

**FIREWISE COMMUNITIES / USA
RECOGNITION PROGRAM**



**Starlite Place
Community Assessment
Grants Pass, Oregon
July 2015**



1) Introduction

The Firewise Communities/USA program is designed to provide an effective management approach for preserving wildland living aesthetics. The program can be tailored for adoption by any community and/or neighborhood association that is committed to ensuring its citizens maximum protection from wildland fire. The following community assessment is intended as a resource to be used by the Starlite Place residents for creating a wildfire safety action plan. The plan developed from the information in this assessment should be implemented in a collaborative manner, and updated and modified as needed.

The Starlite Place community is located in the Wildland-Urban Interface area within the City of Grants Pass Oregon. An assessment was conducted on July 14th, 2015. The assessment team included Brian Ballou – Wildland-Urban Interface Specialist from the Oregon Department of Forestry, Bob Schumacher - Grants Pass Fire/Rescue Firewise Coordinator, Randy DeLonge - Grants Pass Fire Battalion Chief, and Roy Lindsay - member of the Grants Pass City Council.

The Starlite Place neighborhood comprises 38.49 acres and includes 53 homes on 71 parcels. The neighborhood is bordered by forested undeveloped privately owned land to the east and west, vacant forested City property to the south, and developed subdivisions to the north. The majority of homes on Starlite Place are ridge top with slopes exceeding 50% on the east, south and west. Within the forested areas around the community, the most prominent understory features potentially affecting wildfire behavior include dense patches of decadent manzanita, scotch broom, and numerous hardwood (madrones and oaks) re-sprouts and stump-clumps.

Starlite Place is served by the Grants Pass Fire Rescue division of the Department of Public Safety.



Image 1a: Looking northwest on Starlite Place

2) Definition of the Home Ignition Zone

Starlite Place is located in a wildfire prone environment. Wildfires will happen—exclusion is not a choice. The variables in a fire scenario are when the fire will occur, and where. This assessment addresses the wildfire-related characteristics of the Starlite Place neighborhood. It examines the area's exposure to wildfire as it relates to ignition potential. The assessment does not focus on specific homes, but examines the community as a whole.

A house burns because of its interrelationship with everything in its surrounding home ignition zone—the house and its immediate surroundings for up to 100 to 200 feet. To avoid a home ignition, a homeowner must eliminate the wildfire's potential relationship with his/her house. This can be accomplished by interrupting the natural path a fire takes. Changing a fire's path by clearing a home ignition zone is an easy-to-accomplish task that can result in avoiding home loss. To accomplish this, flammable items such as dead vegetation must be removed from the area immediately around the structure to prevent flames from contacting it. Also, reducing the volume of live vegetation will affect the intensity of the wildfire as it enters the home ignition zone.

Included in this assessment are observations made while visiting homes within the Starlite Place community. The assessment addresses the ease with which home ignitions can occur under severe wildfire conditions and how these ignitions might be avoided within the home ignition zones of affected residents. Starlite Place residents can reduce their risk of destruction during a wildfire by taking actions within their home ignition zones. This zone principally determines the potential for home ignitions during a wildland fire; it includes a house and its immediate surroundings within 100 to 200 feet.

The result of the assessment is that wildfire behavior will be dominated by the residential characteristics of this area. The good news is that by addressing community vulnerabilities, residents will be able to substantially reduce their exposure to loss. Relatively small investments of time and effort will reap great rewards in wildfire safety.

3) Description of the Severe Case Wildland Fire Characteristics that Could Threaten the Area

Fire intensity and spread rate depends on the fuel type, fuel moistures, fuel conditions (live/dead), the weather conditions prior to and during ignition, and the topography. Generally, the following interrelationships exist between fire behavior, the fuel loading, weather, and topography.

- Fine fuels ignite more easily and spread faster with higher intensities than coarser fuels. For a given fuel, the greater the amount and the more continuous it is, the faster the fire spreads and the higher the intensities. Fine fuels take a shorter time to burn out than coarser fuels.

- The weather conditions affect the moisture content of the dead and live vegetative fuels. Dead fine fuel moisture content is highly dependent on the relative humidity and the degree of sun exposure. The lower the relative humidity and the greater the sun exposure, the lower will be the fuel moisture content. Lower fuel moistures produce higher spread rates and fire intensities.
- Wind speed significantly influences the rate of fire spread and fire intensity. The higher the wind speed, the greater the spread rate and intensity.

Topography:

Topography influences fire behavior principally by the steepness of the slope. In general, the steeper the slope, the greater the uphill fire spread and intensity. The Starlite Place neighborhood ranges in elevation from between 920 and 1390 feet above sea level. The slopes within the neighborhood range from moderately flat in the southeast section, to 50% or more as the road winds up to the ridge top. In addition there are steep undeveloped forested areas near or adjacent to many residences. Aspects within the Starlite Place community are mostly east to southeast oriented in the southeast section. The ridge top areas within the community contain aspects of all directions. The steepness of the slopes presents a constant challenge for Starlite Place residents and undeveloped property owners to keep these areas thinned and pruned adequately to disrupt the vertical fuels ladder that can spread a low intensity surface fire, to a fast moving, high intensity crown fire. The area west of Starlite Place consists of a forested bowl shaped area with slopes in excess of 50%. This is an area of great concern for firefighters as the natural shape of this area would create a chimney or updraft effect adding to the intensity of an upslope fire.

Weather:

As with the majority of Southwest Oregon, the Starlite Place community has an average temperature range of 80 to 105 degrees Fahrenheit during the summer months. Relative humidity (RH) ranges between 10 to 35%, with the lows occurring usually by mid-afternoon during fire season. The low RH during the hot afternoons creates lower fuel moisture contents, particularly in finer fuels. Lower fuel moistures produce higher spread rates and fire intensities. In addition, afternoon upslope and ridge top wind speeds within the 920 to 1390-foot elevation community range between 5 to 15 mph, under normal conditions. The higher the wind speed, the greater the spread rate and intensity.

General Fuels:

Many different fuel types exist within and around the Starlite Place Community. Ornamental plants, many fire-resistant, have been used around the perimeter of the homes in this neighborhood. However, flammable vegetation such as arborvitae and Juniper has been planted in the vicinity of some residences, or directly beneath roof eaves. In some cases, the vegetation surrounding homes is in need of pruning and cultivation to maintain the needed clearances between the exterior walls and windows of structures. All

vegetation can provide potential fuel or ignition points for wildfires in the vicinity of combined, overgrown plants, the presence of some flammable plant and groundcover homes.

Private forested areas adjacent to Starlite Place consist of natural and invasive wildland vegetation and forest species found throughout Southwest Oregon. Vegetative communities include mixed conifer and hardwood forestlands, interspersed oak woodlands, and native grass and brush areas. Overstory tree species include mostly Oregon white oak, California black oak, incense cedar, Pacific madrone, Douglas-fir, ponderosa pine, and small amounts of sugar pine. Understory vegetation consists mostly of native grasses and varying amounts of brush species. Dense patches of wedgeleaf ceanothus, hardwood re-sprouts, hardwood stump-clumps, and decadent dead or dying manzanita can be found in the understories of forested areas to the west slope, while dense patches of scotch broom, blackberry and madrone resprouts are more prevalent on the east side slope

Significant fuels treatments have been done over the last 3 years to the steep privately owned undeveloped areas on the east and west side of the community as well as the city owned property to the south of the community. Most homes within the Starlite Place neighborhood have maintained good defensible space around the home. However some residences still have some flammable vegetation around the home.

The Starlite Place neighborhood of Grants Pass could be affected by wildfires in a number of ways. Wildfires need oxygen, fuel, and heat to ignite. The areas surrounding the Starlite Place community, both public and private, contain a variety of wildland fuel types with varying densities, on moderate to steep slopes. The most probable fire scenario would be an ignition within one of the surrounding forested areas, thus creating showers of heat-producing burning embers capable of igniting vegetation and flammable materials adjacent to, or on the home. Due to the close proximity of many homes within this community, once a home is ignited the fire can spread quickly to surrounding vegetation and neighboring homes through either direct flame contact, or additional ignitions from burning embers. Flammable vegetation used in decorative landscaping can also help contribute to flame spread, and provide more points of ignition. The combined fuel sources of the vegetation around homes, the heavily forested areas surrounding the homes, and the homes themselves, provide the potential for a fast-moving large-scale fire.

Human caused fires west of the community are of a concern due to illegal off road recreational vehicle use.

Another possible wildfire scenario would be a wind-driven fire burning upslope or through grass and brush from a surrounding area, or one occurring from within the neighborhood itself. Due to the high volume of fuels on most lands adjacent to the Starlite Place community, a wind-driven fire can create considerable potential for ignitions within the boundaries of the community.

4) Site Description

The Starlite Place neighborhood is located within the Wild land-Urban Interface area inside the City of Grants Pass, located in Josephine County in Southwest Oregon. Josephine County consists of mainly mountainous terrain which is heavily forested. More than 70% of the county is Federally-owned land. The Starlite Place neighborhood comprises 38.49 acres and includes 53 homes on 71 parcels. The community was developed during two different time periods. The south area up to the ridge top was developed between 1962 and 1981. The north area on the ridge top was developed between 1989 and 2008. The use of newer more fire resistant building materials such as hardi-plank siding and stucco is evident in the newer north section. The neighborhood is bordered by large areas of forested undeveloped privately owned land to the east and west, vacant forested City property to the south, and developed subdivisions to the north. The majority of homes on Starlite Place are ridge top with slopes exceeding 50% on the east, south and west. Sections of the Starlite Place neighborhood are classified as an “Extreme” risk area for wildfire under the “Oregon Forestland-Urban Interface Fire Protection Act” (Senate Bill – 360). The area to the west is comprised of several hundred acres of undeveloped forested land which creates a steeply sloped bowl area which would contribute to create a fast moving intense wildfire. However, significant fuels reduction work has been completed over the last three years in the bordering areas.





JOSEPHINE COUNTY
Firewise Communities
 Starlite Place

Legend

- Starlite Place Firewise Community
- Street Centerline

0 140 280 560 870 1,100 Feet


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CITY OF GRANTS PASS
 Public Safety Department
 Fire Prevention Services
 300 East Park Street
 Grants Pass, OR 97527
 Phone: (541) 876-1400
 Fax: (541) 876-1493
 Web: www.grantspassoregon.gov



© 2015 Josephine County. This geographic information system data was made available on this map and developed and maintained by the City of Grants Pass and Josephine County. Every reasonable effort has been made to ensure the accuracy of the maps and associated data.

5) Assessment Process

The Starlite Place community assessment process began with local outreach to locate concerned citizens with interest in making their communities safer from wildfires. Over 15 individual home assessments have been completed over the last three years. An informational meeting was held on June 9th, 2015 at the home of one of the residents. At this meeting a neighborhood assessment was requested. The official hazard assessment for the neighborhood was conducted on July 14th 2015.

6) Important Considerations

The Firewise Communities/USA program seeks to create a sustainable balance that will allow communities to live safely while maintaining environmental harmony in a Wildland Urban Interface (WUI) setting. Homeowners already balance their decisions about fire protection measures against their desire for certain flammable components on their properties. It is important for them to understand the implications of the choices they are making. These choices directly relate to the ignitability of their home ignition zones during a wildfire.

During the assessment small amounts of flammable vegetation were noted around some homes. Under the right conditions, these landscaping items could pose a threat to homes from airborne burning embers. However, a greater wildfire threat to the community was found in the wildland vegetation surrounding the community.

In addition, flammable fuels build-up can be found on the neighboring undeveloped lands to the east and west and publically-owned lands south of the community. These will be a growing concern in futures years at this material grows back.

7) Observations and Recommendations

During the Starlite Place neighborhood assessment, several considerations were noted that may potentially lead to ignition and/or the spread of a wildfire to homes. The exterior sidewalls of most residences within the newer section of the community are constructed mostly of either stucco or composite concrete siding (Hardi-Plank). These siding materials provide sufficient protection from fire, providing that, fire-resistant landscaping is used near homes and plants are kept pruned and cultivated. The roofing material used on homes is mostly fire-resistant fiberglass-based asphalt shingles or tile. However, in some instances the eaves underneath the roof sheathing are exposed wood. This makes them susceptible to ignition from below by flammable or overgrown vegetation planted next to exterior sidewalls. Windows are also susceptible to flammable and overgrown vegetation planted in close proximity.

Flammable plants such as arborvitae can be found close to some homes directly beneath wooden roof eaves. When possible, these plants should be removed and replaced with more fire-resistant landscaping. There has been approximately 70 acres of fuels reduction on undeveloped

lands outside the boundaries of the Starlite Place community; however there are still remaining areas of heavy fuel loading. These fuel loadings have the potential to spread a wildfire and create significant amounts of burning embers in the vicinity of the neighborhood and beyond. Efforts should be made to reduce surface fuel loadings to a distance of least 100 feet from each home, and include fuels located on neighboring tax lots. In addition where possible, individual home defensible space treatments should be connected together to provide the community with a more continuous, landscape level fuels treatment.

Wildfire protection is important for all landowners, urban and rural. Creating and **maintaining defensible space** around homes and outbuildings is the best wildfire protection for any structure. Many of the same basic fuel reduction principles used when creating a home's defensible space (pruning, reducing/rearranging surface fuels, and controlling understory vegetation) is also useful for reducing fire and fuel hazards on forested properties.

Pruning low-hanging tree limbs is a very important component in fuels reduction. It increases the distance between the surface fuels, and the tree canopy. When a ground fire passes through an area, pruning will help keep the fire on the ground where it is easier to control, and keep it from reaching tree canopies. This many times can save a tree and help to prevent further spread of the fire. Another important element of protecting a forested area from wildfire is plant spacing. While conditions and plant spacing requirements around most forested properties are site-specific, reducing dead, dying, or suppressed understory trees and plants frees up water and nutrients for the remaining plants and overstory. This helps promote a more vigorous, and fire-resistant forest.

Five basic principles to creating and maintaining a healthy and fire-resistant forest:

- Reduce surface fuels
- Increase the height to the base of the tree crowns (pruning)
- Increase the spacing between tree crowns (thinning)
- Keep larger trees of a more fire-resistant species
- Promote fire-resistant forests on a landscape level

More information on forest fuels thinning and how to protect a forested property from wildfire can be found through the Oregon State University Extension Service (see website links below).

Reducing Hazardous Fuels on Woodland Properties series:

- *Thinning*

<https://catalog.extension.oregonstate.edu/sites/catalog.extension.oregonstate.edu/files/project/pdf/ec1573.pdf>

- *Pruning*

<https://catalog.extension.oregonstate.edu/sites/catalog.extension.oregonstate.edu/files/project/pdf/ec1576.pdf>

- *Disposing of Woody Material*

<https://catalog.extension.oregonstate.edu/sites/catalog.extension.oregonstate.edu/files/project/pdf/ec1574.pdf>

Control of brush and weeds:

Blackberries

Managing Himalayan Blackberry in Western Oregon Riparian Areas. 16 pp.

<http://www.calapooia.org/wp-content/uploads/2010/03/HBriparian.pdf>

Wild blackberries

<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7434.html>

Scotch broom

Getting a Handle on Brooms. UC Extension.

<http://anrcatalog.ucdavis.edu/pdf/8049.pdf>

Poison oak

<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7431.html>

Forest vegetation management. Website. Has information on cultural, mechanical, biological, and chemical control of brush, sprouting hardwoods, and other vegetation on forested sites.

<http://extension.psu.edu/natural-resources/forests/vegetation-management>

Pacific Northwest Weed Management handbook.

<http://pnwhandbooks.org/weed/>

In content, look under “Home Garden and Landscape Management” and “Forestry and Hybrid Cottonwoods.”

Recommendations

Recommendation #1- Continue to educate homeowners on Firewise landscaping techniques, including recognizing fire prone vs. fire-resistant shrubs, proper watering and trimming of landscape plants and shrubs.

Recommendation #2 – Work with the owners of the adjacent undeveloped vacant properties to maintain a fuel break between their property and the community.

Recommendation #3 – Continue to work with the Grants Pass Dept. of Public safety and the owners of adjacent undeveloped private land to reduce the potential of a wildfire ignition created by trespassers on the adjacent land.

Recommendation #4 Maintain individual fuels treatment buffers around homes to create a more continuous, landscape-level fuels treatment around the community. This would include thinning areas in between properties.

Recommendation #5 – Work with the City of Grants Pass to ensure that the city property is maintained in a fire safe manner.

8) Successful Firewise Modifications

When adequately prepared, a house can likely withstand a wildfire without the firefighter intervention. Furthermore, a house and its surrounding community can be both Firewise and compatible with the area's ecosystem. The Firewise Communities/USA program is designed to enable communities to achieve a high level of protection against WUI fire loss, even as a sustainable ecosystem balance is maintained. A homeowner/community must focus attention on the home ignition zone and eliminate the fire's potential relationship with the house. This can be accomplished by disconnecting the house from high and/or low-intensity fire that could occur around it. The following photographs were taken in the Starlite Place neighborhood and are examples of good Firewise practices.

Several large fuels reduction projects have been completed in areas surrounding Starlite Place. One project consisted of removing 10 acres of Scotch Broom, blackberry and limbing up trees on the east side. All material was removed from the site. Work was performed by the county corrections crew. Images 8-A and 8-B show the before and after difference from the same photo point. Note the gate in both photos. Images 8-C and 8-D shows removal of juniper from a private residence.



Image 8-A: Decadent scotch broom growth on east slope.



Image 8-B: East side after fuels treatment on 10 acres.



Image 8-C: Highly flammable juniper shrubs



Image 8-D: Same area after juniper shrub removal.

West slope fuels removal project 11.5 acres

Another large scale project was completed in the Spring of 2015. 11.5 acres of dense and dead manzanita and other fuels were removed from the west side of Starlite Place. The slope was in excess of 50% in some of the project area. Due to the inaccessibility of the area, all material was hand piled and burned on site. An estimated 500 piles were burned over a 2 day period in the spring of 2015. The work was performed by a contractor at a cost of almost \$23,000.

Image 8-E shows the area before the treatment. Images 8-F thru 8-I show some of the piles being burned. Image 8-J shows the area afterwards.



Image 8-E: Overgrown and Decadent Manzanita



Image: 8-F: 500 piles were burned



Image 8-G: Multiple piles burning



Image 8-H: Steep slope towards residences

Image 8-I: Burning of fuels adjacent to homes



Image 8-J: After fuels treatment



9) Next Steps

After reviewing the contents of this assessment and its recommendations, the local Starlite Place Firewise Committee determined they wished to continue seeking Firewise Communities/USA recognition for their neighborhood. Once the site assessment and recommendations were accepted and it was determined Firewise recognition would be sought, the Starlite Place Firewise Committee helped to create agreed-upon, area-specific solutions to the Firewise recommendations listed in the assessment. From these recommendations an action plan was created in July 2015 in cooperation with the Josephine County Firewise Community Partners. This action plan should serve as a neighborhood fire prevention activity monitoring tool for the community members, and the Starlite Place Firewise Board. The action plan can be modified as needed by the Starlite Place Firewise Communities Board, and the community members.

Starlite Place residents are reminded to be conscious of keeping high-intensity fire more than 100 feet from their homes. It is important for them to avoid fire contact with their structures. This includes firebrands. The assessment team recommends the establishment of a 'fire free zone', allowing no fire to burn within ten feet of a house by removing fuels located there. It is a bad idea for fire to touch a house during a wildfire. Remember that, while wildfire cannot be eliminated from a property, it can be reduced in intensity.

Homeowners are reminded that street signs, addresses, road widths and fire hydrants do not keep a house from igniting. Proper attention to their home ignition zones does. They should identify the things that will ignite their homes and address those.

Weather is, of course, of great concern during wildfire season. At such time as fire weather is severe, homeowners should remember not to leave flammable items outside. This includes rattan doormats, flammable patio furniture, firewood stacked next to the house, or other flammables. Flammable debris should be kept cleaned from the home's roof, gutters, and above/below any exposed decks.

Maintaining a home's defensible perimeter is an important responsibility for all homeowners, both urban and rural. Applying and maintaining Firewise fuels reduction concepts is the best wildfire protection a home can have, particularly in communities such as Starlite Place. Achieving and retaining Firewise Communities/USA Recognition status is an accomplishment that will help a community establish and set long-term fire prevention goals. For information or assistance in the renewal process for your Firewise Community, contact your local Oregon Department of Forestry Office, or your area's local Firewise Community Coordinator.

Oregon Department of Forestry Southwest Oregon District
5375 Monument Dr.
Merlin, Oregon 97526-8513
541-474-3152

Bob Schumacher
Firewise Coordinator
Grants Pass Fire/Rescue
800 E .Park St.
Grants Pass. OR 97527
541-450-6205

2015 Starlite Place Firewise Day Expenditures

Firewise Community: Starlite Place Grants Pass Oregon

Total Residences = 53

Total Residents = 111

Firewise Action Plan Approved: July 2015

Submission Date of Firewise Assessment: October 20, 2015

Date Plan Received by Oregon State Firewise Representative _____

Starlite Place Firewise Committee Members:

George Getty

1050 NW Starlite Pl.

Grants Pass, OR 97526

Judy Leavitt

1108 NW Starlite Pl.

Grants Pass, OR 97526

Firewise Day:

October 15th, 2015

Firewise Day Activity

Review of home self-assessments completed by the homeowners.

Review of the Community Action Plan

2015 Firewise Day Expenditures:

Firewise Communities Fuels Reduction Project 11.5 acres = \$22,833

Total Homeowner Volunteer Time = 24 Hours at \$23.07/hour = \$553.68

Total Firewise Coordinator time = 58 Hours at 36.54/hour = \$2119.00

$\$22,833 + \$553.68 + \$2119.00 = \$25,505.68$ total in volunteer time and grant expenses

$\$25,505.68 / 111$ residents = $\$229.78$ per capita spent on Firewise activities in 2015

Starlite Place - Firewise Community

Wildfire Mitigation Action Plan

Adopted July 2015

Action Step	Responsibility	Timeline	Status
Schedule 1st Firewise Day event - Homeowner self evaluations	Firewise Community Board/Community members	10/15/2015	
Increase homeowner awareness about ember ignitions and fire-resistant landscaping	community members, Firewise board, Firewise coordinators	Annually	On-going
Apply for Firewise Communities recognition	Firewise Community Board, assisted by Firewise Coordinator	Complete by 10/31/2015	
Continue dialog with public safety officials to minimize off road vehicle usage on undeveloped land	Firewise community members, Grants Pass Public Safety, Oregon Department of Forestry, Josephine County Sheriff	Annually	On-going
Work with undeveloped property owners to maintain an effective fuel break around the community	Property owners, Firewise board.		On-going
Maintain fuels treatment around homes	Homeowners	Annually	On-going
Maintain the Firewise committee Schedule a Firewise Day event	Community Members/ Firewise Community Board	spring of 2016 and	On-going
Maintain a listing of all volunteer time and other expenses related to Firewise	Firewise Communities Board	Annually	On-going
Apply for Firewise Communities recertification.	Firewise Communities Board	Annually	On-going