

6. NATURAL AREAS FIRE MANAGEMENT

Wildfire management is an important component of managing and maintaining County natural areas. The natural areas are woven into the community fabric and are a part of what is called the “urban-wildland interface.” The urban-wildland interface is where urban residential and commercial infrastructure is adjacent to and/or intermixed with wildlands or undeveloped areas. An example of this interface is residential homes bordering a County natural area. Wildfire is a natural process that is often necessary to maintain healthy ecosystems, but it also presents a significant hazard to residents in the urban-wildland interface. Natural area management strategies that include management and maintenance of vegetation in addition to public education and involvement will mitigate some of the area’s wildfire hazards.

To begin the process of wildfire management it is necessary for the County to conduct a wildfire hazard assessment for each natural area. This will assess each natural area for wildfire potential along with adjacent residential risks. The Salt Lake County Natural Areas Fire Hazard Assessment Form (Appendix D) will guide the County through the fire hazard assessment process. The following items are necessary for conducting the assessment and are included in the Fire Hazard Assessment Form.

The natural area wildfire hazard assessment should include the following information:

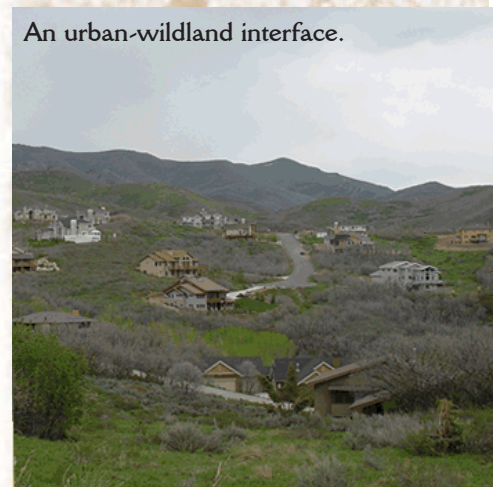
- 1. Coordinate with the Salt Lake County Unified Fire Authority, the U.S. Bureau of Land Management, and the U.S. Forest Service.**

This wildfire hazard assessment should be coordinated with personnel in the Salt Lake County Unified Fire Authority, the U.S. Bureau of Land Management, and the Salt Lake Ranger District of the U.S. Forest Service. This will provide the natural area planners with professional assistance and guidance from wildfire professionals. Coordination will also foster communication of the wildfire risks and mitigation plans between all agencies involved.

- 2. Identify fire-prone vegetation.**

Three basic elements required for a fire to occur include (1) a heat source, (2) oxygen, and (3) fuel. Vegetation in

An urban-wildland interface.



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County natural areas (both live and dead) provides fuel for a wildfire and the hot, dry climate conditions create a fuel that is ready to burn. Historic fire suppression has allowed fuels to build up in specific vegetation cover types and has created an increased fuel load.

Fire prone vegetation factors included on the Fire Hazard Assessment Form include:

Forest Vegetation Density – Moderate to heavy density forest vegetation poses a greater wildfire risk. A high hazard crown fire is more likely to occur in a dense forest.

Surface Vegetation – Surface vegetation includes grasses, shrubs, and dead and down woody material. An abundance of shrubs and dead and down woody material on the landscape surface adds to wildfire risks.

Ladder Fuels – Ladder fuels are shrubs, immature trees, and branches that extend near the ground surface that give surface fires a pathway to the upper canopies of the trees.

Slope – Slope has a direct effect on fire behavior. The steeper the slope the faster the fire will spread uphill.

Position on Slope – The position of fire prone vegetation on a slope is an important factor in fire behavior. Long slopes of fire prone vegetation with properties at the top represent the highest risk. Some vegetation cover types are more susceptible to burning and becoming large wildfires. Typically, a fire traveling up a slope will move faster and have longer flames than a fire traveling on flat terrain.

Some vegetation cover types are more susceptible to burning and becoming large wildfires. The Bigtooth Maple and Gambel Oak Woodland vegetation cover type contains aging brushy and small vegetation and may contain a heavy fuel load. This load is from dead shrubs and trees which continue to accumulate in the absence of fire. Fire suppression is difficult in woodland areas and fire may burn intensely and severely (Uinta and Wasatch Cache National Forests Fire Management Plan 2001).

Cheatgrass, the invasive annual grass described in Section 5.1.3.9, contributes to wildfire hazards by decreasing the fire frequency in areas that are infested. It grows in early spring and is completely dried out and ready to burn early in the season. Cheatgrass may burn year after year and eventually out-compete all native vegetation in an area.

3. Identify fuel breaks.

Fuel breaks are natural or constructed landscape features that may help to contain a wildfire when it does occur. These include roads, rivers, streams, rock outcrops, and fuel breaks constructed by removing vegetation.

4. Locate adjacent residential/commercial structures and private property.

All housing and commercial development within 600 feet of a natural area border will be identified as within the urban-wildland interface and therefore at risk of wildfire. Housing directly adjacent to areas with fire prone vegetation should be identified as “high wildfire risk” properties. These property owners will be notified of the potential for wildfire and landscape mitigation strategies.

5. Identify emergency access locations.

In the event of a wildfire occurring in a natural area, emergency access and egress to the wildfire area and adjacent residential properties is critical. Identify all natural area access points. Survey the adjacent residential areas for additional access/egress areas. A natural area with high risk for wildfire and adjacent residential properties must have access to the area for fighting any wildfires.

6. Identify water sources.

Wildfires are combated using water to douse flames and wet dry areas and structures to contain the fire. A water source for fire fighting should be accessible within or adjacent to all natural areas. The source may be a stream, pond, fire hydrant, or water tank.

7. Determine mitigation strategies.

Mitigation of wildfire hazards may include fuels reduction, fire suppression guidelines, and homeowner education.





6.1 Mitigation Strategies

Upon completion of the wildfire hazard assessment, the County can work to implement mitigation measures. Mitigation measures are programs and/or practices put into place to reduce wildfire hazards and risks to adjacent properties. There are many mitigation strategies, some of which include fuels reduction, fire suppression guidelines, and homeowner education, that area described below.

6.1.1 Fuels Modification

Specific areas within the County natural areas may exhibit extremely high wildfire potential with the potential to severely impact adjacent residences. It may be decided to plan and conduct a fuels modification project in these areas. This could consist of thinning trees and shrubs, removing dead fuels, and/or prescribed burning. A professional fire specialist should be contacted to help in planning and conducting any fuels modification project within County natural areas.

6.1.2 Fire Response and Evacuation Guidelines

Fire suppression activities and residential response will be most effective if a response and evacuation plan for each natural area is developed. Communicating and coordinating this information to the appropriate agencies will assist fire fighters in their efforts. Adjacent residents should also be educated in evacuation routes and what to do if a wildfire does occur.

6.1.3 Homeowner Education

The County can partner with adjacent home owners to coordinate an education plan. Home owners should be educated in the concept of “defensible space” which is the modification of vegetation around a home to reduce the chance that a wildfire will encroach onto private property and potentially destroy the home (see Figure 6.1). Defensible space distances depend upon the type of adjacent vegetation and slope steepness. It can vary from 30’ on relatively flat grass areas to 200’ in tree areas on steep slopes (utahfireinfo.gov). The details on homeowner

education and how to create a defensible space are contained in the web site www.utahfireinfo.gov.

A useful brochure, published by firewise.org, that educates home owners on “defensible space” is included in Appendix D. In addition, Appendix E contains *Firewise Plants for Utah Landscapes*. This brochure can be used by home owners interested in reducing their wildfire risk.



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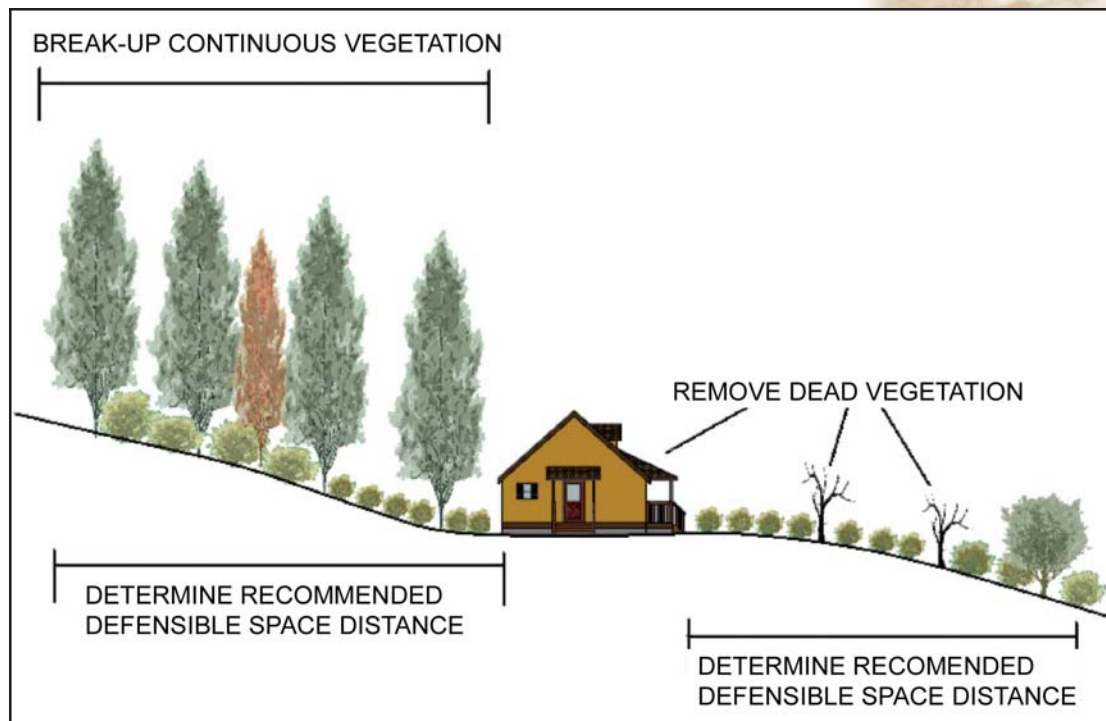


Figure 6.1. Defensible space principles.^a

^a See utahfireinfo.gov for defensible space recommendations.

