of land are managed by the Division of State Lands.

It is the intent of the Steering Committee that the Greater Redmond planning area is subject to expedited measures for hazardous fuels treatment and allocation of funds to protect the communities and neighborhoods as stipulated by the Healthy Forests Restoration Act.

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 that which can produce flame lengths of less than four feet in the areas within the WUI boundary. This buffer 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 federal land management

agencies 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 and state land managers are strongly encouraged to work toward the overall standard by reducing and maintaining fuel loads to that which can produce flame lengths of less than four feet in the following areas:

- Within a ¼ mile buffer inside the Greater Redmond WUI. Treatments should begin here and increase in ¼ mile increments until the WUI boundary is reached.
- Within 300 feet of any critical transportation route or ingress/egress that could serve as an escape route from adjacent communities at risk.
- Maintenance of previously treated lands is also a top priority. Treatment and maintenance of previously treated lands before treatment begins again in other places is an important component of keeping communities safe.

In juniper, sage and bitterbrush dominated wildlands, federal land managers are strongly encouraged to utilize mechanical treatments including prescribed fire to reduce fuel loads to that which can produce flame lengths of less than four feet.

The standard can be achieved through a variety of treatment methodologies such as thinning, prescribed burning and mechanical treatments. These treatments shall be consistent with the current Upper Deschutes Resource Management Plan and the Prineville Ranger District, Bureau Land Management (PRD-BLM) Management Plan on the federal lands.

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 Communities at Risk.

Private and County-owned lands

The majority of the land (57%) in the Greater Redmond planning area is privately owned land and is considered developed, or in rare cases intermixed with development. The County owns < 1% of the land in this planning area. The Steering Committee recommends that County owned lands be treated in the same manner as privately owned lands.

Private land with *or* without structural improvements

Forthcoming SB 762 requirements for defensible space will be finalized by the Oregon State Fire Marshal's Office by January 2023.

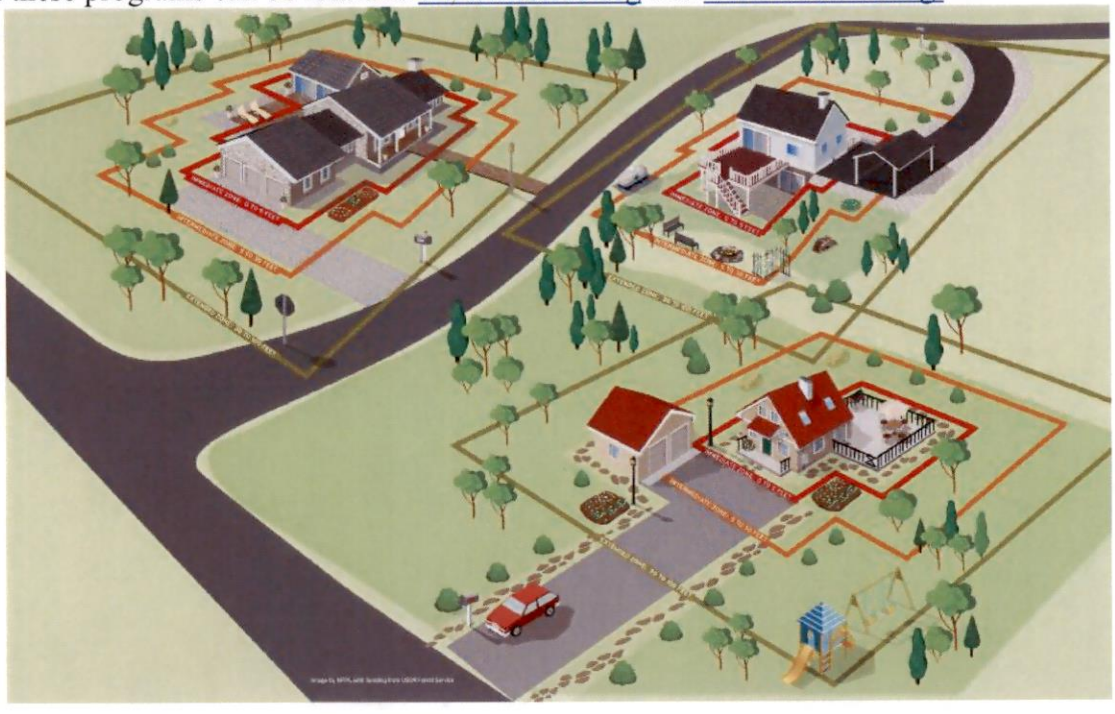
Property owners can create and/or maintain defensible space, a fire-resistant buffer that allows for effective first-response firefighting and a significantly reduced risk of the spread of fire by participating in programs like FireFree and Firewise, which promote a variety of fire safe actions to help prevent the spread of fire, to protect individual homes and neighborhoods.

Property owners that live within the city limits of Redmond do have to comply with local building codes and fire codes to reduce the catastrophe from wildfires. These codes allow for the City and Redmond Fire and Rescue to restrict the use of combustible roofing materials, design new communities with adequate and proper access (ingress/egress) for emergency vehicles as well as

adequate water supply and hydrant distribution; address sign specifications and road signs are also managed by Redmond Fire and Rescue. There are also ordinances in effect that allow for the enforcement of vegetation abatement. All of these enforced code and ordinance provisions help reduce the number and severity of fires in the greater Redmond area.

Recommendations to Reduce Structural Vulnerability including Ingress/Egress

There are approximately 17,496 structures spread across this CWPP boundary. The graphic and two tables that follow below summarize recommendations to reduce structural vulnerability. The lists are compiled with tips and suggestions from the FireFree and Firewise programs, which promote homeowner responsibility for reducing fire hazards on their property. More information about these programs can be found at www.firefree.org and www.firewise.org.



Home Safety Checklist for Home Ignition Zones:

Immediate Zone: 0-5'

- Clean roofs, gutters and the area within 5' of the residence of all dead leaves, needles, flammable debris and vegetation
- Move any flammable material away from wall exteriors – mulch, flammable plants, leaves and needles, firewood piles – anything that can burn. Remove anything stored underneath decks or porches.

Intermediate Zone: 5-30'

- Thin out dense groups of trees.
- Remove vegetation under trees and prune trees up to six to ten feet from the ground.

Extended Zone: 30-100'

- Dispose of heavy accumulations of ground debris.
- Remove dead plants and trees.
- Remove small trees growing between or under mature trees.

	What are ten steps I can do to prepare my defensible space?
❑	Define your defensible space – at least 30 feet
❑	Reduce flammable brush around your home and under nearby trees.
❑	Prune or remove trees.
❑	Keep grass and weeds cut low.
❑	Clear wood piles and building materials away from your home.
❑	Keep your yard and roof clean.
❑	Keep address signs visible
❑	Choose fire resistant building materials and lawn furniture.
❑	Recycle yard debris – avoid burning.
❑	Be prepared to respond to wildfire.

	What additional steps can I take to reduce risks to my home and neighborhood?
❑	Remove all branches and limbs that overhang roofs.
❑	Remove leaves & needles from gutters, roofs and decks.
❑	Remove dead plants and brush.
❑	Keep decks free of flammable lawn furniture, toys, doormats, etc
❑	Screen vents and areas under decks with 1/8" metal mesh or fire-resistant siding.
❑	Trim vegetation along driveways a minimum distance of 14' wide x 14' high for fire trucks.
❑	Choose fire resistant plants. Visit www.extension.oregonstate.edu/deschutes to view *Fire-Resistant Plants for the Home Landscape.*
❑	Increase Homeowner education and actions with programs such as FireFree, Firewise, Urban Interface Fire Protection Act.
❑	Re-apply for Firewise USA® recognition annually, if applicable
❑	If you are interested in a free home assessment call Redmond Fire and Rescue or Oregon Department of Forestry
❑	If burning debris outside Redmond City Limits – call the Burn Line at Redmond Fire and Rescue at 541-322-6335to see if burning is allowed. Do not burn building materials

Education and Awareness of the Wildfire Threat

As stated in the purpose of the Greater Redmond CWPP, four outcomes related to education and awareness for this planning effort are to:

- Instill a sense of personal responsibility for taking preventative actions regarding wildland fire,
- Increase public understanding of living in a fire-adapted ecosystem,
- Increase the community's ability to prepare for, respond to and recover from 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 Greater Redmond CWPP. The rapid influx of new property owners is just one reason the Steering Committee places a high value on the education of Greater Redmond area property owners. Many new property owners and visitors are unfamiliar with wildland fire and have limited experience with issues like defensible space. Property owners and visitors will continue to benefit from clear examples of what a fire resilient forest and community look like as well as easy access to resources that help them take action.

There are several opportunities to enhance educational efforts in the Greater Redmond area. Redmond Fire and Rescue, the BLM, ODF, OSFM, the Central Oregon Fire Prevention Cooperative and Project Wildfire all provide wildland fire preparedness programs through a variety of individual and collaborative efforts. Realty and insurance agencies are identified as partners to help educate and raise awareness for members of the community that may be new to the area. The Steering Committee for the Greater Redmond CWPP is committed to maintaining and enhancing these partnerships.

Property owners are strongly encouraged to learn more about how they can reduce the hazards on their own property. Property owners may also find additional information on how they can reduce hazards and protect themselves at www.firefree.org and www.firewise.org.

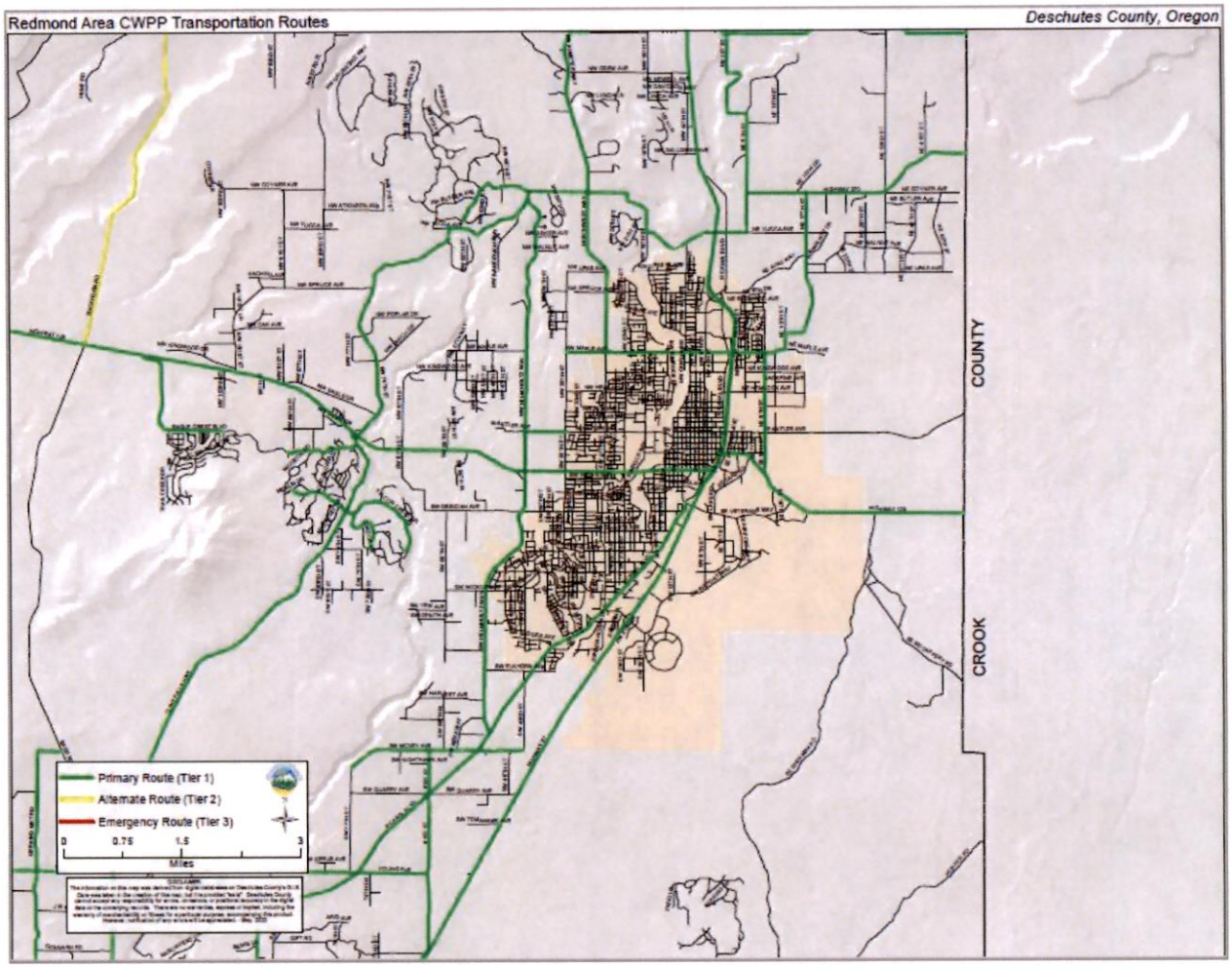
Identify, Improve and Protect Critical Transportation Routes

As noted in the Community Assessment of Risk, the Steering Committee defined Critical Transportation Routes as:

- all routes necessary for the support of routine flow of commerce to and/or through the Greater Redmond 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 recognized the need to translate the definition above into a map that

identifies these routes. The Deschutes County Sherriff's office in cooperation with other first responders has begun to develop a map that identifies existing critical transportation routes in the Greater Redmond CWPP area and throughout the County. The map below illustrates these routes as of 2022. The Steering Committee will assist in conducting further assessments to determine the evacuation needs 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 the Greater Redmond community to minimize closures of roads that could be considered critical transportation routes.



The figure above shows critical transportation routes identified in the Greater Redmond CWPP area

Evaluation and Monitoring

The Steering Committee faced a complex task in the comprehensive revision of the Greater Redmond 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 Redmond Fire and Rescue, , 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 Greater Redmond CWPP Steering Committee shall include: representatives from Redmond Fire and Rescue; Oregon Department of Forestry (ODF); the City of Redmond; Bureau of Land Management (BLM) and the US Forest Service (USFS); the Deschutes County Forester; and the Program Director from Project Wildfire, along with members of the public. The Steering Committee agrees that the Greater Redmond 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 Greater Redmond CWPP will be revisited at least annually to address its purpose.

Redmond Fire and Rescue will work with Project Wildfire to convene the Steering Committee as often as the Steering Committee deems necessary to implement and review the Greater Redmond 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.
- Discussions 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.

Redmond Fire and Rescue 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.

Oregon Wildfire Risk Explorer- Advanced Report

Greater Redmond CWPP FINAL

128,202 Acres: (200 Sq. Miles)

Generated: April 20, 2022

Weather and vegetation conditions vary daily and seasonally. For current conditions and local fire restrictions, contact your local fire district or visit: www.keeporegongreen.org/current-conditions

INTRODUCTION

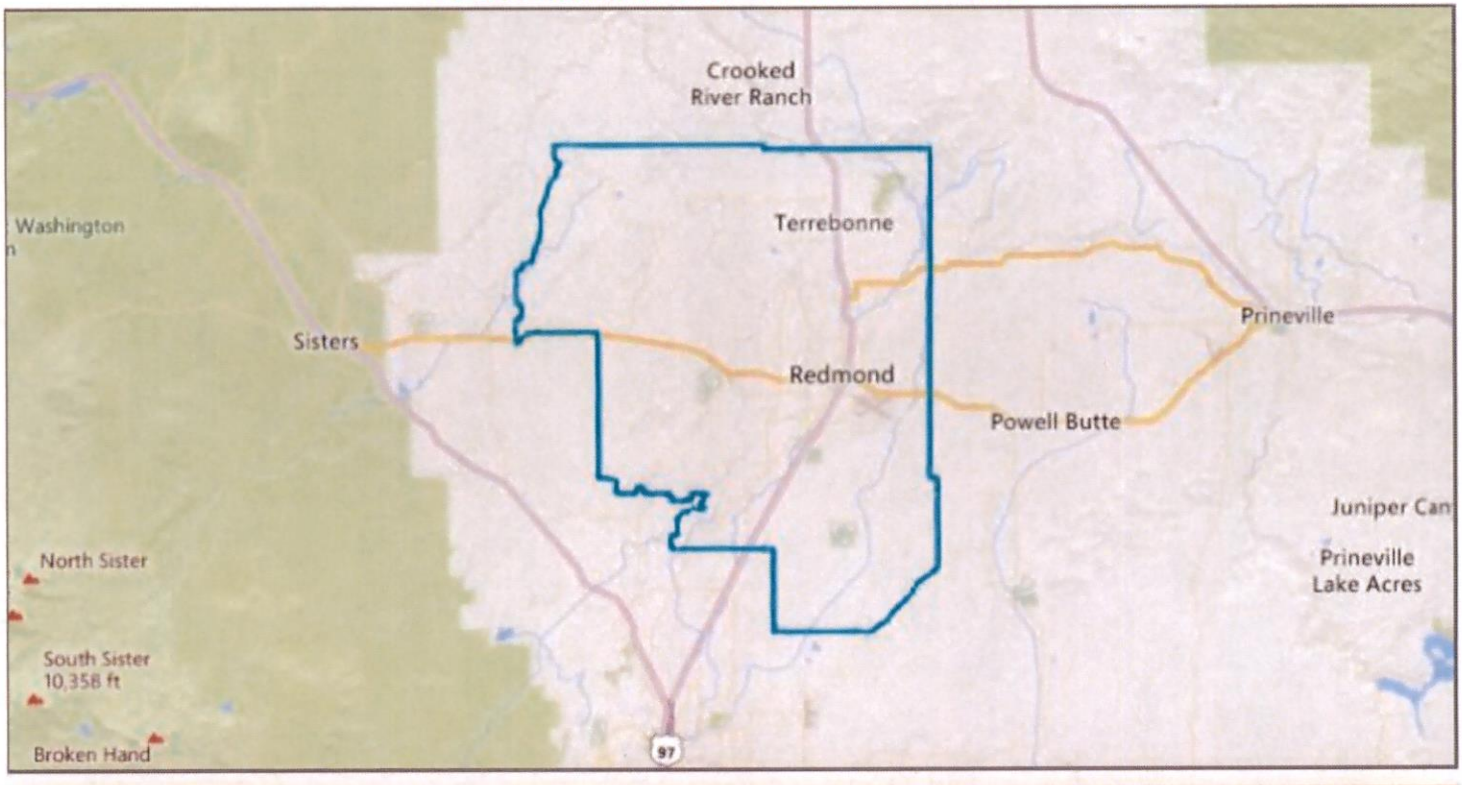
This report summarizes wildfire risk in Greater Redmond CWPP FINAL from the Advanced Oregon Wildfire Risk Explorer map viewer (OWRE). Wildfire risk combines the likelihood of a fire occurring with the exposure and susceptibility of valued resources and assets on the landscape.

Nearly all areas in Oregon experience some level of wildfire risk. Conditions vary widely with local topography, fuels, and local weather, especially local winds. In all areas, under warm, dry, windy, and drought conditions, expect higher likelihood of fire starts, higher fire intensities, more ember activity, a wildfire more difficult to control, and more severe impacts.

Greater Redmond CWPP FINAL in Oregon



Greater Redmond CWPP FINAL Reference Map



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Oregon Wildfire Risk Explorer- Advanced Report

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128,202 Acres: (200 Sq. Miles)

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GUIDELINES

The OWRE Advanced Report provides wildfire risk information for a customized area of interest to support Community Wildfire Protection Plans (CWPPs), Natural Hazard Mitigation Plans (NHMPs), and fuels reduction and restoration treatments in wildfire-prone areas in Oregon. Here are some things you need to know about this information:

The Advanced OWRE map viewer provides **wildfire risk assessment** data primarily from the 2018 Pacific Northwest Quantitative Wildfire Risk Assessment, produced by the US Forest Service with a coalition of local fire managers, planners, and natural resource specialists in both Washington and Oregon. The assessment uses the most current data (incorporating 2017 fires) and state-of-the art fire modeling techniques, and is the most up-to-date wildfire risk assessment for Oregon. The assessment characterizes risk of large wildfires (>250 acres). Data also comes from the 2013 West Wide Wildfire Risk Assessment, Oregon Department of Forestry (ODF), and other sources.

Wildfire risk is modeled at a landscape scale. The data does not show access for emergency response, home construction materials, characteristics of home ignition zones, or NFPA Firewise USA® principles. For CWPP and NHMP updates you may want to **consider two scales**:

- first, use data from the OWRE to characterize and understand the fire environment and fire history in your area broadly at a landscape scale, focusing on watersheds or counties;
- then, overlay local knowledge, focusing on communities, fire protection capabilities, local planning areas, and defensible space concepts for neighborhoods and homes.

The OWRE Advanced Report will provide the landscape context of the current fire environment and fire history upon which you can build your local plans toward resilience by preparing and mitigating the larger landscape wildfire risk.

The OWRE Advanced Map Viewer and Report will not replace local knowledge of communities you may consider high risk. Continue to use local Fire Department and ODF knowledge to generate CWPP concern areas. OWRE will produce broad scale maps for your CWPP area as a whole, but maps and data will contain some inaccuracies, which are most prevalent at fine scales.

Recommended additional information sources for wildfire planning:

- Oregon Department of Forestry CWPP list - https://www.oregon.gov/ODF/Fire/Pages/CWPP.aspx
- Oregon Explorer Communities Reporter - demographic and other data for counties and communities https://oe.oregonexplorer.info/rural/CommunitiesReporter/
- Wildland Urban Interface Toolkit - https://www.usfa.fema.gov/wui_toolkit/wui_planning.html
- Wildland Urban Interface Wildfire Mitigation Desk Reference Guide - https://www.nwcg.gov/sites/default/files/publications/pms051.pdf
- Oregon Spatial Data Library - https://spatialdata.oregonexplorer.info/geoportal/
- NFPA Firewise USA® - teaching people how to adapt to living with wildfire and encouraging neighbors to work together and take action to prevent losses. - https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA
- Headwaters Economics - Full Community Costs of Wildfire - https://headwaterseconomics.org/wildfire/homes-risk/full-community-costs-of-wildfire/

This Advanced Wildfire Risk Report was generated from the Advanced Oregon Wildfire Risk Explorer map viewer at: tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfireplanning. This site is intended for wildfire professionals and planners. For a basic summary of wildfire risk geared toward a public audience, visit the basic OWRE map viewer: tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfire.