

10.12. Community at Risk: Sandy Rural Fire Protection District #72

The Sandy Fire District has been identified as a Community at Risk (CAR) by Oregon Department of Forestry. The District has participated in the Clackamas County CWPP planning process to evaluate capabilities to prevent, prepare for and respond to potential wildfire events.

Sandy Fire District Description

Sandy is a scenic community with beautiful mountain views, the Sandy and Bull Run Rivers, and is home to a major portion of the historic Barlow Road of the Oregon Trail. Residents enjoy a mild climate, clean air, good water and advantages of living in a small town while living only 45 minutes from downtown Portland. The community is largely built in the Wildland Urban Interface (WUI).

Sandy's heritage is logging and sawmilling. There are several nurseries and berry farms with millions of dollars of assets and inventory, and many jobs. There are several light industries including construction and steel work, plastic injection molding, auto sales and service, and fuel facilities. The Oregon Trail School District operates seven facilities within the fire district that are major assets for the community as well as being, perhaps, the largest single employer in the area.

Sandy Fire District #72 protects a 77 square mile district with a population of approximately 17,000 including the City of Sandy, which is just over 2 square miles and a population of approximately 6500. It serves the community with 15 career personnel and 50 volunteers. The District is a rural fire district governed by an elected board of directors and is well supported by its patrons.

Sandy is adjacent to federal, state, and local recreational lands. The rivers in the area are well known for their fishing and boating, and the surrounding forest lands offer a variety of recreational possibilities.

The Bull Run Watershed is accessed through the fire district. Sandy Fire provides mutual aid to the City of Portland as first-in responders into the Bull Run. US Highway 26 bisects the district and is a major transportation route between the Portland area and central/eastern Oregon. 31,000 vehicles travel through Sandy each day.

Wildland Urban Interface (WUI)

The topography of the Sandy Fire District, like most areas in Oregon, is quite diverse. The southern and eastern borders of the District are mostly forested land and the southwest border is the Deep Creek canyon. The Sandy River canyon, which is quite steep and picturesque, dissects the center of the District, and creates an access problem for the Northern area of the District as well as an interface problem with the steep southern bluffs bordering city residential areas. All of these canyons are forested and have homes built sporadically throughout. This combination of homes, steep grades and trees pose a significant wildland interface problem. This topography also impacts communication systems because of slopes and mountains that can block radio and cellular telephone signals.

The remainder of the District ranges from gentle hills to relatively flat areas. These areas consist of a combination of farms, homes and businesses. The nursery business is a major part of local agriculture. There is also a variety of forest lands and natural areas; from thick stands of second growth timber to open grass lands. In addition, public and private management of the surrounding timber lands creates a patchwork of various stages of growth which includes dealing with clean up of slash of logged timber land and re-seeding projects.

Tourism and recreation are also huge influences here, with thousands of Portland area residents travelling along Highway 26 to access the Mount Hood National Forest. Campers, hikers, hunters and other visitors to this area can potentially start wildfires that could carry from public land to the residential communities.

Sandy Fire District Wildfire Hazards

The Clackamas County CWPP wildfire hazard assessment assisted Sandy Fire in identifying areas that may be at higher risk to potential wildfires. Map #10 illustrates the overall wildfire hazard risk in the Sandy Fire District and will be used to help target areas for wildfire prevention activities.

Structural Ignitability

Sandy Fire promotes the creation of defensible space, use of fire-resistant roofing and building materials, and community preparedness in the WUI. Sandy Fire works well with the City of Sandy and Clackamas County to integrate these concepts at the regulatory level. Also, Sandy Fire participates in land use reviews for new development to provide input on access and water supply.

Since the adoption of the county-wide driveway standard, private driveways are being installed that are designed to allow fire engine access. There are several pre-existing private driveways that pose access difficulties. These difficulties include inadequate turning radiuses, steep grades, inadequate vegetation clearance, inadequately designed bridges and driveways that will not withstand the weight of a fire engine, especially during the wet season. In most of these cases response times are increased.

Approximately 30% of the District is served by public water systems. There are 7 water districts serving the District. The major district is the City of Sandy. Other smaller districts include Skyview Acres Water District, Pleasant Home Water District, and Latigo Hills Water District.

Fire flows in the City of Sandy have improved tremendously over the past decade. The City has added another water reservoir, for a total storage capacity of 3.75 million gallons, and has added larger distribution mains to increase available fire flow for much of the City. Its water sources are capable of producing 3 million gallons per day. The City has also identified how the system will grow with new development.

The remaining water districts serve primarily rural residential communities and for the most part are inadequate for providing fire flow. The remaining 70% of the District uses well water for domestic use. Fire District water tenders provide fire flow for these areas. The water tenders also augment fire flow in hydrated areas if fire flow is inadequate.

The District has developed strategically located static water sources (ponds and cisterns) in rural areas of the District to assist in fire flow requirements. These drafting locations are documented in fire apparatus in a book with a description and photos of the site.

For the most part, the transportation system in the District is adequate. Typically, there are few problems that can be directed towards transportation inadequacy, though congestion on Hwy 26 through downtown Sandy is becoming an ever increasing problem at certain times of the day and days of the week. Hwy 26 is a corridor for recreational activities on Mt. Hood and in Central Oregon. Funding for maintenance and improvements has shown to be inadequate for the past few years and will continue to be inadequate if sources of funding are not addressed. The City of Sandy recently passed a penny per gallon gas tax that has proven to provide a modest but reliable revenue source to the City for local street repair. Clackamas County has undertaken a project called

“Concurrency” to further address these issues. Should this trend continue, congestion or the quality of some roads might be an obstacle to emergency response times.

Emergency Response

Sandy Fire Professionals are very well-trained for wildland fires with an annual training regime that supports task forces and strike teams which are called upon to respond to local wildfires as well as conflagrations. Although the District is able to support the S-130 and S-190 training, lack of hands-on fire experience makes it difficult to retain wildland qualifications. Sandy Fire would like to work more directly with the USFS and ODF to have opportunities to participate in live fires, and this is noted in the action plan.

The District has two dedicated brush engines; one of which will need replacing in next 5 years. The District is in need of fire shelters and has other equipment needs, which are documented in the Sandy CWPP Action Plan. The population is dispersed, which can result in increased response times to outer reaches of the District.

Because Sandy Fire is a relatively small fire district, a major wildland urban interface fire in Sandy would quickly exceed the resources and capabilities of the District. For this reason, Sandy Fire has Mutual Aid agreements in place which allows for the sharing of resources across the county in the event of a large scale disaster including wildfires.

In the event of a large wildland fire, evacuations may be necessary. This rural area presents some difficulties due to the number of residential properties that can only be accessed by one way in and one way out roads. Also, there are many private bridges in the area that may not be able to support emergency service vehicles.

Burning of yard waste and debris is challenging in the Sandy Fire District because burning is allowed in all areas. Sandy Fire adheres to the Open Burn Policy adopted by the Fire Defense Board and tries to be consistent with neighboring jurisdictions in regulating the Backyard Burning program.

Community Outreach & Education

Sandy Fire is dedicated to fire prevention, and uses a variety of forums to promote residential fire safety, defensible space, and safe burning practices. The community is very supportive of the Fire District and participates in activities throughout the year, some of which include smoke detector, fire prevention, car seat, and other programs. Sandy Fire is also an active member of the Clackamas County Fire Prevention Cooperative which is a consortium of structural and wildland fire protection professionals that work together to deliver programs such as team teaching in the grade school fire safety programs, safety fairs with car seat inspections, community and school programs, and fire safety house displays.

Several community members participated in the meeting for the 2005 iteration of the CCWPP and are committed to implementing its goals and objectives. Two additional community meetings have been held since 2005 to discuss community volunteers helping with address confirmation, assessing driveway conditions and risk assessments of homes in the Bull Run CPO. Our CERT team members commit to several hours of training and will also be active participants in the implementation of the Sandy CWPP.

Local Communities at Risk (CAR's)

Sandy Fire also recognizes that there are smaller-scale Communities at Risk that have unique wildfire hazards to be addressed at the more local scale. These areas were referred to as Strategic Planning Areas in the 2005 iteration of the CWPP, but will now be referenced as local Communities at Risk to be consistent with state and federal language. Communities that have been identified as being particularly vulnerable to wildfires are illustrated in Map #26 and listed in Table 10.12-1. Sandy Fire professionals considered the following factors to determine the local CARs including:

- Need for defensible space
- Access limitations (narrow driveways, lack of address signage, one way in/one way out)
- Steep slopes that can hinder access and accelerate the spread of wildfire
- Lack of water available for wildland fire fighting
- Heavy fuels on adjacent public lands
- Potential ignition sources from recreationists and transients
- Agricultural and backyard burning
- Lack of community outreach programs to promote wildfire awareness
- Communications difficulties

Fuels Reduction

Fuels reduction projects can and should be accomplished at the local scale, which is the creation of defensible space around homes, as well as the landscape scale to extend vegetation treatments onto adjacent forested land and natural areas. Sandy Fire will facilitate **cooperation between public and private organizations** to ensure that fuels reduction work occurs strategically and benefits homeowners as well as adjacent public and private lands.

To ensure that landscape-level treatments are paired with projects to create defensible space around vulnerable communities, priority fuels reduction projects have been overlaid with the Communities at Risk Identified by Sandy Fire (Map #26).

Fuels Reduction Priorities include:

Cedar Creek
Bull Run Watershed

Wildcat Mountain
Sandy River Park Area

Sandy Fire District Action Plan

Sandy Fire has developed a list of actions to build capacity at the District scale and has identified actions that can help to make the local CARs more resilient to potential wildfires. The action plan for Sandy Fire and the local CARs therein is provided in Table 10.12-2.

Table 10.12-1. Sandy Fire District Local Communities at Risk

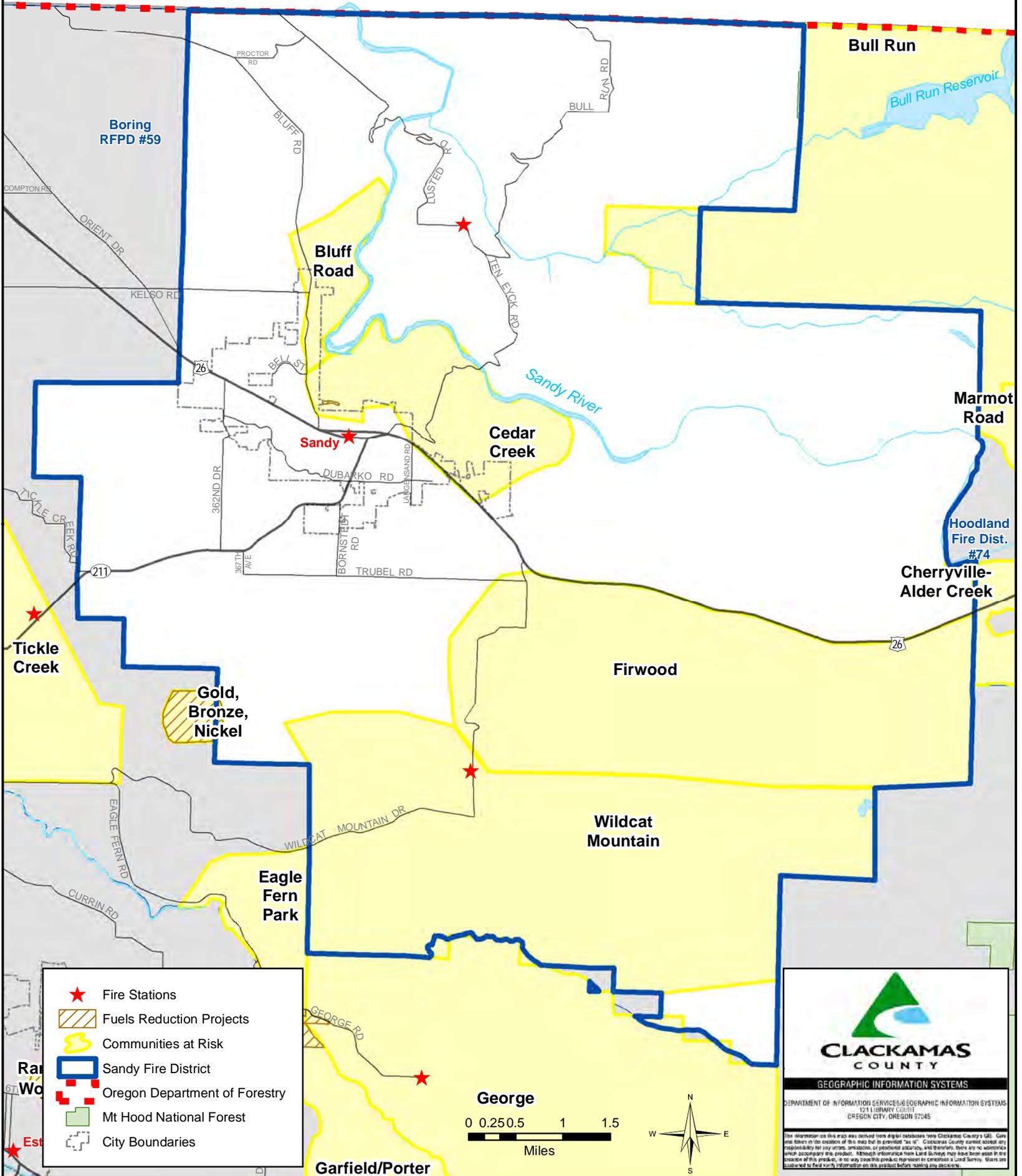
Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Forest Lands	Private Forest Lands	Recreators/ Transients	Protection Capabilities	Burning	Preparedness	Communications	Steep Slopes	Description
Sandy Fire District Communities at Risk													
Wildcat Mountain	High	X	X	X	X	X	X	X	X	X		X	This community borders BLM, USFS, and industrial forestland on the southern end of the District. Access is very limited only here to one way in and out. Residents are interested in another access point to get from Wildcat Mtn. Road to Paugh road; opportunities include either gating a road through private property or potentially using a Frères logging road. There are also some very narrow and overgrown roads. Outreach, defensible space and outreach are priorities here.
Cedar Creek	High	X	X	X	X	X	X	X	X	X	X	X	This residential area is in a heavily forested area on a steep slope on the northern edge of the City. The residential area is adjacent to a City Park that was logged and now is second growth; the old high school is also located here and owns a small portion of adjacent forest land while the remainder is and private forest land. The majority of homes, the High school and the heart of the City of Sandy are all located at top of this steep slope. Access is generally good to the residential areas, but poor to the forest. There is an ATV road in the forest but response here would require a great deal of footwork to get crews. Bridges over Cedar Creek are not engineered for tenders. However, one bridge that served 3 homes served was engineered to withstand 60,000 pounds at the request of Sandy Fire. All water would have to be brought in and Cedar Creek could also be a potential water source. Home addressing is not consistent here. Communications are somewhat poor for 800 here, but VHF and 800 Simplex are good. Residents do burn here, but there have not been very many escapements.
Fir Wood	High	X	X	X		X		X		X		X	This agricultural community is comprised of nurseries, berry farms and tree farms. The access is not bad, but the topography does present challenges in some areas. Generally, this community is not as steep as the other CARS. There is a great need for defensible space here. There is a 30,000 gallon tank at the Firwood fire station, and some ponds throughout the area that could potentially be used as helicopter dip spots, but water would probably need to be brought in by truck. Firwood is an all volunteer station so the main station would likely be first on scene. There is a lot of burning here, but very little problems resulting from it. Communications are good because nearby Linhart Butte Road is a C-800 transmitter site.
Bull Run Area	High	X	X	X	X	X	X	X		X		X	This watershed is a large forested area owned by USFS but managed by the Portland Water Bureau that straddles Sandy fire and Corbett Fire in adjacent Multnomah County. This area is also identified as a CAR in the Multnomah County CWPP. The head works and other infrastructure is served by the Sandy Fire District via a direct mutual aid agreement with the City of Portland. Sandy fire is also the first responder on medical calls here. One of the issues here is protection capability because public access is prohibited so early detection is difficult, and once notified, it takes Sandy about 15 minutes to arrive. There was a fire here in 2009 and the 2011 Dollar Lake Fire on the Mt Hood National Forest also made it within 2 miles of the Bull Run. Camps Namanu and Camp Howard are private camps here; Camp Howard was treated for Fuels in 2011. The evacuation route out of Namanuis overgrown and could use fire break as well as fuels reduction around the camp structures. The Bull Run watershed would benefit greatly from fuels reduction throughout the watershed to protect this valuable resource from catastrophic wildfire. Access fairly good but it takes a while to respond because they are narrow and curved. Some residential neighborhoods have gravel roads. Communication is good here. Recreators may be an issue in the summer months. Community members have some awareness because firefighters completed structural triage in some locations, but this needs to be done again. Camp Howard has good water supply and the Aims Community Church has good water, but water would need to be carried everywhere else.
Bluff Road	High	X	X		X	X	X	X		X		X	The Bluff Road area is extremely steep, nearly vertical, with dense vegetation connecting the canyon to upper Bluff Road. There is a scenic viewpoint at the top so there is heavy traffic here. There are homes at the bottom of the canyon and at the top. There is the potential for big fire from the large trees there that can make a run up toward the homes. The topography would make response efforts challenging. The topography runs to the west from the Sandy River to Bluff Road. There is water here and hydrants are going to be improved by purchasing water from Bull Run. Addressing here is good.

Table 10.12-2. Sandy Fire District Action Plan

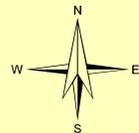
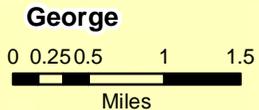
Action Item	Timeframe	Partners	CAR
Sandy Fire Action Plan			
Inventor private bridges to determine whether or not they have had an engineer certification and encourage landowners to upgrade them to	Long-Term	Clackamas County, CCEM	Sandy Fire District
Develop a working relationship with natural land managers including Sandy Parks, USFS, and the BLM to address wildfire hazards and	Short-Term	Sandy Parks, USFS, BLM	Sandy Fire District
Work with Clackamas County Emergency Management and the Sherriff's Office to discuss evacuation planning especially in	Short-Term	CCSO, CCEM	Sandy Fire District
Develop and implement a driveway program to ensure that driveways are wide enough with adequate clearance for emergency service vehicles.	Long-Term	CCEM, DTD	Sandy Fire District
Replace the one of Sandy Fire's brush engines in 5 year.	Long-Term	ODF, USFS	Sandy Fire District
Procure fire shelters and other wildland PPE for staff and volunteers.	Ongoing	ODF	Sandy Fire District
Sandy Fire Local Communities at Risk Action Plan			
Conduct a Community Meeting to educate community on defensible space, and measures that can be taken to reduce structural	Ongoing	ODF	Wildcat Mtn/ All
Work with the City of Portland Water Bureau to create fire breaks along roads, shaded fuel breaks and other fuels reduction strategies	Short-Term	City of Portland Water Bureau, ODF, USFS, Corbett	Bull Run
Develop a working relationship with natural land managers including Sandy Parks, USFS, BLM and the Portland Water Bureau to address	Short-Term	Sandy Parks, USFS, BLM	Cedar Creek, Wildcat Man, Bull Run
Implement road addressing (including length of driveways) and other signage for emergency response.	Ongoing	ODF	Firwood Cedar Creek Wildcat Mtn.
Partner with the Fire Co-op to create and distribute outreach materials that promote responsible burning, defensible space and	Ongoing	Fire Co-op	All
Reduce hazardous fuels in the ROW of potential evacuation routes. Engage residents adjacent to primary evacuations routes to extend	Ongoing	ODOT, Clackamas County Roads	All
Obtain structural ignitability data by conducting structural triage assessment data collection (including GPS points) for homes in	Ongoing	ODF	All
Develop a community-driven pre-disaster plan including evacuation routes, telephone call down trees, and other strategies for	Ongoing	Clackamas County Emergency Management	All
Seek grant funding to support fuels reduction and creation of defensible space around homes.	Ongoing	ODF	All
Conduct Community Clean Up Days to reduce hazardous fuels.	Ongoing	ODF, Metro	All

Sandy Fire District

Map #26



- ★ Fire Stations
- Fuels Reduction Projects
- Communities at Risk
- Sandy Fire District
- Oregon Department of Forestry
- Mt Hood National Forest
- City Boundaries



CLACKAMAS COUNTY
GEOGRAPHIC INFORMATION SYSTEMS

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