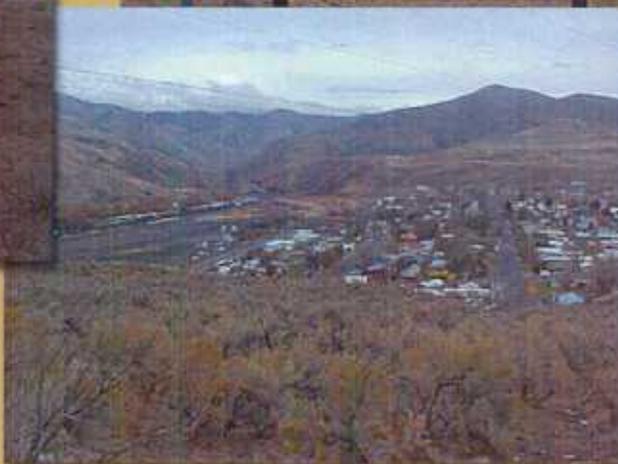


WILDLAND-URBAN INTERFACE COMMUNITIES-AT-RISK PROGRAM

Final Mitigation Recommendations
BLM Vale District
Huntington Assessment Area



Order No.: NAD010208
Contract No.: GS-10F-0085J
April 2002



**FINAL
WILDLAND-URBAN INTERFACE, COMMUNITIES-AT-RISK
MITIGATION RECOMMENDATIONS**

**VALE DISTRICT
HUNTINGTON, OREGON ASSESSMENT AREA**

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ACRONYM LIST

amsl	Above mean sea level
BLM	Bureau of Land Management
BRFPA	Burnt River Fire Protection Association
FERC	Federal Regulatory Commission
GPS	Global Positioning System
HVFD	Huntington Volunteer Fire Department
LEPC	Local Emergency Planning Committee
NAD	North American Datum
NWCG	National Wildfire Coordinating Group
ODF	Oregon Department of Forestry
RFD	Rural Fire Department
SOW	Statement of Work
SRVFPA	Snake River Valley Fire Protection Association
USFS	U.S. Forest Service
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator
WRCC	Western Regional Climate Center

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Map 1	Huntington-Brogan Assessment Area and Fuel Survey Points
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1.0 EXECUTIVE SUMMARY

During the 2000 fire season more than 6.8 million acres of public and private lands were burned by wildfire, resulting in loss of property, damage to resources, and disruption of community services. Many of these fires occurred in wildland-urban interface areas and exceeded fire suppression capabilities. To reduce the risk of fire in the wildland-urban interface, the President of the United States directed the Secretaries of the Departments of Agriculture and the Interior to increase federal investments in projects to reduce the risk of wildfire in the wildland-urban interface. The Bureau of Land Management (BLM), Vale District is currently in the process of forming partnerships with local governments to plan fuels reduction treatments and other mitigation measures targeted at the wildland-urban interface in the vicinity of public lands. These partnerships are indicative of a shared responsibility to reduce wildland fire risks to communities.

The wildland-urban interface occurs where manmade structures meet or intermix with wildland vegetation. In certain situations, specific actions such as fuels reduction around communities, forest and rangeland restoration, infrastructure improvements, and public education and outreach may reduce the risk of catastrophic fire in the wildland-urban interface. To this end, the Vale District BLM implemented the Communities-at-Risk, Wildland-Urban Interface Program. The program seeks to reduce the hazard of wildland fires to communities through public outreach, the reduction or prevention of fuel build-up, and improvements to the fire protection capabilities of communities. The Huntington community was selected for an assessment of the hazard of wildland fire and to identify specific actions that may reduce the risk.

Dynamac Corporation (Dynamac) was contracted to support the BLM in their assessment of wildfire risk to the Huntington community in the wildland-urban interface. The Huntington assessment area includes the portion of Oregon within a 15-mile radius around the town of Huntington, plus an additional area to encompass the area in and around the communities of Brogan and Jamieson. Dynamac scientists conducted fuel surveys by categorizing the vegetation, slope, and aspect of the land in the assessment area. The risk of wildland fire to homes, structures, and cultural resources on private land was also evaluated according to building materials, the presence of survivable space, road access, and the response time of the local fire department. Dynamac assessed the adequacy of the community's service infrastructure (including roads, water supplies, and fire fighting equipment) by systematic observation, and by interviewing community officials and fire prevention personnel. A community meeting was held

to disseminate information about the Communities-at-Risk, Wildland-Urban Interface Program on Tuesday, November 13, 2001, at the Huntington VFW. The meeting provided area residents the opportunity to identify resources that are of value to the community, to voice concerns regarding wildfire in near the wildland-urban interface, and to identify actions they believe have the potential to reduce the risk of wildland fire in their community. The information gathered from the fuel surveys, structural surveys, interviews, infrastructure assessments, community profile and the community meeting was integrated into two reports: the Final Hazard Assessment Report and these proposed Mitigation Recommendations for the Vale District, Huntington-Brogan Assessment Area. Subsequent to review of the draft reports by cooperating parties, a second community meeting was held in Huntington on March 19, 2002, to present to local officials and community members the results of the surveys and interviews, and to present and discuss Dynamac's proposed recommendations for mitigation activities that could be undertaken to reduce risk from wildland fires in the Huntington and Brogan-Jamieson communities. A summary of the second public meeting is included as Appendix F of the Final Hazard Assessment Report.

These mitigation recommendations are based on a list of comments, concerns, and "desired conditions" identified by community members from surveys and discussion during the community meetings, and from interviews with the local officials and citizens. These comments suggest actions that, if implemented by the community, could greatly reduce the threat of wildland fire to urban interface areas in the Huntington community. From the list of comments, Dynamac evaluated those that are consistent with the scope of the Communities-at-Risk Program and presents them in this report as proposed mitigation recommendations. The proposed mitigation recommendations for the Huntington Assessment Area fall under three main objectives:

- Develop community education and outreach programs throughout the assessment area to increase awareness of fire risks and to encourage firewise practices;
- Implement fuels reduction programs to decrease fire risk to residential areas and environmentally and economically valuable areas; and
- Provide assistance to local fire departments in the assessment area in obtaining funding for additional equipment and training.

2.0 GOALS AND OBJECTIVES

The goals of the Huntington assessment are to evaluate the hazards of wildland fire within the assessment area and identify, through interaction with the community, specific mitigation actions recommended to reduce those hazards. The objectives are twofold: 1) to decrease the chance of wildfire spreading from public lands onto private lands and 2) to decrease the chance of wildfire spreading from private lands onto public lands. This involves significant concentration on the ‘interface areas’ where public and private lands meet.

3.0 BACKGROUND

Wildland fire is an integral component of many forest and rangeland ecosystems. In the conterminous United States before European settlement, an estimated 145 million acres were annually scorched by wildfire. In comparison, only about 14 million acres are currently burned annually due to increased agriculture, urbanization, habitat fragmentation, and fire suppression programs. This change from the historical fire regime to the present day has caused a shift in the native vegetation composition and structure of fire-prone ecosystems such as some forests and rangelands resulting in a dangerously high accumulation of fuels. As a result, when wildland fires do occur, they may burn larger and hotter than those in the past and pose an increased risk to human welfare and ecological integrity.

The hazard of wildland fires is compounded by the increasing occurrence of human structures and activities in fire-prone ecosystems. The wildland-urban interface occurs where human structures meet or intermix with wildland vegetation. In certain situations, specific actions such as fuels reduction around communities, forest and rangeland restoration, infrastructure improvements, and public outreach may reduce the risk of losses to catastrophic fire in the wildland-urban interface. The Vale District BLM implemented the Wildland-Urban Interface, Communities-at-Risk Program to determine what these specific actions may be, and where they are needed. The program seeks to reduce the hazard of wildland fires to communities through public education and outreach, the reduction or prevention of fuel build-up, and increasing the fire protection capabilities of communities. The Huntington community was selected to assess the threat of wildland fire and to identify specific actions that may reduce the risk of loss.

The Vale District intends to use the mitigation measures identified in this document as a guide and prioritization tool in implementing the Communities at Risk program. The District is

committed to working with any partners (private, local government, state, and federal as appropriate) in order to accomplish mutual goals and objectives identified in the recommendations. The recommendations that the District chooses to implement will go through the NEPA process and will be accomplished as funding, policy and regulations permit.

4.0 EXISTING SITUATION

4.1 Huntington-Brogan Assessment Area

General Description: The Huntington assessment area is located in eastern Oregon along the Oregon-Idaho border, and includes areas in Baker and Malheur Counties. The assessment area consists of the areas of Oregon lying within a 15-mile radius around the town of Huntington, with the assessment area boundary expanded to the southwest to include areas around Brogan and Jamieson. The Snake River defines the boundary between Oregon and Idaho, and is the eastern edge of the assessment area. Most of the assessment area is sparsely populated rangeland; Brogan and Jamieson are small, unincorporated communities along the southwest edge of the assessment area, and Huntington, the only incorporated community in the assessment area, is located in the center of the assessment area. Huntington is accessible from Interstate 84, which bisects the assessment area along a northwest to southeast axis; Huntington is located approximately 30 miles northwest of Ontario, Oregon and about 40 miles southeast of Baker City, Oregon. Brogan and Jamieson are located on U.S Highway 26 approximately 20 miles northwest of Vale, Oregon. The assessment area has a total area of approximately 325,000 acres (all or part of 562 sections) and includes all or portions of T11S R44E; T11S R45E; T12S R42E; T12S R43E; T12SN R44E; T12SN R45E; T13S R42E; T13S R43E; T13S R44E; T13S R45E; T14S R42E; T14S R43E; T14S R44E; T14S R45E; T15S R42E; T15S R43E; T15S R44E; T15S R45E; T15S R46E; T15S R47E; T16S R42E; T16S R43E; T16S R44E; T16S R45E; and T16S R46E.

The population of Huntington was 515 in the 2000 census. Population data for the entire assessment area is not available, but is estimated to be about 1,500, based on information from the structure survey.

Structures and rangeland are the principal resources at risk in the Huntington-Brogan assessment area. Residents and community officials in Huntington expressed concern about movement of fire from surrounding areas into the town, both from rangelands to the south and west, and from

lands north of town owned by the Union Pacific Railroad. There is also a high potential for fire to move from rangelands south and west of the Brogan-Jamieson areas into those communities. Risks to structures and residents are also high in the surrounding area for several reasons, including the pervasive occurrence of highly flammable fuels, the proximity of fuels to many dwellings, absence of survivable space around most dwellings, and problematic emergency access to many structures because of road conditions and/or remoteness from fire stations. In the Huntington area, moreover, fire risks are exacerbated by the limited capabilities and manpower of the Huntington Volunteer Fire Department.

Along with risks to structures, fire poses a substantial risk to rangeland in the area. Rangelands on private property and public lands in the area are important for livestock grazing, an activity of high economic value to the community, and for wildlife habitat. The assessment area has experienced frequent large rangeland fires that move quickly through the light cheatgrass fuels in the area, and similar fires can be expected in the future.

Recreational resources are also at significant risk from wildfire in the assessment area. Hunting is an important activity on public and private lands throughout the area. Camping, fishing, and boat-launch facilities are also at risk in the corridor along Brownlee Reservoir. This area lies in a steep-sided canyon that routinely experiences high winds, has highly flammable fuels, and has limited road access for ingress or egress. Moreover, human activities add a high potential for ignition in the area, further increasing the potential for catastrophic fire in the area.

The Oregon Trail passes through the area, running from south to north to Farewell Bend, then to the northwest along the Burnt River and Pearce Gulch to the northern edge of the assessment area. The Trail represents a unique historic resource; while the trail *per se* is not directly at risk from fire, there is a substantial risk of damage to historical resources associated with the trail (including graves) from fire suppression activities.

Climate: Climate in the area is characterized by warm, dry summers, with average daily maximum and minimum temperatures in Huntington of 94° and 63° F in July. Winter temperatures are cool with lowest average maximum and minimum temperatures occurring in January (36° and 20° F, respectively). Average annual precipitation in Huntington is 13.45 inches, with January (2.04 in) and July (0.38 in) the wettest and driest months, respectively. The area receives an average of 24 inches of snow per year, with most occurring in December and January.

Topography: Elevation in the assessment area ranges from approximately 2,080 feet above mean sea level (amsl) along the Snake River at the edge of Brownlee Reservoir, to 6,120 feet amsl on an unnamed ridge at the northern edge of the assessment area (T11N R44E, section 36). Terrain in the area is highly variable, with flat floodplains along Willow Creek in the southwest edge of the assessment area and rolling hills in the southern end of the area that grade to steeper and higher ridges toward the northern end of the assessment area. In addition to the Snake River, the Burnt River, Dixie Creek, Durbin Creek, Birch Creek and Willow Creek are the primary surface waters draining the area.

The assessment area is dominated by rangeland, with a mosaic of grasslands and areas of mixed grasses, and brush that typically includes some combination of big sagebrush, bitterbrush, and rabbitbrush. Annual grasses, primarily cheatgrass and medusahead are the dominant grasses, especially on recently burned areas in the southern part of the assessment area. At higher elevations, mostly in the northern half of the assessment area, junipers are a sparse to common component of vegetation. In a few limited, more mesic areas in the northern part of the assessment area, coniferous forests occur with Douglas fir as the predominant species. Cottonwoods, willows, and other mesic species commonly occur in riparian areas along stream channels and around springs. In the southwestern edge of the assessment area, agriculture is the predominant land use in the Willow Creek valley.

Current Mitigation Projects: The Mayor of Huntington recently launched a cleanup program encouraging residents to keep their properties free of weeds and trash. The city implements and enforces burn bans during the driest periods of the summer fire season. In addition, the Mayor and City Council have sent letters to residents during fire season to increase awareness of fire hazards. The Huntington Volunteer Fire Department (HVFD) and Vale Volunteer Fire Department have also spent time with local school children educating them about fire risks, but the focus has been placed on structural fires, not on wildland fire education.

Firefighting Capabilities: Three local firefighting entities exist to cover portions of the assessment area: the HVFD, Vale Rural Fire Department, and the Burnt River Fire Protection Association (BRFPA). The HVFD's response area is roughly an 18-mile radius around the town of Huntington, excluding Brogan and most of Township 15 South. The HVFD has only 5 firefighters and is organized to fight structural fires, but has recently begun to attempt wildland fire suppression. Training, equipment and experience for suppressing wildland fires are lacking.

Training will be provided through a recent grant to the Snake River Valley Fire Protection Association (SRVFPA).

The Vale Fire Department has responsibility for much of the Willow Creek drainage, including the communities of Brogan and Jamieson and surrounding areas. Until recently, vehicles for this department were dispatched from the town of Vale (about 20 miles southeast of Brogan and Jamieson), but the department has recently established a station in Brogan, with local crews to provide an initial response to fires in the Brogan and Jamieson areas. The size and training for the Vale RFD have been improving, but additional training for suppression of wildland fires is needed.

The BRFPFA has a large response area; it covers the largest area of any rural fire department in Baker County, including approximately the northern third of the assessment area. Equipment used by this group includes slip-on water tanks for private vehicles, backpack sprayers for fighting small fires and two unreliable army radios. The BRFPFA is comprised of ranchers whose land is far away from other fire protection entities, and it has existed for many years. Only recently, however, did it obtain recognition by the BLM and the SRVFPA. With this recognition, the group will be receiving training through a grant to the SRVFPA, but equipment, communication and working relationships with HVFD and the BLM all need to be further strengthened.

4.2 Summary of the Fuel Hazard Assessment Survey

The Hazard Assessment Report for the Huntington assessment area presents and summarizes data for current conditions of fuel and terrain conditions in the assessment area; those data are summarized below and in **Figures 1 and 2**. Data summarize conditions for six rating elements at 37 fuel survey points sampled by Dynamac on public lands within the assessment area. At each point, field crews described conditions in a 50 meter radius around the actual sample point and assigned a relative hazard (with “A” as high, “B” as moderate, and “C” as low relative hazard); rating criteria are described and presented for individual survey points in the hazard assessment report. The first three elements (slope, aspect, and elevation) are important because they directly affect fire movement (slope), or affect moisture and temperature regimes on a site, directly influencing fire behavior and also affecting the nature of vegetation on a site. The second three elements (fuel type, fuel density, and fuel bed depth) describe the kinds and

amounts of fuel(s) on a site and the distribution of those fuels, factors which are important because they affect the intensity and movement of fire through the fuel bed.

- **Slope:**

Class A - 41% of points were on land that is flat or has low slopes (< 10% slope).

Class B - 32% of points were on moderate slopes (10-30% slope).

Class C - 27% of points were on steep slopes (> 30% slope).

- **Aspect:**

Class A - 22% of points were on land with a north, northwest, or northeast exposure.

Class B - 35% of points were on flat land or land with an east exposure.

Class C - 43% of points were on land with a southeast, south, southwest, or west exposure.

- **Elevation:**

Class A - no points were on land at an elevation of greater than 5,500 feet amsl.

Class B - 22% of points were on land with an elevation of 3,500-5,500 feet amsl.

Class C - 78% of points were on land with an elevation above 5,500 feet.

- **Fuel Type:**

Class A - 76% of points had small, light fuels (grass, weeds, shrubs).

Class B - 19% of points had medium fuels (brush, medium shrubs, small trees).

Class C - 5% of points had heavy fuels (timber, large brush, heavy plantings).

- **Fuel Density:**

Class A - 22% of points had a non-continuous fuel bed (<30% cover).

Class B - 54% of points had a broken, moderate fuel bed (30-60% cover).

Class C - 24% of points had a continuous fuel bed (>60% cover).

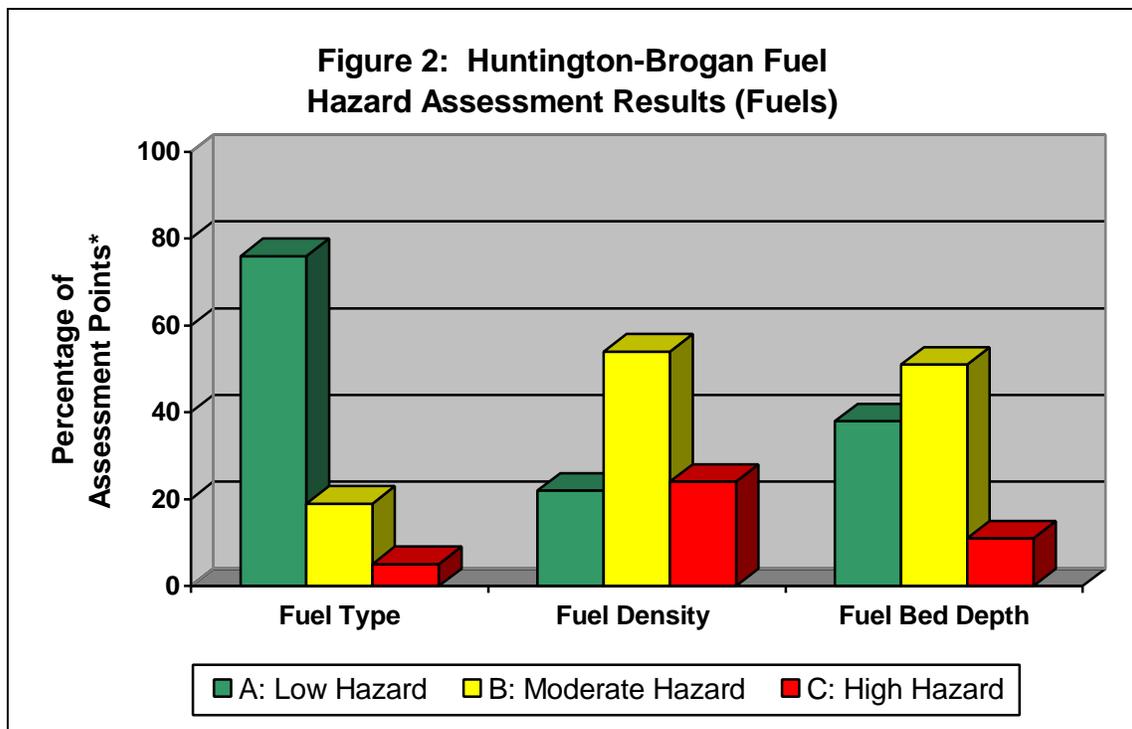
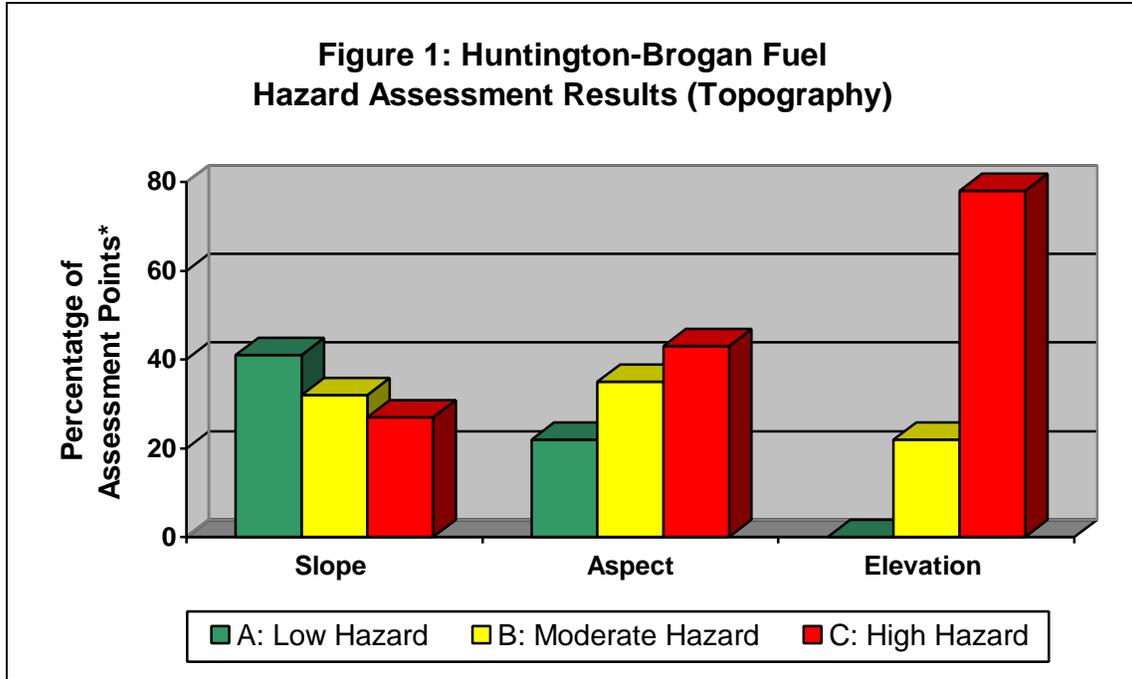
- **Fuel Bed Depth:**

Class A - 38% of points had a low fuel bed (average fuel height < 1 foot).

Class B - 51% of points had a moderate fuel bed (average height 1-3 feet).

Class C - 11% of points had a high fuel height (average > 3 feet).

Map 1 shows the locations of all fuel survey points. Data from the fuels hazard assessment are also graphically depicted in **Figures 1** and **2**. The charts depict the percentage of the 37 assessment points that received a high, moderate, or low hazard ranking.



* Percentages for Figures 1 and 2 based on 37 hazard assessment points surveyed in the assessment area

Terrain on public lands in the assessment area is very irregular (Figure 1), with survey points having a diverse mix of slope, aspect, and elevation. Data for fuel attributes reflect the presence of annual grasses (cheatgrass and medusahead rye) as the dominant vegetation in most of the assessment area (Figure 2). A great majority of survey points (76 percent) were characterized by light fuels, which typically consisted of dominance by either annual grasses or by a mix of grasses and small (or scattered) brush, the latter usually rabbitbrush or sagebrush.

Overall hazard as related to fuels may be substantially underestimated in many parts of the assessment area, specifically those areas dominated by cheatgrass and/or medusahead rye. While considered small, light fuels (Class A), cheatgrass and medusahead are naturally more prone to burning than native plant species such as bunch grasses and sagebrush. Although wildfires are sometimes rapidly suppressed in these fuels, their very dense, fine-textured nature increases both the chance of ignition and the rate of spread of wildfires. During years when the production of annual grasses is high, resistance to control is extreme, and it can be very dangerous to try and suppress wildfires in this fuel type. Native perennial grasses do not mature until late August and September, whereas cheatgrass and medusahead mature in June. The dominance of cheatgrass and medusahead thus not only changes the type of fire that occurs, but also extends the fire season by almost two months. The presence of continuous stands of flammable cheatgrass and medusahead at many sites around the Huntington community probably make for a higher hazard than is indicated by the fuel survey data.

4.3 Summary of the Structure Assessment (Form 2)

A second component of the Hazard Assessment Report was the characterization of structures in the assessment area, for seven rating elements, including structure density, building materials, proximity to fuels, presence of a survivable space, and roads/accessibility. Structures were characterized by land section, with surveys conducted from roadsides or other publicly accessible vantage points. Ratings for each element were again assigned by Dynamac to describe relative hazard as high (class A), moderate (class B), or low (class C); rating criteria are described in the Hazard Report. Dynamac surveyed 562 sections within the assessment area to rate the hazards posed by wildland fire to structures on the wildland-urban interface. Results of the structure survey are summarized below and in **Figures 3 and 4**; most sections did not have any structures, and data below summarize conditions only for sections with one or more structures.

- **Structure Density** (for 105 sections with 1 or more structures):
 - Class A - 3% of sections had a high structure density (more than 1 structure per 5 acres). These sections included the towns of Huntington and Brogan.
 - Class B - 1% of sections had a medium structure density (1 structure per 5-10 acres). This section included the town of Jamieson.
 - Class C - 96% of sections had a low structure density (less than 1 structure per 10 acres).

To provide further detail on the low density of structures in the assessment area, only 10 of the 105 sections with structures had 10 or more structures per section, and less than half the sections with structures (48 of 105) had four or more structures. If all sections with private land were used for this element (i.e., 348 sections with no structures were included), 0.7, 0.2, and >99% of sections would be classified as having high, medium, and low structure density, respectively.

- **Proximity to Structures** (for 89 of 105 sections with 1 or more structures; occurrence of structures in 16 sections was determined from maps, so information for this rating element was not available for those sections):
 - Class A - 9% of sections had structures, on average, more than 100 feet from fuels.
 - Class B - 21% of sections had structures, on average, between 40 and 100 feet from fuels.
 - Class C - 70% of sections had structures, on average, less than 40 feet from fuels.
- **Predominant Building Materials** (for 77 sections with 1 or more dwellings):
 - Class A - 84.4% of sections had more than 50% of homes with fire resistant roofs and/or siding.
 - Class B - 10.4% of sections had between 10 and 50% of homes with fire resistant roofs and/or siding.
 - Class C - 5.2% of sections had less than 10% of homes with fire resistant roofs and/or siding.

- **Survivable Space** (for 77 sections with 1 or more dwellings):
 - Class A - 35.2% of sections had more than 50% of homes with an improved survivable space.
 - Class B - 32.4% of sections had between 10 and 50% of homes with an improved survivable space.
 - Class C - 32.4% of sections had less than 10% of homes with an improved survivable space.

- **Roads** (for 105 sections with 1 or more structures):
 - Class A - 26% of sections had roads rated as good (at least 2 lanes wide, well maintained, solid surface with shoulders).
 - Class B - 37% of sections had roads that are maintained, but relatively narrow, without shoulders.
 - Class C - 37% of sections had roads that are narrow (often single lane), minimally-maintained, and lacking shoulders; these may be rutted or soft in inclement weather.

- **Response time** (for 105 sections with 1 or more structures):
 - Class A - 28% of sections had an emergency vehicle response time of less than 20 minutes.
 - Class B - 72% of sections had a response time of 20 to 40 minutes.
 - Class C - no sections had a response time greater than 40 minutes.

- **Access** (for 105 sections with 1 or more structures):
 - Class A - 18% of sections had good access, with multiple entrances and exits, adequate turning radius for fire trucks and/or turnarounds, and low grades.
 - Class B - 20% of sections had limited access, with multiple access, but moderate grades, and/or tight turns.
 - Class C - 62% of sections had poor access for emergency vehicles, with narrow or dead end roads, sharp turns that limit truck access, and/or steep grades.

Probably the most obvious feature of the Form 2 data is the low density of structures in most of the assessment area. Less than one-fourth of sections with private land contain any structures, and less than 3 percent of sections had as many as 10 structures. Structures are concentrated in

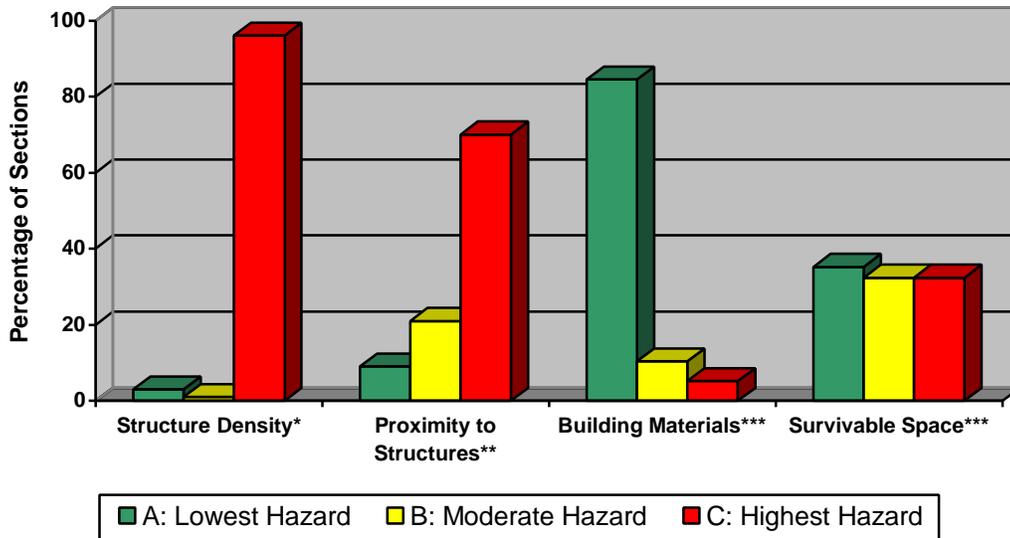
the Huntington area (including the area at the I-84 interchange near Farewell Bend) and in the Brogan-Jamieson area, along with a few sections along the Snake River in the northeast corner of the assessment area and in the Porter Flat area.

Structure data identify both good conditions and areas of concern in terms of fire risks for structures and their settings in the assessment area. A positive feature of conditions is that in most sections (84%) of the assessment area, a majority of homes are built with fire resistant materials, most commonly metal roofs. Of concern, however, a sizeable majority (70%) of sections in the assessment area have a majority of structures occurring in close proximity (<40 ft) to flammable materials, increasing the risk of fire spreading from wildland fuels to those structures. Additionally, only about a third of sections have a majority of homes with a survivable space, a condition that unnecessarily exposes residents to relatively high risk from wildland fire. **Map 2** in the Appendix shows the areas of greatest risk in terms of fuels and fire suppression capabilities.

Road and access conditions reflect the rural nature of the area. The frequency of moderate (B) and high (C) risk for both road and access conditions is high because the area is dominated by unpaved roads that are often narrow and steep, with many dead-end roads.

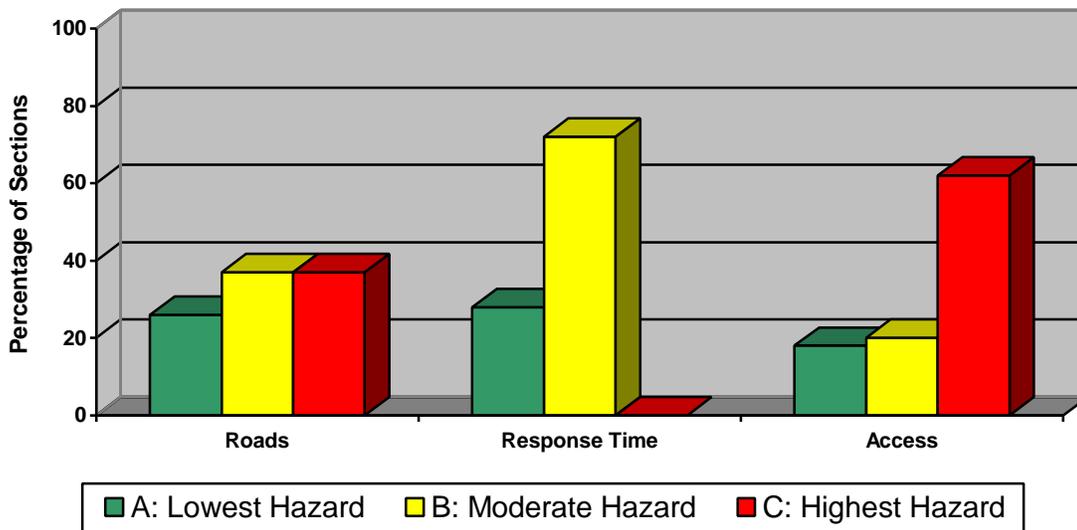
The percentages of assessment points for structure-related hazards are shown graphically in **Figures 3 and 4**. The Hazard Assessment, a companion to this document on file with BLM, provides raw data describing structure-related hazards in the area.

Figure 3: Structure Risk Assessment Results for the Huntington-Brogan Assessment Area



- * Percentage based on 105 sections surveyed with structures in the assessment area.
- ** Percentage based on 89 sections with observable structures.
- *** Percentage based on 77 sections with observable dwellings.

Figure 4: Road Hazard Assessment Results for 105 Sections with Structures in the Huntington-Brogan Assessment Area



5.0 SUMMARY OF PUBLIC COMMENTS AND CONCERNS

5.1 Introduction

During interviews with community officials, and in community meetings and discussions with residents, a number of comments and concerns were expressed, and suggestions were made for improving conditions in the assessment area. If projects were implemented to address these concerns, they could greatly reduce the threat of wildland fire to interface areas and improve fire-fighting capabilities in the Huntington-Brogan assessment area. The focus of public meetings and discussion was to determine local needs and desires in terms of ability to suppress, prevent, or reduce the risk of wildland fire in the Huntington community. This section provides a list of the comments and suggestions obtained through community outreach activities. Dynamac evaluated all such comments, and in the next section discusses each of the remarks that is consistent with the scope of the Communities-at-Risk Program, and for which work resulting from the suggestions will take place within the boundaries of the assessment area. Based on these comments, subsequent sections of the report describe recommended mitigation activities to reduce the risks of wildland fire in the Huntington community.

In addition to the comments listed in the next section, there were a number of additional comments and suggestions that could not be considered in formulation of recommended mitigations, either because they entailed actions outside the geographic boundary of the assessment area or because addressing them would require actions (e.g., a BLM policy change) outside of the scope of the Communities-at-Risk Program. These additional comments are listed below, but not considered further in this report.

Three comments could not be considered because they were tied to projects outside the geographic boundaries of the assessment area. Dynamac could not evaluate the merits of these proposals because no data were available to characterize fuels, structures, roads, etc. in proximity to the suggested projects, nor to evaluate the potential value of these projects. These projects do fall within the intent of the Communities-at-Risk program, however, and funding could be pursued through other means:

- Install a water tank to improve water availability near Malheur Reservoir;
- Install a firebreak near Black Springs, west of Little Lookout Mountain; and
- Install a firebreak near Rooster Comb.

Three additional comments/suggestions could not be considered because their implementation would require actions falling outside the scope of the Communities-at-Risk program. Dynamac did not evaluate the merits of these comments, as they were not pertinent to the goals of the current project. These comments included:

- Increase allowable grazing intensity on public lands to reduce fuel loads. This was a topic of considerable discussion in the second community meeting; several residents expressed concern that mandatory reduction in grazing intensity on public lands was contributing to increased fuel loads and increased fire hazards. BLM staff noted that they were using other approaches to managing fuels on public lands (e.g., greenstrips to provide firebreaks and slow fire movement), and suggested citizen participation in County Fire Councils to foster discussion of issues such as grassland management and grazing policies.
- Provide fire suppression bonuses to BLM fire crews. This is a BLM personnel/policy issue, and is not appropriate for consideration in this program.
- Improve fire hydrant system in the town of Huntington. The hydrant system in Huntington is inadequate both in terms of the number and location of hydrants and the size of supply lines to many existing hydrants. While upgrading the system should be a priority for protecting structures within the town of Huntington, doing so would not aid in wildland fire suppression, so this project is not appropriate for funding under the National Fire Plan.

5.2 List of Public Comments and Suggestions

The comments and suggestions listed below have been incorporated into mitigation recommendations (See Section 8.0, Proposed Mitigation Recommendations) for lessening the risk posed by fire. This list includes all comments and suggestions from the Huntington community that are consistent with the Communities-at-Risk program, for which projects resulting from the suggestions will occur within the boundaries of the surveyed assessment area.

- **Improve communications in Huntington.** The Baker County Sheriff expressed concern about communications in the Huntington area. There are currently not enough radios available for emergency personnel, nor are there enough repeaters in the area to allow communications over long distances, as is often required in emergency situations. More repeaters should be installed.

- **Reduce fuels along highway and railroad tracks.** Small fires often start along the railroad tracks and Interstate 84 or Route 30 due to sparks from vehicles or careless behaviors. The highway and railroad tracks pass through Huntington and are regarded as posing a significant fire threat to the community. Several potential approaches were identified for treatment including planting of fire-resistant species to replace annual grasses and overgrown weeds, controlled burns or grazing, and more frequent mowing, along with mowing of more extensive areas by the highway department. Lastly, improved communications with the Union Pacific Railroad, prompting them to keep their property along the north side of the town of Huntington clear of fuels, would reduce the risk of fire.

The Union Pacific Railroad, according to comments from several area residents, does not have a good record of maintaining vegetation along its rights-of-way; in particular, several residents noted the persistent weed problems on railroad property on the north side of the town of Huntington. Dynamac attempted repeatedly to contact Union Pacific to obtain information regarding their policies on fuels management that may already be in place, but phone calls were not ever returned.

- **Establish a firebreak at the ditch around Huntington.** A ditch, originally built for flood control, runs along the southern side of the town of Huntington. If maintained as a green strip or a brown strip, the ditch could serve as a firebreak for the southern portion of Huntington. The hill south of the ditch is covered with sagebrush, and fuels are sufficiently dense to carry fire to homes in town. The family that owns the land on which this ditch exists is willing to work with BLM and local government to maintain this ditch as a firebreak. This landowner is concerned that once the ditch is cleared, it will become a common thoroughfare for ATV riders on the lip of the ditch. It was suggested that the area around the ditch be disked every fire season instead of cleaning out the ditch itself. It was noted that the ditch does not protect all the perimeter of the town, so to provide more complete protection, a firebreak should extend beyond the ditch to cover the perimeter of the town on the east, south, and west sides of the community.
- **Post signs on highways, reduce fuels along highways.** Because fires can result from careless actions by drivers or from accidental ignition when vehicles pull off the road (i.e. from catalytic converters contacting vegetation) efforts could be made to educate vehicle operators about the fire danger. This could be done by posting danger signs during fire season, and by posting a number to call (#FIRE is used in Idaho) in the event of a fire.

Residents noted that historically, small fires were set each year along the highway to remove fuels from the highway right-of-way, reducing the potential for fire starts in this area; they inquired whether some kind of action be undertaken to reduce fuels along highways.

- **Certify local farming equipment.** Some residents commented that because the BLM fire crew is dispatched from Vale, response times may be lengthy. Furthermore, some residents stated that BLM does not necessarily know the terrain and roads in the Huntington area as well as Huntington residents. Residents asked that the Fire Department utilize local ranchers and farmers for information on accessibility, and for equipment. Ranchers obtaining equipment certification from BLM could fight fires on public land until BLM arrived, reducing the risk of fire spreading.

In discussions at the second community meeting on March 19, BLM staff noted that because of safety and liability concerns, BLM cannot allow individual residents to go onto public land for fire suppression. They pointed out, however, that if these residents were to join a local fire department that has a mutual aid agreement with the BLM, they could receive training, and could act as first responders on public lands through the auspices of that fire department. This approach would be beneficial in two important ways; it would meet the residents' desire to be able to act quickly as first responders for fires on public lands, and would improve membership and equipment availability for local fire departments.

- **Utilize Rural Cooperators.** The BLM maintains a list of Rural Cooperators, and in the event of a fire, these volunteers are often used as first responders due to their closer proximity to the fire than BLM personnel. Shane Harrison (541-869-2819) has experience and training in firefighting in LaGrande, and expressed interest in becoming a rural cooperator. Some residents expressed concern about fire fighting tactics in past fires.
- **Obtain equipment for the BRFP.** This association already has numerous 5-gallon backpack water tanks, as well as 6 portable slip-in pumpers. The slip-in pumpers must be loaded on to a truck and filled with water, increasing initial response time, and must be frequently refilled during fires, slowing fire suppression. The addition of a tender that could remain full of water and ready to use would significantly improve the effectiveness of the BRFP. In addition, this association has two old army radios, but needs additional updated radios to combat wildland fire effectively and safely. Some training will be addressed through a grant to the SRVFP.

- **Address HVFD needs.** The HVFD currently has 5 volunteers, but for any given fire, generally only 2 volunteers respond. The HVFD Chief, Eric Bronson, indicated that at least 10 firefighters are needed to serve the community adequately. One resident pointed out that Huntington is an elderly community and while many residents are not physically able to help, increasing volunteerism is a definite need. In addition, the department has only obsolete communication equipment. Poor equipment, coupled with very complex terrain, severely limits communication by fire fighters. This department also lacks proper wildland firefighting equipment and training to fight wildland fire; it indicated the need for a 3,000-gallon tender, hoses, and a light duty pickup. Training is also badly needed, but some will be provided through a recent grant for wildland fire training obtained by the SRVFPA.
- **Improve BLM knowledge of terrain and response time to the area.** The BRFPA indicated that BLM's response time to the area is sometimes slow because they are not familiar with it. In addition, once BLM arrives, time is sometimes wasted identifying the best route to a fire, or where the fire danger is highest. In the past, BLM scouts have been stationed in the area, making for a quick and knowledgeable response time. The BRFPA would like to see scouts stationed in the area, but if this is not possible, BLM fire crews should at least patrol the area periodically to familiarize themselves with current conditions of roads, grazing areas and fuel loads. In this way, response times can be minimized.
- **Improved communication between local fire departments and BLM.** A significant communication gap exists between the BLM and the local fire departments. This can be partially attributed to two factors: differences in training and experience, and lack of interaction. A training course could be made available to teach rural fire departments the terminology and techniques used by the BLM. This training could be provided in coordination with a social gathering for the BLM and local fire departments to foster interaction and communication between area fire fighting entities.
- **Address high fire potential in the corridor along Brownlee Reservoir.** BLM staff and area residents expressed concerns about the risk of catastrophic fires in the canyon along Brownlee Reservoir. While the area has not had a high number of fires in recent years, it is of high concern because of the combination of high summer use for recreation (fishermen and boaters); fuels dominated by annual grasses; hot, dry conditions and high winds; and limited access in and out of the area. The area has a mix of public and private land; there is

one developed recreation area in the assessment area (the Springs launch area managed by BLM), along with many undeveloped areas that receive heavy use as reflected by well-worn turnouts and fire pits. Fuels in the area are predominantly annual grasses and other light fuels. Terrain includes steep canyon walls on much of the area to the west of the road through the area, creating the potential for very rapid spread of any fire that starts.

6.0 NEED FOR ACTION

Wildland fires in the Huntington assessment area are common and have burned very near the community, occasionally crossing onto private land and threatening outlying homes and ranches. The risk of fire in this assessment area is high. At risk are dwellings and other structures on private land near the wildland-urban interface; cultural, environmental, and historical resources, as well as several economically valuable businesses.

To reduce the risks of wildfire in the assessment area, both general and specific actions are needed. In general, the residents and their public agencies must support activities that promote safety for dwellings and structures at risk, through actions such as implementation of zoning and building requirements to promote firewise construction and landscaping practices. Federal agencies could coordinate efforts to achieve fuels management programs aimed at decreasing the spread of wildland fires from public lands onto private lands, and vice versa. All fire protection entities must work together to achieve open lines of communication and aid each other whenever necessary and possible to provide adequate defense against wildland fire.

Residents of the assessment area are well aware of the fire hazards surrounding them, and want to see precautionary measures defined and implemented. However, proper mitigation techniques individual residents could employ to reduce their risk are not widely known, and there is no readily available source for this information in the area.

Outreach to schoolchildren does exist, but has focused on structural fires, not on the natural role of fire in the ecosystem or on wildland fire dangers. If children are introduced to wildland fire education at an early age, this understanding of the natural occurrence and role of wildland fire, combined with preventative measures that can safeguard homes, can be carried into adulthood. Eventually, this would have a significant impact on the public's knowledge of, and willingness to participate in, preventative measures.

Effective first response capabilities are severely inadequate in the Huntington assessment area. The HVFD is very small and has minimal equipment and training, and like most RFDs, has traditionally focused on structural firefighting. The Vale RFD has recently been able to place equipment in Brogan and has trained firefighters in that community, improving response times for the Brogan and Jamieson areas. Like Huntington, this department has, until recently, focused on structural fires, and has limited training and experience with suppression of wildland fires. The BRFPFA focuses on wildland fires, but has a very large area to cover, again with very limited personnel, training, and equipment.

7.0 METHODOLOGY

The assessment activities that were used to determine the proposed mitigation recommendations for the Huntington assessment area are based on information acquired from an evaluation of the hazards of wildland fire through field surveys, information obtained from the community meetings, and interviews of public officials. The majority of information presented in this report was gathered between November 12 and November 16, 2001. A companion report, the Hazard Assessment for the Huntington Assessment Area, documents field survey activities and conditions found in the area; it is available for review at the BLM's Vale District Office.

Dynamac characterized land and fuels at 37 points on public land within a 15-mile radius of Huntington, concentrating on sections of federal land near inhabited areas. As not all sections of public land were accessible, Dynamac endeavored to choose fuel survey points that were representative of surrounding sections. The rating elements included slope, aspect, elevation, fuel type, fuel density, and fuel bed depth, and were assigned to a risk category of low, medium, or high (See Hazard Assessment Report, Table 3, and Appendix B).

At each survey point, the field crew determined and recorded the location in UTM coordinates using a Trimble hand-held global positioning system unit (GPS), and photographed the surrounding area in the four cardinal directions. Also, a wildland fuels fire hazard assessment form (Form 1) was completed, which rated the characteristics of the land features and fuel conditions.

Dynamac staff also collected information on the density, susceptibility to fire, and accessibility of structures on private land from 453 sections with at least partial private ownership, located within one mile of Public lands, within the assessment area. The structural hazard assessment

rated the structures based on the resistance of building materials to fire, and the distance of flammable fuels to the structures located within a section. The rating elements included structure density, proximity of flammable fuels to the structures, building materials, survivable space, and types of roads, response times, and accessibility. Each element was assigned a rating of low, medium, or high hazard category defined by BLM (See Hazard Assessment Report, Table 4, and Appendix C).

To obtain input from the public regarding fire conditions and concerns for the Huntington community, a public open house was held on November 13, 2001, at the Huntington VFW from 6:00 to 9:00 p.m. The community was invited to attend through newspaper articles in the local newspaper, announcements posted in public places such as the post office, local restaurants, stores, and on utility poles. Flyer-invitations and surveys were also mailed to 292 residents living in and around Huntington.¹ Thirteen residents attended. Dynamac and BLM staff attended the public meeting to hand out firewise brochures, obtain information from the community on hazardous fire situations and desired conditions, and be an informational resource to those attending the meeting. Introductions and explanations of the project were given, and all attendees were invited to participate in a question and answer period in the form of an open discussion. Residents attending the meeting were also asked to fill out a survey form regarding their perceptions and concerns about wildland fire in their communities. Several of these were received from people who had received the survey and invitation in the mail, but did not attend the meeting (See Hazard Assessment Report, Appendix D).

Subsequent to review of the draft reports by cooperating parties, a second community meeting was held in Huntington on March 19, 2002, to present to local officials and community members the results of the surveys and interviews, and to present and discuss Dynamac's proposed recommendations for mitigation activities that could be undertaken to reduce risk from wildland fires in the Huntington and Brogan-Jamieson communities. This meeting was advertised through a mailing to residents of the assessment area, including residents of the Brogan and Jamieson areas; a total of 397 fliers were sent to announce the meeting. Surveys were also included in the second mailing providing another opportunity for residents to convey their perceptions and concerns about wildland fire in their communities. A summary of the second public meeting is included as Appendix F of the Hazard Assessment Report, a companion document to this report.

¹ Prior to arriving in the "Huntington" assessment area, Dynamac was unaware that the towns of Brogan and Jamieson would be included in the hazard assessment. Thus, no invitations were sent to residents of these towns. However, invitations to these residents were sent for the second community meeting so that their input could be incorporated into this report.

The Dynamac Community Relations Specialist conducted interviews with numerous local public officials and residents. Individuals or groups interviewed included local residents, the chief of the Huntington Fire Department, representatives of the BRFPA, the Mayor of Huntington, the Baker County Sheriff, and the Department of Transportation (See Hazard Assessment Report, Appendix E). A Dynamac Community Relations Specialist explained our position as contractors with BLM, provided background information on the project, including a map of the assessment area, and asked questions to obtain information for the community profile.

8.0 PROPOSED PROJECTS

The following general action items and projects were identified and extrapolated from the list of concerns and suggestions described by the community to reduce the hazard of wildfire in the Huntington-Brogan assessment area. Combined with the desired conditions are mitigation actions proposed by Dynamac based on assessment observations. A more specific explanation of each topic follows. Each of these actions falls within the scope of the Communities-At-Risk Program:

- Develop community education and outreach programs throughout the assessment area to increase awareness of fire hazards and to encourage firewise practices;
- Conduct several fuels treatment projects to decrease fire risk to residential and economically or environmentally valuable areas; and
- Rural fire departments need to apply for funding for additional equipment and infrastructure improvements. Rural fire departments need to work with federal and state agencies for assistance in obtaining funds.

8.1 Community Education and Outreach Recommendations

Education has been defined as a critical tool for reducing fire risks in the Huntington assessment area because education is preventative and, if carried out properly, will more effectively reduce the risk of wildland fire spreading to developed areas than other mitigation techniques. If citizens understand the risks and take proper steps to protect their own home and property, risks of loss will be greatly reduced, independent of the implementation of other mitigation activities such as infrastructure improvements or fuel treatments. In rural areas where emergency response is slow and fuel treatments not economically or logistically feasible to protect dispersed

structures, education is sometimes the only effective action that can be taken to reduce fire risk to local residents.

Under the umbrella of community education, outreach, and training, Dynamac is recommending three specific types of mitigation actions:

- Conduct an Annual Firewise Clean-Up Day;
- Educate recreational visitors (along highways and at Brownlee Reservoir); and
- Institute a community-wide fire education outreach program. Provide educational materials to towns and Fire Departments.

8.1.1 Annual Firewise Clean-Up Day

Initiating an Annual Firewise Clean-Up Day, sometime during the spring prior to the fire season, is recommended to encourage residents to come together and learn about creating defensible space, firewise landscaping, and to cooperatively accomplish some of the recommended firewise activities. Introducing an annual event, such as a community barbecue as a focal point of public communication, would encourage community participation and could also foster evolving relationships between personnel from public and local fire departments and citizens and would reduce the communication gap that currently exists.

Demonstration projects such as landscape design and building material workshops, along with firewise home demonstrations, can be designed and utilized in conjunction with guest speakers on wildfire and firewise practices. Local homes could be identified as model homes for firewise practices and used as demonstration platforms for other residents. Materials and brochures could be handed out, and equipment such as chippers and dumpsters or dump trucks could be provided for logistical support in the handling and disposal of cleared brush and debris. Providing a mobile chipper or shredder is generally recommended under “Community Outreach,” section 8.1.3, below; a Firewise Clean-Up Day Barbecue might be the ideal venue at which it could be provided. This event could also serve as a fundraiser for local fire departments to help raise funds for much-needed training and equipment. Fire crews could offer fire trucks and firefighters in fire-fighting gear for tours and photo opportunities for children. These activities foster pride and willingness to serve a community, and may aid in increased volunteerism.

As part of an annual clean-up day, training sessions could be held for local fire department and first response crews to keep them up-to-date on all National Wildfire Coordinating Group

(NWCG) training requirements. By providing training in a setting with high public visibility, these sessions could also be used for recruiting new firefighters. Joint training sessions, with participation by BLM, HVFD and the BRFPA, would also foster improved communication and cooperation among all of these organizations. The fire station in Brogan is a part of the Vale Fire Department, and training for this group should be organized through the Vale RFD; training and equipment needs for the Vale RFD are discussed in the Mitigation Recommendations document for the Vale-Ontario assessment area.

If deemed appropriate by the local community, Clean-up Day could be scheduled to coincide with another area event such as the Annual Catfish Derby, a rodeo, or a parade.

8.1.2 Educate Recreational Visitors

Roadsides along highways and in the Brownlee Reservoir corridor were identified as areas of concern within the assessment area that would benefit from the posting of signs to educate passersby and recreational visitors about hazards of wildland fire, provide notice of prohibited activities during fire season, and provide contact information in the event of a fire.

Local residents and visitors to the area are not necessarily aware of the severe fire hazard existing along the roadside. Sparks from a vehicle, starts from a catalytic converter, or careless actions (e.g., discarded cigarettes, unattended campfires along Brownlee) pose a significant threat. The posting of official signs indicating the fire hazard, along with a telephone number to call in the event of a fire (#FIRE is used in Idaho), could greatly reduce this fire hazard.

Two types of action are recommended to reduce the frequency and severity of fires along Brownlee Reservoir. The first is to post informational signs at the entrance to the corridor and at all areas used for parking and camping along the corridor. During periods when burning is banned, the signs would so advise recreational visitors. At other times during the summer recreation season, signs would warn of high fire danger and provide a list of prohibited activities (e.g., unconfined fires) and recommendations for preventing fires (e.g., do not park over dry vegetation). Dynamac is recommending that information projects along highways and in the Brownlee corridor be coordinated with fuel reduction projects in these areas to reduce likelihood of fire starts.

8.1.3 Implement a Community-Wide Outreach Program

With the exception of the town of Huntington and the Brogan-Jamieson area, housing and other structures in the assessment area occur in very dispersed settings, usually with only one or a few homes in a section. It is not possible for BLM to conduct any kind of cost-effective fuel management programs around individual homes or farms. While some local officials have expressed skepticism regarding whether residents would take advantage of firewise education programs, such programs provide the best, and sometimes only, feasible approach to improving the level of fire protection for individual homeowners in rural areas. Because rural homeowners represent a large percentage of residents in the assessment area, the need for such a program is obvious.

The rural fire departments would be more successful at defending homes in the interface zone if the homeowners were better educated about the risk of wildfires and were encouraged to implement firewise practices. Information about firewise practices and assistance in implementing them should be made conveniently available to residents. The BLM could assist with this proposed mitigation action by providing literature to local fire departments and governments. The BLM could also provide organizational oversight to mitigation projects, and promote partnerships with local officials and volunteer organizations. It is recommended that BLM also provide logistical support for clean-up activities such as loaning a mobile chipper and dumpster (or free access to a disposal site) to aid homeowners in disposing of debris from around their homes.

A community-wide firewise education programs should focus on these issues:

- 1) Educate the public of the dangers of wildfire in the area;
- 2) Urge residents to take responsibility in reducing the risk of wildfire and to create defensible space around their residence; and
- 3) Increase awareness of the natural role of low-intensity fire in woodland or grassland ecosystems, the necessity of prescribed burns, and justification behind occasionally managing wildland fire to achieve ecological benefit, while maintaining public and firefighter safety as the number one priority.

The public education and outreach program could be co-sponsored by the BLM and the rural fire departments through a partnership agreement. The Annual Firewise Clean-up Day recommended in Section 8.1.1 would comprise one key component of community outreach.

Project Necessity: Citizen and visitor knowledge about and involvement with wildfire mitigation in and around communities is a necessary element for success. Public education and outreach is an effective means of engaging the public in the process of reducing risks to a community. Such education and outreach has been shown to motivate homeowners to implement firewise practices around their individual properties, thereby contributing to the reduction of wildfire hazards in a community. Furthermore, the above-described community education and outreach program would help identify problems and solutions for both public and private landowners, and would afford opportunities for partnerships and agreements. Implementation of the program, and appropriate action by federal agencies as well as homeowners, would substantially reduce fire hazard to structures in the Huntington assessment area. In areas outside of the towns of Huntington, Brogan, and Jamieson, where residences are widely dispersed, community education and implementation of firewise practices would provide the most effective means of reducing risks from wildland fire.

Project Timing: The annual Firewise Clean-Up Day, public demonstrations, sign postings, and community-wide education are envisioned as ongoing efforts, with major emphasis on activities targeted late in the spring of each year. This schedule would remind people to prepare their properties for the upcoming fire season, and would remind visitors of the hazards in areas vulnerable to wildland fires.

8.2 Fuels Treatment Recommendations

Several fuels treatment projects are recommended for locations in the Huntington assessment area to reduce fire risks for a group of high-risk within the area. Locations and general nature of the projects are listed here, with each described in more detail in the following paragraphs. **Map 3** shows the locations of the recommended fuels reduction projects. Replacement of existing vegetation by creating herbaceous firebreaks, or greenstrips, and mechanical or herbicide treatments to reduce fuels, are proposed to reduce hazards from wildland fire for sites in the Huntington assessment area. Recommended projects include:

- Install a fuel break around the perimeter of Huntington, on the south, east, and west sides of town;
- Install fuel breaks on the southwest sides of Brogan and Jamieson;
- Initiate fuels reduction/high-moisture replanting along the road through the canyon at Brownlee Reservoir, and in extensively used recreation areas of the canyon;

- Implement fuels management along Union Pacific Rights-of-Way; and
- Initiate fuels reduction projects along I-84 and US-30.

To reduce risks of wildfire spreading from surrounding rangelands into the town of Huntington, a firebreak is recommended around the town's perimeter, on the west, south, and east sides of town. A recommended approach would be to remove existing vegetation from a strip between 50 and 100 meters wide around the town and replant this strip with bunchgrasses, which do not propagate fire as easily as annual grasses such as cheatgrass or medusahead. Around part of this perimeter, the firebreak might parallel the existing ditch, which should be preserved if it serves other purposes (Dynamac was told it was built to catch and divert water in the event of a flood). As part of this action, it is recommended that fuels also be removed from the area between the firebreak and homes along the edge of town to reduce the chances that a fire could jump the firebreak. Because most of the perimeter of Huntington is private land, creation of firebreaks would require partnerships among BLM, the town of Huntington, and private landowners.

To the south and west of the Willow Creek Valley near Brogan and Jamieson, there is a large expanse of grass and sagebrush. Any fires starting in this area could readily move into the Brogan and Jamieson areas where there are relatively high concentrations of homes and farm buildings. Creation of a firebreak between these rangelands and developed areas of Brogan and Jamieson would significantly reduce risks of wildland fire moving into these communities. A recommended approach would be similar to that outlined above for Huntington, with removal of existing fuels and subsequent replanting with bunchgrasses, along a strip southwest of each town, along a line running roughly northwest to southeast (parallel to highway 26). The affected land includes a mix of public (BLM) and private land, so partnerships would need to be established with local landowners to implement this mitigation recommendation.

Along the Brownlee Reservoir corridor, fire suppression agencies could aggressively reduce fuels in and adjacent to areas used for parking, boat launches, and camping to reduce the risk of fire starts. These agencies could also consider establishing buffer strips of bunchgrasses adjacent to areas used for parking and recreation, and along the western edge of the road for the entire length of the area to reduce the chance of fire starts from vehicles and to slow movement of fires that do start. If a fire were to ignite in the area, it could readily spread along the length of the canyon and up the side to the west. Most of the land in the Brownlee corridor is owned by BLM or FERC, but there are several parcels of private land, so partnerships could be established between BLM, FERC, and private landowners to implement this project.

Dynamac recommends improved fuel management along Union Pacific Railroad rights-of-way throughout the area, but especially in the area along the north side of the town of Huntington. Action in the latter area is important both for prevention of fires on railroad property and to reduce the potential for fire in adjacent residential areas, where weeds blown from railroad property accumulate along fences and sides of buildings. This action would require a cooperative effort with Union Pacific and BLM, also the town of Huntington. To reduce weed problems along the north side of Huntington, it is recommended that weedy species be removed, and the area then seeded with bunchgrasses or other fire-resistant vegetation. This action would reduce the risk of fire on railroad property, reduce the need for annual vegetation maintenance, and would also eliminate the nuisance and fire risk of weeds blowing onto private property for nearby residents.

The second vegetation issue concerning Union Pacific is general right-of-way maintenance. Residents and local officials expressed varying levels of concern about risks of fires started by the railroad in the assessment area, but more effective fuels management along the railroad right-of-way should be considered an area of concern and something that should be implemented by Union Pacific

Fuels reduction is also recommended in rights-of-way along major highways in the area, especially along Interstate 84 and Highway 30. Small fires can start along highways due to sparks from vehicles, contact with catalytic converters, or careless actions by passing motorists. The Interstate and Route 30 are both in close proximity to the town of Huntington, and fires starting nearby pose a specific and significant threat to the community. Outside Huntington, these highways pass through valuable rangelands in the assessment area, where they pose a threat to ranches and wildlife habitat. Several alternatives should be considered for fuel treatment in this area, including more frequent mowing (before the start of fire season), herbicide treatment, and as a long-term solution, replacement of annual grasses with perennial grasses or other fire-resistant vegetation.

Purpose of Fuels Reduction: The hazard to the community from wildfire on public lands in the Huntington assessment area is high. Public and private lands are widely interspersed through the area, so the potential for fire movement from public to private land (or vice versa) is very high. Moreover, the prevalence of annual grasses on much of the area creates the potential for fire to spread quickly over large areas. Fuel reduction projects, such as those proposed here, offer the potential to stop or at least slow fire movement from grass or rangelands into developed areas,

reducing the risk of fire in the wildland-urban interface. Because it is not feasible, at least in the short term, to improve range conditions throughout the area to reduce the risk of wildland fire, the recommended projects are intended to provide a buffer to protect the Huntington, Brogan, and Jamieson communities from fire in the surrounding wildland areas, and to reduce the potential for occurrence or spread of human-caused fires in the Brownlee Reservoir corridor and along highway and railroad rights-of-way.

Project Necessity: Implementation of the fuel treatment and fuel reduction projects described above would significantly reduce dangers of wildfire for the Huntington, Brogan and Jamieson communities, and will help protect rangeland and wildlife habitats in the assessment area. These treatments would help to protect structures, agricultural and rangelands, and transportation corridors by lowering the risks posed by fires, and by making fires that occur easier to suppress.

Project Timing: Fuel treatment projects should be planned for activities over a period of several years. During the first year, projects are identified; project justification and specific treatment objectives are defined, and field surveys begun. During the second year, project planning analysis and review is conducted for NEPA projects. In the third year, projects are implemented. Post-implementation monitoring is begun during year four. All steps are contingent on available funding.

8.3 Rural Assistance

Rural assistance mitigation recommendations for the Huntington Assessment area can be broken into two main categories with several sub-categories, as defined below:

1. Assistance to Fire Departments
 - a. Huntington Volunteer Fire Department
 - b. Burnt River Fire Protection Association
2. Infrastructure Improvements
 - a. Communications
 - b. Equipment Certification

8.3.1 Assistance to Fire Departments

Huntington Volunteer Fire Department: Like most rural fire departments, the HVFD has traditionally focused on fighting structural fires, and it has only recently begun to try to respond to wildland fires. It lacks proper training, equipment and experience for fighting wildland fire. In addition, the department is severely understaffed and existing equipment is obsolete (especially communications equipment), which significantly reduces fire suppression capabilities and increases safety risks for firefighters. Training for the HVFD will be obtained through a recent grant for wildland fire training obtained by the SRVFPA, but several types of infrastructure support are recommended for the HVFD. The most pressing need is for radios, which are in short supply, obsolete, and unreliable. Not every truck is currently equipped with a radio. The town has applied for a grant for radios, but does not yet know if it will be funded. The HVFD request for a 3,000-gallon tender to provide a newer, larger replacement of the existing 1,500-gallon truck should also be supported. The department has one four-wheel drive vehicle, but would be better equipped with the addition of a light-duty, four-wheel-drive pickup.

Burnt River Fire Protection Association: The BRFPFA covers a very large portion of Baker County, including much of the northern third of the assessment area. It is divided into four quadrants, with a leader for each quadrant. In the event of a fire, a chain of command is enacted and the BLM and USFS are notified. The BRFPFA has mutual aid agreements with the USFS and with BLM. Many roads in the area have poor access, and fire prevention activities in the area are negligible. Approximately 40 men are dues-paying members of this association, and about 12 of them generally can respond to a fire. During a typical fire season, between one and four fires generally require a response from this association. The BRFPFA has identified several needs for equipment and training. The BRFPFA has recently affiliated with the SRVFPA; it will begin receiving wildland fire training through the SRVFPA and will also have an opportunity to apply for additional grants.

As already noted in Section 8.1.1, joint training for the BRFPFA with HVFD and BLM personnel could improve communication and cooperation between this group and the BLM, and would improve the fire suppression capabilities of the BRFPFA. The BRFPFA also noted that because its members are intimately familiar with current conditions of roads, terrain, and fuels in their area, improved communications between BRFPFA and BLM would facilitate more rapid and effective fire suppression by BLM crews when fighting fires in southern Baker County.

To improve fire suppression capabilities of the BRFP, Dynamac recommends support for this group in obtaining two types of equipment. Like the HVFD, BRFP needs communication equipment, as it currently has only two obsolete radios. The group has also noted the need for a water tender that would be used to re-supply water for existing backpack water tanks and slip-on tanks for small trucks; acquisition of a tender would allow much faster re-supply of water and would substantially improve the effectiveness of the BRFP.

8.3.2 Infrastructure Improvements

Improve Communications in Huntington: The Baker County Sheriff has identified communications in the Huntington area as the main problem for emergency response personnel. This problem extends beyond fire defense affecting all emergency response activities. The lack of radios, along with the problem of a limited number of repeaters to send the signal outside the area, complicates communication, reducing the efficiency of fire suppression and placing safety of firefighters at risk. Terrain is steep and emergency personnel often have to drive to selected areas in order to communicate with personnel on fire lines and with their base stations. Additional repeaters would allow emergency personnel to do their jobs better.

Encourage ranchers to affiliate with local fire departments: Several residents have expressed concerns about response times for BLM fire crews, and have suggested/asked that private equipment be certified so ranchers could fight fires on public lands before arrival of crews from BLM. As noted in Section 5.2, BLM has informed the public that by joining a local fire department that has a mutual aid agreement with the BLM, ranchers can obtain affiliation and training, and can act as first responders through the auspices of that fire department. This approach would be very beneficial to local fire departments, BLM, and the ranchers, and we recommend that BLM work with local fire departments and rancher organizations to implement programs that encourage ranchers to join their local fire departments.

Project Necessity: Approximately forty-one percent of the land within the Huntington assessment area is public land. The ability to respond quickly to remote areas, with an adequate water supply, and the ability of personnel to communicate once at the scene of a fire, are each critical for rural fire departments to efficiently and safely respond to and suppress wildland fires.

Project Timing: These recommendations do not fall under any timing requirements. The BLM should assist local fire department volunteers in obtaining grant money for equipment and infrastructure improvements as soon as time and funding permit.

9.0 BIBLIOGRAPHY

Anderson, H.D. 1982. Aids to determining fuel models for estimating fire behavior. General Technical Report INT-122, USDA Forest Service, Intermountain Forest and Range Experiment Station, Ogden, UT.

Bureau of Indian Affairs, Bureau of Land Management, National Park Service, Oregon Department of Forestry, U.S. Fish and Wildlife Service, U.S. Forest Service, Washington Department of Natural Resources, 2001. Increasing Fuels Treatment on Federal & Non-Federal Lands in the Pacific Northwest. Report to the Pacific Northwest Wildfire Coordinating Group (PNWCG).

Burgan, R.E. 1988. 1988 Revisions to the 1978 National Fire-Danger Rating System. USDA Forest Service Research Paper SE-273.

Gray, Gerry, May 29, 2001. "A Community-Based Approach to Addressing Wildfire."

Freemuth, J.C. 2000. Conference report: The fires next time. Andrus Center for Public Policy, Presented December 7, 2000, Boise State University, Boise, ID.

Interagency Fire Education Initiative, Resource Management Education Unit, 2001, <http://fire.nifc.nps.gov/fire/ecology/docs/ecplinit.html>.

NACCHO, March 2000. Partnerships for Environmental Health Education, Performing a Community Needs Assessment at Hazardous Waste Sites.

National Wildfire Coordinating Group, March 1996. Wildfire Prevention--Conducting School Programs Guide.

National Wildfire Coordinating Group, March 1998. Wildfire prevention strategies. PMS 455 or NFES 1572, National Interagency Fire Center, BLM National Fire & Aviation Training Support Group, Boise, ID.

National Wildfire Coordinating Group, 1991. Inspecting fire prone property P-110: Instructors Guide. NFES 2190, National Interagency Fire Center, BLM National Fire & Aviation Training Support Group, Boise, ID.

National Wildfire Coordinating Group, October 1999. Establishing Fire Prevention Education Cooperative Programs and Partnerships.

National Wildfire Coordinating Group, March 1999. Fire Communication and Education.

National Wildfire Coordinating Group, March 1999. Fire Education Exhibits and Displays.

National Wildfire Coordinating Group, April 2001. Publications Catalog.

BIBLIOGRAPHY (continued)

National Wildland/Urban Interface Fire Protection Initiative, undated. Fire behavior in the wildland-urban interface. National Fire Protection Association, Quincy, MA.

National Wildland-Urban Interface Fire Protection Program, undated. Developing a Cooperative Approach to Wildfire Protection.

Video: Firewise Landscaping, Part 1-Overview.

Video: Firewise Landscaping, Part 2-Design and Installation.

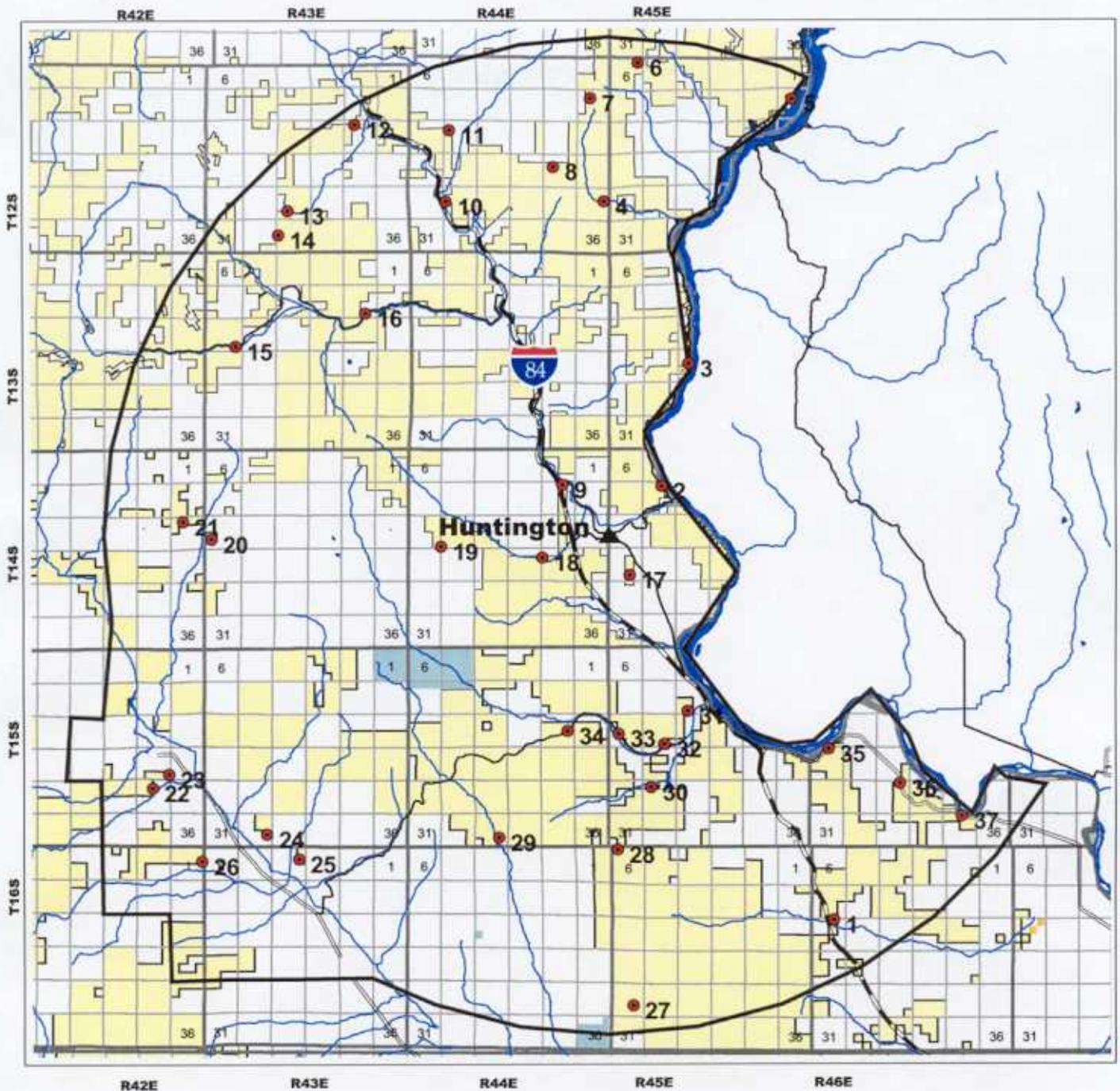
Video: Firewise Landscaping, Part 3-Maintenance.

Video: Wildfire Control--An Introduction for Rural and Volunteer Fire Departments.

Video: The Meeting: Fire Protection Planning in the Wildland/Urban Interface (1991).

Appendix: Maps

Map 1: Huntington- Brogan Assessment Area and Fuel Survey Points



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



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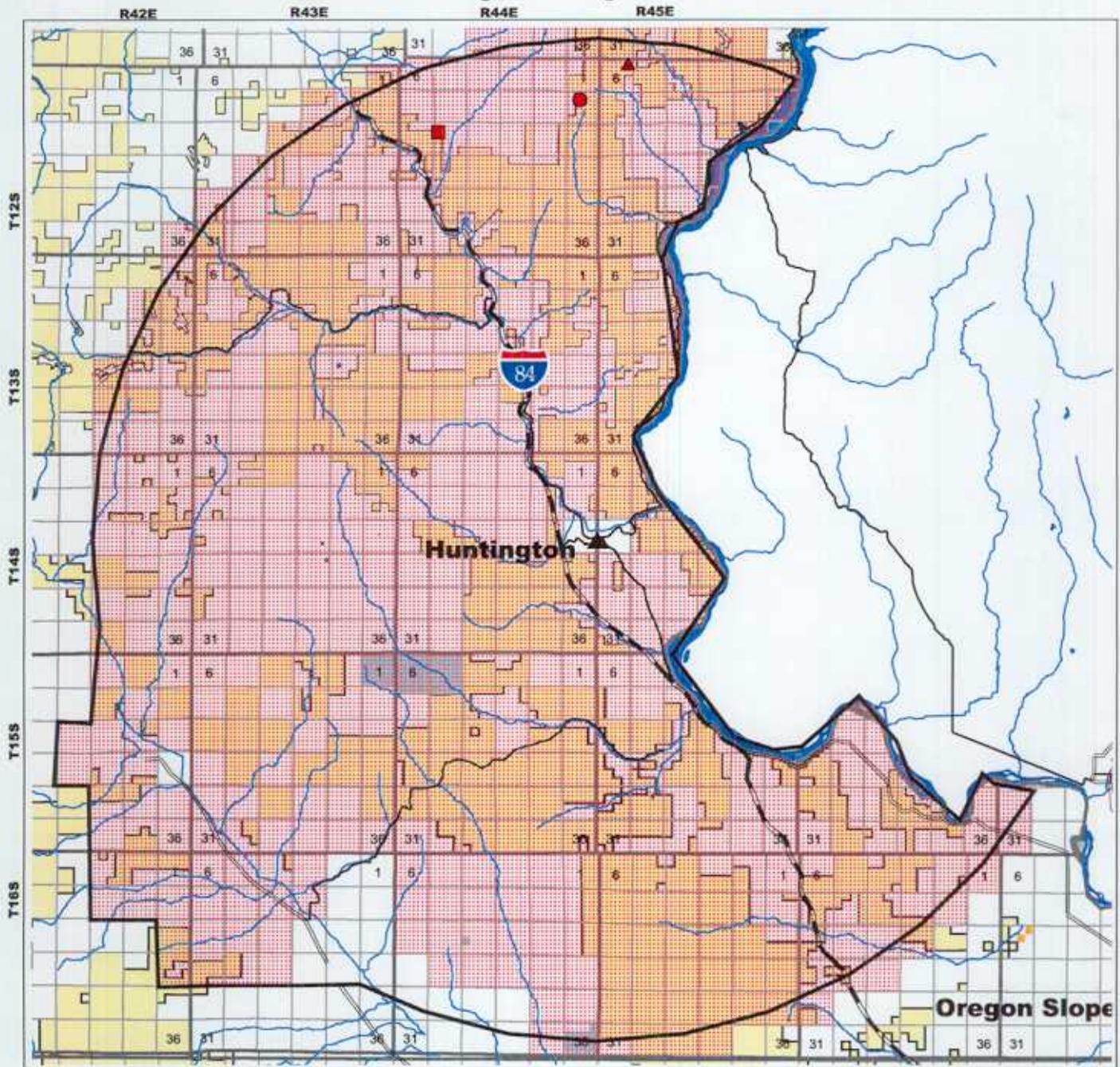
Map created by *Environmental Services* April 2002

Ownership:

- BLM
- U.S. Forest Service
- Bureau of Reclamation
- FERC
- Private
- State of Oregon
- Assessment Area
- Highway
- Road
- Stream
- Surface Water

Actual Assessment Point

Map 2: Highest Risk Areas for Fuel and Fire Suppression within the Huntington-Brogan Assessment Area



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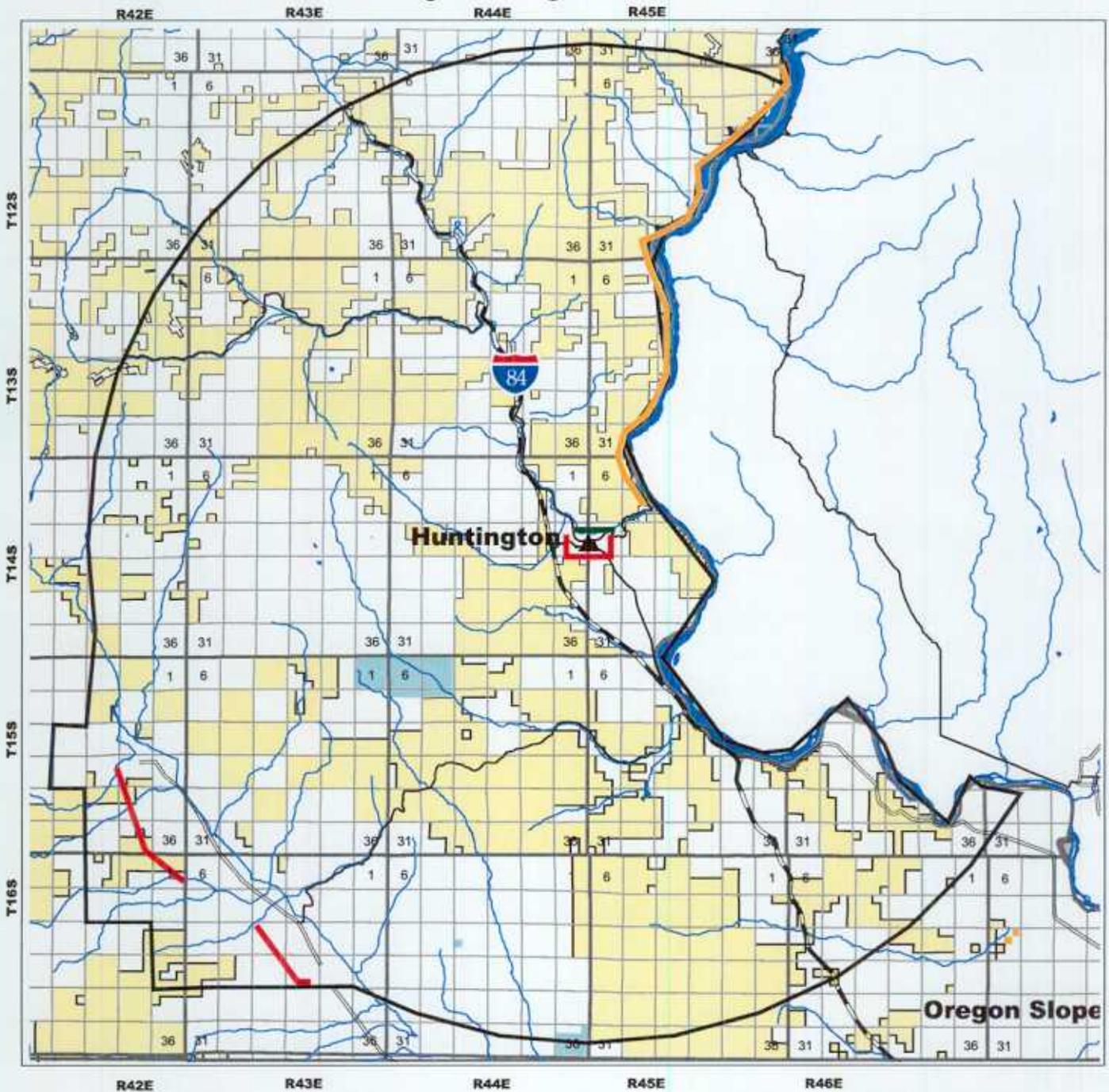
Map created by Environmental Services April 2002

Ownership:

- BLM
- U.S. Forest Service
- Bureau of Reclamation
- FERC
- Private
- State of Oregon
- Assessment Area
- Highway
- Road
- Stream
- Surface Water

- Highest Risk Fuel Areas within the Assessment Area
- Higher Risk Fuel Areas within the Assessment Area
- High Risk Fuel Areas within the Assessment area
- Highest Risk to Fire Suppression Areas (Low Structure Density) within the Assessment Area

Map 3: Proposed Mitigation Recommendations in the Huntington-Brogan Assessment Area



- Ownership:**
- BLM
 - U.S. Forest Service
 - Bureau of Reclamation
 - FERC
 - Private
 - State of Oregon
 - Assessment Area
 - Highway
 - Road
 - Stream
 - Surface Water

- Mitigation:**
- Proposed Fire Breaks
 - Proposed Public Education/
Fuels Reduction
 - Proposed Weed Removal Project

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



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