

UINTAH BASIN

REGIONAL WILDFIRE PROTECTION PLAN

*Covering Daggett, Duchesne,
and Uintah Counties*



**State of Utah
Division of Forestry,
Fire & State Lands**



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UINTAH BASIN REGIONAL WILDFIRE PROTECTION PLAN

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Executive Summary

Historically, natural wildfire regimes in the West predominantly took the form of low-intensity surface fires that thinned fuel accumulations on a regular basis, with occasional, intense, stand-replacement fires in patchy areas or under extreme fire conditions. Over the last century, land management has emphasized fire suppression in order to protect human assets and interests. In forests where wildfire has been repeatedly suppressed, forest debris has built up, and forest stands have become more dense. The resulting wildfires in such forests are often hotter and more difficult and dangerous to control due to the huge reservoirs of fuel awaiting ignition. This, in conjunction with a rapidly developing wildland-urban interface, has increased the number of residents and structures at risk from wildfire.

To address these issues in the northeastern counties of Utah—Daggett, Duchesne, and Uintah—a group of federal, state, and local agencies, organizations, and residents have developed the Uintah Basin Regional Wildfire Protection Plan (RWPP). The goal of each of the five RWPPs, which together cover the state of Utah, is to assist the region and its counties, communities, and agencies in reducing the risk of catastrophic wildfire within the region.

This RWPP serves as a comprehensive, programmatic plan for counties and communities in the Uintah Basin Region and serves as a landscape-level overview of factors to consider in wildfire planning via cooperation of any and all federal, state, and local fire management entities. The Uintah Basin RWPP emphasized public participation among all collaborating entities and makes prioritized recommendations for fuel reduction treatments and educational outreach activities for 14 areas in the Uintah Basin Region. The recommendations are based on a wildfire risk assessment that utilized data regarding fuel hazards, distance from communities-at-risk, and fire history, as well as input from public scoping meetings and the considerable expertise of the Uintah Basin Core Team. The Uintah Basin RWPP recommendations are general in nature so as to provide high levels of flexibility in the implementation phase.

The RWPP is also intended to provide a mechanism and structure for individual counties and communities within the region to take the next steps in wildfire protection: create their own Community Wildfire Protection Plans (CWPPs), and get federal funding for these plans' development and implementation. The more detailed CWPPs are needed in order to identify and address specific issues, to provide opportunities for input from the local public, and to provide the necessary community- and county-based decision-making. These subsequent planning efforts will determine WUI boundaries more specifically than this RWPP and will identify more specific treatment methods to reduce risk to local communities, water supplies, infrastructure, and lands.

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1.0. Introduction

Wildfire has always been a natural and important part of the American West's ecosystems. Historically, wildfire predominantly has taken the form of frequent, low-intensity surface fires that thin the fuel accumulations in the forests, resulting in open stands with limited understory, with occasional, intense, stand-replacement fires in patchy areas or under extreme fire conditions. Over time, these periodic fires have created, maintained, and renewed a mosaic of vegetation communities and ages that supports greater biodiversity within the ecosystem.

However, over the last century, populations, settlements, and development have increased dramatically throughout the West, and land management policies have emphasized fire suppression in order to protect human assets and interests. Although the policy of wildfire suppression has indeed protected human populations throughout the West, it has also disrupted the natural fire regimes that once existed. Over time, it has been proven that disrupted fire regimes have the potential to be even more destructive than natural fire regimes.

Wildfire, natural or otherwise, readily and thoroughly consumes flammable materials such as understory, saplings, brush and shrub growth, grass, needles, and leaves. In forests where wildfire is suppressed year after year, these flammable materials build up to unprecedented levels, and the stands become much denser. Such forests form huge reservoirs of fuel awaiting ignition, and pose a particularly significant threat when drought is also a factor (USFS 2005). As a result, wildfires are not so much suppressed as delayed, and when they occur, they are often hotter, more difficult to control, more destructive, and more dangerous to fight. An estimated 180 million acres of federal land are currently at risk of unusually severe wildfires (National Fire Plan 2006).

Population growth and urbanization in the West have not abated. As more and more communities develop and grow in areas that are adjacent to fire-prone lands, in what is known as the wildland-urban interface (WUI), wildland fires pose an increasing threat to people and their property (National Fire Plan 2006).

The Uintah Basin Regional Wildfire Protection Plan (RWPP) has been prepared in response to the increasing need for wildfire protection in northeastern Utah. It is one of five regional plans that together address wildfire protection and planning for the entire state of Utah. The goal of each RWPP is to provide comprehensive and collaborative planning that will assist the region and its counties, communities, and government agencies in reducing the risk of catastrophic wildfire within the region.

1.1. Overview of the Regional Wildfire Protection Plan (RWPP)

The Uintah Basin RWPP is the result of a collaborative process involving federal, state, and local government and agency representatives, as well as community members. Its goals are to:

1. clearly identify high-risk areas across northeastern Utah (SAF et al. 2004),

2. identify and prioritize areas for hazardous fuels reduction and treatment, as well as areas for mitigation, suppression, and emergency preparedness management, and recommend the types and methods of treatment that will protect one or more communities at risk (CARs) and essential infrastructure (SAF et al. 2004),
3. set broad priorities and make broad recommendations for actions that homeowners and communities can take to reduce the ignitability of structures and to reduce the overall risk of catastrophic wildland fire to human life and property in the WUI of state-identified CARs (SAF et al. 2004),¹ and
4. provide a mechanism and structure for individual counties and communities within the region to create their own Community Wildfire Protection Plans (CWPPs) and get federal funding for these plans' development and implementation (see Section 1.1.1 and the discussion of the Healthy Forests Restoration Act [HRFA], below).

The following subsections describe the administrative context of this RWPP. The next section of this RWPP will provide background on the natural attributes (e.g., ecology, fire history) and social/communal attributes (e.g., CARs, values at risk) of the Uintah Basin Region and its counties (Daggett, Duchesne, and Uintah). The third section of this RWPP will introduce the region-wide risk assessment and the variables, methods, and results of the risk assessment. The next section, considering the regional background information and the risk assessment, will identify region-wide and county-specific priorities and recommendations. The final section will indicate the next steps that counties, communities, and agencies should take to effectively implement the recommendations.

1.1.1. Administrative Context of the RWPP

The Uintah Basin RWPP is the result of a number of integrated, collaborative planning strategies that have been implemented in recent years to address the conflicting needs of managing wildland fire to reduce threats to human development, and maintaining, managing, and/or restoring fire's natural function in the ecosystem:

- The National Fire Plan (NFP) was developed in August 2000, following a landmark wildland fire season in which more than 8 million acres were scorched and hundreds of homes were burned. The fire conditions and consequences became an urgently debated subject for fire managers, elected officials, and the public. The NFP emphasizes a collaborative response to severe wildland fires, as well as to reducing impacts to communities and ensuring effective firefighting capacity. Congress's role in this plan was to mandate the creation of a coordinated *National 10-Year Comprehensive Strategy* to direct federal land management agencies to work in partnership with state governors on a national, long-term strategy for the restoration of fire-prone ecosystems (NIFC 2006).
- The Western Governors' Association's 2002 response, the *10-Year Comprehensive Strategy Implementation Plan*, called for full state and local involvement at all levels of

¹ Following Congressional direction, each state compiled a list of communities in the vicinity of federal lands determined by wildland fire officials to be at risk from wildland fire. An overall score was given to each community identified throughout the state of Utah, representing the sum of multiple risk factors analyzed for each community, including fire history, local vegetation, and firefighting capabilities. The overall score ranges from 0 (No risk) to 12 (Extreme risk). As of 2005, Utah had identified almost 600 communities at risk, 62 of which are within the Uintah Basin Region (UDFFSL 2005; see Section 2.3).

planning and decision-making, implementation of projects on a landscape scale across ownerships, and the establishment of, and sufficient funding for, a long-term strategic plan for the overall restoration of fire-prone ecosystems on federal and adjacent state, tribal, and private forests and rangelands. The three principles of the plan were 1) collaboration among governments and stakeholders, 2) emphasis on the protection of communities and watersheds at risk, and 3) accountability through defined performance measures.

- The Healthy Forests Initiative (HFI) was also launched in 2002 by President Bush with the intent of reducing the risks that severe wildfires pose to people, communities, and the environment. By protecting forests, woodlands, shrublands, and grasslands from unnaturally intensive and destructive fires, HFI helps improve the condition of public lands, increases firefighter safety, and conserves landscape attributes valued by society.
- In 2003, in recognition of a widespread decline of forest health, the Healthy Forests Restoration Act (HFRA) was passed to expedite the development and implementation of hazardous fuels reduction projects on federal lands and to increase public participation in such projects and processes. The HFRA contains a variety of provisions to expedite hazardous-fuels reduction and forest-restoration projects on federal lands that are at risk of wildland fire or insect and disease epidemics.

1.1.2. Relationship between RWPP and County/Local CWPPs

This RWPP serves as a comprehensive, programmatic plan for counties and communities in the Uintah Basin Region. It provides all counties and communities in the Uintah Basin project area with a landscape-level overview of factors to consider in wildfire planning, a regional risk assessment, and a series of recommendations to be implemented at the regional level via cooperation of any and all federal, state, and local fire management entities.

By the same token, the RWPP is *not* a substitute for local CWPPs. It is important to note that the scale and scope of the RWPP does not allow for details regarding the specific needs of and recommendations for all communities and counties in its region. Rather, the programmatic nature of the RWPP is ideally suited to providing guidance and background information for preparation and planning of local CWPPs, and to ease the counties' and communities' efforts to meet HFRA requirements as they seek federal grants and/or funding to write their own local CWPPs to detail their particular needs.

The more detailed CWPPs are needed in order to identify and address specific issues, to provide opportunities for input from the local public, and to provide the necessary community- and county-based decision-making. These subsequent planning efforts will determine WUI boundaries more specifically than this RWPP and will identify more specific treatment methods to reduce risk to local communities, water supplies, infrastructure, and lands.

One of the unique and key aspects of RWPPs and CWPPs is that they allow communities to become active partners in protecting themselves from wildfire. Although federal, state and local agencies are exhausting all efforts to reduce communities' vulnerability to wildfire, the problem continues to outpace these efforts. The HFRA attempts to address this problem by providing communities with a tremendous opportunity to influence where and how agencies implement

federal fuels reduction projects and how funds are distributed for projects on non-federal lands, as well as providing maximum flexibility for communities to determine the substance and detail of their plans and procedures (SAF et al. 2004). The process of developing a CWPP can also help a community clarify and refine its priorities for the protection of life, property, and critical infrastructure in the WUI. The process can lead community members through valuable discussions regarding natural resource and land management options and implications for the surrounding watersheds.

The grants and funding that are available to communities—those that have already completed a CWPP and those that are beginning a CWPP—are primarily intended to assist them in the development and implementation of their plans. Funds are available through the National Fire Plan and the state of Utah to implement mitigation projects on both public and private lands, and federal funding is also obligated to the state of Utah for the development of CWPPs. The funding may also be used for training and preparedness for wildland fires. To put available funds to their best possible use, communities interested in developing a CWPP need to at least begin the CWPP process, identifying the highest risk areas in the region and the requisite community interests for undertaking fuels reduction projects.

Numerous communities of the Uintah Basin Region have already completed a CWPP and can receive federal funding for implementation. These plans may serve as models for other communities as they begin writing their own CWPPs (see Appendix A):

- Taylors Flat CWPP (Daggett County)
- Argyle Canyon CWPP (Duchesne County)
- East Fruitland CWPP (Duchesne County)
- Fruitland CWPP (Duchesne County)
- Tabby Springs CWPP (Duchesne County)
- Dry Fork Canyon CWPP (Uintah County)

1.1.3. Relationship to Other Plans

The RWPP process recognizes the numerous ongoing programs, plans, and policies being implemented in the region by other land, fire, and emergency managers and interested governments. Wherever possible, the RWPP's recommendations and conclusions would be consistent with or complimentary to the management actions arising from these programs, plans, and policies. The following plans impact resources and decisions made within the Uintah Basin Region.

Federal Plans

- Ashley National Forest Land and Resource Management Plan, currently being revised (USFS 1986).
- Wasatch-Cache National Forest Revised Forest Plan and Final Environmental Impact Statement (EIS; USFS 2003).

- Wasatch-Cache National Forest Noxious Weed Treatment Program and EIS (USFS 2006).
- Uinta and Wasatch-Cache National Forests FMP (USFS 2001).
- High Uintas Wilderness Fire Management Plan (FMP) and FEIS (USFS 1997).
- Uintah Basin Interagency Annual Operating Plan (USFS et al. 2005).
- Cedar Springs Marina Upgrade EIS, Flaming Gorge District (USFS 2004).
- Green River Joint Management Plan (BLM and USFS 1996).
- Bureau of Land Management (BLM), Book Cliffs Resource Management Plan (RMP; BLM 1985).
- Utah BLM Statewide Wilderness EIS (BLM 1990).
- BLM, Diamond Mountain RMP (BLM 1994).
- BLM, Vernal Field Office FMP and Environmental Assessment (EA; BLM 2005a).
- BLM and USFS Wildland and Prescribed Fire Management Policy Implementation Procedures (BLM and USFS 1999).
- BLM, Vernal Field Office Draft Resource Management Plan and Environmental Impact Statement (BLM 2005b).
- Bureau of Reclamation (BOR) Annual Operating Plan for Colorado River Reservoirs, 2007 (BOR 2006).
- Flaming Gorge Dam, Colorado River Storage Project, Utah (BOR 2004).
- Operation of Flaming Gorge Dam EIS (BOR 2006)
- Dinosaur National Monument Invasive Plant Management Plan and EA (NPS 2005).
- Dinosaur National Monument Fire Management Plan (NPS 2003).
- General Management Plan, Development Concept Plan, Land Protection Plan, and EA for Dinosaur National Monument (NPS 1986).
- Flaming Gorge-Uintas Scenic Byway Corridor Management Plan (FHWA 2002).
- Browns Park National Wildlife Refuge Comprehensive Conservation Plan (USFWS 1999).
- Ouray National Wildlife Refuge Comprehensive Conservation Plan (USFWS 2000)
- Great Basin Fire Program Analysis (FPA) Committee Annual Operating Plan, (GBCG 2006).
- Federal Wildland Fire Management Policy (NIFC 2001).

State Plans

- Vision 2010 Strategic Plan (UDSPR 2004).
- Statewide Fire Restrictions (UDFFSL 2006)
- Utah State Land Use Management policies codified in Utah Code Sec 63-38d-401, as amended.

- Utah State Water Plan, Uintah Basin: Disaster and Emergency Response Plan (UDWR 1999)
- Utah Drought Response Plan (UDWR 1993)

County/Local Plans

- Uintah Basin Association of Governments Pre-Disaster Mitigation Plan (2004)
- Daggett County General Plan, currently being revised (1996)
- Daggett County Resource Management Plan and Timber/Biomass Management Plan (2006)
- Duchesne County General Plan (1997)
- Duchesne County Public Land Use Policies (2004)
- Uintah County General Plan (2005)
- Emergency Operations Plans for all three counties

1.2. Project Area

The Uintah Basin RWPP project area encompasses more than 5.6 million acres in northeastern Utah, including all of Daggett, Duchesne, and Uintah Counties. Because the Uintah and Ouray Indian Reservation extends from Uintah County into northwestern Grand County, approximately 198,634 acres of northwestern Grand County is also included in the Uintah Basin RWPP project area (Figures 1 and 2). The majority of land within the project area is managed/owned by the BLM, the USFS, the Uintah and Ouray Tribe, and private landowners.

1.3. The RWPP Planning Process

To provide communities with a concise process to use in developing a CWPP, the Society of American Foresters, in collaboration with National Association of Counties, National Association of State Foresters, Western Governors' Association, and the Communities Committee developed a guide entitled "Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities" (SAF et al. 2004). This document outlines eight steps for developing a CWPP and served as the guide for preparation of the Uintah Basin RWPP. The recommended steps are as follows:

1. **Convene Decision-makers.** Form a Core Team composed of representatives from the appropriate local governments, local fire authorities, and state agencies responsible for forest, fire, and hazard management.
2. **Involve Federal Agencies.** Identify and engage local representatives of the USFS and BLM. Contact and involve other federal land management agencies as appropriate.
3. **Engage Interested Parties.** Contact a broad range of interested organizations and stakeholders and encourage their active public involvement in plan development.

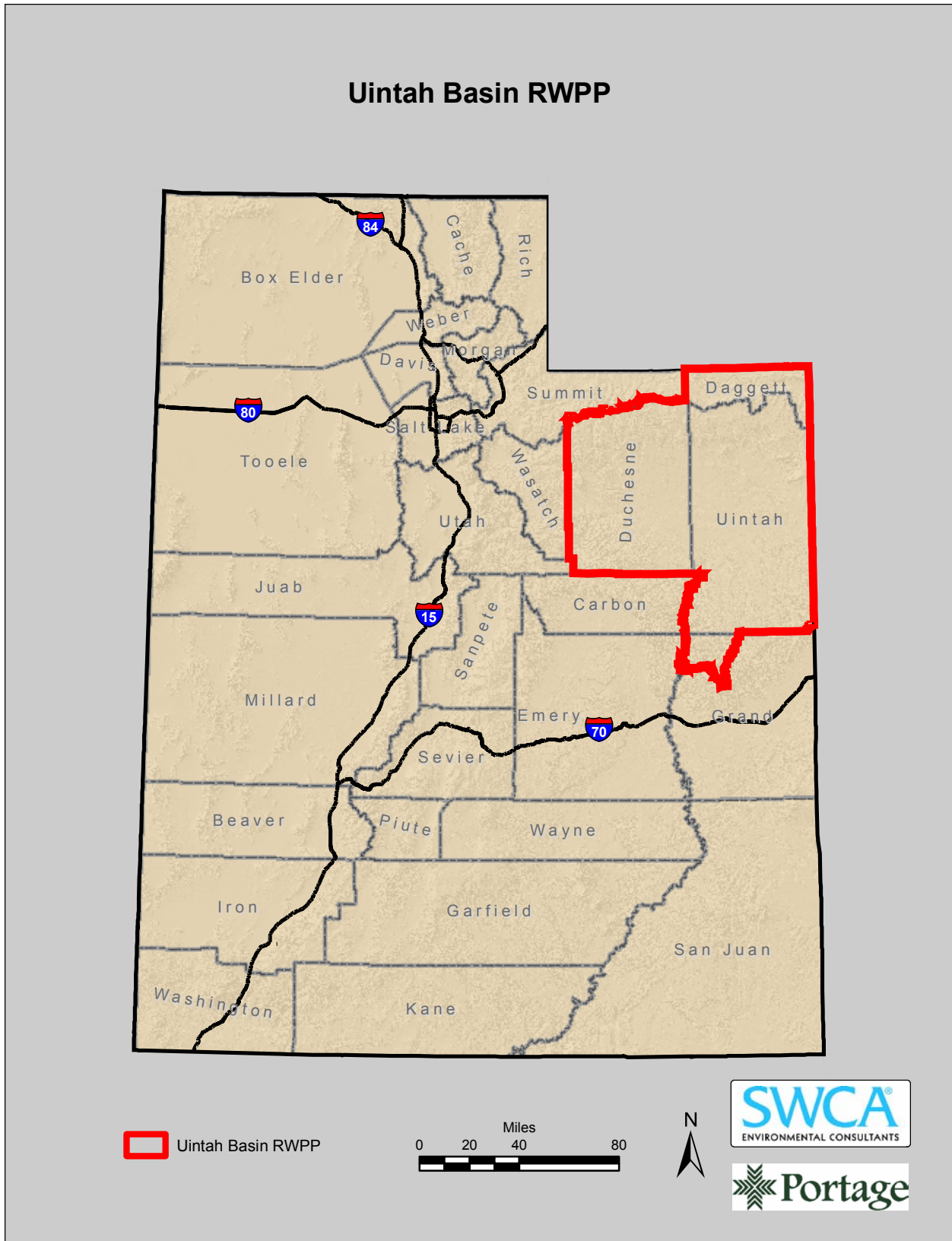


Figure 1. Location of the Uintah Basin Region in Utah.

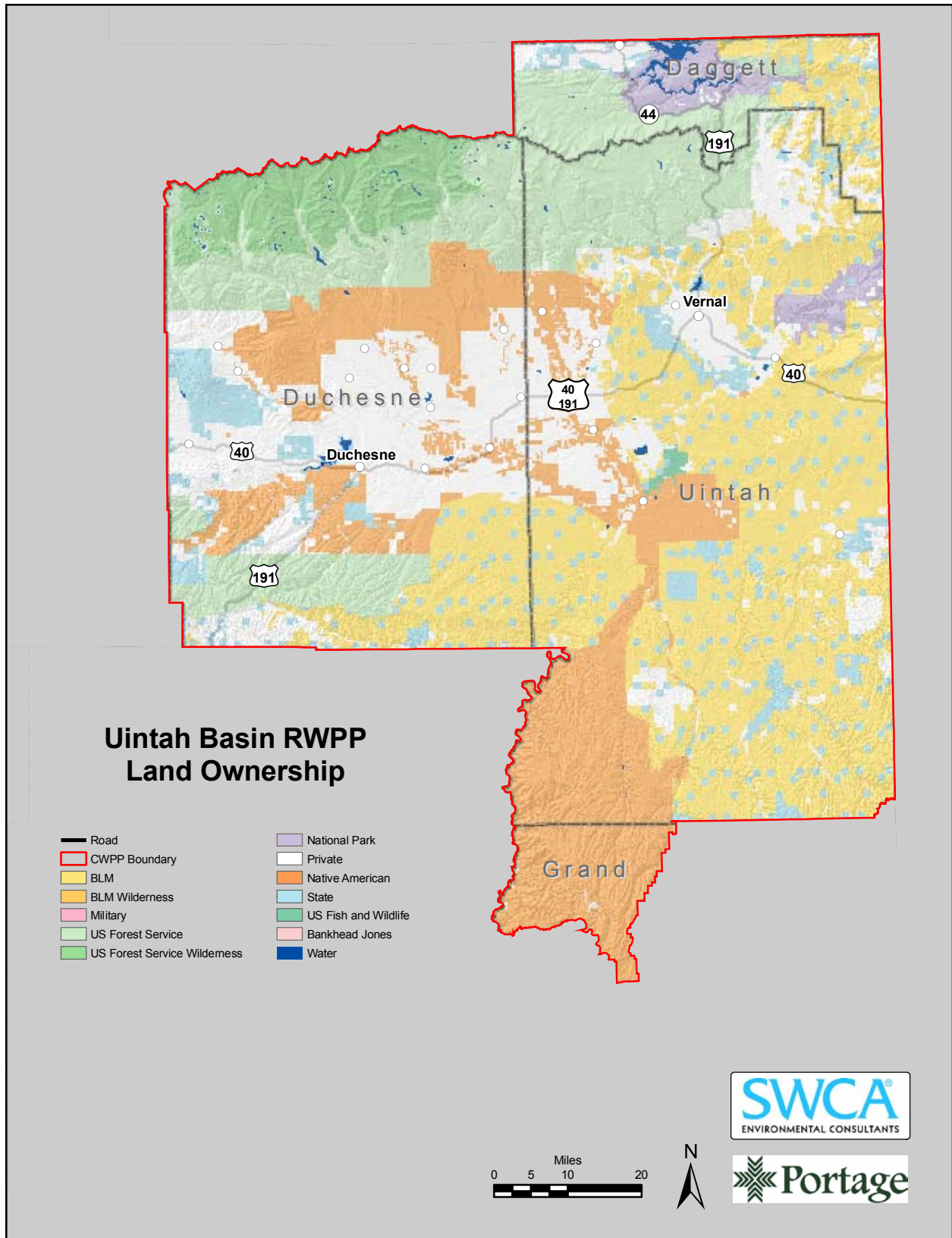


Figure 2. Land ownership in the Uintah Basin Regional Wildfire Protection Plan (RWPP) project area.

4. **Establish a Base Map.** Work with decision-makers and stakeholders on a baseline map of the region that depicts the communities' WUIs, other inhabited areas at risk, forested areas that contain critical human infrastructure, and forested areas at risk of large-scale fire disturbance.
5. **Develop a Risk Assessment.** Work with decision-makers and stakeholders to develop a risk assessment that considers fuel hazards; risk of wildfire occurrence; homes, businesses, and essential infrastructure at risk; other community values at risk (CVARs); and local preparedness capability. Rate the level of risk for each factor and incorporate the results into the base map as appropriate.
6. **Establish Priorities and Recommendations.** Use the base map and risk assessment to identify local priorities for fuels treatments, opportunities to reduce structural ignitability, and other issues of interest. Clearly indicate whether priority projects are directly related to 1) protection of communities and essential infrastructure or 2) reduction of wildfire risks to other CVARs.
7. **Develop an Action Plan and Assessment Strategy.** Develop a detailed implementation strategy to accompany the RWPP, as well as a monitoring plan that will ensure its long-term success.
8. **Finalize RWPP.** Finalize the RWPP and communicate the results to regional and community leaders, decision-makers, and key partners.

SWCA Environmental Consultants, Portage Environmental, and Wildland Fire Associates were contracted to facilitate planning meetings, conduct the risk assessment, hold public meetings and compile public comments, and write this document, the resulting RWPP.

1.3.1. Core Team

The first step in the RWPP process was to invite stakeholders representing agency, county, municipal, private, and tribal interests to form a Core Team. The stakeholders that responded to that invitation are listed in Table 1. The group met for the first time on June 19, 2006. Since then, the team has met monthly except for September and November to set the direction for the plan and process. Although not all stakeholders attended all monthly meetings, those responding to the initial invitation received project updates and the opportunity to provide input via email. All members have lands or fire planning, response, mitigation, or education experience.

Table 1. Stakeholders Represented on the Uintah Basin RWPP Core Team

BLM, Utah State Office and Vernal Field Office (Public Information, Fire, and Fuels managers)
USFS (Regional and Vernal representatives)
Utah Division of Forestry Fires and State Lands (WUI and National Fire Plan coordinators; NE Area manager)
National Park Service (NPS), Dinosaur National Monument
Natural Resources Conservation Service (NRCS), Dinosaur Resource Conservation and Development
Uintah County Fire Marshal
Duchesne County Fire Marshal
Daggett County Representative

1.3.2. Public Involvement

The purpose of public involvement is to receive feedback from community members that could be incorporated into the recommendations. The HRFA emphasizes using public comments to prioritize recommendations for fuels reduction projects and public outreach and education. To engage interested organizations and stakeholders and to encourage active involvement in plan development, a press release was issued in October 2006 announcing the formation of the planning teams for the 5 regions and providing a contact name and phone number for each region (see Appendix B). A link to the regional plans was placed on the www.utahfireinfo.gov website to assist individuals in obtaining information about the project.

1.3.2.1. Public Meetings

Two "open house" public meetings were held in early November 2006 to educate the public about the goals of the plan and to solicit input regarding the public's wildfire issues and concerns. These meetings were advertised and promoted throughout the area covered by the RWPP. Meetings were conducted in key cities of the greatest population densities within the Uintah Basin Region, namely Duchesne and Vernal. Citizens of Daggett County were actively encouraged to attend the Duchesne or Vernal meeting. Additional information regarding meeting format, materials, and advertising venues, as well as a summary of the public comments received, are included as Appendix B.

At the meetings, attendees were encouraged to engage the Core Team members in discussion of CVARs, fire occurrence, and areas that needed protection, as well as present their ideas and comments. Attendees were asked to write comments responding to a wildfire questionnaire that focused on similar topics.

1.3.2.2. Meeting Advertising

After the initial, October 2006 press release, the Uintah Basin Core Team conducted more focused advertisements in attempt to generate interest among the communities of the region. PSA announcements via radio, newspaper advertisements, and flyer and postcard mailings were used to inform the local businesses and general public of upcoming meetings. Targeted mailings were sent to known local government officials and fire and emergency management employees and volunteers. All advertisements also directed the public's attention to the RWPP website (BLM et al. 2007). No media coverage followed these efforts.

1.3.2.3. Public Participation

Very few community members attended the meetings, in spite of the Core Team's effort to widely advertise and solicit comments from as many individuals and groups as possible. The comments that were received were site-specific and addressed local issues. In general, the community members who attended meetings already had some knowledge of the risk of wildland fire and wanted to know how the RWPP would impact their local CWPPs.

1.3.3. Data for the Base Map and Risk Assessment

The original intent of the State and the BLM was to organize the five regional plans by Interagency Fire Center coverage area (i.e., geographic/watershed boundaries). To facilitate county or community funding requests, and because most existing data is organized using political boundaries, the core teams of each of the five regions reconfigured project boundaries to match county boundaries; thus the Uintah Basin Region encompasses the counties of Daggett, Duchesne, and Uintah, as well as the Uintah and Ouray Indian Reservation in their entirety, as well as a portion of Grand County (see Figure 2).

Many datasets were used to compile the base map and risk assessment, primarily from the BLM, USFS, and the State of Utah:

- Fire regime condition classes
- Southwest ReGAP vegetation reclassified fuel ratings (USGS 2004)
- Fuel loading
- GAP vegetation communities
- Land ownership
- CARs/Population weighting
- Proximity to fire stations
- Fire history and occurrence data, 1973–2005
- Elevation, slope, and aspect

Chapter 3 contains a detailed description of the process used to determine the Risk Assessment for the Uintah Basin RWPP.

2.0. Background

2.1. Regional Fire Environment

2.1.1. Wildland Fire History and Function

As long as vegetation has covered the landscape of western North America, fire has been there to help regenerate and maintain diverse mosaics of healthy ecosystems and to regulate species type, occurrence, composition, and patterns of succession. The frequency and severity of natural wildfires depended on vegetation as well as topography, weather, and climate. Lightning during spring and summer thunderstorms was the primary source of ignition. These historical wildfires acted as natural thinning agents by removing unhealthy trees and dead snags, consuming downed branchwood and needle litter, and thinning dense young trees and shrubs, thereby reducing laddering potential. These early fires largely remained surface fires—they killed few mature trees and kept destructive, stand-replacing crown fires to a minimum.

Fires that do not kill a tree often leave a scar that is recorded in the tree's annual growth ring. Examination of fire scars in the annual growth rings of individual trees, compared to established tree ring chronologies, can help determine the years and sometimes the season in which a fire burned (CLIMAS 2002). Of course, not all trees are scarred during fires, so existing scars represent, at best, an incomplete record of fire history. However, the analysis of collective fire scars on multiple trees within a stand or watershed can help establish the mean fire return interval, or the average number of years between recorded fires.

Studying ancient trees and other associated paleoenvironmental data in this way has allowed researchers to make connections between vegetation type and fire return interval. For example, at places in the Uintah Basin where natural wildfire occurred more frequently, fire-adapted vegetation communities such as grasslands, sagebrush (*Artemisia* spp.), and ponderosa pine (*Pinus ponderosa*) established and thrived. Fire played a slightly different role in other areas of the Uintah Basin with longer fire return intervals, up to hundreds of years. In vegetation communities such as salt desert scrub, blackbrush (*Coleogyne* sp.), and creosote (*Larrea* spp.) (BLM 2005a), where the density of the shrubs is too low to carry fire, fires only happened when enough biomass filled the spaces between shrubs. Fire-instigated plant succession in these communities occurred over decades or centuries (BLM 2005a).

2.1.1.1. Changes to Historic Fire Regime

The historic fire regimes changed dramatically with the arrival and settlement of Anglo-Americans. The settlers' grazing livestock removed much of the grassy fuels that carried frequent, surface fires. Roads and trails broke up the continuity of forest fuels and further contributed to reductions in fire frequency and size. Because the settlers saw fire as a threat to their property and resources, they actively suppressed it whenever they could, and federal agencies managing public lands have picked up and continued the practice.

Fire suppression, though it seems desirable from an infrastructure and community protection standpoint, has significantly altered vegetation mosaics at a community and landscape level, resulting in a new set of wildland fire-related problems. The dense undergrowth and woody debris that has accumulated as a result of decades of suppression has contributed to the increased fire intensity in the region. But the impacts of fire suppression are not limited to the quality and intensity of the fires; they extend to the living vegetation and the ecosystem. Altering the occurrence, intensity, and severity of fire has resulted in forest overcrowding, meadow encroachment, and reduced wildlife habitat (SWCA 2006); increased competition among living vegetation communities and individuals; and forests more vulnerable to insects, disease, and the invasion of non-native plant species (UDFFSL 2003).

Fire suppression and the attendant fuels buildup have caused stand-replacing, high-intensity fires that often break the bounds of their natural regimes. These fires decimate pinyon-juniper woodlands, ponderosa pine forests, and drier mixed conifer forests rather than thin them (BLM 2005a). In shrubby, low-elevation communities, with a longer fire return interval and succession, today's fires are problematic not because they are too hot or intense, but because they are too frequent. Because of the length of time it takes the succession to recover, non-native species such as cheatgrass (*Bromus tectorum*) have a chance to establish. The non-native species have essentially changed the vegetation composition and fire ecology in these communities, providing a fine fuel that remains flammable for longer periods compared to the native vegetation (BLM 2005a).

Recent research recommends that future land management planning move closer to historic fire regimes (Turner et al. 2003). Forest restoration goals should include vegetation mosaics that would naturally arise under a given fire disturbance regime. To plan towards historic fire regimes, land managers should ultimately consider the different community types and the fuels reduction treatments that would best accomplish their goals.

2.1.1.2. Insects and Disease

The declining health of Utah's forest ecosystems—which can be attributed to fire suppression, past logging practices, past grazing patterns, and drought—has rendered the vegetation more susceptible to insect infestations and disease. As trees die from insects, disease, drought, and other causes, they become part of the fuel loading and increase the fire hazard.

Throughout Utah's forested areas, insect infestations have contributed to dangerous fuel loading. Insects specific to the Uintah Basin that have contributed to forest die-off include:

- bark beetles (*Ips* spp., *Scolytus* spp., and *Dendrocotonus* spp.)
- mountain pine beetle (*Dendroctonus ponderosae*)
- Douglas fir tussock moth (*Orgyia pseudotsugata*)
- western spruce budworm (*Choristoneura occidentalis*)

Forest diseases can have profound impacts on forest structure, composition, and forest succession patterns (UDFFSL 2003), not necessarily by killing large numbers of trees, but by rendering trees unable to perform their functions in the ecosystem. Generally, forest diseases kill

trees slowly and kill small numbers of trees annually. Diseases that have affected the project area in recent years include dwarf mistletoe, root diseases, and decay.

2.1.1.3. Non-native Species

Non-native plant species also contribute to changes in fire regimes, as they reduce biological diversity by outcompeting native species, degrade soils, damage watersheds, and alter fire and nutrient cycles (UDFFSL 2003). Often, noxious weeds spread at a much faster rate and have a vastly different relationship to fire compared to the native species they outcompete. Addressing noxious weeds and non-native plant species at a regional level in fuels reduction programs would limit the spread and contribute to forest health.

The following species have been identified as the most invasive species in the project area and have become a priority for management and control due to their rapidly expanding populations (BLM 2005b):

- Russian knapweed (*Centaurea repens*)
- spotted knapweed (*Centaurea maculosa*)
- Canada thistle (*Cirsium arvense*)
- tall whitetop (*Agropyron repens* or *Alytrigia repens*)
- whitetop (*Cardaria draba*)
- musk thistle (*Carduus nutans*)
- Scotch thistle (*Onopordum acanthium*)
- leafy spurge (*Euphorbia esula*)

2.1.2. Current Vegetation Types and Fire Ecology

To gauge fire occurrence and likelihood in the Uintah Basin RWPP project area, one of the essential tasks was to identify the general types, locations, and extents of vegetation communities using Southwest Regional GAP (ReGAP) data (USGS 2004). Figure 3 and Table 2, below, provide an overview of the region's vegetation types. In keeping with the broader, landscape-level analysis of fire behavior in this document, some cover types treated as separate types under ReGAP have been judiciously grouped together in this document for ease of analysis.

The vegetation of an area determines critical wildfire characteristics, such as flame length and rate/type of spread. Wildfires spread in three basic ways:

1. **Surface wildfires** spread with the flaming front remaining on the ground surface, fed by grasses, shrubs, and small trees. Surface fires burn hot and fast, but are usually relatively easy to control.
2. **Crown fires** spread when a surface fire "ladders" up into the tops (or crowns) of trees and other tall vegetation and begins spreading independent of or along with the surface fire. Crown fires are much more catastrophic than surface fires and frequently exceed the control of suppression resources.

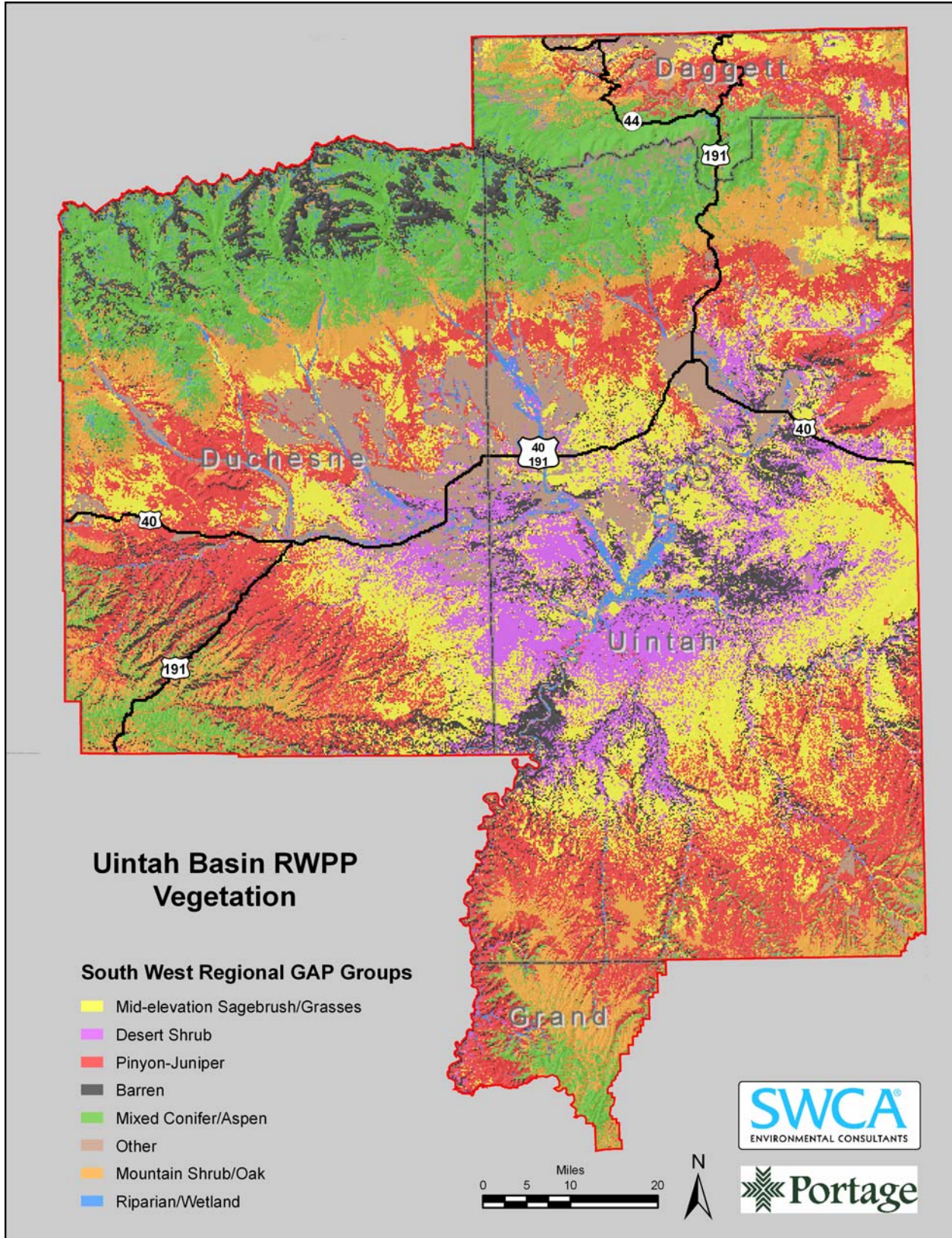


Figure 3. Vegetation cover types in the Uintah Basin RWPP Region.

Table 2. Vegetation Types, Acreages, and Percentages Found in the Uintah Basin Region

Vegetation Type	Acres	% of Area*
Barren lands	484,401	8.4
Desert shrub	529,930	9.2
Mid-elevation sagebrush and grasses	1,173,409	20.0
Mixed conifer and aspen	875,020	15.0
Mountain shrub and oak	687,468	11.0
Pinyon and juniper woodland	1,478,955	26.9
Riparian/Wetlands	129,778	2.2
Other cover	420,608	7.3
Total	5,779,569	100.0

Source: USGS 2004.

3. **Spotting** is a type of spread in which embers are lifted and carried on the wind ahead of the main fire to ignite in receptive fuels. The risk of catastrophic fires resulting from spotting would depend upon the properties of the vegetation present. Low moisture content or the presence of volatile oils make certain vegetation types more combustible and higher risk for ignition.

2.1.2.1. Barren Lands

Barren areas account for 8.4% of the Uintah Basin Region, consistent with the ReGAP data which describe barren lands as "areas of bedrock, desert pavement, scarps, talus, slices, volcanic material, glacial debris, sand dunes, strip mines, gravel pits ... vegetation accounts for less than 15% of the total cover" (USGS 2004). Because of the lack of vegetation, there is little risk of wildfire in these areas.

2.1.2.2. Desert Shrub

This vegetation type accounts for 9.2% of the cover in the Uintah Basin Region and, according to ReGAP, includes desert shrub and semi-desert shrub species (USGS 2004; see Figure 3). Desert shrub communities occur in low-elevation valleys in poorly developed soils. Elevations range from 4,000 to 5,400 feet. These areas receive relatively low annual precipitation (5–10 inches), which results in very little soil moisture available for plant growth. Biological crusts often are present and cover the spaces between intact shrubs. Desert shrub generally has low productivity and sparse understory vegetation (BLM 2005a). Species in this community include salt-tolerant, succulent shrubs like greasewood (*Sarcobatus* spp.), ephedra (*Eriogonum ephedroides*), shadscale (*Atriplex confertifolia*), fourwing saltbush (*Atriplex canescens*), threadleaf (*Carex filifolia*), and rubber rabbitbrush (*Ericameria nauseosa*).

Within the project area, desert shrub has been taken over by invasive, annual grasses and forbs. Particularly in the last 40 years, cheatgrass has invaded all of the salt desert communities and

now provides sufficient fuel loading to support fast-moving, large-scale fires. Many of the native shrub communities are at risk of being permanently replaced, or have been lost already (BLM 2005a).

Fire Ecology: Fire frequency has been estimated at 35 to more than 300 years for the desert shrub vegetation types (BLM 2005b), due largely to their light fuel loading. A lack of continuous cover (fuels) makes fire rare to non-existent in this community. Historically, these types did not burn often enough or in large enough patches to support dominance of fire-adapted plants. Most species do not readily regenerate following fire, which compounds the expansion of invasive species (e.g., cheatgrass, tall pepperweed [*Lepidium* spp.], and Russian knapweed) following a fire in this community (BLM 2005c).

2.1.2.3. Mid-elevation Sagebrush and Grasses

Mid-elevation sagebrush and grass cover types compose 20.0% of vegetation in the project area (see Figure 3). Elevations range from 5,500 to almost 10,000 feet. Grasslands are included in this cover type because, according to ReGAP, a considerable portion of the acreage listed under perennial grasslands (native) may be considered to represent the early seral component of sagebrush communities (USGS 2004; BLM 2005c). Big sagebrush (*Artemisa tridentata*) is the dominant species in this community. The extent of sagebrush has been greatly reduced due to urbanization, irrigated agriculture, and livestock grazing, as well as cheatgrass conversion and juniper (*Juniperus* spp.) encroachment. Recent drought conditions have also contributed to dramatic reductions of sagebrush cover.

According to ReGAP, noxious weeds such as cheatgrass and halogeton (*Halogeton glomeratus*) are included in this category, accounting for approximately 2.5% of the vegetation (USGS 2004). The high growth rate and flammability of noxious weeds tend to increase the risk of wildfire in this vegetation community (Arno and Wakimoto 1987), as they serve as flammable fuel in between shrubs and carry fire more effectively (McAuliffe 1995; Brown 2000).

Fire Ecology: Fire frequency varies, depending on sagebrush species and subspecies, but is considered to be between 10 and 110 years depending on precipitation, elevation, species, and associated vegetation. Most sagebrush species (including all three subspecies of big sagebrush common throughout Utah—subsp. *spiciformis*, *tridentata*, and *wyomingensis*) do not sprout after fire and are killed by low- to high-severity fires. Sagebrush is a prolific seeder, however, and if a seed source is present, re-establishment is quite rapid, and dominance will occur within 20 years. Because sagebrush seeds generally are not transported far from the parent, unburned areas within large burn areas are often the most important source of seed material for natural recruitment and re-establishment of sagebrush (BLM 2005a).

2.1.2.4. Mixed Conifer and Aspen

Mixed conifer and aspen communities account for approximately 15% of the Uintah Basin Region. Species in the mixed conifer type include spruce (*Picea* spp.), fir (*Abies* spp., *Pseudotsuga* spp.), bristlecone pine (*Pinus aristata*), lodgepole pine (*Pinus contorta*), and ponderosa pine woodland complexes. Vegetation in this area generally occurs at elevations of

approximately 6,500 to 10,500 feet (BLM 2005a). Ponderosa and similar pine types are characterized by open, savannah-like stands, where widely spaced, large trees are interspersed with open understories that are periodically cleared by low-severity groundfires. Aspen (*Populus* spp.) may occur as pure stands or in association with conifers. Aspen is a fast-growing, short-lived species that depends on fire to prevent its stands from becoming diseased. Although conifer invasion is a natural pattern in many aspen stands, long-term fire suppression has resulted in an increased representation and dominance by conifer in aspen stands. These forest types have a high value for recreation, aesthetics, special status species habitat, and wood production.

Fire Ecology: Fire frequencies vary for each of the species.

- In mixed conifer, fire frequency ranges from 100 to 300 years. These forests' fire regimes are mixed—a combination of low-intensity, understory fires and complete stand-replacement fires (Arno 2000). This mixed severity fire regime often results in a mosaic pattern of stands and fuels. Historically, stand burn mosaics tend to increase the probability that subsequent fires will also burn in a mixed pattern (Arno 2000). Dead woody fuels often accumulate on the ground in a haphazard manner; the greatest fuel loadings tend to occur on the most productive sites, which are predominantly stand-replacement fire regimes (BLM 2005c).
- Fire frequency for ponderosa pine communities ranges from 10 to 40 years with low- to mixed-severity (BLM 2005b) fires. Ponderosa pine has thick bark, which protects it from serious damage from surface fires; it is considered the most fire-adapted conifer in the West (Bradley et al. 1992). The understory species associated with this community naturally exclude cheatgrass. However, based on the years of fire suppression policy in effect in Utah, it is estimated that ponderosa pine forests have missed between 5 and 10 fire cycles in the intervening years and could be at risk for cheatgrass invasion or crown fire if not properly managed.
- Fire frequencies for aspen range between 25 and 100 years, with mixed severity (Gruell and Loope 1974). Aspen stands do not easily burn and often act as natural fuelbreaks during wildland fires. Fires in young aspen stands tend to be low-intensity surface fires unless there is a great deal of understory fuel. In older stands, during the warmest and/or driest months of the year, abundant fuels can lead to higher-intensity fires. Decadent aspen stands and other areas with thin, acidic soils may be less vigorous at regenerating via suckering and may tend to support conifers even after fire.

2.1.2.5. Mountain Shrub and Oak

Mountain shrub and oak account for approximately 11% of cover in the Uintah Basin Region, according to Utah ReGAP (USGS 2004). This vegetation type consists of variety of shrubs, including Gambel oak (*Quercus gambelii*), maple (*Acer* spp.), mountain mahogany (*Cercocarpus* spp.), and mixed mountain shrub (a diverse community made up of chokecherry [*Prunus virginiana*], serviceberry [*Amelanchier* spp.], currant (*Ribes* spp.), snowberry [*Symphoricarpos* spp.], elderberry [*Sambucus* spp.], bitterbrush [*Purshia tridentata*], mountain big sagebrush [*A. tridentata* subsp. *Vaseyana*], ninebark [*Physocarpus* spp.], buckbrush [*Ceanothus* spp.], and others). These species are found at moderately high elevations (7,000 to

8,500 feet) on mainly north- and east-facing slopes, above the pinyon-juniper zone and below the conifer zone (BLM 2005a).

Fire Ecology: Fire frequency for the mountain shrub and oak species ranges from 25 to 100 years. Return intervals vary widely, depending on elevation, aspect, site moisture, and associated woodland type. Most species re-sprout after low- to moderate-severity fires. Sprouting mountain shrub are generally fire-tolerant enough to recover after a fire. Bitterbrush and mountain big sagebrush do not re-sprout and may be completely removed from the site depending on the intensity of the fire (USFS 2003; BLM 2005a).

2.1.2.6. Pinyon and Juniper Woodland

This vegetation type accounts for approximately 26% of the cover in the Uintah Basin Region and generally grows at elevations between 4,700 and 8,600 feet, where precipitation totals 12–18 inches per year. The community is characterized by pinyon (*Pinus* spp.), juniper, and other trees less than 33 feet tall. Its understory typically consists of sagebrush and other shrub species. Many pinyon and juniper woodlands are characterized as closed woodlands; in these stands, canopy cover frequently is greater than 60%, and competition for sunlight, water, nutrients, and growth drastically reduces the understory (BLM 2005a).

In the Uintah Basin Region, juniper from this community is known to encroach upon sagebrush and shrub habitats in the region, because the soil fertility created by sagebrush growth following livestock grazing is favorable toward juniper. Due to this process, juniper are now found at slightly lower elevations and in deeper valley soils, whereas before they were typically found primarily in thin substrates on mountain slopes and ridges (BLM 2005a).

Fire Ecology: Most areas currently dominated by pinyon and juniper woodland were historically characterized by fires burning every 15–50 years (Kitchen 2004, Miller and Tausch 2001). Historically, fire was the major cause of mortality for young juniper trees. However, adult juniper trees in mature stands—more common today as a result of fire suppression policies—are difficult to burn since the understory is usually sparse. Pure juniper stands need 35 mph winds or greater to carry wind through the canopy (see Vegetation Types, USFS 2003).

2.1.2.7. Riparian/Wetlands

Riparian/Wetland communities account for a minimal portion of the Uintah Basin Region (2.2%). Due to its scarcity in the region and its typical vegetation composition, this type is not considered a significant fire risk.

2.1.2.8. Other Cover Types

The other cover types listed in Figure 3, which together represent approximately 7.3% of the total acreage of the Uintah Basin Region, include those that are not vegetation communities. This category represents areas recently burned, disturbed areas (such as oil wells), recently logged areas, recently mined or quarried areas, open water, developed areas (such as towns), and

agricultural areas. Developed areas are the main concern in this category, but are better discussed as part of the WUI discussion found in Section 2.2.

2.1.3. Topography and Water Resources

The topography of the Uintah Basin RWPP project area is primarily defined in its northern portion by the Uinta Mountains. The Uinta Mountains are broad and massive, consisting of extensively glaciated, sedimentary and metamorphic rocks, and extend approximately 150 miles east to west. Glacial deposition features have created numerous natural dams and small lakes on the slopes of the range. The Green River runs through the project area, beginning at the Wyoming/Utah border and flowing into the Flaming Gorge Reservoir. The Green River exits the project area approximately 30 miles downstream of Flaming Gorge at the Utah/Colorado state boundary and reenters the project area near Diamond Mountain, again along the Utah/Colorado state boundary. Portions of the south side of the Uinta Mountains drain to the Green River below Diamond Mountain through major tributaries such as Ashley Creek, Big Brush Creek, and the Whiterocks River.

The western project area is drained by the Duchesne River and its major tributary, the Strawberry River. The Duchesne River drains a topographic basin composed of Mesozoic and Tertiary sedimentary rocks characterized by a gently rolling, dissected plateau with deeply cut ravines and alluvial valleys. The Duchesne River enters the Green River near Ouray, in the central part of the project area.

The eastern and southern portions of the project area, primarily consisting of the Book Cliffs, are drained by Hill Creek, Bitter Creek, Evacuation Creek, Willow Creek, and the White River; these drainages also enter the Green River near Ouray. This area is part of the Tavaputs Plateau, composed of Tertiary sedimentary rocks and characterized by rugged terrain and deeply incised canyons (BLM 2005b).

Hydrologically speaking, the RWPP project area lies within portions of 9 catalogued USGS 8-digit Hydrologic Unit Code (HUC) watersheds of the Upper Colorado hydrologic region (Region 14). The majority of the area is within 7 watersheds of the Lower Green River drainage, although portions of it are associated with the Upper Green River and the Lower White River drainages. Watershed acreages are noted in Table 3.

Two municipal watersheds, Ashley Creek and Red Fleet, are also located within the VPA. The Ashley Creek municipal watershed occurs almost entirely upon lands administered by the USFS-Ashley National Forest; however, the BLM administers 670 acres, including Ashley Spring, the access point for the municipal supply. The Red Fleet municipal watershed contains 18,660 acres administered by the BLM, including lands surrounding Red Fleet Reservoir, which is the access point for the municipal supply (BLM 2005b).

Table 3. Watersheds Partially or Entirely within the Uintah Basin RWPP

8-Digit HUC	Watershed Name	Acres of Region
14040106	Upper Green-Flaming Gorge Reservoir	543,564
14060001	Lower Green-Diamond	566,835
14060002	Lower Green-Ashley-Brush	420,697
14060003	Lower Green-Duchesne	1,649,897
14060004	Lower Green-Strawberry	394,405
14060005	Lower Green-Desolation Canyon	645,365
14060007	Lower Green-Price	22,542
14060006	Lower Green-Willow	461,197
14050007	Lower White	797,137
—	TOTAL	5,501,639

2.1.4. Climate

Located on the Colorado Plateau, the project area has a primarily arid or semi-arid climate. Annual precipitation in most areas is less than 10 inches, with more than half of it occurring in the winter months as snow. The mountain ranges and high plateaus tend to receive more precipitation annually than the middle and lower elevations, mainly due to orographic lifting and cooler temperatures at higher elevations: areas above 8,000 feet receive 20–25 inches annually, and areas above 11,000 feet often receive 35 inches annually (CPLUHNA 2006). The summers are typically dry with low humidity.

2.2. Wildland-Urban Interface (WUI) and Communities at Risk (CARs)

2.2.1. Definition of Wildland-Urban Interface (WUI)

The discussions in this document of natural fire regimes and mimicking them or incorporating them into future land use policies do not preclude the fact that *any* kind of wildfire, however large or small, poses a threat to human life and property. Wildland fires pose the greatest threat to community residents, property, and firefighters when they occur in or spread into the WUI, commonly defined as the geographic area where human habitation and developments intermix with wildland or vegetative fire. As a result, national legislation such as the National Fire Plan, 10-Year Comprehensive Strategy, and HFRA place a priority on defining risk in this area. Under the HFRA, at least 50% of all funds appropriated for projects must be used within the WUI .

In the context of the HFRA, the WUI is defined as follows:

1. an area extending 1/2 miles from a boundary of an "at risk community"; or
2. an area within 1-1/2 miles of the boundary of an at-risk community, including any land that (a) has a sustained steep slope that creates the potential for wildfire behavior endangering the at-risk community; (b) has a geographic feature that

aids in creating an effective fire break, such as a road or ridge top; or (c) is in condition class 3, as documented by the Secretary in the project-specific environmental analysis; or

3. an area that is adjacent to an evacuation route for an at-risk community that the Secretary determines, in cooperation with the at-risk community, requires hazardous fuels reduction to provide safer evacuation form the at-risk community"² [HFRA 2003].

Partly due to the landscape-level scale and scope of this RWPP, and partly to encourage the development of more detailed county and local CWPPs, this Uintah Basin RWPP uses the narrowest definition from the HFRA, "an area extending 1/2 miles from a boundary of a [community at risk]" (Figure 4).

For existing and future CWPPs, this WUI should be further defined or expanded, based on local conditions and CVARs. One of the benefits a CWPP offers to CARs is the opportunity to establish a localized definition and boundary for the WUI, using elements such as fuel hazards, local topography, fire history, vegetation, community characteristics, watershed protection, and fire-fighting preparedness.

2.2.2. Communities at Risk (CARs)

Using National Fire Plan guidelines, the Utah Division of Forestry, Fire, and State Lands (UDFFSL) has worked with national and local wildland fire officials to create a statewide list of CARs. As of 2005, there were over 600 communities listed.

Each community was given a score ranging from 0 (no risk) to 12 (extreme risk) based on the sum of multiple risk factors (e.g., fire history, local vegetation, firefighting capabilities) analyzed in every area. The scoring system allows Utah's fire prevention program officials to assess the relative risk in a given area of the state and open communication channels with these communities to help them better prepare for wildfire (see Figure 4). A list of the CARs specific to the Uintah Basin RWPP, broken down by county, can be found in Section 2.3.

2.2.3. Community Values at Risk (CVARs)

CVARs are a way to measure people, property, natural resources, and other resources that, if lost in a wildfire event, would be a collective loss to the community. Examples of CVARs include the following:

- Housing
- Business and infrastructure (including utilities, trails, and roads)
- Natural resources (including wildlife)

² Community at risk is defined as "is an interface community defined in the Federal Register notice of January 4, 2001 (66 FR 753), or 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." Section 101 (1) of HFRA Section 101 (1) of HFRA.

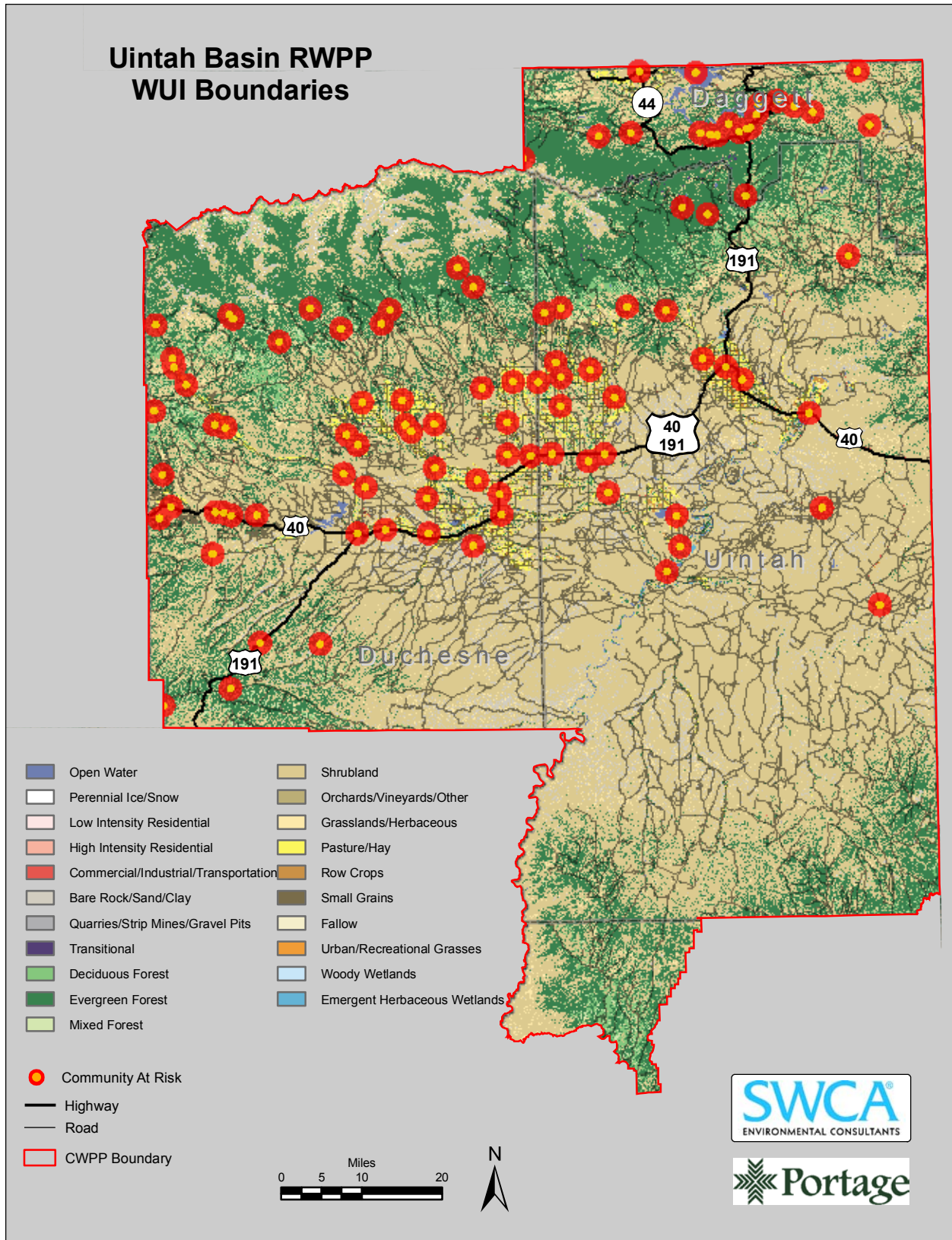


Figure 4. Wildland-Urban Interface (WUI) boundaries and communities at risk (CARs) in the Uintah Basin Region.

- Cultural resources
- Tribal concerns and values
- Recreation areas and open space
- Scenic resources (including significant landscapes)
- Water resources

Because of the regional nature of this plan, the county descriptions included in the next section only briefly outline some of the major resources and values that may be at risk. CVARs should be more specifically defined in county or local CWPPs.

2.3. The Planning Region

2.3.1. Daggett County

2.3.1.1. Geography and Land Use

Located in the northeastern corner of the state, on the border with Wyoming and Colorado, Daggett County's landscape is largely characterized by the east-west-trending Uinta Mountains. Also significant to the landscape is the Flaming George Reservoir, a large, man-made waterbody extending into southwestern Wyoming. The Green River is the largest river in the county.

Land use in the county is primarily livestock grazing and agriculture, power generation, and recreation. The Flaming Gorge National Recreation Area, associated with the reservoir, is a popular tourist destination for watercraft sports, fishing and camping. Other landscape-based recreation activities include OHV use, mountain biking, hiking and river running.

2.3.1.2. Population and Communities at Risk (CARs)

With a population of 943 in 2005, Daggett County is one of the least populated counties in the state (U.S. Census 2007a). Unlike Uintah and Duchesne Counties, which have experienced a recent boom in population due to oil and gas development, Daggett County's population growth has been minimal in recent years. The low population can be attributed to the area's mountainous landscape and remote location; the Uinta Mountains serve as a natural barrier between Daggett County and the rest of the state to its south. As a result of the area's rugged landscape and small rural community, the risk of wildfire in the WUI is present throughout the county. Table 4 is a list of CARs in Daggett County.

2.3.1.3. Fire Response Capabilities

Daggett County has two fire departments: one in Dutch John that covers the east side of the county, and the Manila Fire Department, which covers the west side of the county. The county has no paid, full-time fire fighters, and no official fire warden. The State Fire Warden, associated with UDFFSL, is currently serving the county in this role, as well as providing wildland fire training to volunteers. To-date, there are 5 volunteer firefighters in Dutch John and 15 in Manila.

When a fire exceeds the capability of these local and area resources, additional resources are solicited through the Uintah Basin Interagency Fire Center. Under a local agreement with Sweetwater County in Wyoming, Daggett County firefighters are also first responders to fires within Sweetwater County.

Table 4. Daggett County CARs as of 2005, by Overall Score

Community Name	Overall Score
Greendale/Swett Ranch	10
Deer Lodge	10
Taylor Flat	10
Clay Basin	9
Eagle Creek Ranch	9
Flaming Gorge Lodge/Camperworld	9
Flaming Gorge Pines/Acres	9
Spirit Lake	9
Summit Springs	9
Eagle Basin Ranch	8
Half Moon Park Summer Homes	8
Red Canyon	8
Trail Creek Ranch	8
Dutch John	7

2.3.1.4. Community Values at Risk (CVARs)

Infrastructure: The Uintah Basin Pre-disaster Mitigation Plan (UBAOG 2004) indicates that 260 miles of state routes, highways, and local streets have extreme, high, or moderate risk of wildfire, as determined by the Utah Statewide Fire Risk Assessment. Flaming Gorge Hydroelectric Power Plant located at the Flaming Gorge Dam has also been determined to be at risk from wildfire. Approximately 64 miles of power and gas lines in Daggett County are also at risk (UBAOG 2004).

Recreation and Historical Sites: As mentioned above, there are numerous recreation opportunities in Daggett County. Protecting these recreation opportunities from wildfire is important not only to those who participate in the activities (i.e., visitors and tourists), but also to the local economy, as a large portion of the revenue generated in the county is from tourist spending. Important historical and prehistoric Native American archaeological sites have also been found in Daggett County, including the John Jarvie Historic Ranch District, which is listed on the National Register of Historic Places, the Swett Ranch, and Ute Tower.

2.3.2. Duchesne County

2.3.2.1. Geography and Land Use

Northern Duchesne County is characterized by the Uinta Mountains. Kings Peak in Duchesne County, at an elevation of 13,528 feet, is the highest point in Utah. Landscape features in the southern portion of the county are typical of the Uintah Basin and Colorado Plateau—hilly to gently rolling areas. Water supply in the area includes the Starvation Reservoir and the Strawberry, Duchesne, Lake Fork, and Yellowstone Rivers. Land use in the Duchesne County largely consists of agriculture and oil and gas development, although much of the land is also USFS land and/or wilderness. Approximately 65% of the land in the county is Forest Service, BLM, State of Utah, or Tribal land, while 35% is private land (Duchesne County 2004).

2.3.2.2. Population and CARs

According to the U.S. Census Bureau, Duchesne County's population in 2005 was 15,354. The population has increased 6.9% since the 2000 census (U.S. Census 2007b). A large part of the recent population growth can be attributed to the increase, or "boom," in oil and gas development in the area. Compared to the other counties in the project area, Duchesne County has the greatest number of CARs. The relatively high number of CARs is due to the large number of people choosing to live along the foothills and within the Uinta Mountains in northern Duchesne County; here, the WUI is continuous, extending from one population center to the next. Table 5 is a list of CARs in Duchesne County.

2.3.2.3. Fire Response Capabilities

Duchesne County has a total of seven fire departments, located in Altamont, Duchesne, Fruitland, Myton, Neola, Roosevelt, and Tabiona. The fire departments in Fruitland, Tabiona, and Neola are county-operated, and others are city fire departments on contract with Duchesne County. The county has approximately 95 volunteer firefighters and one fire marshal. Fires not occurring on BLM, USFS, or BIA lands are fought using these local resources. The State Fire Warden, associated with UDFPSL, is currently overseeing fire response in the county, as well as providing wildland fire training to volunteers. When a fire exceeds the capability of these local and area resources, additional resources are solicited through the Uintah Basin Interagency Fire Center.

2.3.2.4. Community Values at Risk (CVARs)

Infrastructure: The Uintah Basin Pre-disaster Mitigation Plan (UBAOG 2004) indicates that 650 miles of state routes, highways, and local streets have extreme, high, or moderate risk of wildfire, as determined by the Utah Statewide Fire Risk Assessment. The Moon Lake power plant and approximately 62 miles of power and gas lines in Duchesne County are also at risk from wildfire (UBAOG 2004).

Table 5. Duchesne County CARs as of 2005, by Overall Score

Community Name	Overall Score
Current Creek Mt.	12
Fruitland	12
Orange Mountain	12
Pinyon Ridge	12
Rabbit Gulch	12
Argyle Canyon	11
Bandanna Ranch	11
Clark Estates	11
Pinwillies	11
Mt. Tabby Springs	10
Red Rock Ranches	10
Reservation Ridge	10
Crystal Ranch	9
Defas Dude Ranch	9
Indian Canyon	9
Moon Lake Private Property	9
Mountain Home	9
Rock Creek Ranch	9
Stockmore	9
Strawberry Pinnacles	9
Talmage	9
U Bar Ranch	9
Yellowstone Ranch	9
Fisher Private Property	8
Hancock Cove	8
Indian Canyon Private Land/Nielsen's	8
Lower North Fork Priv.	8
Reid Ranch	8
Robbin's Ranch	8
Uinta Canyon Summer Home Tract	8
Upalco	8
Tabiona	7
White's Cabin and Associated Private Property	7
Roosevelt	6
Sowers Canyon Private Property	6
Yellowstone Canyon	6
Duchesne	5

Recreation and Historical Sites: Many sites and areas provide opportunities for recreation in Duchesne County, including Ashley National Forest, Starvation Reservoir, Big Sand Wash, Nine Mile Canyon, and numerous segments of rivers and other water bodies (BLM 2007). Activities in area include water sports, OHV use, mountain biking, fishing, camping, and hiking. Numerous Native American archeological sites are found in the Uintah and Ouray Indian Reservation and Duchesne County, including Nine Mile Canyon. Nine Mile Canyon has many of the greatest rock art sites in the U.S. and is listed on the National Register of Historic Places. Protecting these values from wildfire is important not only to those who participate in recreation and sight-seeing (i.e., visitors and tourists), but also to the local economy, as growing portion of the revenue generated in the county is from tourist spending.

2.3.3. Uintah County

2.3.3.1. Geography and Land Use

Uintah County is geographically characterized primarily by the Uinta Mountains in its northwest, the rolling hills and other landscape features of the Uintah Basin and Colorado Plateau, and the Green River, which cuts through the county. Other major drainages in the county include the White and Uinta Rivers and Ashley Creek.

Land use in the county is primarily agriculture and oil and natural gas extraction, although recreation has risen in importance within the last few decades. These land uses are consistent with land ownership; a majority of lands in this county are administered by the BLM and are available for multiple uses such as mineral development, recreation, and grazing. The southwest corner and central portions of the county contain portions of the Uintah and Ouray Indian Reservation, and the northeast corner is largely composed of USFS lands.

2.3.3.2. Population and CARs

In 2005, the population of Uintah County was 26,995 (U.S. Census 2007c). Similar to Duchesne County, the population in Uintah County has increased substantially in recent years—by 13.6% from 1990 to 2000—generally because of the boom in oil and gas development (Utah Department of Workforce Services 2005). While most of the population growth is occurring in or near existing towns, new, isolated housing developments in the county are effectively expanding the WUI and increasing the potential for damage by wildland fires. Table 6 is a list of CARs in Uintah County.

2.3.3.3. Fire Response Capabilities

Uintah County has one full-time fire chief, zero full-time firefighters, and approximately 88 volunteer firefighters among 6 fire departments, in Vernal, Jensen, Naples, LaPoint, Tridell and Avalon. In areas not managed by the BLM, USFS, NPS, or BIA, fire protection and hazardous materials response is provided by these local resources. The State Fire Warden, associated with UDFFSL, is currently overseeing fire response in the county, as well as providing wildland fire training to volunteers. When a fire exceeds the capability of these local and area resources, additional resources are solicited through the Uintah Basin Interagency Fire Center.

2.3.3.4. Community Values at Risk (CVARs)

Infrastructure: The Uintah Basin Pre-disaster Mitigation Plan (UBAOG 2004) indicates that 950 miles of state routes, highways, and local streets have extreme, high, or moderate risk of wildfire, as determined by the Utah Statewide Fire Risk Assessment. Two power substations and approximately 150 miles of power and gas lines are also at risk from wildfire (UBAOG 2004).

Recreation and Historical Sites: Uintah County contains a number of popular natural sites and outdoor recreation areas, including Ashley National Forest, Dinosaur National Monument, the Green and White Rivers, Steinaker and Red Fleet Reservoirs, Pelican Lake, OHV and hiking trails on public lands, and wildlife refuges and viewing areas. Dinosaur National Monument and the nearby Utah Natural History Field House are the site of many valuable and unique paleontological resources, as well as education and research opportunities. Numerous Native American archeological sites are found throughout the Uintah and Ouray Indian Reservation and Uintah County, including National Register sites such as the McConkie Ranch Petroglyphs, Dr. John Parson Cabin Complex, Cockelburr Wash Petroglyphs, and Little Brush Creek Petroglyph Panel (BLM 2005b). The visitors who come to Uintah County to participate in recreational activities such as rafting, mountain biking, and off-highway vehicle (OHV) use are not the only ones for whom wildfire protection of these values is important. It is also important to the local economy, as a growing portion of the revenue generated in the county is from tourist spending.

Table 6. Uintah County CARs as of 2005, by Overall Score

Community Name	Overall Score
Deep Creek	10
Diamond Mountain	10
Ouray	10
Fort Duchesne	9
Bonanza	8
Dry Fork	8
Dyer Mt. Summer Cabins	8
Vernal	7
Naples	6
Oaks Park Summer Homes	6
White Rocks Canyon	6

3.0. Risk Assessment

3.1. Purpose of Risk Assessment

The purpose of the risk assessment is to provide regional, landscape-level data about the level of risk associated with wildfire, wildfire's likely behavior in various places of the project area, and the consequences that fire would have on communities, property, and infrastructure located in the WUI. From this risk assessment, land-use managers, fire officials, planners, and others can identify priority areas for treatment in the region, put available federal funds to their best possible use, and prepare strategies, methods, and community education for reducing the threat of wildfire. The identified goals of the risk assessment include the following:

- Depict the risk of wildfire to communities.
- Identify potential for high-intensity wildfire within the region.
- Communicate wildland fire management concerns to Utah public officials.
- Provide a visual display of fire concerns within the state of Utah to support fire management funding.
- Identify and prioritize areas where fuels reduction treatment may be necessary.
- Identify general areas within the region where more detailed interagency planning may be needed (HFRA 2003).

3.2. Risk Assessment Methodology

The risk assessment was performed by developing a spatially weighted, overlay model using geographic information systems (GIS) technology to integrate individual GIS datasets into a comprehensive map (Price 2003; Pratt 2005). A spatially weighted overlay model takes datasets of the same scale and assigns a user-defined weight to each dataset, according to its importance. A weighted overlay must use datasets that rank the data units, or cells, according to a specific set of classes of a given number.

This risk assessment used four classes (1–4, with 1 being the lowest risk). In each dataset, depending on the original data cell values and value ranges, each cell's value was re-classified according to the four classes, between 1 and 4, based on the significance of the value to overall risk. Ultimately, each layer of the model represented a dataset with cell values between 1 and 4. As each layer was overlaid on the next, its weighting in the overall model (i.e., its percentage of the entire model, based on its importance as a risk factor) was fine-tuned to accurately reflect on-the-ground conditions.

Table 7 provides a summary of the individual datasets/layers, as well as their sources, weighting, and delineation of the four risk classes. Each dataset is discussed in further detail below.

Table 7. Risk Assessment Layer Summary

Dataset/Layer	Data Source and Year	Weight	Risk Classes
Fuels ¹	Southwest ReGAP, USGS 2004	40%	See Appendix C, Fuels ReGAP Class Spreadsheet.
Distance from CARs/Population ²	Utah CARs List, UDFFSL 2005	40%	4 = 0–2 miles 3 = 2–4 miles 2 = 4–8 miles 1 = More than 8 miles
Fire History ¹	BLM, USFS, and State Fire History Data, 1973-2005	20%	4 = More than 1.0 fire per square mile 3 = 0.2–1.0 fire per square mile 2 = 0.0–0.2 fire per square mile 1 = 0.0 fire per square mile

1. Raster (grid) data.
2. Vector (polygon) data.

3.2.1. Fuels Model

To identify the potential for high-intensity wildfire within the region, the fuels hazard layer delineated the four risk classes according to vegetation communities based on their expected fire behavior (e.g., surface fire, crown fire, spotting). This fuels data layer was derived from Regional Southwest GAP (ReGAP) vegetation data, which are generated utilizing multi-season satellite imagery (Landsat ETM+) from 1999 through 2001, in conjunction with digital elevation model (DEM)-derived datasets, to form natural and semi-natural vegetation classes (USGS 2004). Each ReGAP vegetation class present in the project area was given a rank from 1 (lowest risk of high-intensity wildfire) to 4 (greatest risk). Initial classifications were reviewed by the Core Team for accuracy against on-the-ground conditions and were revised accordingly.

Mixed conifer communities were assigned the highest, or most extreme, hazard rating based on the loading or volume of both live and dead fuels. Cover types with significant cheatgrass invasion were also classified as high or extreme due to the potential for wind to quickly spread wildfire and endanger or engulf suppression crews. Low- and mid-elevation shrub and grass cover types not dominated by cheatgrass were rated as a moderate hazard, because flame lengths in these cover types generally allow for direct attack by suppression crews. Cover types such as rock and water, as well as urban cells, were assigned a low hazard level because of the lack of fuel in these types.³

Because wildfire is impossible without fuel, this layer was weighted at 40% in the final model.

3.2.2. Distance from CARs/Population Model

To depict the risk of wildfire to communities, the CARs data layer assigned a risk value based on distance to a state-identified CAR.

³ Although the urban areas, or CARs, generally have little or no vegetative fuel, being composed of large, open areas of bare soil, concrete, and other flammable materials, they do invariably contain homes, wood decks and firewood, aboveground propane tanks, and other highly flammable elements. These concerns are noted in the recommended project treatment areas.

The Uintah Basin Core Team identified the boundaries of each CAR, and a 1/2-mile boundary was added to that boundary, in accordance with the chosen WUI definition. Risk categories were assigned as follows:

- 0-2 miles from CAR = 4
- 2-4 miles from CAR = 3
- 4-8 miles from CAR = 2
- More than 8 miles from CAR = 1

This layer was weighted at 40% of the final model, equal in importance to the fuels layer. This weighting was chosen because the most important goal of the risk assessment is to depict the risk to the region's communities.

3.2.3. Fire History Model

Because the locations of past fires can be indicators of where fires may occur in the future, fire history was chosen as the final layer in the risk assessment. The fire history layer of the model was derived from a database of all fires reported by the State, BLM, and USFS, regardless of size. This database consisted of point data (i.e., one point on the map per fire, regardless of the number of acres burned). To convert these data to risk classes, all fires were plotted on the map, and a 5-mile radius was put around each point to calculate the density. These densities were then reclassified based on fires per square mile, as follows:

- More than 1.0 fires per square mile = 4
- 0.2-1.0 fires per square mile = 3
- 0.0-0.2 fires per square mile = 2
- 0.0 fires per square mile = 1

Fire history was weighted at 20% of the final model.

3.3. Results

The results of the risk assessment show that most of the Uintah Basin RWPP project area is at moderate risk of catastrophic wildfire, and that 85% of the region is at moderate or lower risk (Figure 5). Fortunately, less than 0.1% of the region is at extreme risk, and these areas are located in or near areas of high risk, for ease of identification and treatment.

- | | |
|--------------------------|------------------------|
| • Low risk: 21.196% | • High risk: 16.100% |
| • Moderate risk: 62.606% | • Extreme risk: 0.098% |

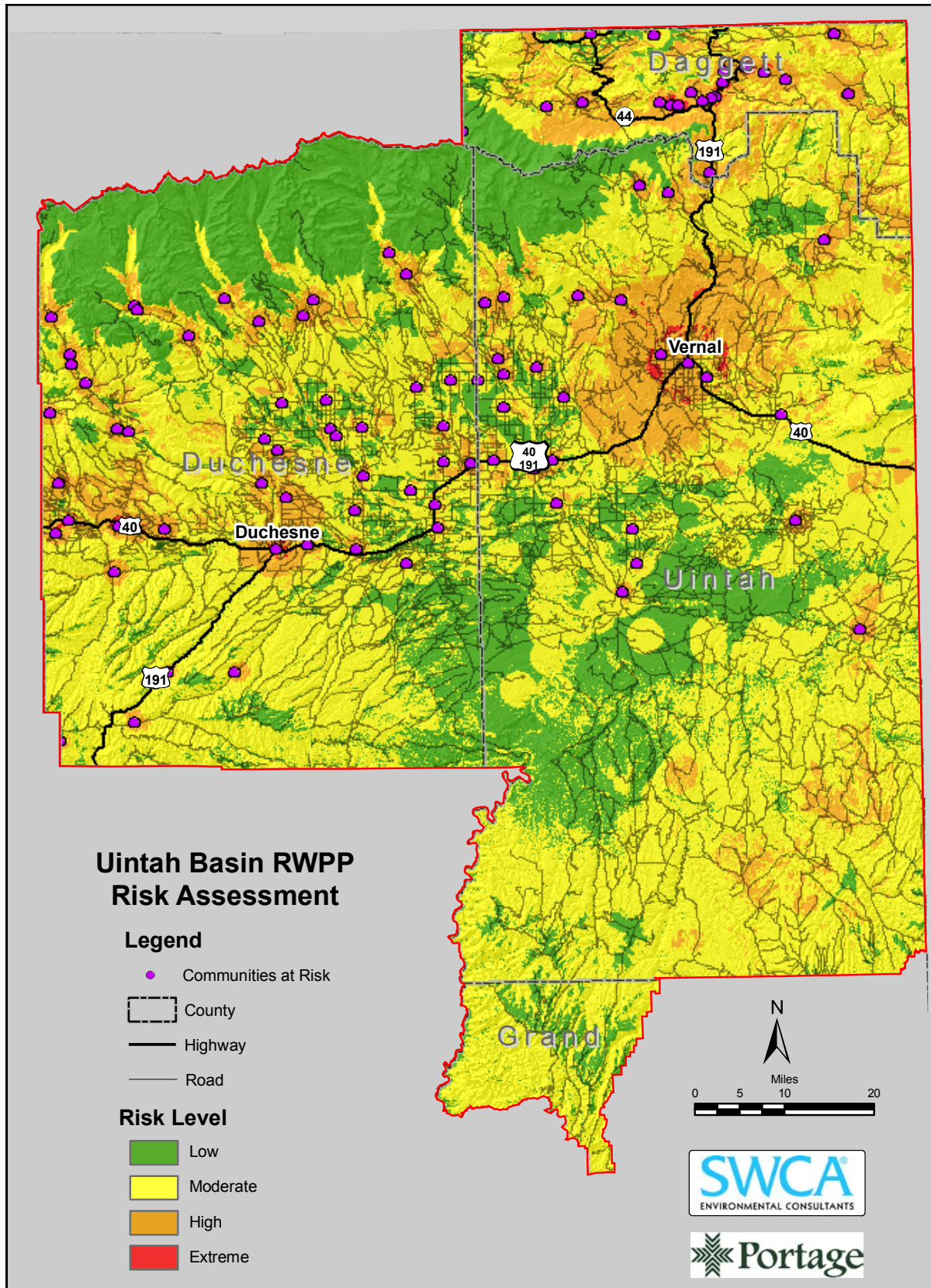


Figure 5. Results of the Uintah Basin RWPP risk assessment.

3.4. Risk Assessment Limitations

The risk assessment was based on the best available data combined with the Core Team's professional knowledge of field conditions in the project area. However, there are several limitations to the risk assessment selected for the Uintah Basin RWPP:

- **The choice of parameters.** The choice of the layers and the weights they were given influence the degree to which the risk assessment measures wildfire risk or risk to communities from wildfire. The risk assessment did not factor in parameters such as slope or aspect (direction the slope faces), which are important factors in determining fire behavior. Fire tends to run upslope faster than downslope, for example, and can also be "channeled" by wind through valleys, canyons, and narrow drainages. As a result, there may be areas where there is a high potential for wildfire, but because they are not near communities, they do not show up as extreme or high risk areas on the map. Alternatively, because 60% of the total weighting does come from fuels and fire history layers, the assessment may also not depict the risk to communities to the degree desired.
- **Additional factors such as weather conditions, wind speed, and directions that were not considered in this risk assessment.** These factors affect ignition rate and rate of spread. Spring and summer winds and increasing temperatures can dry out fuels, particularly on south-facing slopes, and burning conditions can worsen rapidly. Cured grasses, for example, can become highly flammable in as little as one hour following precipitation. With a high wind, grass fires can spread faster than a moving vehicle and can reach a community quickly. Prevailing wind data are not available on a region- or county-wide basis.
- **Difficulty in identifying and analyzing specific ignition sources.** An evaluation of fire history provided some indication of where and how frequently fires occur. Information regarding specific sources of potential ignitions might have yielded still more useful results; however, data were not available on a region- or county-wide basis.
- **Vegetation layer limitations.** Southwest ReGAP vegetation data were intended to be used for depicting the distribution of various vegetation types at scales of 1:100,000 or smaller. While adequate for characterizing vegetation over large areas, these data are less accurate when viewed for smaller project areas. Additionally, the type and volume of dead and downed fuels are not factored into available ReGAP data (USGS 2004).
- **Map resolution.** Data used in the risk assessment are coarse and intended for use at a regional level. These maps are at 30-m resolution (the smallest possible level of detail of a given sensor, or the minimum mapping unit). A 30-m resolution is about 10,000 square feet, or 0.25 acre. While this resolution is sufficient at a region-wide level, the accuracy of the information decreases when viewed at a county level. Each square, or pixel, represents our best estimate of the predominant land cover represented by that pixel, but small features can be missed.
- **CVARs not included in the model.** The risk assessment does not measure risk to watersheds, recreation areas, or other CVARs. These values would need to be taken into account when developing fuels reductions projects.

4.0. Priorities and Recommendations

4.1. General Recommendations and Rationales

The primary goals of the Uintah Basin RWPP are to provide general recommendations for fuels reduction projects and to provide education and awareness about preparing for wildland fire. Recommendations are aimed at protecting the landscape, property, and infrastructure, as well as other CVARs. These recommendations will provide guidance and direction for the counties and communities to prepare local CWPPs based on more specific factors such as local fuels, local topography, and collective knowledge, issues, and concerns.

4.1.1. Fuels Reduction

The purpose of any fuels reduction treatment is to protect life and property by reducing potential for catastrophic wildfire. Moderating extreme fire behavior, reducing structural ignitability, creating defensible space, providing safe evacuation routes, maintaining all roads for firefighting access, and minimizing resistance to control are methods of fuels reduction treatments likely to be used around CARs.

In forested areas, minimizing the risk can be accomplished by reducing surface fuels, increasing canopy base heights, decreasing crown density, and incorporating natural barriers and fuel breaks into treatment plans. For woodlands, grasslands, and shrublands, there are a variety of additional methods to be considered (Table 8). It is important to note that there are numerous ecological benefits to be gained from well managed fuels reduction. Utilizing multiple treatment methods and managing for other resources as well as fuel reduction objectives will ensure that the land remains viable for multiple uses in the long term.

Table 8 lists and describes treatment methods that may be used effectively in the Uintah Basin Region. This list is by no means exhaustive; again, combinations of methods are often the most successful. It is the responsibility of the local fire management official, with input from the stakeholders affected, to determine which method(s) will safely accomplish the fuels management objectives of a given area.

The effectiveness of any fuels reduction treatment will increase over time with a maintenance and monitoring plan, including future re-entry into the treated area. For example, an area that has undergone a prescribed burn can frequently be managed easily with a second entry burn. Monitoring will also ensure that objectives are being met in a cost-effective manner.

Table 8. Summary of Treatment Methods and Strategies

Treatment Method/Strategy		Description	Desired Outcome	Limitations/Advantages
Mechanical	Thinning - manual	Removal of selected trees with chainsaws; can be full, partial, or patch-cuts.	Reduces competition, crown fire potential (laddering, canopy spacing); increases resistance to drought, insect infestation.	Thinning without slash removal or burning can create greater fire hazard than before; good in project areas where machines cannot reach; production generally slower than machine thinning; stumps should be flush-cut where appropriate.
	Thinning - machine	Removal of selected trees with machinery; can be full, partial, or patch-cuts.	Same as above.	Must remove or consume slash; machinery may be more cost-effective and faster than manual method; potential for environmental damage; access may be limited in some areas.
	Pruning	Raising the crown base to reduce laddering potential.	Keeping wildfires on surface and lowers resistance to control.	Generally done manually along with surface fuel reduction; must remove/consume debris.
	Hand piling	Staging debris from thinning, pruning, or dead/down surface fuels.	Removes/consumes excess fuels from area generally by burning (see below).	High per acre costs; method used on steeper slopes.
	Machine piling	Essentially the same as hand piling.	Same as above.	Environmental damage possible; may be more cost-effective than hand piling; works best on flatter terrain with stable soils and open areas.
	Lop and scatter/crushing	Manual or machine tree/branch cutting and spreading debris over area. Crushing reduces material size and shape and prevents fuel concentrations, making them easier to scatter over area for later burning.	Reduces crown fire potential, changes fuel size and shape and allows for reduced resistance to control of wildfires once disbursed and burned.	Less labor intensive with machines; used in areas where other natural resource issues are not a concern.

Table 8. Summary of Treatment Methods and Strategies

Treatment Method/Strategy		Description	Desired Outcome	Limitations/Advantages
Mechanical (continued)	Mastication (chipping/ grinding)	Using a chipper or grinder to reduce the size of woody debris.	Reduces woody fuels, moderates potential fire behavior.	Chipping is comparatively expensive; chips decompose slowly in our area; chips may produce high smoke volumes if burned; can be used for mulching, landscaping.
	Mowing	Mechanically reducing small shrubs and grasses.	This can provide temporary fuelbreaks along roadsides or around CVARs.	Cost is relatively high; must mow every growing season.
Prescribed Burning	Pile burning	Consuming debris onsite.	Consumes ideally 80-100% of piled fuels on project area; moderates potential fire behavior.	Winter burning results in least soil damage; possible scorch of nearby live trees; can be used in preparation for later broadcast burn.
	Broadcast burning	Application of fire on a landscape to accomplish specific fuels management objectives.	Reduces potential for extreme fire behavior and reduces resistance to control.	Can use aerial or hand ignition to create light or more intense burn; cost per acre comparatively low; can be accomplished during cooler periods for ease of control; requires careful pre-burn preparation and adequate resources.
Chemical Treatment		Application of approved biocide to kill target species and reduce fuels.	Successful treatments can help modify fuels and reduce potential fire intensity to a limited degree.	Environmental clearances required; may also impact non-target species, adversely affect water quality and animal habitat; costly to apply across large areas.
Biological Treatment (e.g., grazing)		Consumption of surface herbaceous fuels in a given area to create fuelbreaks or reduce fuel loading.	Same as above.	Costs comparatively low; must provide fencing or other confinement structure; must graze animals every growing season; goats have been successfully used in some areas.
Maintenance/Monitoring		Periodic maintenance and monitoring of treatment methods to maintain effectiveness.	Varies by treatment method.	A maintenance schedule and monitoring plan should be included with each treatment prescription, including estimated costs.

4.1.2. Education

Another important element of fire prevention is education for homeowners and community members. Effective fire prevention and mitigation education methods include the following list:

1. Dedicate full-time, paid personnel (e.g., a "fire expert") to promote public education. Duties may include materials development (pamphlets, brochures, handouts), school presentations, newspaper inserts, and community workshops/demonstrations.
2. Address defensible space and promote other programs to help homeowners be more knowledgeable of how to reduce wildfire risk on their own property (see Appendix D).
3. Utilize mobile educational facilities at community events.
4. Implement Utah Living with Fire (2006) concepts in future community development in order to increase the chances of homes surviving wildfire.
5. Implement programs that discuss the different fuels reduction types and the pros and cons of each. For example, if members of the public are concerned about the visual impacts of prescribed fire and/or clearcut mechanical thinning, educating them regarding the methods and how and why decisions are made to use or not use particular methods would facilitate understanding and consensus.
6. Develop and maintain relationships with partners relevant to meeting the National Fire Program's goals, in coordination with the local fire plans.
7. Conduct surveys to gauge the impact of Utah Living with Fire (2006), Firewise (2006), and other fire education materials.
8. Seek community training through local workshops.
9. Incorporate Utah Living with Fire (2006) education and requirements as part of the Boy Scouts program.
10. Incorporate Utah Living with Fire (2006) education in local high schools through workshops.

The community may also benefit from learning about historical fire regimes and how moving towards a historical fire regime can be beneficial.

4.1.3. Actions to Reduce Structural Ignitability for Homeowners and Community

Communities are responsible for evaluating and reducing the risk of structural ignitability in their homes and communities (see Appendix D). Actions that may help in achieving this goal include the following:

- Utah Living with Fire (2006) landscaping
- Utah Living with Fire (2006) construction
- Seeking ways to lift timber harvest restrictions for fuels reduction
- Encouraging defensible space

- Developing fuel breaks
- Removing flammable materials
- Working with insurance companies to provide incentives to homeowners using Utah Living with Fire (2006) concepts.
- Highway mowing to reduce flammable vegetation.
- Developing a Cooperative Weed Management Area for cheatgrass control and eradication.

If a community has been educated on the surrounding historic fire regimes, they may also incorporate actions such as reductions in salvage logging practices, promoting the establishment of native plants through post-burn seeding practices, and implementing programs for vegetation treatment programs such as SageSTEP (SageSTEP 2006).

4.1.4. Fire Response Capability

Another important element in reducing risk to homeowners and communities is ensuring that wildfire response capabilities are adequate. Community members can be educated and make efforts to reduce hazardous fuels and structural ignitability, but without adequate fire-fighting capabilities, these individual efforts have the potential to be wasted. The following is a list of suggestions that could help communities enhance their wildfire response capabilities:

- Improving roads to provide adequate access.
- Improving GIS and road data.
- Obtaining accurate e-911 data.
- Obtaining adequate equipment including possible purchase from federal agencies.
- Seeking training reimbursements for volunteer firefighters.
- Enhancing communications between local and federal governments regarding wildfire response.

4.2. Regional Recommendations

4.2.1. Developing CWPPs at County and Community Levels

All counties that do not have existing, county-level wildfire protection plans (including Daggett, Duchesne, and Uintah) should complete such plans. Communities within the counties are also encouraged to write CWPPs. These local plans should define their WUI for maximum effectiveness, identify the location of the community in relation to the WUI, make site-specific recommendations, and address issues specific to that area. Local plans should include at least the following:

- Location of community in relation to the WUI
- Definition of the WUI based on specific site conditions
- Land ownership and jurisdiction within the community

- Population
- Schools
- Hospitals
- Fire stations
- Risk factors
- Municipal water supplies
- Past fire occurrence
- CVARs
- Preparedness and protection capabilities
- Detailed fuels reduction plans, especially for high-risk areas
- Various education programs to reduce structural ignitability for homeowners and the community

4.2.2. Priority Fuels Treatments Recommendations

Table 9 and Figure 6 identify specific areas within the Uintah Basin Region where fuels reduction treatments are most urgent (Area 1 being highest priority). The prioritization of these areas was determined through a collaborative process with the Core Team. These prioritizations were based on the results of the risk assessment (extreme and high risk areas received greater prioritization), fire frequency, fuels, density of CARs and existing CWPPs in the area (the more CARs and CWPPs, the higher the prioritization), and community participation.

Table 9. Treatment Prioritization Areas and Recommended Treatments

Priority	Prioritized Area	Treatment Recommendation
1	Fruitland	Mechanical with pile burning.
2	Argyle Canyon/Reservation Ridge	Mechanical with pile burning; possible broadcast burn on Reservation Ridge.
3	Hanna/Tabonia Corridor	Mechanical with pile burning.
4	Deep Creek/Dry Fork	Mechanical; broadcast burn on upper slope.
5	Bluebell/Altamont/Talmage/Pinwillies/Mountain Home	Mechanical.
6	Lapoint/Whiterocks/Neola	Mechanical.
7	Diamond Mountain	Mechanical and prescribed.
8	Dripping Springs/Red Canyon/Dutch John/Flaming Gorge/Eagle Basin	Mechanical in CARs and prescribed in ponderosa pine.
9	Lucerne/Manila	Mechanical.
10	Yellowstone Canyon/Fisher Property	Prescribed and mechanical.
11	Taylor Flat	Mechanical with pile burning.
12	Blue Bench	Mechanical with pile burning.
13	Rock Creek/CUWD Campground/Robin's Ranch	Mechanical and prescribed.
14	Uinta Canyon/U Bar Ranch	Mechanical.

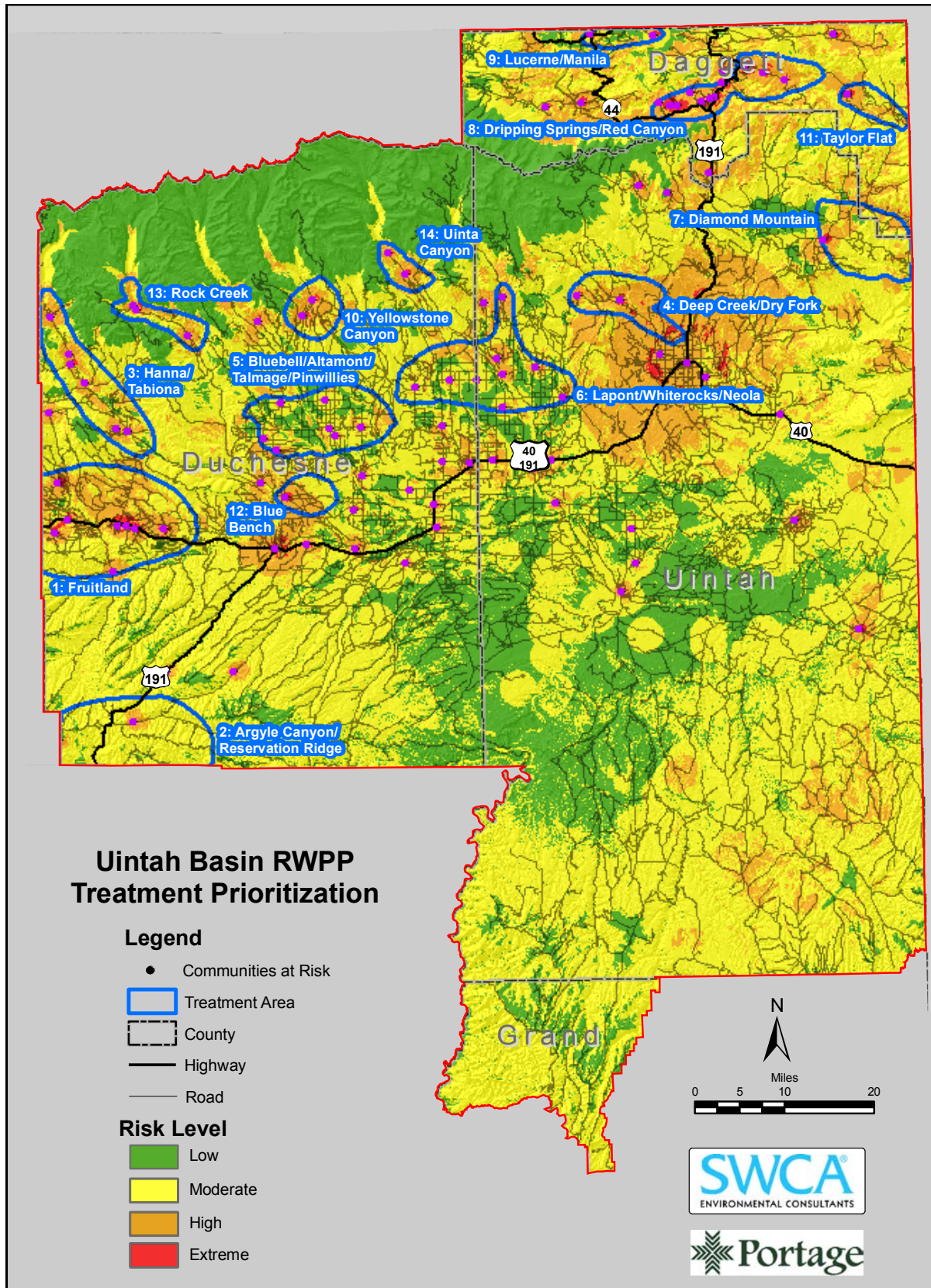


Figure 6. Uintah Basin RWPP treatment area map.

While the ranking of fuels treatment projects is based on the perceived urgency of a collaborative team, the treatment projects do not need to be completed in numerical order. However, it is the recommendation of the Core Team that the high priority areas be addressed first. Nonetheless, the ranking of the prioritization areas should be re-evaluated on an annual basis (see Table 9 and Figure 6).

One factor that was not considered in the prioritization of treatment areas is the areas that would require intensive National Environmental Policy Act (NEPA) analysis, which is required on federal lands for treatment projects that represent a federal nexus (e.g., federal funding). Each land management agency has a different set of policies governing the planning and implementation of NEPA and fuels treatment projects. In these cases, all possible treatments must be analyzed and compared for optimal achievement of agency objectives. NEPA analysis of fuels treatment projects in the area can be expected to take a minimum of two years.

Funding for fuels treatment projects was also not considered in the prioritization of treatment areas. Funding is discussed below in Section 5.2.

5.0. Implementation and Monitoring Strategies

5.1. Steps to Implement Plan

The RWPP makes recommendations for prioritized fuels reduction projects. Implementation and monitoring of this RWPP will be the responsibility of the Uintah Basin Fuels Committee. Updates to the plan will occur annually or on an as-needed basis, as determined by the committee. Additionally, a specific project implementation plan will developed for each of the 14 treatment areas described in Chapter 4.

5.2. Funding

Each fuels reduction project will be unique and require distinct steps to complete the task. The availability of funding for fuels treatment projects largely dictate which projects are completed. Funding for projects was not a consideration in the Core Team's prioritizations. Given the regional scale of this plan, projects completed as a result of this RWPP would likely be funded by state and federal appropriations and grant dollars. A state or federal agency would likely be the applicant for the funding. In contrast, projects recommended as a result of local CWPPs could be funded by state or county departments and applicants could be county representatives and community groups.

Potential funding for projects recommended in this RWPP are listed in Table 10. Additional funding opportunities may be available through the State of Utah Division of Forestry Fire and State Lands. Contact WUI Coordinator, Susan Bailey for further information, (801) 538-7487.

5.3. Monitoring and Reporting of Plan

The monitoring of each fuels reduction project will be site-specific, and decisions regarding the timeline for monitoring and the type of monitoring will be determined project by project. The importance of monitoring should not be underestimated, as it provides feedback on the effectiveness of the project and insight on how to improve projects for future endeavors. Monitoring and reporting contribute to the long-term evaluation of changes in ecosystems, as well as the knowledge base of how natural resource management decisions impact the both the environment and people.

Table 10. Sources of Funding for Development and Implementation of CWPPs

Agency	Grant Title	Projects Funded	Website
USFS, State and Private Forestry	Western Wildland-Urban Interface Grant Program	Hazard fuels reduction, education, and community and homeowner action.	http://www.firesafecouncil.org/news/attachments/2007_CDF_application-process_final168.pdf .
DHS, Federal Emergency Management Agency	Pre-Disaster Mitigation Grant Program	Hazard mitigation planning and implementation of mitigation projects prior to disaster event.	http://www.fema.gov/government/grant/pdm/index.shtm .
Environmental Protection Agency	Section 319 Grant	Reduction of nonpoint source pollution.	http://www.epa.gov/owow/nps/cwact.html .
DHS, U.S. Fire Administration		General information on financial assistance for fire departments and first responders.	http://www.usfa.dhs.gov/fireservice/grants .

6.0. Summary of Plan

The Uintah Basin Regional Wildfire Protection Plan (RWPP) has been developed to meet the requirements of a CWPP as specified in HFRA. The Uintah Basin RWPP is one of five regional plans for the State of Utah, and its goal is to assist Daggett, Duchesne, and Uintah Counties, their communities, and government agencies in reducing the risk of catastrophic wildfire within the region.

The RWPP used a collaborative process involving federal agency and local government representatives to identify high-risk areas across the Uintah Basin, and to set broad priorities for recommendation and actions to reduce the risk to human life property due to catastrophic wildland fire in the WUI of the state-identified CARs.

Federal agency and local government representatives formed a core planning team to set the direction for the plan and process. Organizations and stakeholders were contacted through press releases and radio and newspaper advertisements and encouraged to participate in plan development by submitting comments by mail or at one of the six public meetings held in the region. Public comments received are included in Appendix B.

The Core Team established a baseline map of the WUI areas located in the project area, using the WUI definition contained in HRFA, and developed a community risk assessment that considered fuel hazards; risk of wildfire occurrence; and distance from CARs (as defined by the State of Utah).

Using the base map, risk assessment, and public comments received during public meetings, the Core Team identified 14 priority areas and made the following recommendations for them:

- Reduce hazardous forest fuels
- Restore forest/watershed health
- Promote community involvement
- Increase communities' ability to prepare for and respond to wildland fires
- Reduce structural ignitability
- Increase wildfire awareness and education

As such, the Uintah Basin RWPP meets and exceeds the minimum requirements for CWPPs under HFRA.

A collaborative process has been in place for the duration of this plan and will continue as projects are implemented. RWPP implementation and monitoring will be the responsibility of the Uintah Basin Fuels Committee. The plan will be updated at least annually. Individual project implementation plan will be developed for each of the 14 treatment areas described in Chapter 4, and will include specific timeframes, goals, and measurable criteria.

7.0. References

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Appendix A. Sample Community Wildfire Protection Plan (CWPP): Fruitland

State of Utah

Community Fire Planning

For the Wildland – Urban Interface

Fruitland Community Fire Plan



“Protecting Life, Property, and
Community Values
Through
Community-Based Planning”



Department of Natural Resources
Division of Forestry, Fire and State Lands



1594 West North Temple, P.O. Box 145703, Salt Lake City, UT 84114-5703

INTRODUCTION

Wildfire has been a continuing challenge throughout Utah’s history. There are several areas in Utah where there is an extreme danger of wildland-urban fire. In fact, any fire over 100 acres threatens some structure due to the increase in development into wildland areas. Over 400 of Utah’s communities have been classified as “at risk” of wildfire. The safety of the citizens of any community is a shared responsibility between the citizens; the owner, developer or association; and the local, county, state and federal governments. **The primary responsibility, however, remains at the citizen/owner and association level.**

The following problems have increased the wildland-urban interface wildfire risk:

- Desire to live in a secluded area surrounded by natural vegetation without defensible space.
- Homes are built of flammable materials (wood siding, shakes and patios).
- Fire equipment is hampered from protecting an area because of long, narrow, winding, or steep driveways.
- Distance from fire departments.
- One ingress and egress road in subdivisions and some communities.
- Misperception that fire protection in rural areas is equal to urban fire protection services.
- Inadequate water supply.
- Poor signage and access to residences.
- No hazard planning for evacuation and no early warning systems.
- Utility service lines and propane tanks.

The purpose of community fire planning is to...

- Empower communities to organize, plan, and take action on issues impacting community safety
- Enhance levels of fire resistance and protection to the community
- Identify the risks of wildland/urban interface fires in the area
- Identify strategies to reduce the risks to homes and businesses in the community during a wildfire.

OBJECTIVES OF COMMUNITY FIRE PLANNING IN UTAH

- Facilitate organization of citizen fire councils to guide planning and coordinated action
- Improve community safety through:

✓ Coordination	✓ Training	✓ Fire Prevention
✓ Education	✓ Fuel modification	✓ Public Safety
- Enhance fire protection through:
 - ✓ Improved fire prevention and public education
 - ✓ Improved coordination within the community
 - ✓ Development of long-term strategies
- ★ Reduce the potential for and the consequences of wildfire.

STATEMENT OF LIABILITY

The activities suggested by this guidance document, the assessments and recommendations of fire officials, and the plans and projects outlined by the citizen fire council, are made in good faith according to information available at this time. The community wildfire committee is responsible for the actions taken under this plan. The Utah Division of Forestry, Fire and State Lands can make no guarantees regarding the level of success users of this plan will experience. Wildfire still occurs, despite efforts to prevent it or contain it; the intent of all decisions and actions made under this plan is to reduce the potential for and the consequences of wildfire.

ABOUT THIS DOCUMENT

This document provides the outline for and specifies the information recommended for inclusion in a wildfire plan. If possible, the community should create its own document using a word-processing program, following the format outlined here; however, this workbook format has been created to provide whatever assistance possible in facilitating this process.

Part I – Community Description

The community description identifies community resources that can be used to complete the goals of the plan, and a physical description of the community to guide wildfire preparation and response decisions.

Part II – Community Prescription

The community prescription includes the goals of the plan, identifies specific actions needed to complete the goals of the wildfire plan and identifies responsible parties, resources and priorities.

Part III – Resources

This section contains a list of wildfire preparation and response resources that are selected by the community for retention in a community wildfire reference library.

Part IV – Technical Assessments

This section includes fire officials’ assessments and ratings of the wildfire hazard in the community, and their recommendations for actions to mitigate hazards.

Appendix

The information to be included in the appendix is primarily determined by the community and fire officials: data, assessments, and maps, contact lists, project worksheets – whatever might prove useful to the community.

RESOURCES

For resources to complete a wildfire plan for your community, consider organizations such as the following:

- | | |
|--|--|
| ✓ Local / Primary fire protection provider | ✓ County fire agencies |
| ✓ Local Resource, Conservation and Development Districts | ✓ County emergency management services |
| ✓ Utah Division of Forestry, Fire and State Lands | ✓ American Red Cross |
| ✓ Utah State Fire Marshal (Dept. of Public Safety) | ✓ USDA Forest Service |
| ✓ Utah Comprehensive Emergency Management | ✓ U.S. Department of Interior Agencies |
| ✓ Utah Living With Fire | ✓ Utah Resource Conservation Districts |
| ✓ FireWise | ✓ Utah Soil Conservation Districts |

Contact information for some of the above-listed agencies is included in the back of this document.

For information concerning the Community Fire Planning guidance document, contact the Utah Division of Forestry, Fire and State Lands, P.O. Box 145703, Salt Lake City, Utah 84114-5703. Or, e-mail JenniferGregerson@utah.gov. The Community Fire Planning guidance document is available at <http://www.nr.utah.gov/slf/fmcommunityfirepln.htm>.

Completed Community Fire Plans should be submitted to your local Area Manager or Fire Management Officer from the Utah Division of Forestry, Fire and State Lands.

ACKNOWLEDGMENTS

The Utah Division of Forestry, Fire and State Lands would like to thank Kathy Hammons and Janet Johnson of Community Solutions, Inc. for their input and work on this document. The Division also appreciates those agencies whose publications inspired the creation of this document, such as the Pennsylvania Model Prevention, Pre-suppression and Preparedness Plan, the Colorado State Forest Service Wildfire Hazard Mitigation and Response Plan, the Big Sky Fire Management Strategy, Utah’s Wildland-Urban Interface Fuel Load Reduction Community Level Protection document, and others. Finally, thanks to Arthur W. DuFault, former Utah State Forester and National Fire Plan Coordinator, who initiated this endeavor for the State of Utah.

Community Fire Planning Checklist

INSTRUCTIONS

This checklist is provided to help the community track its progress in development of its community wildfire plan. The Community Wildfire Council is responsible for completing Sections I and II; fire officials are responsible for completing Section IV. Section III and the Appendix should be a joint effort between the community and fire officials.

It is requested by state fire officials that the structure of the community fire plan follow this outline; this will provide continuity among Utah's community fire plans, and facilitate information sharing in emergency situations.

Community: Fruitland Community Wildland Fire Council **County:** Duchesne

Primary Contact: Sheridan Daines **Phone:** 435.548-2244

Secondary Contact: Leon Sweat **Phone:** 435.548-2888

Section		Completed by Printed Name / Signature	Date
I.	Community Description		
	Declaration and Concurrence	/	
	Planning Committee Members List	/	
	Community Legal Structure	/	
	Population	/	
	Values at Risk	/	
	Natural Resources at Risk	/	
	Commercial Entities	/	
	Formal Associations	/	
	Media Support	/	
	Schools	/	
	Transportation (Railroad, Highway)	/	
	Private Emergency Service and Equipment Capabilities	/	
	Restricting Covenants, Ordinances	/	
	Insurance Rating	/	
	Physical Description		
	Access	/	
	Roads	/	
	Driveways	/	
	Structures	/	
	Bridges, Culverts, Gates	/	
	Utilities	/	
	Sewage System	/	

Section		Completed by Printed Name / Signature	Date
II.	Community Prescription Goals of Plan Identification of Actions Identification of Responsible Parties, Resources, and Priorities	_____ / _____ _____ / _____ _____ / _____	_____ _____ _____
III.	Resources List of resources available in a community wildfire reference library.	_____ / _____	_____
IV.	Technical Assessments A. Community Description Area Topography and Vegetation Infrastructure Water Supply Emergency Services / Equipment Capabilities <i>Hazard Evaluation:</i> Area Fire History Subdivision Hazard Rating Property / Structure Ratings Expected Fire Behavior B. Community Prescription Fuel Modification Projects Infrastructure Improvements Education Wildfire Response / Pre-Attack Plan Monitoring and Evaluation Evacuation Plan	_____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____ _____ / _____	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
	Appendices Emergency contact lists Technical Assessments Maps (topography, escape routes, etc.)	_____ / _____ _____ / _____ _____ / _____	_____ _____ _____

INSTRUCTIONS

Declaration and Concurrence Page

This list needs to be customized to the individual plan. Provide the names and affiliations of all fire partners. This page will then be signed after all fire partners have reviewed the plan and concur with its contents. Fire partners should include – but are not limited to – homeowners, developers, home association representatives, fire department personnel, police, emergency management, Forest Service, BLM, etc. The Area Manager from the local Utah Division of Forestry, Fire and State Lands and the chairperson of the fire council will then jointly approve the plan.

Name / Affiliation: Nathan Robinson- Duchesne County Fire Warden

Signature: _____

Date: _____

Name / Affiliation: Georg Adams- Duchesne Co. Fire & Emergency management

Signature: _____

Date: _____

Name / Affiliation: Vern Roberts- FSSD

Signature: _____

Date: _____

Name / Affiliation: Steve Sweat- Little Red Irrigation

Signature: _____

Date: _____

Name / Affiliation: Vern Roberts- Red Creek Irrigation

Signature: _____

Date: _____

Name / Affiliation: Devon Johnson- Fruitland Store

Signature: _____

Date: _____

Name / Affiliation: Ron Muir- Muirs Smokehouse

Signature: _____

Date: _____

Declaration and Concurrence Page, continued

Name / Affiliation: MaryJo Coleman- Coleman Mountain Ranch

Signature: _____

Date: _____

Name / Affiliation: Pat Ford- Bandanna Ranch

Signature: _____

Date: _____

Name / Affiliation: Alan Smith- Tabby Shadows

Signature: _____

Date: _____

Name / Affiliation: Vern Frazier- Bandanna Sportsmans club

Signature: _____

Date: _____

Name / Affiliation: Cbarlette Carr- All Country

Signature: _____

Date: _____

Name / Affiliation: Jimmy Grant- JT Grant Construction

Signature: _____

Date: _____

Name / Affiliation: Mike Young-Youngs Construction

Signature: _____

Date: _____

Name / Affiliation: Cindy Roberts-US Post Office

Signature: _____

Date: _____

Name / Affiliation: Roger Young- Youngs Sawmill

Signature: _____

Date: _____

Name / Affiliation: Brent Sweat- LDS Church

Signature: _____

Date: _____

Name / Affiliation: Scott Sloan- Baptist Church

Signature: _____

Date: _____

Name / Affiliation: William R. Young- Young Ranch

Signature: _____

Date: _____

Name / Affiliation: Leon Sweat- Fruitland Landowners Association

Signature: _____

Date: _____

Name / Affiliation: Linda Snow- Bandanna Landowners Association

Signature: _____

Date: _____

Name / Affiliation: Gary Strigham- Sherwood Enterprises

Signature: _____

Date: _____

Name / Affiliation: Jerry Strebl, Ashley National Forest

Signature: _____

Date: _____

Name / Affiliation: Dave Palmer, Bureau of Indian Affairs/Forestry

Signature: _____

Date: _____

Plan Approvals:

Area Manager, Division of Forestry, Fire & State Lands

Signature: _____

Date: _____

Community Fire Council chairperson

Signature: _____

Date: _____

County Commission

Signature: _____

Date: _____

PART I COMMUNITY DESCRIPTION

Directions: *This section is to be completed by the Community Wildfire Committee. A community description identifies community resources that can be used to complete the goals of the plan, as well as a physical description of the community that can help impact wildfire preparation and response decisions.*

INSTRUCTIONS

1. Planning Committee Members List

List the names, affiliations and phone numbers of the planning committee members, i.e. residents, council members, sheriff.

<u>Name</u>	<u>Affiliation</u>	<u>Phone Number</u>	<u>E-mail</u>
Sheridan & Nancy Daines	Bandanna Ranch	548-2244	nanadaines@aol.com
Leon Sweat	Fruitland	548-2888	lsweat@ubtanet.com
Vicky Linton	Camelot	571-7348	vlinton@ix.netcom.com
Brent & Colleen Carter	Lower Red Creek	548-2508	str@ubtanet.com
Kay Johnston	Bandanna Ranch	801-562-1390	neatha.johnston@wamu.com
Shirley Weathers	Lower Red Creek	548-2630	wta@ubtanet.com
Stan & Margene Wardle	Pinion Ridge	548-2294	
Pat Ford	Bandanna Ranch	548-2613	pat@bandannaranch.com
Karl Merritt	Lower Red Creek	548-2646	
Victor Wardle	Pinion Ridge	548-2455	
Linda Snow	Bandanna Ranch	548-2232	
Kathy Robinson	Fruitland	548-2242	rrobinson@ubtanet.com
Rick & Linda Northington	Pinion Ridge	548-2622	Northington@ubtanet.com
Sylvia Batie	Bandanna Ranch	801-969-0661	allaroundtree@ypc.net

INSTRUCTIONS

2. Community Legal Structure

List the government entities associated with the community – city, town, unincorporated, special service district, homeowner association(s), other. Part of the purpose in this exercise is to help identify organizations through which grant funding – federal, state or other – can be channeled.

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>
Duchense County Commissioners	Larry Ross	822-2680	
FSSD	Vern Roberts	548-2629	
Red Creek Irrigation	Vern Roberts	548-2629	
Little Red Irrigation	Steve Sweat	548-2326	
Bandanna Landowners	Linda Snow	548-2232	
Pinion Ridge	Stan Wardle	548-2294	
Clark Estates	Ken Ludwig	548-2580	
Tabby Shadows	Alan Smith	548-2237	
Camelot Resort	Barbara Knudson	548-2281	
Dinasourland RC&D	Sue Wight	722-0884	

INSTRUCTIONS

3. Population

Provide information regarding the population of the area.

Approximate number of homes: 400

Approximate number of lots: 2000

Approx. number of commercial entities: 10

Approximate number of full-time residents: 700

Approximate number of part-time residents: 1500

Approx. visitor population during fire season: 1500/2500 per week

INSTRUCTIONS

4. Estimated Values at Risk

Provide an approximation of the estimated current values of residential and commercial property in the subdivision. The County Assessor should be able to assist with this information.

The estimated values at risk of residential and commercial property in the year 2002 are approximately \$55 million plus.

INSTRUCTIONS

5. Natural Resources at Risk

Describe the natural resources at risk in the subdivision and surrounding area, such as watershed, forest products, wildlife, recreation tourism, etc.

Private Property includes recreation property with and without developed structures.

Vegetation consists of areas of sagebrush and grass openings transitioning to forested areas vegetated with pinion and juniper, intermixed with scattered patches of Douglas-fir on upper elevations. Several farms are located within the project area, with areas in production for crops and pasture land. Riparian areas are vegetated with shrubs, willows and/or greasewood.

Wildlife in the area range from large ungulates such as deer, elk and moose to smaller game animals, upland game birds, and songbirds. The area is migratory habitat for raptors.

INSTRUCTIONS

6. Commercial Entities

List contact information for commercial entities in the area (not just in the subdivision).

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>	<u>Address</u>
Muir's Smokehouse	Ron Muir	548-2711		Fruitland, Ut. 84027
Fruitland Store	Devon Johnston	548-2214		Fruitland, Ut. 84027
All Country	Charlotte Carr	548-2507		Fruitland Ut. 84027
Young Sawmill	Roger Young	548-2319		Fruitland Ut. 84027
Trading Post	E.T. Bird	724-0492		Fruitland Ut. 84027
Cellular One		722-0935		Roosevelt, Ut. 84066
Gas & Grub	Karl Clayburn	548-2151		Currant Creek Ut.
Young Construction	Mike Young	548-2689		Fruitland Ut. 84027

Uintah Basin RWPP

Camelot Resort	Barbara Knudson	548-2281		Lower Red Creek
Bandanna Sportsman club	Vern Frazier			
The Edge				
UBTA		622-5007		Roosevelt
Moon Lake Electric		722-2448		Roosevelt
LCL Oil		722-5171		Roosevelt
NK Coal	Nathan Robinson	548-2242	nrobinson@ubtanet.com	Fruitland Ut. 84027

INSTRUCTIONS

7. Formal Associations

List contact information for civic groups, churches, volunteer organizations, senior citizen groups, youth groups, etc.

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>
FSSD	Vern Roberts	548-2629	
LDS Church	Brent Sweat	548-2700	
Baptist Church	Scott Sloan	548-2217	
Fruitland Cemetery Association	Judy Wilkerson	548-2900	
Fruitland Volunteer Fire Department	Nathan Robinson	548-2242	nrobinson@ubtanet.com
BSA	Steve Prior	548-2906	
Red Creek Irrigation	Vern Roberts	548-2629	
Little Red Creek Irrigation	Steve Sweat	548-2326	

INSTRUCTIONS

8. Media Support

List contact information for local media, such as newspapers, newsletters, television, radio, websites, etc.

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>
UBTA		622-5007	
Uintah Basin Standard		722-5131	
KNEW Radio		722-5011	
KVEL Radio		789-0920	

INSTRUCTIONS

9. Schools

List contact information for all public and private schools in the community.

<u>School</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>	<u>Address</u>
Duchesne Elementary	Mr. Coleman	738-2061		Duchesne Ut.84021
Duchesne High	Stan Young	738-2211		Duchesne Ut. 84021
Tabiona	Robert Park	848-5635		Tabiona, Ut. 54072

INSTRUCTIONS

10. Transportation

List contact information for any railroad, highway, or other public transportation routes or means in the community.

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>
Senior Citizens	Ray Baum	548-2317	
Grey hound will stop by arrangement at Fruitland Store			

INSTRUCTIONS

11. Private Emergency Services and Equipment

List privately owned equipment and services available for wildfire response (such as tow trucks, bulldozers, etc.), with contact information. If such services or equipment are already contracted under the County Mobilization Plan, they should not be listed here.

<u>Type of Equipment</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>	<u>Address</u>
Bulldozer, Grader, Loader	Mike Young	548-2689		Fruitland Ut. 84027
Backhoe	Vern Roberts	548-2629		Fruitland, Ut 84027
Backhoe	Jim Forakis	548-2333		Fruitland, Ut. 84027

INSTRUCTIONS

12. Restricting Covenants, Ordinances, etc.

Describe any pertinent restricting covenants, ordinances, etc. concerning wildfire in the community. For example, home association bylaws may have requirements regarding building construction materials or vegetation removal, or regarding access in a gated community.

<u>Source</u>	<u>Details</u>
Bandanna Ranch up Red Creek	Gates on all main access roads
Duchesne Planning & Zoning	Must meet building codes for Duchesne County with appropriate inspections.
Sundown Ridge	Gates on East and West access roads.

INSTRUCTIONS

13. Insurance Rating

Provide the current insurance rating for the community. (The community’s primary fire protection provider should be able to assist with this information.)

Fire Insurance Rating: 9

INSTRUCTIONS

14. PHYSICAL DESCRIPTION

While completing the following assessments of the community, consider the height, width, weight, and turnaround needs of emergency equipment. Exact clearance requirements may vary by community.

Road clearance height	≥ 13'6"	Dead end street turnaround	≥ 100' diameter
Road clearance width	≥ 20'	Bridge/culvert weight limit	≥ 20 tons per axle
Driveway clearance height	≥ 13'6"	Driveway turnarounds*	≥ 30' (inside turning radii), 45' (outside)
Driveway clearance width	≥ 12'	Driveway turnouts**	≥ 10' wide and 30' long
			* for driveways in excess of 150' in length
			** for driveways in excess of 200' in length and less than 20' in width

INSTRUCTIONS

A. Access

Provide detailed information regarding access to the community, including all-weather and seasonal access.

i. Directions to community:

Northeast section of Utah 28 miles West of Duchesne and 45 miles East of Heber on US 40.

The project area or "community" is actually a combination of separate communities, who by group decision, have decided to form a large project area. Only one community, Bandanna Ranch has an actual home owners association (HOA) with CCR's. The other communities such as Pinion Ridge, Clark Estates, Lower Red Creek, etc are subdivisions but no HOA were ever formed. A map of the project area is found in the appendix.

ii. All-weather access:

The area has a few all weather (paved) roads. The main transportation routes through the area, US highway 40, and State Route 208 are paved. Portions of other roads are paved but then transition to native surface. Those that are paved are: namely the upper Red Creek, lower Red Creek road, the road going West by the Fruitland LDS Church, the road going South by the UBTA phone building, the road going South at MM61 down onto the Currant Creek river, and the road going South by the Fruitland Store to the Post Office.

iii. Seasonal access:

The remaining roads in the project area are a combination of county and private drives. These are mostly native surface with some graveled areas. The County roads are graded year round. The other secondary roads are generally not maintained during the winter.

INSTRUCTIONS

B. Roads

Provide information regarding the condition and types of roads in the community. Percentages are ideal, but general estimations are sufficient.

- i. Road signs are present where county roads intersect major transportation routes such as U.S. highway 40. Beyond these, few other road signs are present
- ii. 20% are pavement; 10% are gravel; 70% are dirt
- iii. The majority of the secondary, native surface roads will not adequately support 2 lanes of traffic.
- iv. Some are loop roads.
- v. Some are dead-end roads. Of these, most have inadequate turnaround space available at the end of the road for emergency equipment (based on turning radius listed in front of this section.)

INSTRUCTIONS

C. Driveways

Provide a general assessment of the driveways in the community, in regard to emergency equipment (based on height and width information listed in front of this section) and emergency response.

- i. Most driveways width and height clearance, road grades and vegetation appearance are inadequate for emergency equipment. Do not meet UFC standard.
- ii. Few individual homeowners have posted their name and address.

INSTRUCTIONS

D. Structures

Assess the community in regard to building structures and wildfire hazard – construction materials, visibility, etc. Percentages are ideal, but general estimations are sufficient.

- i. Many are of wood-frame construction.
- ii. Many have wood decks or porches.
- iii. Some have wood shake or shingle roofs.
- iv. Most are visible from a main subdivision or secondary road.

INSTRUCTIONS

E. Bridges, Gates, Culverts, other

Assess the community's infrastructure for potential obstacles to emergency response. Consider weight, height, and width information of emergency vehicles as listed in front of this section.

- i. Most bridges support emergency equipment.
- ii. Some gates provide easy access to emergency equipment.
- iii. Some culverts are adequate for use by emergency equipment.

INSTRUCTIONS

F. Utilities

Assess and provide information on the utilities serving the community, in regard to wildfire hazard and emergency response capabilities.

- i. Telephone service is generally below ground.

Provided by: UBTA Telephone number: 622-5007

- ii. Electrical service is above ground.

Provided by: Moon Lake Electric Telephone number: 738-5322

- iii. Are there homes/structures utilizing propane? Yes

If yes: 98 % of those propane tanks are above ground

If some are above ground: 10 % are marked with a flag or by other highly visible means

List locations of those propane tanks above ground:

At most full time homes and some part time homes.
At most businesses.

- iv. Are there homes/structures utilizing natural gas? No

- v. Primary water sources

Approximately 65 % of homes use central water system.

Approximately 20 % of homes use individual wells.

Approximately 15 % of homes must transport their water from an off site water source.

Water provided by: FSSD Telephone number: 548-2399

PART II: COMMUNITY PRESCRIPTION

Directions: This section is to be completed by the Community Wildfire Committee. A community prescription includes the goals of the plan, identifies specific actions needed to complete the goals of the wildfire plan and identifies responsible parties, resources and priorities.

INSTRUCTIONS

1. Goals of Plan

Provide a brief statement of the goals of the Community Wildfire Plan. **Each plan must address the following: Fuel Reduction, Facilities and Equipment, Education, Emergency Response Plan (including comprehensive plans for shelter-in-place and evacuation), Regulative Issues, and Evaluation and Maintenance.**

The goals of the Fruitland Community Fire Plan are as follows:

1. Increase public awareness of the risks posed by wildfire to life safety and property of area residents through implementation of a wildfire hazard education program.
2. Increase life safety and enhance forest health through the implementation of a of “certified” defensible space program. Objective is to achieve 75% of the homes within the project area.
3. Develop and implement hazardous fuels mitigation program to establish fuel breaks where needed and to reduce hazardous fuel concentrations.
4. Establish a fire safe road program
5. Increase water supplies for fire suppression needs.
6. Work with county officials to promote wildfire safe building standards.

INSTRUCTIONS

2. Identification of Actions

Describe projects that need to be done to complete the goals of the plan and to perform and periodic maintenance of the plan.

Goal: Increase public awareness of the risks posed by wildfire to life safety and property of area residents through implementation of a wildfire hazard education program.

**Action(s): Implement a wildfire safety education program within the project area.
Plan and implement an annual wildfire awareness day within the project area.**

Goal: Develop and implement a hazardous fuels mitigation program within the project area.

**Action(s): Implement a wildfire safety education program within the project area.
Coordinate an annual brush removal activity within the project area.
Identify and develop brush/slash disposal areas with convenient access to landowners and make them fire safe.
Obtain use of a chipper for the general area.**

Goal: Establish a fire safe road program within the project area.

Action(s): Coordinate an annual wildfire safety awareness day within the project area. Identify roads which do not meet existing fire codes (UFC) for such items as dead end roads, inadequate turn arounds, over hanging vegetation, etc. Coordinate with HOA, developers and county official's fuel clearance activities.

Identification of Actions, continued:

(Copy page as needed)

Goal: Establish perimeter fuel breaks to increase public safety.

Action(s): Implement a fuel break program within the project area. Work with appropriate partners (private, state, federal) on the best location for fuel breaks and implement establishment. Once established, implement maintenance of fuel breaks.

Goal: Increase fire safety of the residents within the project area with the result of achieving 75% of residences within project area establish “certified” defensible space by 2005

Action(s): Coordinate and implement a wildfire lot assessment program within the project area. Implement a defensible space program within the project area.

Goal: Establish adequate turn abouts for emergency equipment.

Action(s): Identify inadequate turnabouts and explore ways and means to enlarge them to appropriate size.

Goal: Clear designated areas for culled vegetation.

Action(s): Provide aid to the Fuel reduction committee in making disposal areas safe.

Goal: Knowledge of propane and gas storage

Action(s): Encourage marking of propane and gas storage areas and encourage homeowners to clean vegetation from around tanks.

Identification of Actions, continued:

(Copy page as needed)

Goal: Increased Signage

Action(s): Implement a street and road marking program to aid emergency services personnel.

Goal: Implement a fire safety awareness education program within project area.

Action(s): Identify sources of fire safety information. Obtain pamphlets and arrange for distribution. Establish an annual fire safety awareness day within the project area.

Goal: Developed detailed map of area.

Action(s): Develop an accurate map of project area identifying structures and resources useful to fire suppression resources.

Goal: Have community newsletter on fire safety.

Action(s): Develop mailing list of landowners in the area. Distribute periodic newsletter With pertinent fire safety information.

Goal: Community bulletin board

Action(s): Establish a centralized board where pertinent information can be posted for General public view.

Goal: Have emergency response personnel armed with maps.

Action(s): Provide maps of the area to emergency response groups.

Goal: Have E911 for the area.

Action(s): Encourage county officials to complete E911.

Goal: Emergency Evacuation plan

Action(s): Develop general evacuation strategies and distribute to landowners.

Goal: Have shelter in place.

Action(s): Work with local church groups and red cross as to needs in case of catastrophic fire.

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Goal: Have safe areas.

Action(s): Work with fuel reduction committee to have safe areas located throughout Council area where people could migrate in event of catastrophic fire.

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Goal: Provide ways for new ideas to come to the committees' attention.

Action(s): evaluate suggestions as to appropriateness and report to committee as a whole.

Goal: Get Grants for funding of projects.

Action(s): Investigate and implement obtaining of grants

•

Goal: Have plan for “post fire” action

Action(s): Develop list of resources for rehabilitation and reforestation of area in case of catastrophic fire.

Goal:

Action(s):

-

Goal:

Action(s):

Goal:

Action(s):

Goal:

Action(s):

-

INSTRUCTIONS

3. Identification of Responsible Parties, Resources and Priorities

Outline how the actions described in Item 2 will be accomplished, by listing responsible parties (person who is responsible for each action), resources (assets needed to complete actions), and priorities (designating of each action as high, medium or low priority).

SAMPLE

Goal	Action	Resources	Responsible Party	Priority
1. Fuel Reduction	<p>1. The Fire Committee will implement fuel modification projects.</p> <p>Education Campaign</p> <ul style="list-style-type: none"> • Brochures • Video tapes • Demo areas • Meetings • Property assessment by fire professional <p>School & Youth community service events</p> <p>Fuel break volunteer time & equipment</p> <p>Service Organization clean-up events</p> <p>Community roadside cutting, spraying, reseeding projects</p>	<ul style="list-style-type: none"> • www.Firewise.org • Forestry, Fire & State Lands Fire Mgmt Officer • Bureau of Land Mgmt • National Forest Service • Utah Living With Fire • County Fire Marshal • Local Fire Department • Civic Organizations 	Fuel Reduction Sub-committee Chairperson	High
	<p>2. Community will work with state/federal fire officials to develop and implement a perimeter fuel break plan.</p>	<ul style="list-style-type: none"> • Forestry, Fire & State Lands Fire Mgmt Officer • County Fire Marshal • Local Fire Department • Civic Organizations • Land owners • Commercial entities 	Fuel Reduction Sub-committee Chairperson	Medium

Identification of Responsible Parties, Resources and Priorities

(Copy page as needed)

<u>Goal</u>	<u>Action</u>	<u>Resources</u>	<u>Responsible Party</u>	<u>Priority</u>
Fuel Reduction	*Encourage property owners to obtain defensible space assessment. *Establish disposable areas where culled vegetation can be dealt with. *Encourage and aid in community clean up. * Have 75% of landowners with defensible space by 2005 * Work with Federal/State/County Fire officials to develop and implement a peripheral fire break plan. *Work with emergency Resource committee to establish safety zone in event of catastrophic fire.	www.firewise.org Forestry Fire and State Lands US Forest Service Fruitland Fire Department Fire & Emergency Management Homeowners' org. BLM Fish and Game	Sub Committee chairs Stan and Margene Wardle Pat Ford MaryJo Coleman Of Designate.	High
				High
				Med
				Med
				Med
Facilities and Equipment	*Mark dead-end roads *Establish adequate turnabouts for emergency Equipment * Clear designated Ares for culled vegetation. * Identify hidden propane and gas storage with signs. * Encourage the location and marking of gas shut off * Road signs in subdivision	Forestry Fire & State Lands Fire Dept. County Road Dept. Homeowners' assoc. Landowners assoc.	Sub committee chair Karl Merritt Brent Carter Or designate	High
				Med
				High
				Med
				High
Education	*Research available info and pamphlets <ul style="list-style-type: none"> • Attend meeting of homeowners and local groups to distribute wildfire info. • Develop detailed map of area with particular attention to developed areas. • Develop and distribute newsletter to landowners with appropriate fire potential reduction info. • Establish community bulletin-board for posting of pertinent information. 	Federal/Sate brochures Forestry, Fire & State Lands US post office Forest Service Church groups RC&D	Linda Snow Leon Sweat Or designated	Med
				High
				Med
				High
				Med

Identification of Responsible Parties, Resources and Priorities

(Copy page as needed)

Goal	Action	Resources	Responsible Party	Priority
Emergency Response	<ul style="list-style-type: none"> *Provide maps for emergency response personnel *Develop E911 for area *Develop Emergency evac Plan *Develop emergency shelter in place plan * Work with fuel reduction committee to establish safe areas 	<ul style="list-style-type: none"> Fruitland Fire department Forestry, Fire & State Lands County Fire & Emergency Management Local churches Homeowner's assoc. Sheriff office UHP Forest Service Central Dispatch 	<ul style="list-style-type: none"> Kathy Robinson Rick and Linda Northington 	<ul style="list-style-type: none"> Med High Med Med Med
Long Term Planning & Grants	<ul style="list-style-type: none"> *Evaluate suggestions and report to the committee as a whole *Investigate and implement the obtaining of grants for appropriate and future projects *Develop and a list of recourses for rehab & reforestation of area in event of catastrophic fire. 	<ul style="list-style-type: none"> FEMA Red Cross Forestry Fire & State lands Property owners RC&D Forest Service 	<ul style="list-style-type: none"> Nancy Daines Sylvia Batie Or designate 	<ul style="list-style-type: none"> Med High Med

PART III: RESOURCES

Directions: This section is to be completed through joint effort between the Community Wildfire Committee and fire officials. This section will contain a list of wildfire preparation and response resources that are selected by the community for retention in a community wildfire reference library.

INSTRUCTIONS

List of Resources

List wildfire preparation and response resources to be retained in a community wildfire reference library, such as brochures, leaflets, books, magazines, videos, charts, etc.

SAMPLE

Informational Materials

General Fire Prevention

- “Are You Living in the Red?” pamphlet (Utah Fire Assessment Project: Bureau of Land Management et.al.)
- “How to Protect Your Home: It Could Happen to You” (USDA Forest Service)
- “How to Reduce Wildfire Risk” Tree City USA Bulletin (The National Arbor Day Foundation)
- “Living With Fire” video and pamphlet (Utah Living with Fire)
- “Protect Your Hide-away Home” pamphlet (Utah Department of Natural Resources)
- “Protecting Residences from Wildfire” (USDA Forest Service)
- “Protecting Your Home against Wildfire” video (National Wildfire Coordinating Group)

Landscaping/Building

- “Firewise Plants for Utah Landscapes” Utah Forest Facts newsletter (Utah State University Extension)
- “How to Landscape for Safer Hillside Living” pamphlet (Los Angeles City Fire Department)

Community Planning

- “Community Involvement in Fire Prevention” (Fire Management Notes Vol. 42)
- “Community Planning: An Introduction to the Comprehensive Plan” (Kelly, Becker; Island Press)
- “County Land Use Planning: How Can Planners Help the Fire Services in Protecting Homes from Wildfire” (USDA Forest Service, General Technical Report INT 251)
- “Development Strategies in the Wildland/Urban Interface” (Western Fire Chiefs Association)
- “The Greenbelt Concept: Safeguarding Your Community with Planning Buffer Zones” (American Fire Journal)

Evacuation Planning

- “Fire Alert, Warning and Evacuation” guidance document (Utah Div. of Emergency Services & Homeland Security)

Websites

- FireWise Home Page -- <http://www.firewise.org>
- Forest Service Fire Management Website -- <http://www.fs.fed.us/r3/sfe/fire/index.html>
- Insurance Services Office (town fire ratings) -- <http://www.isomitigation.com/>
- National Fire Protection Association -- <http://www.nfpa.org>
- National Interagency Fire Ctr, Wildland Fire Prevention/Education – <http://www.nifc.gov/preved/rams.html>
- U.S. Department of Agriculture “How to Get Information” (contacts) – <http://www.usda.gov/news/howto/nre.htm>
- Utah BLM Fire Management Website – <http://www.ut.blm.gov/fire/Assessment/assessment.html>
- Utah Twenty-First Century Communities Program - <http://utahreach.usu.edu/comm21/index.htm>

c. Water Supply

Ponds / Creeks / other natural water sources:

Type: Pond / Creek	Location / GPS Coordinates	Status: Permanent / Intermittent	Helicopter Access?	Pump Required?	# Gallons or CFS*
Red Creek	See attached water source map	Permanent	Limited	Yes	10 to 1.5
Red Creek Reservoir	See attached water source map	Permanent	Yes	Yes	39,102,000
Bandanna Pond	See attached water source map	Permanent	YES	Yes	50,000
Strawberry River	See attached water source map	Permanent	Limited	Yes	
Currant Crk	See attached water source map	Permanent	Limited	Yes	
Currant Crk Reservoir	See attached water source map	Permanent	YES	Yes	

* Ponds: measure 1000's of gallons; Creeks: measure in cfs during fire season

Hydrants:

Location	Type: Dry / Pressurize	Data: *TP&S	GPM (max.) Output	Comments
Fruitland Vol. Fire Station	Pressurized	NH		
Red Creek R.D. bottom of Youngs Bench.	Pressurized	NH		
SR 40 and phone Building.	Pressurized	NH		
SR 40 and Fruitland Church.	Pressurized	NH		
Sundown Ridge. 1 st road East at the end of the Cul-de-sac	Pressurized	NH		
Sundown Ridge 2 nd road west at the end of the Cul-de-sac	Pressurized	NH		
Bandanna Ranch top of Dugway	Pressurized	NH		
Bandanna Ranch on Bandanna Dr	Pressurized	NH		
Airport Rd	Pressurized	NH		
Elkhorn Rd	Pressurized	NH		
Stagecoach	Pressurized	NH		
Up Red Creek by Adairs	Pressurized	NH		

* Thread Pressure and Size

Water Tanks / Other available water storage: (underground cisterns, swimming pools, etc.)

Homeowners not connected to a community water system usually have some type of water storage. The capacity is generally limited in size and access for fire flow is limited.

4000 Gallon underground water tank at the Fruitland Fire Station.

Several old underground cisterns on Bandanna that are not used for culinary use any more. We have asked that they keep them full for fire use. Several buried tanks on Pinion Ridge.

d. Emergency Services / Equipment Capabilities

Describe the types of emergency services and equipment available from local, county, state and federal resources.

911 Services:	Dispatched through Central Dispatch in Vernal 789-4222, 738-2424, 911
County:	Fruitland Volunteer Fire Department; structural, wildland fire equipment; EMS first responder Duchesne Volunteer Fire Department; structural, wildland fire equipment, EMS Ambulance Tabiona/Hanna Volunteer Fire Department; structural, wildland fire equipment; EMS Ambulance service Duchesne Sheriff's Department, & Search and Rescue Duchesne Road Department; heavy equipment
State:	Division of Forestry, Fire & State Lands; wildland fire equipment Division of Wildlife Resources; law enforcement, animal control
Federal:	U.S. Forest Service; Ashley National Forest; wildland fire equipment Bureau of Indian Affairs, Uintah & Ouray Agency; wildland fire equipment Bureau of Land Management; wildland fire equipment

2. Hazard Evaluation

a. Area Fire History

The fire frequency in the project area can be quite high during a dry summer. The most frequent ignition source is due to lighting. The majority of the wildfires are contained to a single tree or several tree clumps. This has been due either to existence of natural barriers or prompt suppression action by either local fire resources or property owners. Notable exceptions to this were the Orange Mtn fire, Tabby Swale, Golden Stairs, and County's Best fires.

b. Subdivision rating

The project area is rated HIGH for wildfire hazard based on rating factors from the Division's "Wildfire Hazards and Residential Development rating guide.

(Documentation for this rating should be included in the Appendix.)

c. Property / Structure Rating

All lots will be rated for wildfire hazard, as arranged by the Fire Council with fire officials and as permitted by the owners. The estimated time of completion for all ratings is 2004.

Documentation of individual property ratings should be included in the Appendix.

d. Expected Fire Behavior

Describe expected fire behavior. Detailed documentation should be included in the Appendix.

Expected fire behavior within the project area is a function of location and weather conditions at the time of ignition. The area has a varied mixture of sparsely to densely vegetated mosaics. Fire behavior can vary from fires remaining at a single tree to a fire quickly transitioning from a single tree lightning strike into a rapidly spreading fire burning through grass/sage fuel types. The potential for a sustained crown fire burning in the thicker pinion/juniper stands is a very realistic possibility. The presence of understory fuels will contribute to sustaining crowning runs. When ERC's are at high levels (90% or higher) sustained crown runs in moderate to thick pinion/juniper stands are possible even with light wind conditions.

INSTRUCTIONS

B. Community Prescription

Based on the information collected, provide recommendations for action under each of the following categories. Fuel modification project plans should include recommendations for ongoing maintenance. **Attach project worksheets for each project, and similar documentation for other goals.**

1. Fuel Modification Projects

<u>Project(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
Lower Red Creek Demonstration Fuel Break	Completed 11/2002	Nathan Robinson

2. Infrastructure Improvements (Utilities, Water Developments, Equipment Acquisition / Repair, etc.)

<u>Project(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
Bandanna Supplemental Fire Flow Pond	Completed 10/2002	Nathan Robinson
Dry Hydrant put in Currant Creek River in Lower Red Creek		Nathan Robinson

3. Education

<u>Goal(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
Fire Awareness day	Memorial Day 2003	Sheridan Daines
Fire Fair	Memorial Day 2004	Sheridan Daines
County Fair Booth or Table	August 2003	Sheridan Daines
County Fair Booth or Table	August 2004	Sheridan Daines

4. Wildfire Response / Pre-Attack Plan

A Pre-Attack Plan should be in place, with a detailed description attached. It should address the following:

- | | |
|--|--|
| Emergency notification procedures | Factors in determining evacuation vs. shelter-in-place |
| Fire protection responsibilities among agencies
(private, state, federal lands; response times) | Traffic Control |
| Command responsibilities | Briefing of personnel on safety and hazards |
| Pre-determined locations for... | Determining Operational Mode |
| Command Post | Determining resource needs |
| Staging Areas | (aircraft, mechanized, hand crews, water / |
| Safety Zones | chemical delivery systems) |
| Helibase / Helispots | Determining assignments |
| | (reconnaissance, medical suppression, rehab) |

<u>Goal(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
Write a Pre-Attack plan for FVFD	2004	Kathy Robinson

5. Monitoring and Evaluation

<u>Goal(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
Check fire breaks each year and clean or prune as necessary.	Yearly	Fuels committee

APPENDIX

INSTRUCTIONS

This section is to be filled as needed by both the Community Wildfire Council and fire officials. Items can include, but are not limited to:

- Contact Lists
- Assessment Project Worksheets
- Maps
- Homeowner Checklists
- Examples / Sample documents
- Glossary

SAMPLE

Appendix A – Fire Analysis & Fire Frequency Information.

Fire Occurrence Map
 ERC Analysis
 Drought Analysis
 Fire Frequency List
 Fire Behavior runs
 Wildfire Hazard Rating Criteria

Appendix B - Maps

Topography
 Boundaries
 Vegetation/Fuel Types (Hazard area)
 Escape routes
 Safety zones

Appendix C – Assessments / Worksheets

Defensible Space Assessment Worksheets
 Wildfire Hazard Rating Form
 Wildland Urban Interface Project Sheet (funding)

Appendix D – Checklists / Homeowner Information

Fire Disaster Potential Checklist for Homeowners
 Fire Disaster Potential Checklist for Developers
 Landscaping and Defensible Space Checklist
 Construction Checklist
 Fire Resistant Plants
 Emergency Response checklist
 Zoning recommendations checklist

Appendix E – Other

Wildfire Glossary
 Sample County Fire Ordinances

AGENCY CONTACT INFORMATION

(as of March, 2002)

Utah Department of Natural Resources Division of Forestry, Fire and State Lands

Bear River Area Office

Craig Pettigrew, Area Manager

1780 N. Research Parkway, Ste 104
N. Logan, UT 84341-1940
(435) 752-8701

Wasatch Front Area Office

*Barbara Gardner, Area Manager
, Area Forester*

1594 W. North Temple, Ste 3520
Salt Lake City, UT 84116
(801) 538-5555

Southwestern Area Office

*Ron Larsen, Area Manager
Larry LeForte, FMO*

585 North Main
Cedar City, UT 84720-2643
(435) 586-4408

Northeastern Area Office

*Dale Jablonski, Area Manager
Mike Eriksson, Area Forester
Stephen Rutter, FMO**

152 East 100 North
Vernal, UT 84078-2126
(435) 781-5463

Central Area Office

*Kelly Allen, Area Manager
Mike Melton, FMO*

115 East 900 North
Richfield, UT 84701-1847
(435) 896-5697

Southeastern Area Office

*Gary Cornell, Area Manager
, Interface
Project Coordinator*

1165 S. Highway 191, Suite 6
Moab, UT 84532-3002
(435) 259-3766

* FMO = Fire Management Officer

Utah Resource & Development Councils

Bear River RC&D

1860 N. 100 East
No. Logan, UT 84341
(435) 753-3871

Color Country RC&D

2460 W. Highway 56 #5
Cedar City, UT 84720
(435) 586-7449

Panoramaland RC&D

3490 N. 600 E.
Richfield, UT 84701
(435) 896-8965 ext. 42

Castlelands RC&D

P.O. Box 1287
Huntington, UT 84528
(435) 687-2985

Dinosaurland RC&D

240 W. Highway 40
Roosevelt, UT 84066
(435) 722-0884

Bonneville RC&D

5370 S. 1030 W.
Murray, UT 84123
(801) 262-6838

Mountainlands RC&D

2210 S. Hwy 40, Suite B
Heber City, UT 84032-3527

Utah Associations of Government (AOG)

Bear River AOG

170 N. Main
Logan, UT 84321
(435) 752-7242

Mountainland AOG

586 East 800 North
Orem, UT 84097-4146
(801) 229-3800

Southeastern AOG

375 S. Carbon Ave., Box 1106
Price, UT 84501
(435) 637-5444

Five County AOG

906 N. 1400 W., Box 1550
St. George, UT 84770
(435) 673-3548

Six-County AOG

250 North Main
Richfield, UT 84701
(435) 896-9222

Uintah Basin AOG

855 E. 200 N. (112-3)
Roosevelt, UT 84066
(435) 722-4518

Other Planning / Training Resources

Community Solutions, Inc.

Kathy Hammons, Janet Johnson
386 East 600 North
Midway, UT 84049
(435) 657-0668

Utah Rural Development Council

351 W. Center Street, Admin 304D
Cedar City, UT 84720
(435) 586-7852

Wasatch Front Regional Council

420 W. 1500 S., Ste 200
Bountiful, UT 84010
(801) 292-4469

American Red Cross

Cache County Chapter

1115 North 200 East, Ste 140
Logan, UT 84341
(435) 752-1125

Greater Salt Lake Area Chapter

465 South 400 East, Box 3836
Salt Lake City, UT 84110-3836
(801) 323-7000

Southern Nevada Chapter

3672 N. Rancho Drive
Las Vegas, NV 89130
(702) 791-3311

Ogden Chapter

2955 Harrison Boulevard
Ogden, UT 84403
(801) 627-0000

Mountain Valley Chapter

865 North Freedom Blvd.
Provo, UT 84604-3315
(801) 373-8580

Western Colorado Chapter

506 Gunnison Avenue
Grand Junction, CO 81501
(970) 242-4851

Emergency Management / Fire Agencies

Federal Emergency Mgmt Agency

Denver Federal Center
Building 710, Box 25267
Denver, CO 80225-0267
(303) 235-4800

Utah Comprehensive

Emergency Management
Rm. 1110, State Office Bldg.
Salt Lake City, UT 84114
(801) 538-3400

Utah State Fire Marshal

5272 S. College Dr., Ste 302
Murray, UT 84123-2611
(801) 284-6350

State of Utah
County Emergency Management Coordinators

Beaver County
Deputy Brian Lacy
(435) 438-6449
quackerjack11@hotmail.com

Box Elder County
Denton Beecher
(435) 734-3357
sbosgieter@boxeldercounty.org

Cache County
Capt. Bob DeGasser
(435) 750-7406
bdegasser@cache.state.ut.us

Carbon County
Dennis Dooley
(435) 636-3290
slehman@co.carbon.ut.us

Daggett County
Shirley Slaugh
(435) 784-3389
wslaugh@union-tel.com

Davis County
Sgt. Brian Law
(801) 451-4129
brianlaw@co.davis.ut.us

Duchesne County
Georg Adams
(435) 738-1181
georg@hotmail.com

Emery County
Deputy Martin Wilson
(435) 381-2404
martin@ecso.com

Garfield County
Ms. Chris Hatch
(435) 676-2678
gcso@color-country.net

Grand County
Doug Squire
(435) 259-1363
dsquire@grand.state.ut.us

Iron County
Vern Grimshaw
(435) 586-3061
icelpc@accesswest.com

Juab County
Gary Corbin
(435) 623-1762
(currently no e-mail)

Millard County
Lt. Forrest Roper
(435) 743-5302
froper@millard.state.ut.us

Morgan County
Terry Turner
(801) 845-4048
turner@wfol.net

Piute County
Sheriff Marty Gleave
(435) 577-2893
delta1@hotmail.com

Rich County
Dan Ames
(435) 793-2285
lazya@cut.net

Salt Lake County
Bob Halloran, Bureau Chief
(801) 743-7102
bhalloran@co.sl.c.ut.us

San Juan County
Rick Bailey
(435) 587-3225
sanjuan.rbailey@state.ut.us

Sanpete County
Kevin Holman
(435) 835-2191
holmank@sanpeteso.org

Summit County
Merlin Rudd
(435) 655-0133
mrudd@hotmail.com

Tooele County
Kari Sagers
(435) 843-3260
kari@tcem.org

Uintah County
Dale Peterson
(435) 789-1911
countylepcs@hotmail.com

Utah County
Dave Bennett
(801) 343-4132
ucso.daveb@state.ut.us

Wasatch County
Kent Berg
(435) 654-1661
kberg@co.wasatch.ut.us

Washington County
Mr. Dean Cox
(435) 673-4824
deanc@washco.state.ut.us

Wayne County
Vicky Bower
(435) 425-3100
vtaft@wco.state.ut.us

Weber County
Lance Peterson
(801) 778-6682
lpeterson@co.weber.ut.us

Utah Soil Conservation Districts

<p>Alpine Soil Conservation District 1350 W. Anderson Lane Lindon, UT 84042 (801) 785-2884</p>	<p>Green River Soil Cons. District P.O. Box 153 Green River, UT 84525 (435) 564-8142</p>	<p>San Rafael Soil Cons. District Box 263 Ferron, UT 84523 (435) 384-2397</p>
<p>Beaver Soil Conservation District P.O. Box 746 Beaver, UT 84713 (435) 438-2326</p>	<p>Juab Soil Conservation District 290 East 300 North Mona, UT 84645 (435) 623-1048</p>	<p>Sanpete Soil Conservation District P.O. Box 3056 Chester, UT 84623 (435) 436-8698</p>
<p>Blacksmith Fork Soil Cons. District 1835 West 3200 South Logan, UT 84321 (435) 752-7573</p>	<p>Kamas Valley Soil Cons. District 472 East 3600 North Kamas, UT 84036 (435) 783-4714</p>	<p>Sevier County Soil Cons. District 245 North 500 West Richfield, UT 84701 (435) 896-5883</p>
<p>Canyonlands Soil Cons. District P.O. Box 243 Escalante, UT 84726 (435) 826-4252</p>	<p>Kane County Soil Cons. District 165 West Kanab Creek Drive Kanab, UT 84741 (435) 644-2774</p>	<p>Shambip Soil Conservation District 90 South West Park Rush Valley, UT 84069 (435) 837-2244</p>
<p>Daggett Soil Conservation District Box 267 McKinnon, WY 82938 (435) 784-3113</p>	<p>Millard Soil Conservation District Box 159 Holden, UT 84636 (435) 795-2618</p>	<p>Summit County Soil Cons. District 1430 East Chalk Creek Coalville, UT 84017 (435) 335-2204</p>
<p>Davis Soil Conservation District 1649 West 700 South Syracuse, UT 84075 (801) 825-1772</p>	<p>Morgan Soil Conservation District 1360 West Island Road Morgan, UT 84050 (801) 829-6327</p>	<p>Timp-Nebo Soil Cons. District 4083 West 12680 South Payson, UT 84651 (801) 465-2777</p>
<p>Delta Soil Conservation District 4161 West 2100 North Delta, UT 84624 (435) 846-3379</p>	<p>North Cache Soil Cons. District 20 East 1600 South Lewiston, UT 84320 (435) 258-2828</p>	<p>Twin M Soil Conservation District Box 942 Milford, UT 84751 (435) 387-2690</p>
<p>Dixie Soil Conservation District 322 West 1300 South Hurricane, UT 84737 (435) 635-2992</p>	<p>Northern Utah Soil Cons. District P.O. Box 175 Tremonton, UT 84337 (435) 257-7201</p>	<p>Uintah Soil Conservation District Box 760036 Tridell, UT 84076 (435) 247-2527</p>
<p>Duchesne Soil Cons. District Box 832 Duchesne, UT 84021 (435) 738-5710</p>	<p>Piute County Soil Cons. District RFD Antimony, UT 84712 (435) 624-3247</p>	<p>Upper Sevier Soil Cons. District 160 S. Main, P.O. Box 128 Panguitch, UT 84759 (435) 676-2686</p>
<p>E & I Soil Conservation District P.O. Box 2557 Cedar City, UT 84720 (435) 586-4063</p>	<p>Price River Soil Cons. District 6495 South 3000 East Price, UT 84501 (435) 637-3474</p>	<p>Wasatch Soil Conservation District 2787 East 2400 South Heber City, UT 84032 (435) 654-1486</p>
<p>Fremont River Soil Cons. District Box 1513 Lyman, UT 84749 (435) 836-2772</p>	<p>Rich Soil Conservation District P.O. Box 67 Laketown, UT 84038 (435) 946-3221</p>	<p>Weber Soil Conservation District 2910 West 2550 South West Haven, UT 84401 (801) 731-0546</p>
<p>Grand Soil Conservation District 2941 E. Bench Road Moab, UT 84532 (435) 259-6235</p>	<p>Salt Lake Soil Cons. District 1275 West 6850 South West Jordan, UT 84084 (801) 262-4735</p>	<p>West Box Elder Soil Cons. District HC 72 Box 2324 Malta, ID 83342 (435) 827-5724</p>
<p>Grantsville Soil Conservation District 358 E. Church Road Erda, UT 84074 (435) 882-0465</p>	<p>San Juan Soil Cons. District P.O. Box 219 Monticello, UT 84535 (435) 587-2724</p>	

Utah Department of Natural Resources

Divisions other than Forestry, Fire and State Lands

Division of Wildlife Resources

1594 W. North Temple
Salt Lake City, UT 84116
(801) 538-4700

Regional Office – Ogden
(801) 476-2740

Regional Office – Vernal
(435) 789-3103

Regional Office – Springville
(801) 489-5678

Regional Office – Price
(435) 636-0263

Regional Office – Cedar City
(435) 865-6103

Division of Oil, Gas & Mining

1594 W. No. Temple, Ste 1210
Salt Lake City, UT 84116
(801) 538-5340

Division of Water Rights

1594 W. No. Temple, Ste 220
Salt Lake City, UT 84116
(801) 538-7240

Regional Office – Logan
(435) 752-8755

Regional Office – Vernal
(435) 781-5327

Regional Office – Price
(435) 637-1303

Regional Office – Richfield
(435) 896-4429

Regional Office – Cedar City
(435) 586-4231

Division of Water Resources

1594 W. No. Temple, Ste 310
Salt Lake City, UT 84116
(801) 538-7230

Division of Parks & Recreation

1594 W. No. Temple, Ste 116
Salt Lake City, UT 84116
(801) 538-7220

Northeast Region
(435) 649-9109

Northwest Region
(801) 533-4229

Southeast Region
(435) 259-3755

Southwest Region
(435) 586-2789

*For information on State Parks:
<http://www.stateparks.utah.gov>*

Utah Geological Survey

1594 W. No. Temple, Ste 3110
Salt Lake City, UT 84116
(801) 538-3300

**U.S. Department of Agriculture
Forest Service – Utah Offices**

Intermountain Regional Office

Federal Building
324 25th Street
Ogden, UT 84401
(801) 625-5306

Ashley National Forest

355 North Vernal Avenue
Vernal, UT 84078
(435) 789-1181

Dixie National Forest

1789 N. Wedgwood Lane
Cedar City, UT 84720
(435) 865-3700

Fishlake National Forest

115 East 900 North
Richfield, UT 84701
(435) 896-9233

Manti-LaSal National Forest

599 West Price River Drive
Price, UT 84501
(435) 637-2817

Uinta National Forest

88 West 100 North
Provo, UT 84601
(801) 342-5780

**Wasatch-Cache
National Forest**

8236 Federal Building
125 South State Street
Salt Lake City, UT 84138
(801) 524-3900

U.S. Department of Interior
Bureau of Indian Affairs ~ Utah Offices

PHOENIX AREA OFFICE
for Arizona, Nevada, Utah
P.O. Box 10
Phoenix, AZ 85001
(602) 379-6600

Southern Paiute Field Station
P.O. Box 720
St. George, UT 84711
(435) 674-9720

Uintah & Ouray Agency
P.O. Box 130
Fort Duchesne, UT 84026
(435) 722-2487

Tribes

Skull Valley Goshute Reservation
P.O. Box 150
Grantsville, UT 84029
(801) 363-7726

**Paiute Indian Tribe
Of Utah Tribal Council**
600 North 100 East Paiute Drive
Cedar City, UT 84720
(435) 586-1112

**Uintah & Ouray Tribal
Business Committee**
P.O. Box 190
Fort Duchesne, UT 84026
(435) 722-5141

Goshute Business Council
P.O. Box 6104
Ibapah, UT 84034
(435) 234-1136

U.S. Department of Interior
Bureau of Land Management ~ Utah Offices

Salt Lake Field Office
2370 South 2300 West
Salt Lake City, Utah 84119
(801) 977-4300

Price Field Office
125 South 600 West
Price, Utah 84501
(435) 636-3600

Kanab Field Office
318 North First East
Kanab, Utah 84741
(435) 644-4600

Vernal Field Office
170 South 500 East
Vernal, Utah 84078
(435) 781-4400

Moab Field Office
82 East Dogwood
Moab, Utah 84532
(435) 259-2100

Monticello Field Office
435 North Main, P.O. Box 7
Monticello, Utah 84535
(435) 587-1500

Fillmore Field Office
35 East 500 North
Fillmore, Utah 84631
(435) 743-3100

Cedar City Field Office
176 East D.L. Sargent Drive
Cedar City, Utah 84720
(435) 586-2401

**Grand Staircase-Escalante
National Monument**
190 E. Center
Kanab, UT 84741
(435) 644-4300

Richfield Field Office
150 East 900 North
Richfield, Utah 84701
(435) 896-1500

St. George Field Office
345 East Riverside Drive
St. George, Utah 84720
(435) 688-3200

U.S. Department of Interior
Fish and Wildlife Services ~ Utah Offices

Ecological Services Field Office
2369 West Orton Circle
West Valley City, UT 84119
(801) 975-3330

Fish Springs Natl. Wildlife Refuge
Highway 36, Pony Express Trail
Ibapah, UT 84034
(435) 831-5353

Colorado River Fishery Project
1380 South 2350 West
Vernal, UT 84078-2042
(435) 789-4078

Senior Resident Agent – Ogden
P.O. Box 2369
Ogden, UT 84402
(801) 625-5570

**Colo. River Wildlife Mgmt Refuge,
Ouray Natl. Wildlife Refuge**
19001 East Wildlife Refuge Road
Randlett, UT 84063-2042
(435) 545-2522

**Fish & Wildlife Service
Management Assistance Office**
1380 South 2350 West
Vernal, UT 84078-2042
(435) 789-0354

U.S. Department of Interior
National Park Service ~ Utah Offices

Arches National Park
P.O. Box 907
Moab, UT 84532-0907
(435) 719-2100 (Headquarters)

Cedar Breaks Natl. Monument
2390 W. Highway 56, Suite 11
Cedar City, UT 84720-4151
(435) 586-9451 (Visitor Info)

Natural Bridges Natl. Monument
HC 60 Box 1
Lake Powell, UT 84533-0101
(435) 719-2100 (Headquarters)

Bryce Canyon National Park
P.O. Box 170001
Bryce Canyon, UT 84717-0001
(435) 834-5322 (Headquarters)

Glen Canyon Natl. Recreation Area
P.O. Box 1507
Page, AZ 86040-1507
(928) 608-6200 (Headquarters)

Pony Express Natl. Historic Trail
Long Distance Trails Office
325 South State St., Ste 324
Salt Lake City, UT 84145-0155
(801) 539-4093 (Headquarters)

California Natl. Historic Trail
324 S. State Street, Suite 250
P.O. Box 45155
Salt Lake City, UT 84145-0155
(801) 539-4095 (Headquarters)

Golden Spike National Historic Site
P.O. Box 897
Brigham City, UT 84302-0897
(435) 471-2209 (Visitor Info)

Rainbow Bridge Natl. Monument
PO Box 1507
Page, AZ 86040-1507
(520) 608-6200 (Headquarters)

Canyonlands National Park
2282 S. West Resource Blvd.
Moab, UT 84532-3298
(435) 719-2100 (Headquarters)

Hovenweep National Monument
McElmo Route
Cortez, CO 81321
(435) 719-2100 (Headquarters)

Timpanogos Cave Natl. Monument
R.R. 3, Box 200
American Fork, UT 84003-9803
(801) 756-5239 (Headquarters)

Capitol Reef National Park
HC 70 Box 15
Torrey, UT 84775-9602
(435) 425-3791 (Visitor Info)

Mormon Pioneer Natl. Historic Trail
Long Distance Trails Office
324 South State, Suite 250
Salt Lake City, UT 84145-0155
(801) 539-4095 (Headquarters)

Zion National Park
SR 9
Springdale, UT 84767-1099
(435) 772-3256

Fruitland Fire Frequency List:

Not all fires which have occurred within the project area have been listed. The development of this list is a work in progress. Fire occurrence data listed is from FFSL's Northeast Area fire reports from 1992 to 2000. Federal fire information is not listed here but is found on the fire occurrence map which follows.

Information key:

Size: is listed in Acres. An entry of "0" means fire was less than 1 acre. False alarm responses were not listed.

Cause: (1) Lightning (2) Equipment (3)Smoking (4)Campfire (5) Debris Burning (6)Railroad (7) Arson (8) Children (9) Misc or undetermined

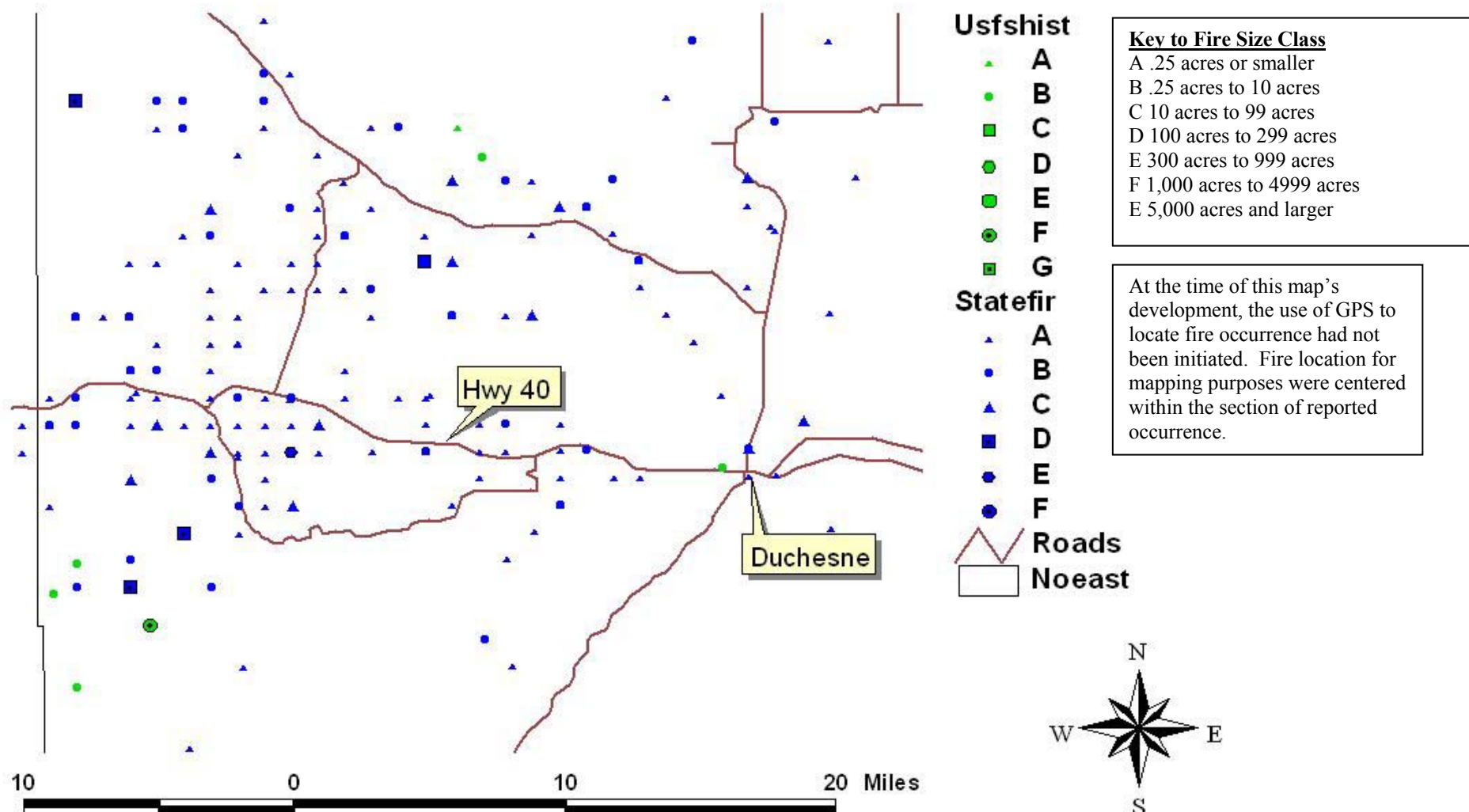
Fire Number: Used internally by area, UTS-NES-43-92-03 would correspond to the third fire report filed for 1992 by Duchesne DFW.

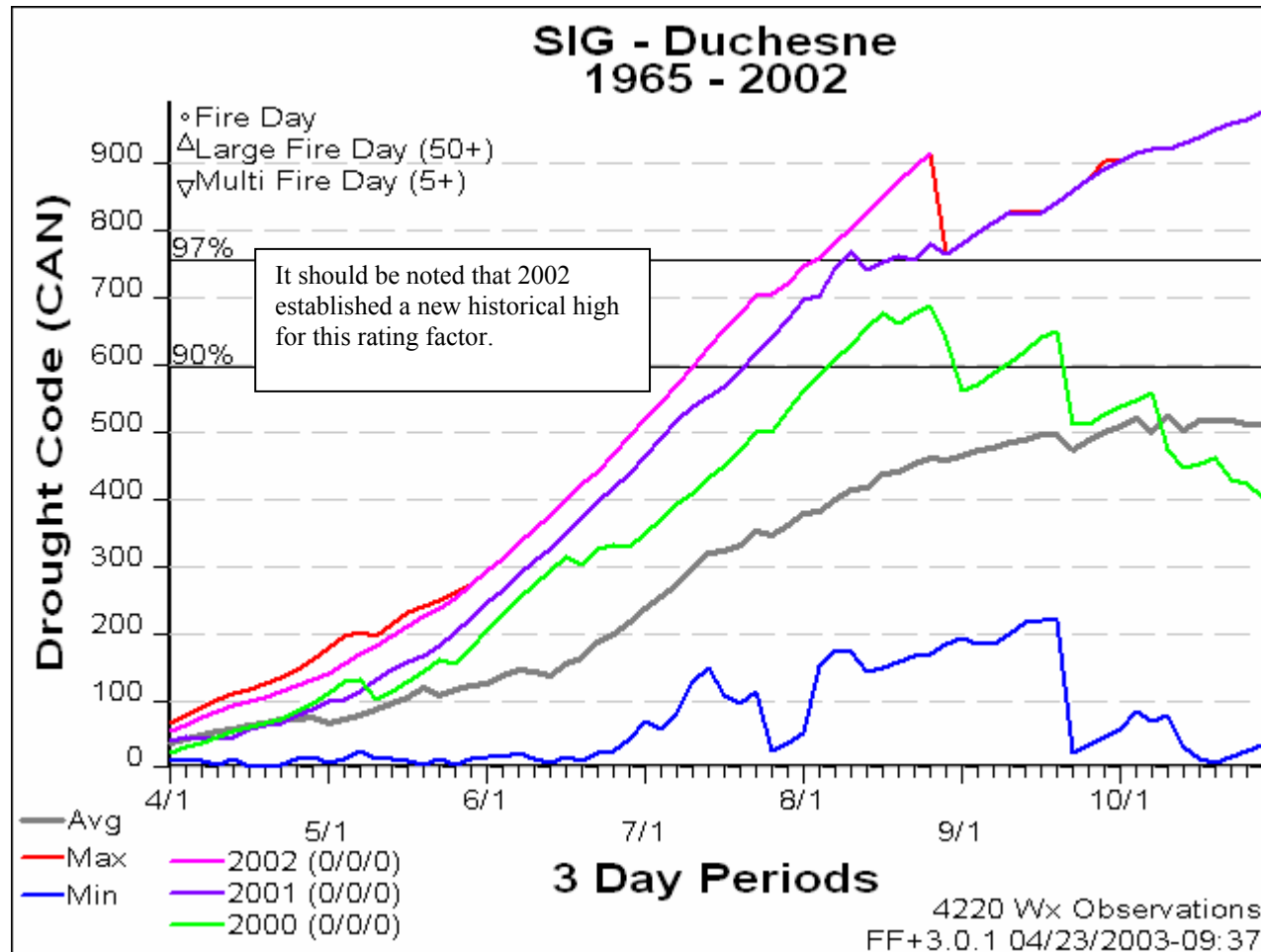
Start Date	Time*	Size	Cause	Fire Name	Fire Number
06/11/1992	00:00	0	1	LIGHTNING	03
06/24/1992	00:00	0	1	LIGHTNING	05
06/24/1992	00:00	0	1	LIGHTNING STRI	06
06/25/1992	00:00	0	1	LIGHTNING STRI	08
07/01/1992	00:00	0	1	LIGHTNING STRI	10
07/07/1992	00:00	0	1	LIGHTNING	12
07/15/1992	00:00	0	1	CEDAR MTN	13
07/16/1992	00:00	0	1	BANDANA	14
08/05/1992	00:00	0	1	LOW HOLLOW	38
08/05/1992	00:00	0	1	ROUGH HOLLOW	39
08/08/1992	00:00	0	1	LOST	21
08/10/1992	00:00	0	1	TABBY	22
08/14/1992	00:00	0	1	HANNA	23
08/24/1992	00:00	0	5	MONKS	24
08/25/1992	00:00	0	1	TABBY MTN	25
08/28/1992	00:00	0	1	T.V. TOWER	26
09/17/1992	00:00	7	1	GREY WOLF	31
09/20/1992	00:00	0	1	BANDANA RANCH	33
09/20/1992	00:00	0	1	PINE	32
10/01/1992	00:00	0	3	LITTLE LAKE	35
10/13/1992	00:00	200	9	BEAR HOLLOW	37
05/20/1993	00:00	0	1	HAPPY	01
06/17/1993	00:00	0	1	GENE'S	02
06/21/1993	00:00	0	1	COOKIN'	04
06/22/1993	00:00	0	1	FRUITLAND	05
06/24/1993	00:00	0	1	STUCK	06
07/01/1993	00:00	0	5	LITTLE	07
07/25/1993	00:00	0	8	RIMROCK	08
07/28/1993	00:00	2	4	PINION RIDGE	09
08/06/1993	00:00	0	1	ORANGE MTN	10
08/09/1993	00:00	0	1	GREY WOLF	12
09/05/1993	00:00	0	1	AVINTAQUINN	16
09/06/1993	00:00	1	1	PINE HOLLOW	17
07/01/1994	00:00	2	2	BOILER MAKER	06
07/02/1994	00:00	0	1	KOCH # 1	08
07/07/1994	00:00	0	1	KOCH # 2	13
07/10/1994	00:00	0	1	CAMELOT	14
07/10/1994	00:00	0	3	FANTASY	15
07/12/1994	00:00	0	9	EAST WEST 40	16
07/22/1994	00:00	0	1	STARVATION # 2	19
07/22/1994	00:00	0	1	# 2 FOR THE DA	20
07/22/1994	00:00	0	1	# 3 FOR THE DA	21
07/23/1994	00:00	3	1	TIMBER CANYON	22
07/24/1994	00:00	0	1	MISSED STEAK	24

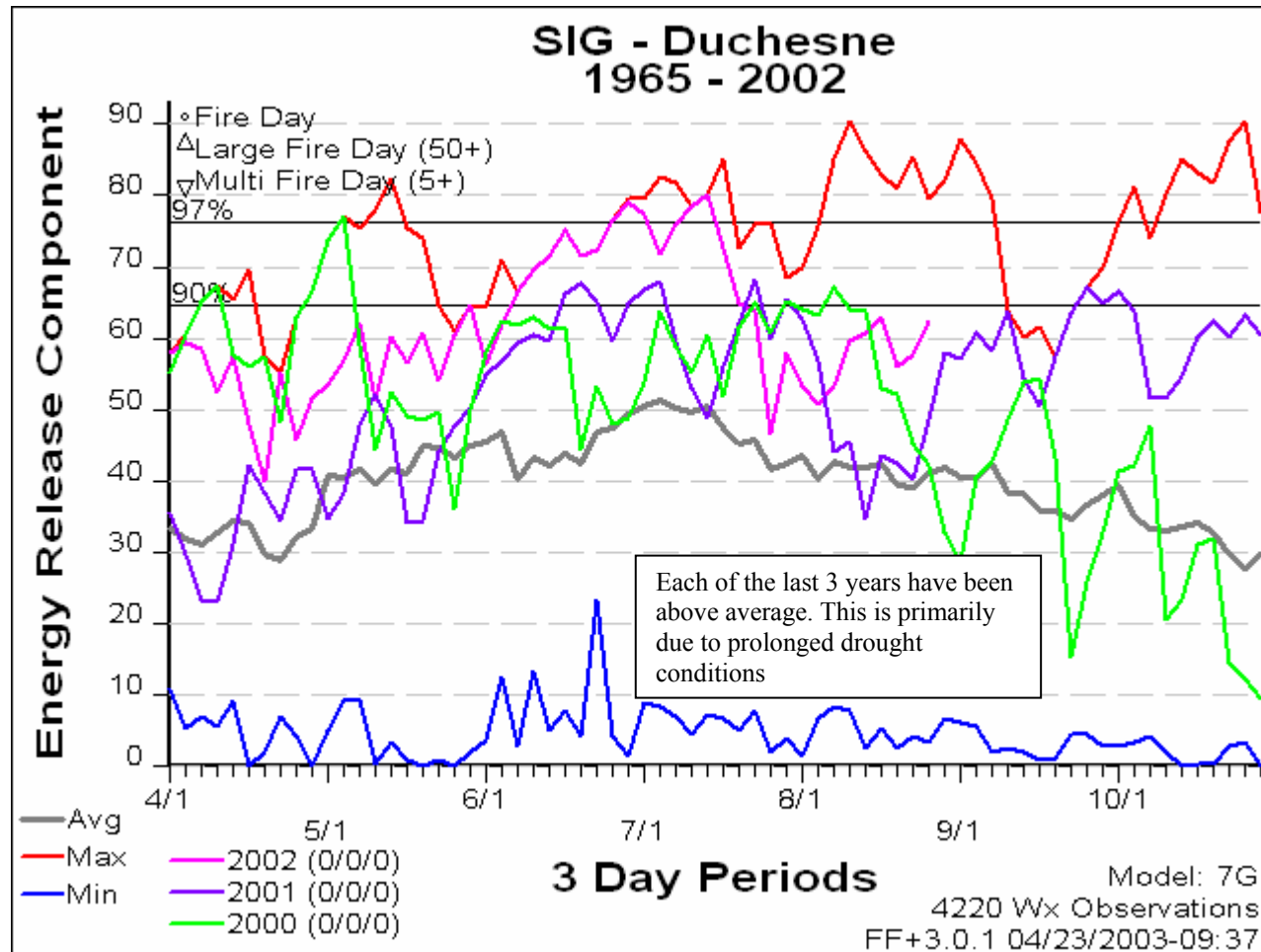
07/25/1994 00:00	2 1	GREYWOLF	23
07/25/1994 00:00	0 1	GREYWOLF # 2	25
07/26/1994 00:00	0 1	GOLDEN STAIRS	26
07/27/1994 00:00	0 1	FRUITLAND 2	28
07/27/1994 00:00	0 1	FRUITLAND	27
07/28/1994 00:00	0 1	BENSEN DRAW	32
07/28/1994 00:00	0 1	ROBB'S PLACE	30
07/28/1994 00:00	0 1	NORTH O' ROBB'	31
07/29/1994 00:00	15 1	BANDANNA RANCH	34
08/23/1994 00:00	0 7	WEST KOCH	39
08/29/1994 00:00	0 1	INDIAN BAY	41
09/06/1994 00:00	0 1	BIGGEST TREE	47
09/06/1994 00:00	2 1	YOUNG'S RIDGE	46
09/25/1994 00:00	1 5	DUCHESNE	54
08/23/1995 00:00	0 1	RED CREEK 1	12
08/23/1995 00:00	0 1	RED CREEK 2	13
08/27/1995 00:00	3 2	BANDANA	14
09/02/1995 00:00	0 1	GOLDEN STRS	16
09/03/1995 00:00	0 1	PINNACLES	18
09/03/1995 00:00	0 4	MURRAY'S EXCIT	19
09/05/1995 00:00	0 1	RED CREEK 3	21
09/13/1995 00:00	0 9	SHERIFF'S SALE	25
09/17/1995 00:00	0 1	CURRANT CRK MT	26
10/12/1995 00:00	35 8	COUNTY'S BEST	35
10/15/1995 00:00	30 8	BUCKHORN	36
10/19/1995 00:00	0 4	F-TROOP	38
06/13/1996 00:00	0 1	FRUITLAND 1	03
06/15/1996 00:00	0 1	BLACKTAIL RIDG	05
06/25/1996 00:00	75 1	GOLDEN STAIRS	06
06/28/1996 00:00	0 1	LAKE CANYON	09
07/04/1996 00:00	1 1	CURRANT CRK	13
07/06/1996 00:00	0 1	STILL COOK'N	16
07/06/1996 00:00	0 1	ENOUGH!	18
07/06/1996 00:00	0 1	HEAT'N UP	15
07/06/1996 00:00	0 1	EARLY!	14
07/06/1996 00:00	0 1	NOT DONE YET	17
07/21/1996 00:00	0 4	LAKEWOOD HILLS	22
08/01/1996 00:00	0 1	CEDAR PEAK	24
08/08/1996 00:00	5 1	FRUITLAND	27
08/13/1996 00:00	0 2	EAST/WEST	29
08/14/1996 00:00	0 1	IVAN'S HELP	30
08/20/1996 00:00	3 1	BIG LAKE	36
08/27/1996 00:00	0 1	BANDANNA	39
08/27/1996 00:00	0 1	6 MILE	38
06/13/1997 00:00	0 5	UNATTENDED	02
07/11/1997 00:00	0 1	SKITZY	09
07/15/1997 00:00	0 1	73 SOUTH	12
07/15/1997 00:00	0 1	73 NORTH	10
09/11/1997 00:00	0 1	CEDAR MTN.	17
05/24/1998 00:00	0 1	GENE'S KIT	01
07/01/1998 00:00	0 2	BURNT WELL	02
07/02/1998 00:00	0 4	DAY AFTER	04
07/19/1998 00:00	0 1	RED CREEK	11
08/22/1998 00:00	1 9	BLACKTAIL	17
06/20/1999 00:00	0 1	SMITH	03
06/20/1999 00:00	0 1	FRUITLAND 1	02
06/23/1999 00:00	1 1	CEDAR BERRY	05
10/10/1999 00:00	109 8	TABBY SWALE	19
10/15/1999 00:00	1 5	PINNACLES	20
10/23/1999 00:00	0 5	PICKNICK	21
06/13/2000 00:00	0 8	KELLER FIRE	03

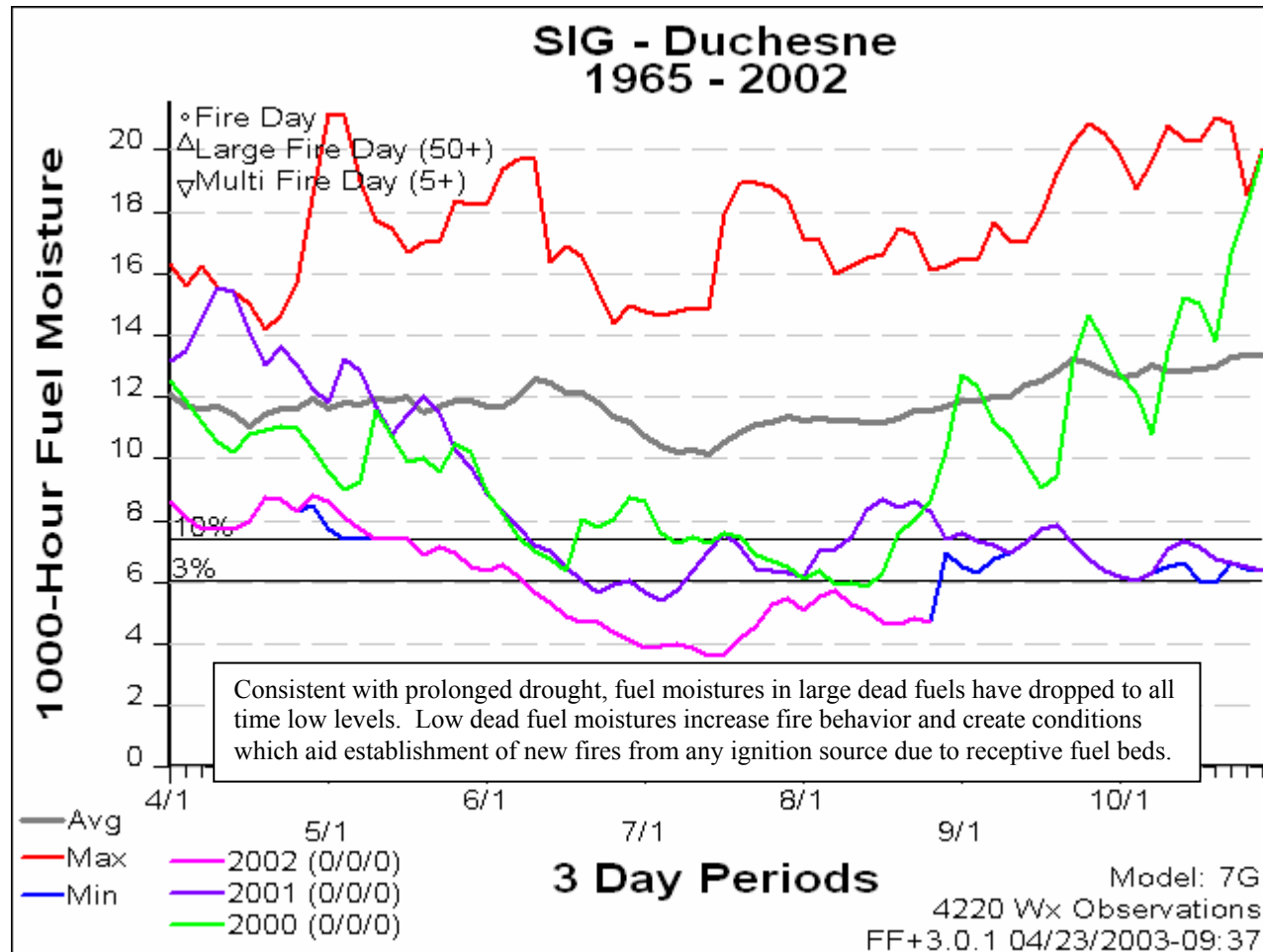
06/18/2000 00:00	0 1	RIDGETOP	04
06/18/2000 00:00	0 1	THE T	05
06/30/2000 00:00	0 1	ONE PJ	08
07/11/2000 00:00	0 1	STAIRCASE	13
07/15/2000 00:00	0 1	COCKY HOLLOW	14
07/24/2000 00:00	60 1	BLACKTAIL	20
07/30/2000 00:00	1 1	TABBY	21
08/01/2000 00:00	1 1	AVINTAQUIN	22

Fruitland Fire Occurrence









The following fire behavior prediction was calculated using the BEHAVE fire behavior prediction software program. The conditions were chosen to simulate an average summer day in the project area.

To aid those not familiar with some of the terminology, the following is offered as a generalized guide to the terms.

Fuel Models should be considered as groupings of vegetation and dead fuels (litter, twigs, branches, logs etc) that will burn with similar fire characteristics. There are 4 basic types of fuel models; grass, shrubs, timber litter and slash. Fuel Model 6 represents heavy concentrations of older shrubs or some pinion/juniper forest areas.

1 Hour Fuel Moisture is the calculated dryness of fine fuels like small twigs, dead grass etc. A quick way to estimate 1 hour fuel moisture is to divide Relative Humidity by 5. The fire behavior simulation is based on humidity ranges from 10% to 20% which are common in the project area during the summer.

Midflame Windspeed is considered as the windspeed felt at eye level. This is usually reduced from the windspeeds that are forecast by the weather service and account for reduced windspeed due to vegetative and slope effect. Forecast windspeeds are at the 20 foot level to measure free air winds.

```

DIRECT
1--FUEL MODEL ----- 6 -- DORMANT BRUSH, HARDWOOD SLASH
2--1-HR FUEL MOISTURE, % -- 2.0 3.0 4.0
3--10-HR FUEL MOISTURE, % - 4.0
4--100-HR FUEL MOISTURE, % 5.0
7--MIDFLAME WINDSPEED, MI/H 2.0 4.0 6.0 8.0 10.0
8--TERRAIN SLOPE, % ----- .0
9--DIRECTION OF WIND VECTOR .0
10--DIRECTION OF SPREAD ---- .0 (DIRECTION OF MAX SPREAD)
CALCULATIONS
DEGREES CLOCKWISE
FROM THE WIND VECTOR
    
```

```

=====
RATE OF SPREAD, CH/H (V4.4)
=====
1-HR MOIS (%) I MIDFLAME WIND, MI/H
I
I 2.0 4.0 6.0 8.0 10.0
-----
2.0 I 17. 39. 65. 94. 125.
I
3.0 I 15. 34. 58. 84. 112.
I
4.0 I 14. 31. 52. 76. 101.
    
```

Bold highlights Rates of Spread in excess of a single wildland engine crew capabilities.

FLAME LENGTH, FT		(V4.4)				
		MIDFLAME WIND, MI/H				
1-HR	I	2.0	4.0	6.0	8.0	10.0
MOIS	I	-----				
(%)	I	-----				
2.0	I	5.0	7.3	9.3	11.0	12.6
3.0	I	4.6	6.7	8.5	10.1	11.6
4.0	I	4.3	6.2	7.9	9.4	10.7

Flame lengths in excess of 1 foot will often initiate torching and crowning in pinion/juniper forest types unless pruning and limbing have been completed.

Appendix B. Public Comment Summary Report

1.1 UINTAH BASIN—INTRODUCTION

As part of the Regional Wildfire Protection Plan (RWPP) development process, the public participation component for the Uintah Basin Region was held in the form of two public open house meetings. These meetings were advertised, promoted, and held in Duchesne and Vernal, Utah.

1.2 MEETING ADVERTISING AND PROMOTION

Each meeting was advertised at least one week prior to its scheduled date. Advertising and promotion for the meetings included the following:

- Posters were placed in grocery stores, government buildings, and other prominent locations identified by core team members
- A press release announcing the public meeting dates and locations was sent to all newspapers, radio, and TV stations serving the Uintah Basin Region
- Meeting information was posted on the www.utahfireinfo.gov website with links provided to Uintah Basin Region county websites.
- An RWPP process information presentation was made by SWCA to the Uintah Basin Association of Governments on September 28, 2006.
- Approximately 400 postcards were distributed to local government officials, fire and emergency management employees and volunteers, the general public, and local businesses.

1.3 MEETING OVERVIEW

Both of the Uintah Basin Region public meetings were conducted in a similar manner. Upon arrival, attendees were greeted by the RWPP project leader and meeting support staff, attendees were requested to sign in and provided with an information packet. Attendees were then either personally toured or invited to self-tour the display area and also encouraged to take copies of brochures and handouts. Questions were addressed and refreshments provided.

The displays focused on the RWPP process, depicting the region's project area and draft risk analysis; identifying potential issues in more detail; and encouraging attendees to consider, document, and submit their comments. A variety of brochures, information sheets, and other handouts providing additional information on wildfire, fuels treatment methods, defensible space, and other relevant issues were also available.

During the open house, the facilitator, support staff, and core team members/agency resource specialists actively engaged attendees in dialogue to clarify topics, identify and capture concerns, and/or provide additional information. Often attendees documented and submitted their comments on the comment forms within their information packet prior to leaving. Others indicated that they would follow up with their comment forms at a time after the meeting. Foreseeing this possibility, the project leader had included handout-sized copies of the meeting display boards and presentation slides (and a comment form) in the information packet to facilitate later recall. Table 1 provides summary information about the public meetings held in support of the Uintah Basin RWPP.

Table 1. Uintah Basin RWPP public meeting participation information.

Date	County	Meeting Location (City)	Attendees (no.) ^a	Individuals Submitting Comments (no.) ^b	Comment Type ^c
11/1/06	Duchesne	Duchesne	5	6	6 f
11/2/06	Uintah	Vernal	4	1	1 f

a. Attendee number as documented on sign-in sheets; attendees were asked to sign in. The number will not necessarily include the meeting facilitator, support staff, or core team members in attendance.
 b. Includes all comments submitted through the end of the public comment period, 11/30/06.
 c. f = form, dn = discussion notes, o = other.

1.4 PUBLIC PARTICIPATION

Approximately 9 people attended the Uintah Basin Region public meetings.¹ With the vast history of wildfire in the Uintah Basin Region, it was anticipated that the public meetings would be of primary interest to individual citizens and concerned homeowners and that they would make up the majority of the meeting attendees. What was observed was that the majority of participants were actually fire-related professionals, land management professionals, city and county leaders, private developers and fire or fuels reduction-related contractors.² While a number of concerned citizens were in attendance, they were the minority participants.

1.5 COMMENT GENERATION

The form used to solicit comments included a list of 14 questions designed to gauge community interest and gather suggestions regarding fuels reduction treatment areas and methods, community values at risk, structural ignitibility, and fire fighting capabilities, for consideration by the core team in their formulation of the RWPP’s priorities and recommendations. The questions were as follows:

1. Where do you live?
2. Do you believe your community is threatened by wildfire?
3. Please list any areas, structures or things that you value and feel should be protected from the threat of wildfire. (*Examples: historic sites, real estate value, scenery/ views, hiking trails, businesses, etc.*)
4. What is the single most important action that could be taken to reduce the threat of wildfire in your community? (*Specify action that could be taken, such as education, defensible space, fuels reductions or anything else you think is important.*)

¹ Attendee number as documented on sign-in sheets; attendees were asked to sign in. The number will not necessarily include the meeting facilitator, support staff, or core team members in attendance.

² No data were collected on profession and this list does not present the professions in any particular order, other than that observed, noted on sign-in sheets, or brought forward in conversation to the meeting facilitator and support staff.

5. What other actions could be taken to reduce the threat of (or be more prepared for) wildfire in your community? (*Specify action that could be taken, such as education, defensible space, fuels reductions or anything else you think is important.*)
6. What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?
7. What are the most important actions that could be taken to reduce the threat to your home (*List 1-4 actions*)?
8. What is your biggest concern about your community's ability to respond to a wildfire? (*Examples: water, training, equipment, personnel, evacuation plan/escape routes, etc?*)
9. What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?
10. What information do you need to be better prepared for wildfire?
11. Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?
12. Would you be willing to participate in a local level CWPP?
13. Did you know that there are grant dollars available to protect areas from wildfire?
14. Additional comments.

1.6 COMMENT COLLECTION

Meeting attendees were encouraged to answer the comment form questions (and/or to provide any additional comments) in writing during the meeting, but were given until November 30, 2006, to submit comments.³

1.7 FINDINGS

After the initial review of submitted comments and because the volume of comments was lower than anticipated, it was determined that the best way to capture public comments as they pertained to a regional-level document would be to summarize them according to the generating question on the comment form. If comments were relevant to a regional level, but not question specific, they would be included in a general comment summary category. Therefore, for each of the questions presented in Subsection 1.5, one summary is presented per question and one summary includes all other relevant comments that were not question specific, in a manner appropriate to the style of question presented. Thus, 14 responses are provided that are intended to convey the overall response of the region to a particular question. A reminder that community-specific comments are still captured by this process, but they are managed differently as explained in Subsection 1.9. Comment summaries are presented in Table 2.

³ The Uintah Basin comment forms say the comments are due the 15th. However, the meeting facilitator verbally extended the comment period to the 30th during the meeting presentation.

Table 2. Comment Summaries for the Uintah Basin RWPP.

1. Where do you live?	
Comments were received from individuals in Duchesne and Uintah Counties. No comments were received from any individuals representing Daggett County.	
2. Do you believe your community is threatened by wildfire?	
The majority of respondents said “yes.” Two respondents said there was moderate risk or identified some risk on the perimeter of town [Roosevelt].	
3. Please list any areas, structures or things that you value and feel should be protected from the threat of wildfire. (Examples: historic sites, real estate value, scenery/ views, hiking trails, businesses, etc.)	
Action Identified	Related Responses (no.)
Homes/Summer homes/trailers (i.e., Mini Ranch Areas, Bandanna Ranch)	6
Recreation (Camp Timberline, campers, Bear Claw Valley, summer tourists population, golf course, National Forest—South Unit)	6
Viewsheds	2
Businesses	2
Visitor population	1
Archeological sites	1
4. What is the single most important action that could be taken to reduce the threat of wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions or anything else you think is important.)	
Action Identified	Related Responses (no.)
Fuels reduction/Remove dead fuels, dying trees	4
Defensible space	2
Incentives	1
Fire ordinance	1
Vitality of Community Wildland Fire Council for coordination and in-kind work	1
5. What other actions could be taken to reduce the threat of (or be more prepared for) wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions or anything else you think is important.)	
Action Identified	Related Responses (no.)
Fuels reduction	2
Public education	2
Firewise	1

Comment Summaries for the Uintah Basin RWPP (continued)	
Fire breaks	1
Dry hydrants	1
Staff local fire councils	1
6. What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?	
Action Identified	Related Responses (no.)
Educate/increase awareness/information newsletter	4
Increase landowner participation in fire council	1
Increase fire hydrants	1
Be proactive	1
Defensible space	1
7. What are the most important actions that could be taken to reduce the threat to your home (List 1-4 actions)?	
Action Identified	Related Responses (no.)
Improve forest health	1
Develop emergency	1
Develop and maintain wildfire preparation list	1
Improve signage for canyons and tributaries	1
Create defensible space	1
Metal roof	1
Fire extinguishers	1
8. What is your biggest concern about your community's ability to respond to a wildfire? (Examples: water, training, equipment, personnel, evacuation plan/escape routes, etc?)	
Action Identified	Related Responses (no.)
Water availability	3
Personnel availability	2
Equipment availability	1
Personnel training	1
Exploding propane tanks	1
Condition and drivability of access roads	1

Comment Summaries for the Uintah Basin RWPP (continued)	
9. What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?	
Comments	
Location of fuels in the vicinity	
To enforce burn permits	
That the country decreased its fire-fighting budget. That fuels reduction projects can't be completed because of personnel shortages, that local fire fighters are away fighting fires in other parts of Utah.	
Would like to see more communication with the fire council to lean what they know already and go from there.	
We appreciate all that the Forestry, Fire and State Lands does for us.	
10. What information do you need to be better prepared for wildfire?	
Comments	
Good examples of homes locally	
What resources our local fire fighters need to do better	
Continue communicating with the public	
Fire frequency information for my [Uintah] area	
11. Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?	
Action Identified	Related Responses (no.)
We are/all land owners/personal and community/We have tremendous responsibility to protect our own and our neighbor's homes/yes	6
Roosevelt City	1
Local groups	1
Volunteer fire department /neighboring departments	1
Fruitland volunteer fire department	1
12. Would you be willing to participate in a local level CWPP?	
Responses provided in the back of this appendix. Not applicable to the RWPP	
13. Did you know that there are grant dollars available to protect areas from wildfire?	
Yes	6
No	2
14. Additional comments.	
None.	

1.8 OBSERVATIONS

Because the majority of public participants were also fire-related or land management professionals, they brought with them on-the-ground experience and comments based on direct observation and direct public contact in their professions. This is reflected in the large number of comments emphasizing the need for more public education, large area fuels reduction needs, and defensible space as priorities, to name a few. No meeting attendees appeared naïve to any of the issues presented. They spoke as well informed, concerned individuals and their comments reflected the same.

1.9 DOCUMENTATION

The following pages show the actual comment forms received for the public meetings held in support of the development of the Uintah Basin RWPP. Photocopies of the submitted comment forms, organized by county, follow this page. The purpose of providing this material is primarily for community wildfire protection plan development. Many comments are specific to projects for specific areas, which is outside the scope of the regional plan. The provision of the documents is for public inspection and for future use in the development of subsequent CWPPs.

Where do you live? (Please provide town and/or zip code. The remaining questions will focus on this community.)

Roosevelt

Do you believe your community is threatened by wildfire?

portions on edge of town

Please list any areas, structures, or things that you value and feel should be protected from the threat of wildfire. (Examples: historic sites, real estate, scenery/views, hiking trails, businesses, etc.)

homes, businesses, golf course

What is the single most important action that could be taken to reduce the threat of wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

Education

What other actions could be taken to reduce the threat of (or prepare for) wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

Defensible space

What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?

install more fire hydrants

What are the most important actions that could be taken to reduce the threat to your home? (List 1-4 actions.)

my home is not in hazard area

What is your biggest concern about your community's ability to respond to a wildfire? (Examples: water, training, equipment, personnel, evac plan/escape routes, etc.)

Water, equipment,

What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?

Location of fuels in vicinity

What info do you need to be better prepared for wildfire?

Any

Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?

Roosevelt City

Would you be willing to participate in a local-level CWPP? (If yes, please provide your contact info below so that we may contact you for the local CWPP)

Yes

Did you know that there are federal grant dollars available to protect areas from wildfire?

No

Additional comments. (If necessary, please attach additional sheets, or email us with additional comments.)

Thanks for sharing your ideas with us!

Contact Information:

This information is optional. It will not be distributed for any purpose.

Name:

[Redacted]

Organization:

[Redacted]

Address:

[Redacted]

City/State/Zip:

[Redacted]

Telephone:

[Redacted]

Email:

[Redacted]

Where do you live? (Please provide town and/or zip code. The remaining questions will focus on this community.)

DUCHESS

Do you believe your community is threatened by wildfire?

Yes.

Please list any areas, structures, or things that you value and feel should be protected from the threat of wildfire. (Examples: historic sites, real estate, scenery/views, hiking trails, businesses, etc.)

Uwini Ranch Areas

What is the single most important action that could be taken to reduce the threat of wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

FIRE ORDINANCE.

What other actions could be taken to reduce the threat of (or prepare for) wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

FIRE WISIS

What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?

PRO ACTIVE.

What are the most important actions that could be taken to reduce the threat to your home? (List 1-4 actions.)

DEFENSIBLE SPACE.

What is your biggest concern about your community's ability to respond to a wildfire? (Examples: water, training, equipment, personnel, evac plan/escape routes, etc.)

PERSONNEL TRAINING.

What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?

POWDER BAKING

What info do you need to be better prepared for wildfire?

?

Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?

HOME GOV / YOU

Would you be willing to participate in a local-level CWPP? (If yes, please provide your contact info below so that we may contact you for the local CWPP.)

Yes.

Did you know that there are federal grant dollars available to protect areas from wildfire?

Yes.

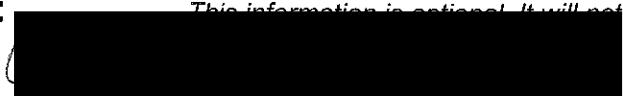
Additional comments. (If necessary, please attach additional sheets, or email us with additional comments.)

Thanks for sharing your ideas with us!

Contact Information:

This information is optional. It will not be distributed for any purpose.

Name:



Organization:



Address:



City/State/Zip:



Telephone:



Email:



Where do you live? (Please provide town and/or zip code.
The remaining questions will focus on this community.)

Roosevelt

Do you believe your community is threatened by wildfire?

Not much - Very Moderate

Please list any areas, structures, or things that you value and feel should be protected from the threat of wildfire.

(Examples: historic sites, real estate, scenery/views, hiking trails, businesses, etc.)

What is the single most important action that could be taken to reduce the threat of wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

education, fuels reductions

What other actions could be taken to reduce the threat of (or prepare for) wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?

What are the most important actions that could be taken to reduce the threat to your home? (List 1-4 actions.)

What is your biggest concern about your community's ability to respond to a wildfire? (Examples: water, training, equipment, personnel, evac plan/escape routes, etc.)

What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?

What info do you need to be better prepared for wildfire?

Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?

Would you be willing to participate in a local-level CWPP? (If yes, please provide your contact info below so that we may contact you for the local CWPP.)

Did you know that there are federal grant dollars available to protect areas from wildfire?

No

Additional comments. (If necessary, please attach additional sheets, or email us with additional comments.)

Thanks for sharing your ideas with us!

Contact Information:

This information is optional. It will not be distributed for any purpose.

Name:

Organization:

Address:

City/State/Zip:

Telephone:

Email:

Where do you live? (Please provide town and/or zip code.
The remaining questions will focus on this community.)

FRUITLAND, UT

Do you believe your community is threatened by wildfire?

yes

Please list any areas, structures, or things that you value and feel should be protected from the threat of wildfire.

(Examples: historic sites, real estate, scenery/views, hiking trails, businesses, etc.)

HOMES, NAT. FOREST - SOUTH UNIT

What is the single most important action that could be taken to reduce the threat of wildfire in your community?

(Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

COMMUNITY EDUCATION, INCENTIVES

What other actions could be taken to reduce the threat of (or prepare for) wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

FIRE BREAKS, FUELS REDUCTION, DRY HYDRANTS

What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?

NEWSLETTER, ADVERTISE RESOURCES

What are the most important actions that could be taken to reduce the threat to your home? (List 1-4 actions.)

METAL ROOF, REDUCE FUELS

What is your biggest concern about your community's ability to respond to a wildfire? (Examples: water, training, equipment, personnel, evac plan/escape routes, etc.)

AVAILABILITY OF WATER

What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?

ENFORCE BURNING PERMITS

What info do you need to be better prepared for wildfire?

GOOD EXAMPLES, LOCATION OF HOMES

Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?

VFD, OTHER NEIGHBOR DEPTS, YES

Would you be willing to participate in a local-level CWPP? (If yes, please provide your contact info below so that we may contact you for the local CWPP.)

NOT NOW

Did you know that there are federal grant dollars available to protect areas from wildfire?

YES (BUT STRINGS ATTACHED)

Additional comments. (If necessary, please attach additional sheets, or email us with additional comments.)

KEEP TEACHING COMMUNITY LEADERS

Thanks for sharing your ideas with us!

Contact Information:

This information is optional. It will not be distributed for any purpose.

Name:

Organization:

Address:

City/State/Zip:

Telephone:

Email:

**Uintah Basin
Regional Community Wildfire Protection Plan (CWPP)**

Community Comment Form

The questions on this form are intended only as a guide. Please share your thoughts, questions, and concerns to help develop a community plan that is helpful and relevant for all of us.

Please send in this form by November 15th to:

Uintah Basin CWPP
c/o SWCA 257 E. 200 S., Ste 200
Salt Lake City, UT 84111

**Electronic Version of Form available at:
Comments may also be emailed to:**

www.utahfireinfo.gov
lburch@swca.com

Fold this form in half, making sure to display the mailer portion on the outside. Please tape and affix the correct postage.

Place
Stamp
Here

**Uintah Basin CWPP
SWCA 257 E. 200 S., Ste 200
Salt Lake City, UT 84111**

Where do you live?	Fruitland, Utah
Do you believe your community is threatened by wildfire?	Yes
Please list any areas, structures or things that you value and feel should be protected from the threat of wildfire. (examples could include historic sites, real estate value, scenery/ views, hiking trails, businesses, etc.)	Bandanna Ranch consists of 455 landowners – some with only land, and others with residences valuing in price from \$50,000 to \$1million, as well as garages, other buildings, vehicles and motorized recreational equipment, as well as domestic pets.
What is the <i>single most important action</i> that could be taken to reduce the threat of wildfire in your community? (List community name and action that could be taken; consider education, defensible space, fuels reductions or anything else you think is important)	Defensible Space, Education, fuels reduction.
What <i>other actions</i> could be taken to reduce the threat of (or be more prepared for) wildfire in your community? (List community name and action that could be taken; consider education, defensible space, fuels reductions or anything else you think is important)	Raise adult level of awareness: Publicize community fire awareness education programs for adults, and simultaneously, have a fire awareness art contest in our local public schools with money prizes for the various categories - best fire prevention water color, crayon, pencil point, etc pictures; slogans, posters, etc. Have the work of the top contestants in each category posted at the fire house and have the community come visit and vote. The winners receive money prizes.
What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?	
What are the most important actions that could be taken to reduce the threat to your home (list of 1-4 actions)? (List community name and/or home address and action(s)).	1. Install more fire extinguishers.
What is your biggest concern about your community's ability to respond to a wildfire? (water, equipment, personnel, training, evac plan/ escape routes, etc?)	Total community awareness. A large per cent of Bandanna Ranch land owners are weekend, vacation, and hunting season residents. Who to call! How to evacuate (most use one point of access/egress and may not know of another.) Response time! Propane tanks exploding.

What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?	It is common knowledge that Duchesne County is reducing its fire fighting funding; That fuel reduction requests cannot be met due to manpower shortages; That local fire fighting personnel are out of our community fighting fires in other parts of Utah, or, in other states.
What information do you need to be better prepared for wildfire?	
Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?	Fruitland's volunteer fire dept. We have a tremendous responsibility to protect our own and neighbor's homes.
Would you be willing to participate in a local level CWPP?	Yes
Did you know that there are grant dollars available to protect areas from wildfire?	Yes
Additional comments. If necessary, please attach additional sheets or email with additional comments.	

Thanks for sharing your ideas with us!

Contact Information:

*Information is optional and will not be distributed for any purposes

Name	
Organization	
Address	
City/State/Zip	
Telephone	
Email	

**Uintah Basin
Regional Community Wildfire Protection Plan (CWPP)**

Community Comment Form

The questions on this form are intended only as a guide. Please share your thoughts, questions, and concerns to help develop a community plan that is helpful and relevant for all of us.

Please send in this form by November 15th to:

Uintah Basin CWPP
c/o SWCA 257 E. 200 S., Ste 200
Salt Lake City, UT 84111

**Electronic Version of Form available at:
Comments may also be emailed to:**

www.utahfireinfo.gov
lburch@swca.com

Fold this form in half, making sure to display the mailer portion on the outside. Please tape and affix the correct postage.



Place
Stamp
Here

**Uintah Basin CWPP
SWCA 257 E. 200 S., Ste 200
Salt Lake City, UT 84111**

Where do you live?

Fruitland area in Duchesne County

Do you believe your community is threatened by wildfire?

Absolutely. We are located in a lightening belt, bringing extensive risk of wildland fire from natural causes. In addition to that, recreational use of this area is increasing and our population is growing as land that was formerly agricultural is developed for residential purposes. Both of these changes are increasing the potential for fire caused by visitors and property owners who may make unwise decisions about their use of fire, vehicles, and implements. This is especially true since many are unfamiliar with and not yet educated about safe urban interface living. Poor forest health (beetle and drought death) is another problem and many newcomers are ignorant of the need for defensible space. Some are even resistant to the idea. On top of that, much of the land is still owned by absentee owners, some living out of state. These lands are part of the problem, too, because many are covered by excess fuels.

<p>Please list any areas, structures or things that you value and feel should be protected from the threat of wildfire. (examples could include historic sites, real estate value, scenery/ views, hiking trails, businesses, etc.</p>	<p>This area is our home and wildland fire doesn't respect boundaries or make distinctions between what we may think is valuable and expendable. People in this area have contributed over \$100,000 in inkind work, most of it focused on creating defensible space, but there is still a great deal to be done. As noted above, there are vast expanses of fuels that will help intensify any wildland fire that might start, so perhaps I would suggest more emphasis on strategic prevention and continued community-wide education efforts rather than identify specific things that should be given special protection. Special efforts are needed to locate people in the community who are elderly and frail or disabled. There are also vast areas of wildlife habitat and recreational lands, and great scenery; as well as homes and businesses.</p>
<p>What is the <i>single most important action</i> that could be taken to reduce the threat of wildfire in your community? (List community name and action that could be taken; consider education, defensible space, fuels reductions or anything else you think is important)</p>	<p>There is a great deal to be done, and coordinated effort is the key. This means ensuring the continued vitality of the Fruitland Community Wildland Fire Council, formed in 2002. This is no easy task and it and other fire councils should be nurtured and supported. The Fruitland Council has been the focal point for many of the necessary action steps and it is important to maintain it in the future. There is close collaboration between the Council and Volunteer Fire Department. We have partnered every year on an educational and outreach-focused Fire Fair. The Council produces an educational newsletter that goes out to every property owner in the area for whom we have an address. As noted, a great deal of inkind work on fuel reduction and creation of defensible space has been done and our fire National Fire Grant has been spent on crew work. It is hard to imagine how the enormity of the task can possibly be addressed in any community without some kind of community organization that can serve as a vehicle of coordination and collective effort.</p>

<p>What <i>other actions</i> could be taken to reduce the threat of (or be more prepared for) wildfire in your community? (List community name and action that could be taken; consider education, defensible space, fuels reductions or anything else you think is important)</p>	<p>Having been involved with the Fruitland Fire Council since the beginning, I'll make a suggestion here that resources for staffing of local fire councils should be considered. As I noted above, all-volunteer efforts offer a great deal to their communities and the individuals that participate in them, but they often seem to run through a course of high initial enthusiasm, followed by competition from other priorities, decline in attendance at meetings and work efforts, and eventually only a handful of people are carrying the load. Follow-through is essential if actions are to be effective, no matter how hard volunteers try to fit in the work. Minimal staffing by a local resident who perhaps doesn't have a "day job" could provide the thread that would hold things together when everyone gets busy.</p>
<p>What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?</p>	<p>Under the circumstances, I'll just say we can do more of what we have been doing. There is great need to help raise the awareness and enlist the cooperation of the many landowners who still have little interest in joining in.</p>
<p>What are the most important actions that could be taken to reduce the threat to your home (list of 1-4 actions)? (List community name and/or home address and action(s)).</p>	<p>(Location provided above). We believe we are in fairly good shape by now, but 1) We have a guest house on our property and we have not yet finished implementing all of the suggestions made during our lot assessment, 2) We want to find someone with a brush-hog to reduce sagebrush in our pastures—this will augment existing fire breaks in the area, and 3) Beavers are killing trees on our property and we haven't yet cleared the dead trees away.</p>
<p>What is your biggest concern about your community's ability to respond to a wildfire? (water, equipment, personnel, training, evac plan/escape routes, etc?)</p>	<p>Water is scarce. I'm not confident that we have completed plans for emergency preparedness, e.g., locations of frail and elderly and plan to protect and evacuate them, turn-arounds, road right-of-way clearing. These activities can only be done to a certain extent by volunteers.</p>

<p>What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?</p>	<p>I would like an opportunity for the Fire Council to meet with all of the related entities together so we can learn what they know (and what they don't) about this community, what services they are in charge of, and how they are inter-related and collaborate to help protect the community from wildfire. That would help me know what I think they need to know.</p>
<p>What information do you need to be better prepared for wildfire?</p>	<p>Our Fire Grant specialist, the State Division of FF and SL, and the Fruitland Fire Department provide us with a lot of good information. I would like more information about what I talked about just above. Given whatever resources we have, how do they work and what, if anything, do they need to do their job better?</p>
<p>Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?</p>	<p>We all are responsible.</p>
<p>Would you be willing to participate in a local level CWPP?</p>	<p>I am the main contact for the Fruitland Fire Council and also serve as the Secretary so I am already stretched thin on these matters. It's unclear to me what it would take to "participate," but I would have to say I probably can't put much more into working on this issue than I already am.</p>
<p>Did you know that there are grant dollars available to protect areas from wildfire?</p>	<p>Yes (see above—we have applied for an additional grant in the upcoming round). Are there other monies besides the National Fire Grant and, if so, do they have a different focus that might help us focus on efforts not covered by the Fire Grants?</p>
<p>Additional comments. If necessary, please attach additional sheets or email with additional comments.</p>	

Thanks for sharing your ideas with us!

Contact Information:

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Name

Organization

Address

City/State/Zip

Telephone

Email

**Uintah Basin
Regional Community Wildfire Protection Plan (CWPP)**

Community Comment Form

The questions on this form are intended only as a guide. Please share your thoughts, questions, and concerns to help develop a community plan that is helpful and relevant for all of us.

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Uintah Basin CWPP
c/o SWCA 257 E. 200 S., Ste 200
Salt Lake City, UT 84111

**Electronic Version of Form available at:
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lburch@swca.com

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Place
Stamp
Here

**Uintah Basin CWPP
SWCA 257 E. 200 S., Ste 200
Salt Lake City, UT 84111**

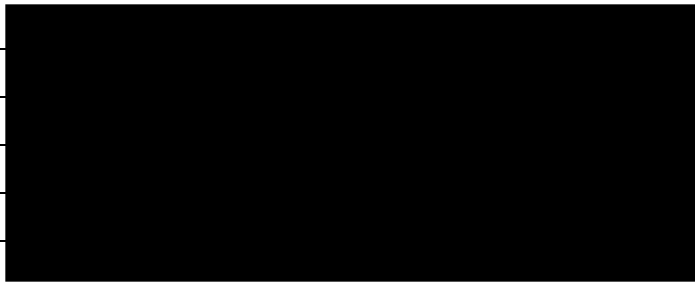
Where do you live?	I have property in Argyle Canyon
Do you believe your community is threatened by wildfire?	Yes
Please list any areas, structures or things that you value and feel should be protected from the threat of wildfire. (examples could include historic sites, real estate value, scenery/ views, hiking trails, businesses, etc.)	We have about 130 vacation homes, many summer trailers residences, and other buildings. The LDS Church's Camp Timberline has 1000's of summer campers. Bear Claw Valley also hosts hundreds of visitors a year. Summer time visitor population ranges from 800 to 1200 people a day.
What is the <i>single most important action</i> that could be taken to reduce the threat of wildfire in your community? (List community name and action that could be taken; consider education, defensible space, fuels reductions or anything else you think is important)	Removal of dead and diseased trees. About 50% of our trees are dead or infected by beetle We have been working as a community to implement wild fire protection in conjunction with the state Forestry, Fire, and State Lands
What <i>other actions</i> could be taken to reduce the threat of (or be more prepared for) wildfire in your community? (List community name and action that could be taken; consider education, defensible space, fuels reductions or anything else you think is important)	Removal of dead or dying trees in Argyle canyon and surrounding areas. Working with landowners to educate them about defensible spaces, etc.
What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?	Continue to get increased involvement by landowners in our fire council through yearly meetings
What are the most important actions that could be taken to reduce the threat to your home (list of 1-4 actions)? (List community name and/or home address and action(s)).	Agyle Canyon, my property is in Bear Claw Canyon, but our entire area including Argyle, Avintaquin, and Asheley National Forest is involved. 1. Decrease fuels 2 Enhance forest health 3. Develop emergency response plan 4. Develop and maintain wildfire preparation list 5. Signs to mark all canyons and tributaries
What is your biggest concern about your community's ability to respond to a wildfire? (water, equipment, personnel, training, evac plan/ escape routes, etc?)	Access to the properties (Poor roads) and escape routes. Also the supply of water available
What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?	We appreciate all that Forestry, Fire, and State Lands does for us.

What information do you need to be better prepared for wildfire?	Just keep in contact with us
Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?	When all is said and done it is the responsibility of all land owners in our council. We use the motto, "If One Burns, We All Burn"
Would you be willing to participate in a local level CWPP?	Yes
Did you know that there are grant dollars available to protect areas from wildfire?	Yes
Additional comments. If necessary, please attach additional sheets or email with additional comments.	We feel that Argyle Canyon has made great inroads in protecting our lands, but there is a lot more that needs to be done Our web site is http://www.argylecanyon.org

Thanks for sharing your ideas with us!

Contact Information:

*Information is optional and will not be distributed for any purposes

Name		_____
Organization		_____
Address		_____
City/State/Zip		_____
Telephone		_____
Email		_____

Where do you live? (Please provide town and/or zip code.
The remaining questions will focus on this community.)

Maeser ~~88~~ 84078

Do you believe your community is threatened by wildfire?

Yes

Please list any areas, structures, or things that you value and feel should be protected from the threat of wildfire.
(Examples: historic sites, real estate, scenery/views, hiking trails, businesses, etc.)

Views, trails, property, archeological sites

What is the single most important action that could be taken to reduce the threat of wildfire in your community?
(Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

Fuels reduction = lots of water!

What other actions could be taken to reduce the threat of (or prepare for) wildfire in your community? (Specify action that could be taken, such as education, defensible space, fuels reductions, or anything else you think is important.)

defensible space

What actions could your community take to be more prepared for wildfire? What could you do to help protect your home and community?

Create a defensible space, education

What are the most important actions that could be taken to reduce the threat to your home? (List 1-4 actions.)

defensible space

What is your biggest concern about your community's ability to respond to a wildfire? (Examples: water, training, equipment, personnel, evac plan/escape routes, etc.)

Personnel

What would you like fire emergency service agencies and personnel to know about protecting your neighborhood from wildfire?

What info do you need to be better prepared for wildfire?

Fire frequency in my area

Who is responsible to protect your home/community from wildfire? Do you believe you have a responsibility to protect your home/community?

Personal & community responsibility

Would you be willing to participate in a local-level CWPP?
(If yes, please provide your contact info below so that we may contact you for the local CWPP.)

Did you know that there are federal grant dollars available to protect areas from wildfire?

Yes

Additional comments. (If necessary, please attach additional sheets, or email us with additional comments.)

Thanks for sharing your ideas with us!

Contact Information:

This information is optional. It will not be distributed for any purpose.

Name:

[Redacted]

Organization:

Address:

[Redacted]

City/State/Zip:

[Redacted]

Telephone:

[Redacted]

Email:

[Redacted]

Appendix C. Risk Assessment Fuels Ratings

Southwest Regional GAP Vegetation Reclassified Fuel Ratings

Description	Rating
Inter-Mountain Basins Big Sagebrush Shrubland	4
Mogollon Chaparral	4
Rocky Mountain Lodgepole Pine Forest	4
Rocky Mountain Ponderosa Pine Woodland	4
Barren Lands, Non-specific	3
Colorado Plateau Blackbrush-Mormon-tea Shrubland	3
Colorado Plateau Pinyon-Juniper Shrubland	3
Colorado Plateau Pinyon-Juniper Woodland	3
Great Basin Semi-Desert Chaparral	3
Great Basin Xeric Mixed Sagebrush Shrubland	3
Inter-Mountain Basins Big Sagebrush Steppe	3
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland	3
North American Warm Desert Riparian Mesquite Bosque	3
North American Warm Desert Riparian Woodland and Shrubland	3
Rocky Mountain Aspen Forest and Woodland	3
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	3
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	3
Rocky Mountain Montane Dry-Mesic Mixed Conifer Forest and Woodland	3
Colorado Plateau Mixed Low Sagebrush Shrubland	2
Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	2
Inter-Mountain Basins Greasewood Flat	2
Inter-Mountain Basins Juniper Savanna	2
Inter-Mountain Basins Mat Saltbush Shrubland	2
Inter-Mountain Basins Mixed Salt Desert Scrub	2
Inter-Mountain Basins Montane Sagebrush Steppe	2
Inter-Mountain Basins Semi-Desert Grassland	2
Inter-Mountain Basins Semi-Desert Shrub Steppe	2
Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland	2
Inter-Mountain West Aspen-Mixed Conifer Forest and Woodland Complex	2
Invasive Annual and Biennial Forbland	2
Invasive Annual Grassland	2
Invasive Perennial Grassland	2
Invasive Southwest Riparian Woodland and Shrubland	2
Mojave Mid-Elevation Mixed Desert Scrub	2
North American Arid West Emergent Marsh	2

Southwest Regional GAP Vegetation Reclassified Fuel Ratings

Description	Rating
North American Warm Desert Lower Montane Riparian Woodland and Shrubland	2
Recently Chained Pinyon-Juniper Areas	2
Recently Logged Areas	2
Rocky Mountain Alpine Dwarf-Shrubland	2
Rocky Mountain Bigtooth Maple Ravine Woodland	2
Rocky Mountain Dry Tundra	2
Rocky Mountain Montane Mesic Mixed Conifer Forest and Woodland	2
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2
Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland	2
Rocky Mountain Subalpine-Montane Riparian Shrubland	2
Rocky Mountain Subalpine-Montane Riparian Woodland	2
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	2
Sonora-Mojave Mixed Salt Desert Scrub	2
Sonora-Mojave-Baja Semi-Desert Chaparral	2
Southern Colorado Plateau Sand Shrubland	2
Southern Rocky Mountain Montane-Subalpine Grassland	2
Wyoming Basins Low Sagebrush Shrubland	2
Agriculture	1
Barren Lands, Non-specific	1
Colorado Plateau Mixed Bedrock Canyon and Tableland	1
Developed, Medium - High Intensity	1
Developed, Open Space - Low Intensity	1
Disturbed, Non-specific	1
Disturbed, Oil well	1
Inter-Mountain Basins Active and Stabilized Dune	1
Inter-Mountain Basins Cliff and Canyon	1
Inter-Mountain Basins Playa	1
Inter-Mountain Basins Shale Badland	1
Inter-Mountain Basins Volcanic Rock and Cinder Land	1
Inter-Mountain Basins Wash	1
North American Alpine Ice Field	1
North American Warm Desert Bedrock Cliff and Outcrop	1
North American Warm Desert Playa	1
North American Warm Desert Volcanic Rockland	1
North American Warm Desert Wash	1

Southwest Regional GAP Vegetation Reclassified Fuel Ratings

Description	Rating
Open Water	1
Recently Burned	1
Recently Mined or Quarried	1
Rocky Mountain Alpine Bedrock and Scree	1
Rocky Mountain Alpine Fell-Field	1
Rocky Mountain Alpine-Montane Wet Meadow	1
Rocky Mountain Cliff and Canyon	1
Rocky Mountain Subalpine Mesic Meadow	1
Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland	1

Source: Wildland Fire Associates; USGS 2004.

Appendix D. Homeowners' Guide

Uintah Basin residents enjoy a rural lifestyle and close proximity to outdoor activities. However the attributes that make the area a desirable place to live also make it a precarious place to live. Accepting that fire is a natural part of the ecosystem means taking steps to prepare for a wildfire event and prevent home ignitions.

This guide was developed to provide information on reducing wildfire risk and what to do in the event of a wildfire, as well as to fulfill requirements for the RWPP. The guide suggests specific measures that can be taken by homeowners to reduce structure ignitability and enhances overall preparedness in the Uintah Basin region by consolidating preparedness information from several local agencies and departments.

I. BEFORE THE FIRE: PROTECTION AND PREVENTION

A. REDUCING STRUCTURE IGNITABILITY

Structures can be threatened by a wildfire in three ways: direct exposure from flames, radiated heat, and airborne firebrands. Firebrands are burning embers produced by wildfire which are lifted into the air and carried beyond the fire front, and account for the majority of homes burned due to wildfire. A shower of thousands of firebrands can be produced during a major wildfire event, and depending wind speed and ember size, can be carried more than 1/2 mile ahead of the fire front. If these firebrands land in areas with easily ignited fuels, numerous spot fires can start and homes located well away from the main fire front can be threatened.

This section contains information on fire-resistant construction design and building materials, as well as actions you can take to reduce the risk of a fire starting or spreading in or near your home. Many wildfire losses have been caused by some small problems with simple solutions.

BUILDING MATERIALS AND CONSTRUCTION DESIGN

New Construction: In order to achieve compliance with Utah House Bill 146 (and eligibility for the state's Wildland Fire Suppression Fund), Utah counties are required to adopt WUI ordinances requiring more stringent water supply, fire-resistant building material, and defensible space specifications for all **new** subdivisions and residences built or moved into the WUI. These changes **do not** affect existing homes in the WUI.

County ordinances must meet the minimum standards recommended by Forestry, Fire and State Lands, but can also adopt stricter standards according to each county's needs and resources. Additionally, the WUI will be defined by the county and may differ from the WUI boundaries of this RWPP. For more information on specifications for new construction and the proposed WUI boundary, please contact your County Fire Warden or Building Inspector.

Roofing: The roof is the portion of the house that is most vulnerable to ignition by falling embers known as firebrands. If the roof is constructed of combustible materials, the house is in jeopardy of igniting and burning. Additionally, these materials can become airborne firebrands themselves, and land in receptive fuel beds such as the combustible roofs of nearby homes.

Unfortunately for homeowners with existing combustible roofs, there are no long-term reliable measures available to reduce roof vulnerability to wildfire, other than re-roofing with fire resistant materials. Consider replacing existing roofs with more fire resistant materials. Metal roofs afford the best protection against ignition from falling embers. Slate, tile or terra cotta roofs are also non-combustible, and Class-A asphalt shingles are recommended as well. The most dangerous type of roofing material is wood shake and shingles.

Removing debris from roof gutters and downspouts at least twice a year will help to prevent fire along with keeping them functioning properly.

Exteriors: Non-combustible materials are ideal for the home exterior. Preferred materials include stucco, cement, block, brick, and masonry. Wood or combustible material can be treated with UL-approved fire-retardant chemicals.

Enclose the underside of eaves and balconies with fire resistant materials. Cover all vents, (roof or foundation) with a small diameter / fine screen to prevent sparks or embers from being blown in or under your home. This can be done temporary with a staple gun.

Make periodic inspections of your home, looking for deterioration such as breaks and spaces between roof tiles, warping wood, or cracks and crevices in the structure.

Windows and Doors: Double- and triple- paned windows are most resistant to heat and flames. Smaller windows tend to hold up better within their frames than larger windows. Tempered glass is best, particularly for skylights, because it will not melt as plastic will. When building, try to limit the size and number of windows in your home that face large areas of vegetation. Install non-flammable shutters on windows and skylights. Install a solid door with self-closing hinges between living areas and the garage.

Decks and Porches: The area below aboveground decks and porches can become a trap for burning embers or debris, increasing the chances of fire transferring to your home. Screen off the area using screening with openings no larger than 1/2 inch. Keep the area behind the screen free of all leaves and debris. Make sure elevated wooden decks are not located at the top of a hill where it will be in direct line of a fire moving up slope. Consider a terrace instead.

Fencing and Trellises: Any structure attached to the house should be considered part of the house. A wood fence or trellis can carry fire to your home siding or roof. If you wish to attach an all-wood fence to your house, use masonry or metal as a protective barrier between the fence and house. Consider using non-flammable materials such as metal when constructing a trellis and covering it with high-moisture, low flammability vegetation.

FIREWOOD, KINDLING, AND OTHER FLAMMABLES

Although convenient, stacked firewood on or below a wooden deck adds fuel that can feed a fire close to your home. Be sure to move all wood away from the home during fire season. Stack all firewood uphill, at least 30 feet and preferably 100 feet from your home, and remove vegetation within 10 feet of woodpiles.

Flammable materials such as paint, solvents, or gasoline in approved safety containers should be stored away from sources of ignition such as hot water tanks or furnaces. The fumes from highly volatile liquids can travel a great distance after they turn into a gas. If possible, store the containers in a safe, separate location away from the main house. Oily rags should be stored in UL-approved containers.

POWERLINES

If you have high voltage lines running near your property take a moment to walk underneath them and ensure that no tree branches are in close proximity to the towers or lines. If there is any situation that could be a fire hazard, contact your local utility company. Call your local utility company before planting trees close to any power line to confirm the maximum tree height allowable for that location, and before pruning near power lines.

CHIMNEYS AND FIREPLACE FLUES AND WOODSTOVES

Inspect your chimney and damper at least twice a year and have the chimney cleaned every year before first use. Spark arresters are devices fitted to the top of a chimney flue or woodstove pipe to prevent floating embers from a fireplace or woodstove fire setting light to a flammable roofing surface or falling onto combustible material on the ground. Have the spark arrestor inspected and confirm that it meets the latest safety code. The fire department will have the latest edition of National Fire Prevention Code 211 covering spark arrestors.

Make sure to clear away dead limbs from within 15 feet of chimneys and stovepipes.

Never take ashes from the fireplace and put them into the garbage or dump them on the ground. Even in winter, one hot ember can quickly start a grass fire. Instead, place ashes in a metal container, and as an extra precaution, soak them with water. Cover the container with its metal cover and place it in a safe location for a couple of days. Then either dispose of the cold ash with other garbage or bury the ash residue in the earth and cover with at least 6 inches of mineral soil.

PROPANE, OIL OR FUEL TANKS

Your propane, oil or fuel tank has many hundreds of gallons of highly flammable liquid that could become a very explosive, incendiary source in the event of a fire. These tanks should be located at least 30 feet from any structure. Keep all flammables at least 10 feet from your tank. Learn how to turn the tank off and on. In the event of a fire, you should turn the gas off at the tank before evacuating, if safety and time allow.

SMOKE ALARMS AND FIRE EXTINGUISHERS

A functioning smoke alarm can help warn you of a fire in or around your home. Install smoke alarms on every level of your residence. Install smoke detectors between living and sleeping areas and in bedrooms if you sleep with the door closed.

Test and clean smoke alarms once a month and replace batteries when changing to daylight savings and standard times. Replace smoke alarms once every 10 years.

Keep a charged, ABC-type fire extinguisher in the kitchen and garage; make sure family members know how to use it.

FIRE-SAFE BEHAVIOR

If you smoke, always use an ashtray in your car and at home. Store and use flammable liquids properly. Keep doors and windows clear as escape routes in each room.

DEFENSIBLE SPACE, LANDSCAPING AND MAINTENANCE

Proper plant selection, placement and maintenance can diminish the possibility of ignition, lower fire intensity, and reduce how quickly a fire spreads.

Landscape Design

Defensible space and Utah Living with Fire and Firewise landscaping can be used to design a landscape that is attractive and yet minimizes wildfire hazard by appropriate vegetation choices and placement so that fuels loads are reduced between the home and the natural wildland.

Removal of dense, flammable foliage from the area immediately surrounding the house can help reduce the risk of structure ignition and allow firefighters access to protect the home. A 100-foot safety zone free of all trees and shrubs is recommended by the fire department; the minimum distance is 30 feet. When designing and installing a Utah Living with Fire (2006) or Firewise (2006) landscape, factors such as local area fire history, site location and overall terrain, prevailing winds and seasonal weather, and property contours and boundaries should be considered. Steep slopes, for example, require increased defensible space because fire can travel quickly uphill.

The safety zone should focus on fuel breaks such as concrete patios, walkways, rock gardens, and irrigated garden or grass. Plantings in the safety zone should be limited to carefully spaced, low flammability species and should be well irrigated. Low-growing ground covers are appropriate for this area, but plants such as junipers and pines are extremely combustible and should be removed, pruned or thinned.

Vegetation continuity should be broken up to reduce fire spread. Groups of shrubs and individual trees should be spaced 15 feet apart and care should be taken to ensure that treetops are not touching.

Mulch should be sparingly within the safety zone and focused in areas that will be watered regularly. Pine needles provide important erosion protection for soil but also may carry a surface fire. Accumulations of pine needles or cones should be removed within the safety zone and extending out as far as possible. Pine needles and leaves should be removed and bare mineral soil exposed in a 2-foot-wide perimeter along the foundation of the house. The use of non-

flammable materials such as gravel is recommended in turnarounds and driveways instead of pine needles or wood chips.

All trees within the safety zone should have lower limbs removed to a height of 6-10 feet. Any branches within 15 feet of a chimney or overhanging any part of the roof should be removed.

Ladder fuels are short shrubs or trees growing under the eaves of the house or under larger trees. Ladder fuels carry fire from the ground level onto the house or into the tree canopy. The removal of ladder fuels within about 100 feet of the house will help to limit the risk of crown fire around your home. Be sure to remove all ladder fuels within the safety zone first.

Another landscape design option is to implement a zone concept:

- Zone 1. This well-irrigated area should encircle the structure for a minimum 30' on all sides and implement the measures as discussed above, to reduce the risk of structure ignition and provide space for fire suppression equipment in the event of an emergency.
- Zone 2. Low flammability plant materials should be used in this zone. Plants should be low-growing, and the irrigation system should extend into this section.
- Zone 3. Low-growing plants and well-spaced trees should be placed in this area. The volume of vegetation (fuel) should be kept low.
- Zone 4. Located furthest from the structure, this is a natural area and a transition to the wildland beyond. Plants should be selectively pruned and thinned, and highly flammable vegetation removed.

Landscape Maintenance

Even the most firewise landscaping must be regularly maintained in order for it to effectively reduce risk to homes and structures located within the safety zone:

- Keep trees and shrubs properly pruned. Remove leaf clutter and dead and overhanging branches. Prune all trees so the lowest limbs are 6' to 10' from the ground.
- Mow the lawn regularly. Clean or remove flammable materials from around wooden decks or walkways, and between the cracks of your walkway.
- Maintain a landscape that is free from dead and dying plants. Rake and remove flammable debris such as dead grass, pine needles, and leaves from around homes and outbuildings.
- Dispose of cuttings and debris promptly. Become familiar with local regulations regarding vegetation clearances, disposal of debris, and fire safety requirements for equipment.
- Be sure the irrigation system is well maintained. Use care when refueling garden equipment and maintain it regularly.

Debris Burning

Debris fires account for about one fourth of the more than 100,000 forest fires that blacken the U.S. each year. Before doing any burning near wildland areas, consider the alternatives to burning. Some types of debris, such as leaves, grass, and stubble, may be of more value if they are not burned. Household trash can be hauled away to a recycling station. If you decide to burn debris, take the following precautions:

- Consult local fire officials for information on safe ways to burn debris and local regulations regarding burning. Some communities allow burning only during specified hours; others forbid it entirely. Make sure you have a valid permit if required.
- Check the weather. Hot, dry, windy days are not suitable for burning, because of the added danger that the fire will escape your control.
- Where burn barrels are used, clear flammable materials at least 10 feet around the barrel; cover the open top with a non-flammable screen with mesh no larger than 1.4 inch.
- Be sure to stay with your fire until it is out completely.
- Place debris in a cleared area, away from overhead branches and wires.
- Do not accumulated debris for several days before igniting. The debris becomes compacted and wet, which increases the air pollution and makes the fire burn longer.

FIRE RETARDANTS

For homeowners who would like home protection beyond defensible space and fire-resistant structural materials, fire retardant gels and foams are available. These materials are sold with various types of equipment for applying the material to the home. They are similar to the substances applied by firefighters in advance of wildfire to prevent ignition of homes. Different products have different timelines for application and effectiveness. The amount of product needed is based on the size of the home, and prices may vary based on the application tools. Prices range from a few hundred dollars to a few thousand dollars. An online search of "fire blocking gel" or "home fire fighting" will provide a list of product vendors.

C. FIREFIGHTER ACCESS AND LOCAL COMMUNICATIONS

ACCESS

Limited access may prevent firefighters from reaching many homes in the Uintah Basin region, but many of the access problems occur at the property line and can be improved by homeowners:

- Every home should have the address clearly posted, with numbers at least 3 inches high. The colors of the address posting should be contrasting or reflective. The address should be posted so that it is visible to cars approaching from either direction.
- Make sure that emergency responders can get in your gate. If you will be gone for long periods during fire season, make sure a neighbor has access, and ask them to leave your gate open in the event of a wildfire in the area.

- Gates should swing inward. A chain or padlock can be easily cut with large bolt cutters, but large automatic gates can prevent entry. Counties have been willing to maintain a set of keys for those communities that are gated; however, the responsibility rests with the communities to provide those keys to the county. It is logistically unfeasible to try to keep keys for every gated home in the wildland. Special emergency access red boxes with keys are sold by many gate companies but are not recommended by emergency services because keys are difficult to keep track of and may not be available to the specific personnel that arrive at your home. An alternative offered by some manufacturers is a device that opens the gate in response to sirens. This option is preferred by firefighters but may be difficult or expensive to obtain.
- Make sure your driveway is uncluttered and at least 12 feet wide with a vertical clearance of 15 feet and a slope that is less than 5 percent.
- Trim any overhanging branches to allow at least 13.5 feet of overhead clearance and make sure that any overhead lines are at least 14 feet above the ground. If any lines are hanging too low, contact the appropriate phone, cable, or power company to find out how to address the situation.
- The driveway and access roads should be well-maintained, clearly marked, and include ample turnaround space. If possible, consider a turnaround within your property at least 45 feet wide. This is especially important if your driveway is more than 300 feet in length. Even small fire engines have a hard time turning around and cannot safely enter areas where the only means of escape is by backing out. Any bridges must be designed with the capacity to hold the weight of a fire engine.

NEIGHBORHOOD COMMUNICATION

It is important to talk to your neighbors about the possibility of wildfire in your community. It is possible that you (or a neighbor) may not be able to return home when a fire breaks out and may have to relay neighbors for information and assistance. Unfortunately, it sometimes takes tragedy to get people talking to each other. Don't wait for disaster to strike. Strong communication can improve the response and safety of every member of the community.

Phone Trees: Many neighborhoods use phone trees to keep each other informed of emergencies within and around the community. The primary criticism is that the failure to reach one person high on the tree can cause a breakdown of the system. However, if you have willing and able neighbors, particularly those that are at home during the day, the creation of a well-planned phone tree can often alert residents of an emergency more quickly than media channels. Talk to your neighborhood association about the possibility of designing an effective phone tree.

In addition to calling other residents, the phone numbers of all emergency responders should also be included on the list.

Neighbors in need of assistance: Consider how you could help neighbors who have special needs such as elderly or disabled persons. It is a good idea for willing neighbors to commit to evacuating a mobility-impaired resident in the event of an emergency. Make sure that a line of communication is in place to verify the evacuation.

Absentee Owners: Absentee owners often do not maintain regular contact with their neighbors. If a home near you is unoccupied for large portions of the year, try to get contact information for the owners from other neighbors or your neighborhood association. Your neighbors would probably appreciate notification in the event of an emergency. Also, you may want to contact them to and suggest that they move their woodpile or make sure that the propane line to the house is turned off.

D. HOUSEHOLD EMERGENCY PLAN

A household emergency plan does not take much time to develop and will be invaluable in helping your family deal with an emergency safely and calmly. One of the fundamental issues in the event of any type of emergency is communication. Be sure to keep the phone numbers of neighbors with you rather than at home.

It is a good idea to have a contact for your family who lives out of state. When disaster strikes locally, it is often easier to make calls to a different area code than local calls. Make sure that everyone in the family has the contact phone number and understands why they need to check in with that person in the event of an emergency.

Designate a meeting place for your family. Having an established meeting site helps to ensure that family members know where to go even when they can't communicate with you by phone.

Children

Local schools have policies for evacuation of students during school hours. Contact the school to get information on how the process would take place and where the children would likely go.

The time between when the children arrive home from school and when you return home from work is the most important time frame that you must address. Fire officials must clear residential areas of occupants to protect lives and to allow access for fire engines and water drops from airplanes or helicopters. If your area is evacuated, blockades may prevent you from returning home to collect your children. It is crucial to have a plan with a neighbor for them to pick up your children if evacuation is necessary.

Pets and Livestock

Some basic issues about pets and livestock involve whether you have the ability to evacuate the animals yourself and where you would take them. Planning for the worst-case scenario may save your animals. An estimated 90 percent of pets left behind in an emergency do not survive. Don't expect emergency service personnel to prioritize your pets in an emergency. Put plans in place to protect your furry family members:

- Assemble a pet disaster supply kit and keep it handy. The kit should contain a two-day supply of food and water, bowls, a litter box, and a manual can opener if necessary. It is also important to have extra medication and medical records for each pet. The kit should contain a leash for each dog and a carrier for each cat. Carriers of some kind should be

ready for birds and exotic pets. In case your pet must be left at a kennel or with a friend, also include an information packet that describes medical conditions, feeding instructions, and behavioral problems. A photo of each pet will help to put the right instructions with the right pet.

- In the event of a wildfire, you may be prevented from returning home for your pets. Talk to your neighbors and develop a buddy system in case you or your neighbors are not at home when fire threatens. Make sure your neighbor has a key and understands what to do with your pets if they need to be evacuated.
- Contact friends and family in advance to ask whether they would be willing to care for your pets. Contact hotels and motels in the area to find out which ones accept pets. Boarding kennels may also be an option. Make sure your pets' vaccinations are up-to-date if you plan to board them.
- You may not be able or allowed to return home to rescue your livestock during a wildfire evacuation. Talk to your neighbors about how you intend to deal with an evacuation. If livestock are encountered by emergency responders, they will be released and allowed to escape the fire on their own. Make sure your livestock have some sort of identification. Ideally, your contact information should be included on a halter tag or ear tag so that you could be reached if your animal is encountered.
- If you plan to evacuate your livestock, have a plan in place for a destination. Talk to other livestock owners in the area to find out whether they would be willing to board your stock in the event of an emergency. If you do not own a trailer for your horses or other livestock, talk to a neighbor who does. Find out whether they would be willing to assist in the evacuation of your animals. If you do own a trailer, make sure it is in working condition with good inflated tires and functioning signal lights. Keep in mind that even horses that are accustomed to a trailer may be difficult to load during an emergency. Practicing may be a good idea to make sure your animals are as comfortable as possible when loading into the trailer.

House and Property

Insurance companies suggest that you make a video that scans each room of your house, to help document and recall all items within your home. This video can make replacement of your property much easier in the unfortunate event of a large insurance claim. See more information on insurance claims in the *After the Fire* section below.

Personal Items

During fire season, keep all items you would want to take with you during an evacuation in one readily accessible location. As an extra precaution, it may be a good idea to store irreplaceable mementos or heirlooms away from your home during fire season. It is important to make copies of all important paperwork such as birth certificates, titles, and so forth and store somewhere away from your home such as a safe deposit box. A Disaster Preparedness Kit could include the following:

- A three-day supply of water (one gallon per person per day) and food that won't spoil.

- One change of clothing and footwear per person, and one blanket or sleeping bag per person.
- A first aid kit that contains your family's prescriptions.
- Emergency tools including a battery-powered radio, flashlight and plenty of extra batteries.
- An extra set of car keys and a credit card, cash or traveler's checks.
- Sanitation supplies.
- Special items for infant, elderly or disabled family members.
- An extra pair of eyeglasses.
- Keep important family documents in a waterproof container. Assemble a smaller version of your kit to keep in the trunk of your car.

II. WHEN WILDFIRE APPROACHES

A. REPORTING A FIRE

All fires should be reported by calling the Sheriff's office, the Interagency Fire Dispatcher, or the County Fire Warden.

Uintah Basin Region Emergency Contact Numbers

Agency	Phone or Radio Contact Number
Uintah Basin Interagency Fire Center (UBIFC)	435-789-7021
Daggett County Sheriff	435-784-3255 or 911
Daggett County – Dutch John Fire Chief	435-885-3136 Office
– Manila Fire Department	435-784-3143 Office
Duchesne County Sheriff	435-438-2015 or 911
Duchesne County Fire & Emergency Management Director – Georg Adams	435-738-1181 Office
Uintah County Sheriff	435-789-2511 or 435-789-4222 or 911
Uintah County Fire Marshal – Jeremy Raymond	435-781-5497 Office 435-828-6541 Cell

B. NOTIFICATION

In the event of a wildfire, announcements from the local Emergency Management office will be broadcast over local radio and television stations. Media notification may be in the form of news reports or the Emergency Alert System. On television, the emergency management message will scroll across the top of the screen on local channels. The notice is not broadcast on non-local satellite and cable channels.

One good way to stay informed about wildfire is to use a National Oceanic and Atmospheric Administration weather alert radio. The radios can be purchased at most stores that carry small appliances, such as Target, Sears, or RadioShack. The radio comes with instructions for the required programming to tune the radio to our local frequency. The programming also determines the types of events you want to be alerted for. The weather alert radio can be used for any type of large incident (weather, wildfire, HAZMAT, etc.), depending on how it is programmed. Local fire personnel can assist with programming if needed.

The counties comprising the Uintah Basin region are currently considering the implementation of a "reverse 911" system. This system would call every land line in the area intermittently to notify residents in the event of an evacuation. The reverse 911 system would not call cell phones.

Sirens, once used for emergency notification, are no longer employed in the Uintah Basin region. Today's homes are better insulated, and the thicker walls prevent sirens from being audible inside most homes. Sirens can also create panic if the public is unaware of just what the danger is.

C. PREPARING YOUR HOME FOR WILDFIRE

Before an evacuation order is given for your community, there are several steps you can take to make your escape easier and to provide for protection of your home:

1. Back your car into the garage or park it in an open space facing the direction of escape. Shut the car doors and roll up the windows. Place all valuables that you want to take with you in the vehicle. Leave the keys in the ignition or in another easily accessible location. Open your gate.
2. Close all exterior doors, including your garage door. Disconnect automatic garage openers and leave exterior doors unlocked.
3. Close all windows. Move furniture away from windows and sliding glass doors.
4. Remove lightweight or non-fire resistant curtains and other combustible materials from around windows. Close fire resistant curtains, shutters or venetian blinds.
5. Close all exterior vents. If time permits, cover the exteriors of large windows, glass doors, eaves and unscreened vents with sheets of plywood.
6. Close all interior doors.
7. Leave a light on in each room.
8. Move overstuffed furniture to the center of the room.
9. Fill bathtubs, sinks and other containers with water. Outside, do the same with garbage cans and buckets. Remember that the water heater and toilet tank are available sources of water. Soak rags towels or small rungs with water to use in beating out embers or small fires.
10. Confine all pets to one room, in case you need to evacuate quickly.
11. Turn off pilot lights on appliances and furnaces.
12. Turn off the propane tank or shut off gas at the meter.

13. Move firewood and flammable patio furniture at least 30 feet away from the house or into the garage.
14. Arrange temporary housing outside the threatened area.
15. Connect garden hoses to all available outdoor faucets and make sure they are in a conspicuous place. Turn the water on to "charge" or fill your hoses and then shut off the water. This will aid firefighters when they arrive.
16. Place a ladder up against the side of the home, opposite the direction of the approaching fire, to allow firefighters easy access to your roof.
17. Keep wood shake or singles roofs moist by spraying water. Do not waste water. Consider placing a sprinkler on your roof if safe to do so, but do not turn it on until the fire's arrival is imminent. This will help conserve water for use by the fire department.

When evaluating what to do as wildfire threatens, the most important guideline is: **DO NOT JEOPARDIZE YOUR LIFE!** If you think you should evacuate, it is OK to leave before being asked to do so by law enforcement or fire officials.

D. EVACUATION

When evacuation is ordered, you need to go *immediately*. Evacuation not only protects lives, it also helps to protect property. Many roads in the Uintah Basin WUI are too narrow for two-way traffic, especially with fire engines. Fire trucks may not be able to get into an area until the residents are out. Additionally, airplanes and helicopters may be used to drop water or retardant to help limit the spread of the fire, but these aerial attack resources cannot be used until the area has been cleared of civilians.

If a wildfire threatens and evacuation is necessary, emergency managers will determine the best evacuation route based on the location and spread of the fire and the optimal combination of getting residents out of and firefighters into the area. Use the methods described in the Notification section above to receive updated information on where and how to evacuate.

Expect emergency managers to designate a check-out location for evacuees, to help to ensure that everyone is accounted for and inform emergency personnel as to who may be remaining in the community. Residents should check in at the designated location **before** proceeding to any meeting location established by your family Household Emergency Plan.

Wear protective clothing. Clothing should be cotton or wool, and include long pants, long sleeved shirt or jacket, and boots. Carry gloves, a handkerchief to cover the face, water to drink and goggles. Take your disaster supply kit. Tell someone when you left and where you are going.

A light-colored sheet closed in the front door serves as a signal to emergency responders that your family has safely left. This signal saves firefighters precious time, as it takes 12-15 minutes per house to knock on each door and inform residents of the evacuation.

If you have evacuated pets, continue to provide for their safety by keeping them cool and hydrated. Try to get your pets to an indoor location rather than leaving them in the car. Do not

leave your pets in your vehicle without providing shade and water. It is not necessary to give your pets water while you are driving, but be sure to offer water as soon as you reach your destination.

III. AFTER THE FIRE

A. RETURNING HOME

Follow the advice and recommendations of emergency management agencies, fire departments, utility companies, and local aid organizations regarding activities following the wildfire.

Do not attempt to return to your home until fire personnel have deemed it safe to do so.

Even if the fire did not damage your house, utility infrastructure may have been damaged and repairs may be necessary. Check for hazards such as gas or water leaks and electrical shorts. Turn off damaged utilities if you did not do so previously. Have the fire department or utility companies turn the utilities back on once the area is secured.

B. INSURANCE CLAIMS

Your insurance agent is your best source of information as to the actions you must take in order to submit a claim. Here are some things to keep in mind. Your insurance claim process will be much easier if you photographed your home and valuable possessions before the fire and kept the photographs in a safe place away from your home.

Most if not all of the expenses incurred during the time you are forced to live outside your home could be reimbursable. These could include mileage driven, lodging, and meals. Keep all records and receipts.

Don't start any repairs or rebuilding without the approval of your claims adjuster. Beware of predatory contractors looking to take advantage of anxious homeowners wanting to rebuild as quickly as possible. Consider all contracts very carefully, take your time to decide, and contact your insurance agent with any questions.

C. POST-FIRE REHABILITATION

Homes that may have been saved in the fire may still be at risk from flooding and debris flows. Burned Area Emergency Rehabilitation, or BAER, teams are interdisciplinary teams of professionals who work to mitigate the effects of post-fire flooding and erosion. These teams often work with limited budgets and manpower.

Homeowners can assist the process by implementing treatments on their own properties as well as volunteering on burned public lands to help reduce the threat to valuable resources. Volunteers can assist BAER team members by planting seeds or trees, hand mulching, or helping to construct straw-bale check dams in small drainages.

Volunteers can also help protect roads and culverts by conducting storm patrols during storm events. These efforts dramatically reduce the costs of such work as installing trash racks, removing culverts, and rerouting roads.