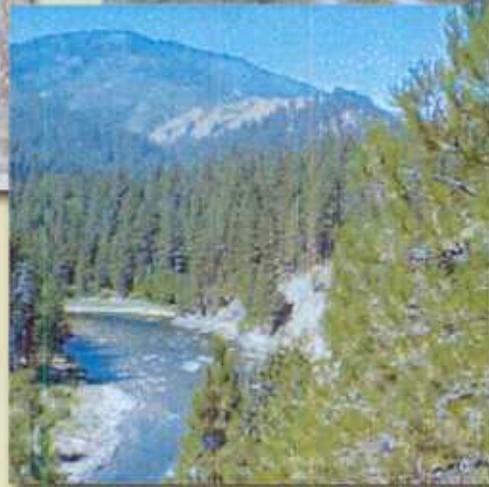


WILDLAND-URBAN INTERFACE COMMUNITIES-AT-RISK PROGRAM

**Final Mitigation Plan Report
Lower Snake River District
Garden Valley/Crouch Assessment Area**



**Work Assignment No.: BLM4-73
BLM Contract No.: 1422-N660-C98-3003
December 2001**



DYNAMAC
CORPORATION

**FINAL
WILDLAND-URBAN INTERFACE COMMUNITIES-AT-RISK
MITIGATION ASSESSMENT**

**LOWER SNAKE RIVER DISTRICT
GARDEN VALLEY ASSESSMENT AREA**

Prepared for:

**U.S. Department of Interior
Bureau of Land Management
Lower Snake River District
Boise, Idaho**

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1.0 EXECUTIVE SUMMARY

During the 2000 fire season more than 6.8 million acres of public and private lands burned in wildfires, 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. To this end, the Bureau of Land Management (BLM), Lower Snake River 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 Federal lands. These partnerships are indicative of a shared responsibility to reduce wildland fire risks to communities.

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, forestland 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 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 increasing the fire protection capabilities of communities. The Garden Valley-Crouch (GVC) community was selected by the BLM to assess the hazard of wildland fire and to identify specific actions that may reduce the risk.

Dynamac Corporation was contracted to support the BLM in their assessment of wildfire risk to the GVC community in the wildland-urban interface. Dynamac scientists conducted fuel surveys by categorizing the vegetation, slope, and aspect of the land in the GVC 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 open house was held to disseminate information about the Communities-at-Risk, Wildland-Urban Interface Program to citizens, to afford them the opportunity to identify resources that are of value to the community, and to have them identify actions that may reduce the risk of wildland fire. The information gathered from the fuel surveys, structural surveys,

interviews, infrastructure assessments, and community profile was integrated into two reports: a hazard assessment report and a mitigation report. The following actions items were identified to reduce the hazard of wildfire in the GVC assessment area based on the synthesis of the two reports:

- Reduce the buildup of flammable wildland fuels and modify stand density to create buffers between public and private land;
- Implement road improvements west of residential areas in Crouch to improve access to the Terrace Lakes, Castle Mountain, Valley-Hi, Shilo Estates, and other developments;
- Install additional water sources such as aboveground tanks or dry hydrants in subdivisions west of Middle Fork Road; and
- Establish a cleanup program to reduce hazardous fuels on private property around residences. Develop an on-going education and outreach program throughout the assessment area to encourage firewise practices.

2.0 GOALS AND OBJECTIVES

The goals and objectives of the GVC wildfire hazard assessment and mitigation plan are to evaluate the hazards of wildland fire within the assessment area and then identify specific actions that could reduce the risks. The objectives are to decrease the chances of wildfire spreading from BLM lands onto private lands and from private lands onto BLM lands.

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 consumed 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, forestland and rangeland restoration, infrastructure improvements, and public outreach may reduce the risk of catastrophic fire in the wildland-urban interface. To this end, the BLM implemented the Communities-at Risk Wildland-Urban Interface Program. 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 GVC community was selected by the BLM to assess the hazard of wildland fire and to identify specific actions that may reduce the risk.

4.0 EXISTING SITUATION

Garden Valley and Crouch are small towns along the Middle Fork of the Payette River. The assessment area is located approximately 40 miles northeast of Boise, Idaho in Boise County. The assessment area included the towns of Garden Valley and Crouch, and consisted of portions of townships T10N R04E; T10N R05E; T09N R04E; T09N R05E; T08N R04E; T08N R05E; and T08N R05E (**Map 1**). There are several older farmhouses and homesteads, as well as newer subdivisions, including Terrace Lakes Resort, several businesses, and year-round and summer residences. Major land owners include BLM, the U.S. Forest Service, the State of Idaho, Bureau of Reclamation, and Boise Cascade Corp.

The climate of the GVC area is characterized by hot, dry summers with average daily high temperatures reaching 91° F in July, and an average daily summertime low of 45-50° F. Winter months are typically cool, with average daily temperatures from November to March ranging from the low 40s to the high teens° F. Precipitation is typically moderate with an average annual precipitation of 24.5 inches. Most precipitation arrives during from November to January as snowfall (WRCC, 2001).

Vegetation ranges from open ponderosa pine forests to dense multi-storied, stands of decadent mixed conifer, some of which is showing symptoms of mistletoe and insect infestation. Most of the area is surrounded by Forest Service, BLM, and State land. There are approximately 5,000 acres of high-hazard fuels (dense, multistoried stands) surrounding the community. Fire occurrence is high; there have been several stand-replacement fires in the past decade, the most recent of which occurred in August 2001, which started on the south face of Garden Mountain and required 4 helicopters, 6 fire department engines, and the combined efforts of almost 200 people to suppress, due to the season and the fire's proximity to the community. Prior to the

Garden Mountain Fire, the Horn Creek Fire in 2000 required a Type 1 overhead team, due to its proximity to the community. There is a local volunteer fire department whose numbers are small (at the time of the assessment there were 12 volunteers) but which is relatively well-equipped to deal with structural and wildland fires. The Boise National Forest has suppression responsibility on federal lands adjacent to the community. In addition, there is a helitack base and an engine stationed nearby.

BLM defined the assessment area to be surveyed and assigned 58 points on BLM land to be rated for six fuel and topography characteristics (**Map 1**). The results of the fuel hazard survey are summarized as follows:

- **Slope:** Ninety percent of the survey sites occurred on steep slopes (greater than 30 percent). The remaining sites occurred in equal proportions on low or moderate slopes, two and eight percent, respectively.
- **Aspect:** Seventy-two percent of the sites had northern exposures, four percent were on east (or relatively level) facing slopes, and 24 percent of points surveyed were on south-facing slopes.
- **Elevation:** Elevation of 22 percent of sites was between 3,500 and 5,500 ft above mean sea level (amsl), whereas the remaining 78 percent occurred at elevations lower than 3,500 ft.
- **Vegetation Type:** Owing to the predominance of ponderosa pine, 52 percent of the fuel survey sites received a “B” (intermediate hazard) vegetation type rating. Low hazard (A type) vegetation was identified on 12 percent of sites, and the remaining 36 percent were characterized as high hazard (C type).
- **Fuel Type:** Heavy fuels characterized 80 percent of sites, moderate fuels four percent, and light fuels 16 percent.
- **Fuel Density:** Sixty-six percent of the sites had a continuous fuel bed; 30 percent had broken/moderate, and four percent were non-continuous.
- **Fuel Bed Depth:** The fuel bed depth at 84 percent of sites was high (deeper than 3 ft) because of the predominance of trees; four and 12 percent, respectively, were characterized as low fuel bed depths (less than 1 foot) and moderate (1-3 feet).

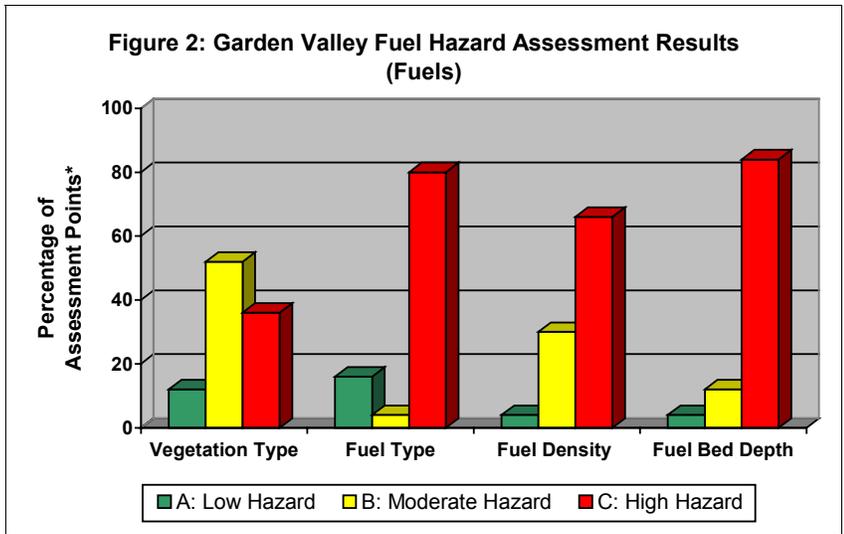
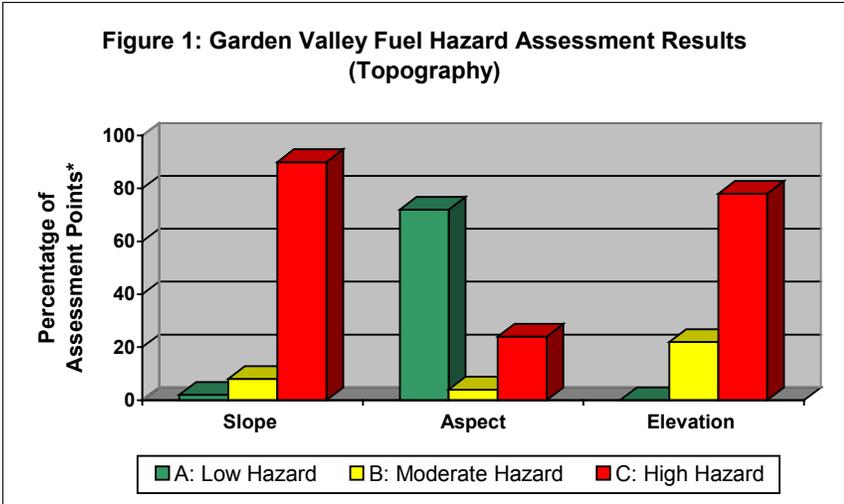
In addition to the hazardous fuels assessment, a structural assessment was conducted and it also was reported in the hazard assessment report. Of the 108 sections evaluated, 65 did not have structures such as homes or buildings. The majority of structures were homes and buildings associated with residential development. The main points of the structural fire hazard assessment field survey are as follows:

- **Structure Density:** Of the 43 sections with structure surveyed, 74 percent were rated as “less than one structure per 10 acres” (Class C). Five percent of the sections had at least one structure per five acres (Class A) and 21 percent had one structure per five to ten acres (Class B).
- **Proximity to Structures:** Twenty-four percent of the sections were rated as having wildland flammable fuels greater than 100 feet from the structures; 48 percent had fuels 40 to 100 feet away, and 28 percent had wildland fuels less than 40 feet from the structures (high hazard).
- **Predominant Building Materials:** In 95 percent of sections, the majority of homes had fire resistant roofs and/or siding, and the remainder was rated as either Class B or C (two percent each). Although almost all homes had metal roofs, most that are located in the high-risk areas west of Middle Fork Road have wooden decks and are located less than 100 feet from wildfire fuels.
- **Survivable Space:** Forty-two percent of the sections contained improved survivable space around a majority of the homes within, 37 percent of the sections were rated as having 10 to 50 percent of the homes within with survivable space, and 21 percent of the sections had little or no improved survivable space (high hazard).
- **Roads:** Only 12 percent had wide looped roads that were maintained, paved or solid, surfaced with shoulders. Most, 69 percent, had maintained, two-lane roads with no shoulders (intermediate hazard). Nineteen percent of sections had narrow, steep, rutted roads, and these were the sections with the highest structure density, including Terrace Lakes, Castle Mountain, and Valley Hi neighborhoods.
- **Response Time:** Response times in the GVC Assessment area were all under 40 minutes according to the Fire Chief of the GVC Fire Department. Within the town of Crouch, the response times were under 20 minutes (low hazard).
- **Access:** Only 14 percent of the sections were identified as having multiple entrances and exits that were suitable for trucks with turnarounds. The remainder of the sites had limited access routes at 55 percent (moderate hazard) and 31 percent had poor access, which carries a high degree of risk. This is especially true as the poor-access category pertains to some of the most populated sections where evacuation is an issue, as well as the lack of fire truck access.

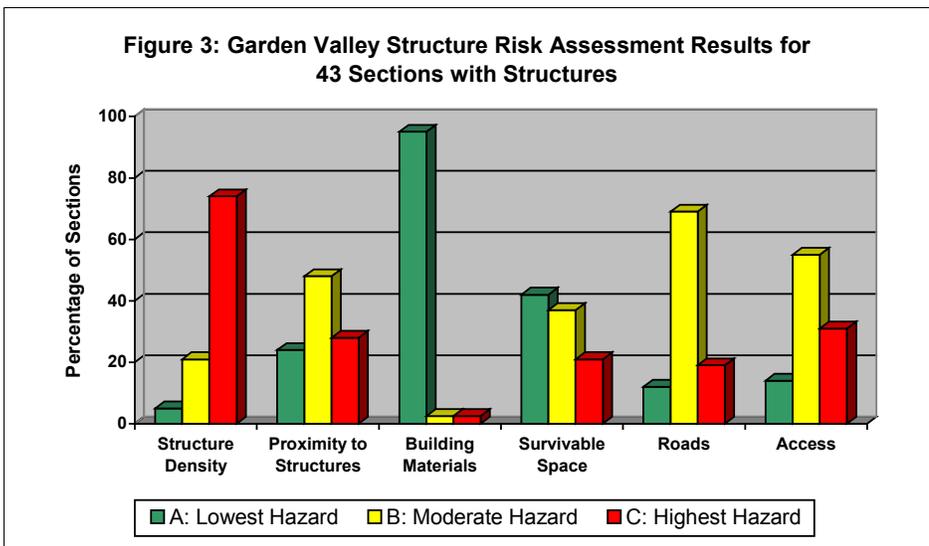
The results of the Fuel Hazard Assessment are graphically illustrated in **Figures 1 and 2**. The graphs depict the percentage of assessment points that received a high, moderate, or low hazard ranking. Similarly, the results of the Structure Risk Assessment are graphically illustrated in

Figure 3. It should be noted that the percentages depicted in Figure 3 are based on the 43 sections *with structures*, not the 108 sections surveyed within the assessment area (65 of which had no structures). Response times are not depicted because all were under 40 minutes within the *entire* assessment area.

Overall, the highest risk areas with respect to fuels and fire suppression are those with heavy fuel load and low structure density with inadequate road access. The highest risk areas for fire suppression are the heavy fuel areas with low structure density and poor road access (See **Map 2**).



*Based on 58 Assessment Points surveyed.



5.0 SUGGESTED ACTIONS TO ACHIEVE DESIRED CONDITIONS

Through discussions with community leaders, fire officials, disaster coordinators, and residents of GVC and the surrounding wildland-urban interface lands, the following actions were suggested to improve fire preparedness and prevention measures along the Wildland-Urban Interface. Some of these have been developed into recommendations (See Section 8.0, Proposed Projects and Priority) for lessening the risk posed by fire.

- Full cooperation of residents, landowners, and government agencies (BLM, Idaho Department of Land (IDL), U.S. Forest Service) to mitigate wildfire risk to the community, by wildfire fuels reduction, implementation of firewise practices, improvement of road access to residential areas, and increased firefighting capabilities (including improved road access, additional water supplies in communities, and increased community participation);
- Reduction of ladder fuels in the proximity of residential developments, especially those west of Middle Fork Road in Crouch: Terrace Lakes, Castle Mountain, Shilo Estates, Valley Hi; fuels cleanup projects organized and coordinated by residents and assisted by government agencies;
- Residents taking the lead to establish adequate water sources. Homeowners should investigate alternate technology, i.e., individual “Fire Caches,” including a new line of small pumps that ran 25 sprinkler heads on 5 gallons of gas for 44 hours. Additionally, dry hydrants and aboveground water tanks were suggested for communities that lack these facilities;
- Road improvements west of the Middle Fork Road communities in Crouch to allow improved fire truck access and evacuation. Existing roads on government and private property should be identified for this purpose, and widened, graded as necessary.
- For each community, establish evacuation plans, publicize the plans, including maps and directions, and conduct annual drills, possibly through an elected community or Homeowners’ Association “Fire Coordinator.” The idea of a Fire Coordinator position was suggested two years ago and never followed through;
- Active, thorough cooperation between BLM, USFS, IDL and GVRVFD to implement fuels reduction on government land and to assure the GVRVFD full access to public lands.
- Improved active management of BOR lands by BLM, specifically, removal of insect-killed tree stand in “Schoolhouse Block,” which is a small tract of land owned by BLM,

or possibly BOR, right outside of turnout to Crouch. It was also suggested that these properties be disposed to private ownership;

- Strengthen the capabilities of the GVRVFD by creating a tax-supported Fire District, granting the GVRVFD approval authority on new construction, and recruiting and training more volunteers from the community; increase community efforts to recruit more firefighters;
- Create new guidelines for firewise construction, landscaping and defensible space that are not written in an “enforcement” mode. These could then be distributed with every building permit, and would not anger builders or homebuyers;
- One resident requested the legal authority to create firebreaks and egress routes (presumably on Federal or State land);
- The county disaster services office would like financial assistance to create mass-mailings to every resident of the county. These mailings could include firewise and prevention materials;

6.0 NEED FOR ACTION

Wildfire frequency in the GVC assessment area is common and results from both natural and human causes. The manner in which communities in the GVC assessment area are laid out, specifically Terrace Lakes, Castle Mountain, Valley-Hi, and Shilo Estates, among others, has serious potential as a firetrap. One narrow, winding road leads into these communities and the same road leads out. Houses are closely packed within these subdivisions and are surrounded by heavy fuel loads, which include a significant amount of ladder fuels. Although at least two fires started in these communities in years past and were quickly put out, town and county officials, as well as Forest Service staff, universally agreed that it was only a matter of time before a catastrophic fire would occur that firefighting officials would not be able to reach in time, and property and lives could be lost. The most recent noteworthy fires were the Horn Creek Fire in 2000 and the Garden Mountain Fire in 2001. To reduce the hazards of wildfire in the assessment area both general and specific actions are needed.

The greatest general need is for community involvement: citizens organizing and taking responsibility for wildfire risk mitigation on individual properties. Homeowners’ groups and landowners must initiate and support fuels reduction efforts, acceptance and adoption of firewise building practices, and improving water access. Also essential is cooperation between private citizens, BLM, the US Forest Service, and the state of Idaho, and each group must be mindful of the others’ needs and limitations. The government agencies can provide better access to public

lands in ways that range from providing authorities with gated road access to accomplishing actual road improvements on government land that borders the urban interface. BLM and the Forest Service are currently identifying areas for hazardous fuels reduction projects. Agencies can also assist communities with organizing cleanup efforts and in implementing infrastructure improvement, once the citizens demonstrate a commitment to taking responsibility for the safety of their neighborhoods. Citizens must be willing to allow authorities to have input into new construction and community planning.

Specific actions that are needed in the GVC assessment area that will improve the wildfire fighting capability in the assessment area include road improvements west of the Terrace Lakes, Castle Mountain, and Valley-Hi subdivisions to allow fire company access and resident evacuation. This area, highlighted on Map 3, is a patchwork of ownership by Boise-Cascade, Terrace Lakes subdivision, Idaho State, individuals, and BLM. Within this area there exist many roads that were once used for access to timber properties or private land, but are now abandoned and/or closed.

Another specific action that would improve the community's firefighting capabilities is to provide rural assistance grants to the town to aid in the installation of aboveground tanks and hydrants. This would provide water to older residential areas west of Middle Fork Road, such as Valley-Hi and Castle Mountain. Belowground tanks are an alternative means of providing water where it is needed. Pursuing service agreements with private landowners with water storage tanks or dip ponds is another option.

Hazardous fuels reduction in the undeveloped areas south and west of Crouch could reduce the wildfire threat to the communities at risk west of Middle Fork Road. The fuel load in these wooded areas includes multistoried vegetation often consisting of dead dry material that could promote the development of crown fires.

7.0 METHODOLOGY

The mitigation actions proposed herein for the GVC assessment area are based on information acquired from fuel and structure surveys, two public meetings, and interviews of community officials. The majority of information presented in this report was gathered from August 5 to 12, 2001.

The fire hazard assessment area surrounding the community of GVC was defined by BLM. The BLM assigned 58 fuel survey points in the assessment area to be evaluated by Dynamac (**Map 1**). The fuel survey points occurred in sections where public land occurred. At each survey point, digital photographs were taken of the surrounding area in the four cardinal directions. Also, a fire hazard assessment was completed which rated the characteristic of the land features and fuel sources. The rating elements included slope, aspect, elevation, fuel type, fuel density, and fuel bed depth and were assigned a risk category of low, medium, or high as defined by BLM (See Hazard Assessment Report, Appendix B).

Dynamac staff also collected information on the flammability and defensibility of structures on private land from 108 sections located within one mile of BLM lands within the assessment area. The structural hazard assessment rated the structures, building material 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 type of roads, response times and access. Each element was assigned a low, medium, or high hazard category defined by BLM (See Hazard Assessment Report, Appendix C). The results in brief of the fuel and structure hazard assessments are reported in section 4.0, “Existing Situation,” above.

A public meeting was convened on August 8, 2001, at the Crouch Community Hall from 6:00 to 9:00 pm. The community was invited to attend through a newspaper article in the local paper and announcements posted in public places such as stores, the post office, restaurants and service stations. Dynamac and BLM staff attended the public meeting to handout firewise brochures, obtain information from the community on hazardous fire situations and desired conditions, and be a resource to those attending the meeting. Members of the public that attended filled out a survey form which asked residents how safe they thought their town was, what values were at risk, and what their opinion was regarding the best way to lessen the town’s risk of wildland-urban interface fire (See Hazard Assessment Report, Appendix D.)

The Dynamac Community Relations Specialist conducted interviews with numerous local public officials and residents. Individuals or groups interviewed included the Fire Chief, the Mayor, County officials, Forest Service Staff, and others (see Hazard Assessment Report, Appendix E).

A second public meeting was held on October 24, 2001, to present the findings of the assessment and to obtain additional community input (See Hazard Assessment Report, Appendix F).

8.0 PROPOSED PROJECTS AND PRIORITY

The projects proposed are based on information obtained from the fuel and structure surveys, community meeting, and interviews. The following specific action items in order of priority were identified to reduce the hazard of wildfire in the GVC assessment area:

- Improve roads in areas west of the residential areas between Middle Fork Road and public lands to the west to allow resident evacuation and fire truck access.
- Reduce wildland fuels on public lands and construct a buffer between public land and the community, along the ridgeline of Garden Mountain or otherwise between the Middle Fork Road communities and the forested mountain to the west.
- Provide support for hazardous fuels removal and cleanup in residential areas and develop an on-going education and outreach program throughout the assessment area to encourage firewise practices.
- Install additional water supplies and hydrants to serve communities west of Middle Fork Road in Crouch.

8.1 Community Infrastructure Improvements

Necessity for improvements: For the residential areas west of Middle Fork Road in Crouch the risk to life and property from wildfire is critical because of poor roads and access. In the neighborhoods of Terrace Lakes, Castle Mountain, Shilo Estates and Valley Hi, most roads are narrow with little or no shoulders, steep, and often rough or rutted. Furthermore, there is only one way in and out of these subdivisions, impairing evacuation and fire truck access. There are abandoned and closed roads on land owned by the Forest Service, IDL, private timber interests (Boise-Cascade), private individuals, and BLM (See **Map 3**) that could be developed into access roads for firefighters, or escape routes for homeowners. These roads are not marked in any way on a map or data file and are not numbered, but were remarked upon by Forest Service and Fire Department staff as well as several private individuals. The respective owners of the land on which these roads and/or trails exist should coordinate efforts to widen and improve the roads so that the Fire Department will have a secondary access road, and residents of this area will be provided with an evacuation route.

The older communities in this same area (e.g., Castle Mountain, and Valley Hi) are in need of underground water sources. Both dry hydrants and aboveground water tanks were suggested for communities that lack these facilities entirely; however, it was pointed out that aboveground

tanks, while easier to install, would likely freeze in the winter and could not be used by the Fire Department for structural fires during that time. Therefore, underground water sources would provide more flexibility. Private citizens should also take action and investigate means of providing water at their homes for fire suppression purposes. One way in which residents could provide water at their homes would be to use individual “Fire Caches,” including a new line of small pumps that ran 25 sprinkler heads on 5 gallons of gas for 44 hours.

Locations of improvements: There are abandoned and closed US Forest Service, BLM, private, and State roads in T10N, R04E, Sections 20, 21, 28-32, and T09N, R04E, Sections 4, 5, 8, 9, 16, and 17 (see Map 2) that could be developed into access roads for firefighters, or escape routes for homeowners.

Recommended locations for additional water sources are within Castle Mountain, Valley Hi, and Shilo Estates subdivisions. (Terrace Lakes recently installed its own hydrant). Specific areas for installation of tanks or hydrants will be identified following further study; meanwhile, residents should invest in obtaining individual water sources for fire suppression purposes.

Timing of improvements: BLM generally times projects in the following manner: Year One is the year identification and justification of projects occurs, and treatment objectives are determined. Field surveys begin. In Year Two projects that require compliance with the National Environmental Policy Act (NEPA) are planned, analyzed, and designed. Projects that do not require NEPA compliance begin implementation. In Year Three, NEPA projects begin implementation. All steps are contingent on available funding. In Year Four, post-treatment monitoring begins.

8.2 Fuels Reduction

Necessity for treatment: The hazard to the community from wildfire on public lands near GVC is high. Recent fuels assessments revealed high risks in several categories, including fuel height, density, and elevation. Moreover, dead vegetation and multiple understory layers in some areas could serve as ladder fuels, spreading fire rapidly.

Types of fuels treatments: Mitigation measures appropriate to this situation include commercial and non-commercial mechanical fuel removal, and maintenance of treated areas. This could come through the form of timber sales, opening of firewood-clearing areas on public land, and removal of dead and insect-infested wood. Plans are underway for timber sales

totaling 900 acres with a ridgeline buffer to provide large-scale reduction of the fuel hazard. In addition, private landowners are being sought for fuels reduction projects. Residential homeowners are encouraged to coordinate individual fuels reduction efforts with those of the public and commercial landowners in their respective areas.

Treatment Location: Fires burn west to east, and the best opportunities for fuels reduction to protect the dense residential areas of Crouch may be on the slopes south and west of the town and wooded subdivisions, in the Packer John area. Fuels reduction activities could begin near the South Fork of the Payette River along the eastern slopes of Garden Mountain, progressing along the mid-slope road that parallels the Middle Fork River Valley between Garden Valley and Crouch, then moving northward (**Map 3**). The land involved is in T09N, R04E, starting in section 16 and moving north between sections 8 and 9, and then progressing into section 5.

Planning and coordination of fuels reduction in the GVC assessment area must be carefully coordinated among government agencies and private landowners because of the complexity of land ownership. Furthermore, the effort must be ongoing owing to the high fuel hazard. Therefore, long-term cooperation, involving BLM, the Forest Service, Idaho Department of Lands, Bureau of Reclamation, and Boise Cascade and other private landowners is essential.

Treatment timing: Generally, the same timeline should be followed as that set forth in section 8.1, Community Infrastructure Improvements. The initial planning stages for fuels reduction activities, including NEPA compliance requirements and agreements with private landowners, should begin during FY2002. Timber sales could commence during FY2003 and be completed in FY2004. Subsequent slash removal projects, and other monitoring activities should follow.

8.3 Community Education and Outreach

Purpose of Public Education and Outreach: The purpose of the community-wide education program is to 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 and the benefits of prescribed burning or occasionally managing natural wildland fires to achieve ecological benefits, while maintaining firefighter and public safety as the top priority. The public education and outreach program will be co-sponsored by the BLM, USFS, and GVC Fire Department.

Outreach Occurrence: Homeowners Associations for the various subdivisions will be targeted by outreach activities. Each Homeowners Association will be asked to elect a Fire Coordinator for the subdivision, that will cooperate with the GVRVFD, BLM and the Forest Service in planning and distributing information about an evacuation route for each of the individual subdivisions, and organizing a “practice” evacuation. The Fire Coordinator will also organize demonstration projects and elicit volunteers to create ‘model’ homesites with survivable space. Finally, the Fire Coordinator will be each subdivision’s link to other cooperative efforts mounted by all the concerned parties in the area.

An annual “Firewise Clean-Up Day” will be organized to encourage residents to create defensible space around their residence. In conjunction with the Firewise Clean-Up Day, specific demonstration projects will be organized to educate residents about longer-term investments they could make to increase fire safety, such as replacing flammable grasses, shrubs and trees with less flammable varieties; landscape design workshops, use of firewise building materials, etc. The clean-up day will occur in conjunction with public demonstrations, education programs in schools, and speakers on wildfire and firewise practices. The evacuation plan for each subdivision will also be practiced on the “Firewise Clean-Up Day.”

Prior to the “Firewise Clean-Up Day,” the BLM and the Forest Service, in conjunction with the fire coordinators, will help assemble and instruct a “demonstration group” of homeowners to create examples of firewise landscapes around their homes. In this way, the rest of the community can see several examples of firewise yards and lots, which will help encourage widespread fire-safe practices.

Outreach Timing: The annual “Firewise Clean-Up Day”, school education program, and public demonstrations will occur in the spring to remind people to prepare their properties for the coming fire season.

Outreach Necessity: Public education and outreach has been shown to reduce the hazards of wildfire in a community. A community education and outreach program will help identify problems and solutions for both federal and private landowners, and offer opportunities for partnerships and agreements.

9.0 POTENTIAL SOURCES OF STATE FUNDING

Idaho Department of Lands representative Kurt Houston, who is based out of IDL's Boise office, provided the following information. Communities-at-Risk may benefit from these State-administered grant programs, which provide financial assistance for various types of fire safety-, fire suppression- and fire education-related projects, as well as stewardship activities.

Idaho Fire Assistance Program: A cost-share program designed to assist fire service organizations with organizing, training, and purchasing equipment for fire protection and suppression. Open application period is from May 1 through June 15 each year. Contact Fire Warden Kurt Houston at the Idaho Department of Lands office in Boise at (208) 334-3488 for more information and applications.

Volunteer Fire Assistance Program: A cost-share program with federal funds administered by the State of Idaho. The rural community must have a population of less than 10,000. Only those projects to organize, train, and equip fire service organizations qualify for financial assistance. Open application period is from October 1 through December 31 each year. Contact Fire Warden Kurt Houston at the Idaho Department of Lands office in Boise at (208) 334-3488 for more information and applications.

Federal Excess Personal Property Program: An equipment loaning program for fire service organizations with populations less than 10,000 residents. Usable fire related equipment is loaned to the organization until such time the organization no longer wants it. Titles for vehicles remain with the federal government. Applications are continuously accepted. Contact Fire Warden Kurt Houston at the Idaho Department of Lands office in Boise at (208) 334-3488 for more information and applications.

Forest Incentive Program: Federal cost-share funds administered by the Natural Resources Conservation Service (NRCS). The Forestry Incentives Program (FIP) supports good forest management practices on privately owned, non-industrial forestlands nationwide. FIP is designed to benefit the environment while meeting future demands for wood products. Eligible practices are tree planting, timber stand improvement, site preparation for natural regeneration, and other related activities. FIP is available in counties designated by a Forest Service survey of eligible private timber acreage. Depending on funding, the open application period varies. Contact the nearest NRCS or Tim Kennedy at the Boise IDL for more information and applications.

Additional information on the program and NCRS contacts is available at <http://id.nrcs.usda.gov/programs.htm>.

Stewardship Incentive Program: Federal cost-share funds administered by the NRCS. The Stewardship Incentive Program provides technical and financial assistance to encourage non-industrial private forest landowners to keep their lands and natural resources productive and healthy. Qualifying land includes rural lands with existing tree cover or land suitable for growing trees and which is owned by a private individual, group, association, corporation, Indian tribe, or other legal private entity. Eligible landowners must have an approved Forest Stewardship Plan and own 1,000 or fewer acres of qualifying land. Authorizations may be obtained for exceptions of up to 5,000 acres. Depending on funding, the open application period varies. Contact the nearest NRCS or Tim Kennedy at the Boise IDL for more information and applications.

Additional information on the program and NCRS contacts is available at <http://id.nrcs.usda.gov/programs.htm>.

10.0 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.

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, 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, March 1998. Wildfire Prevention Strategies.

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.

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

BIBLIOGRAPHY (continued)

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

Video: Firewise Landscaping, Part 1-Overview.

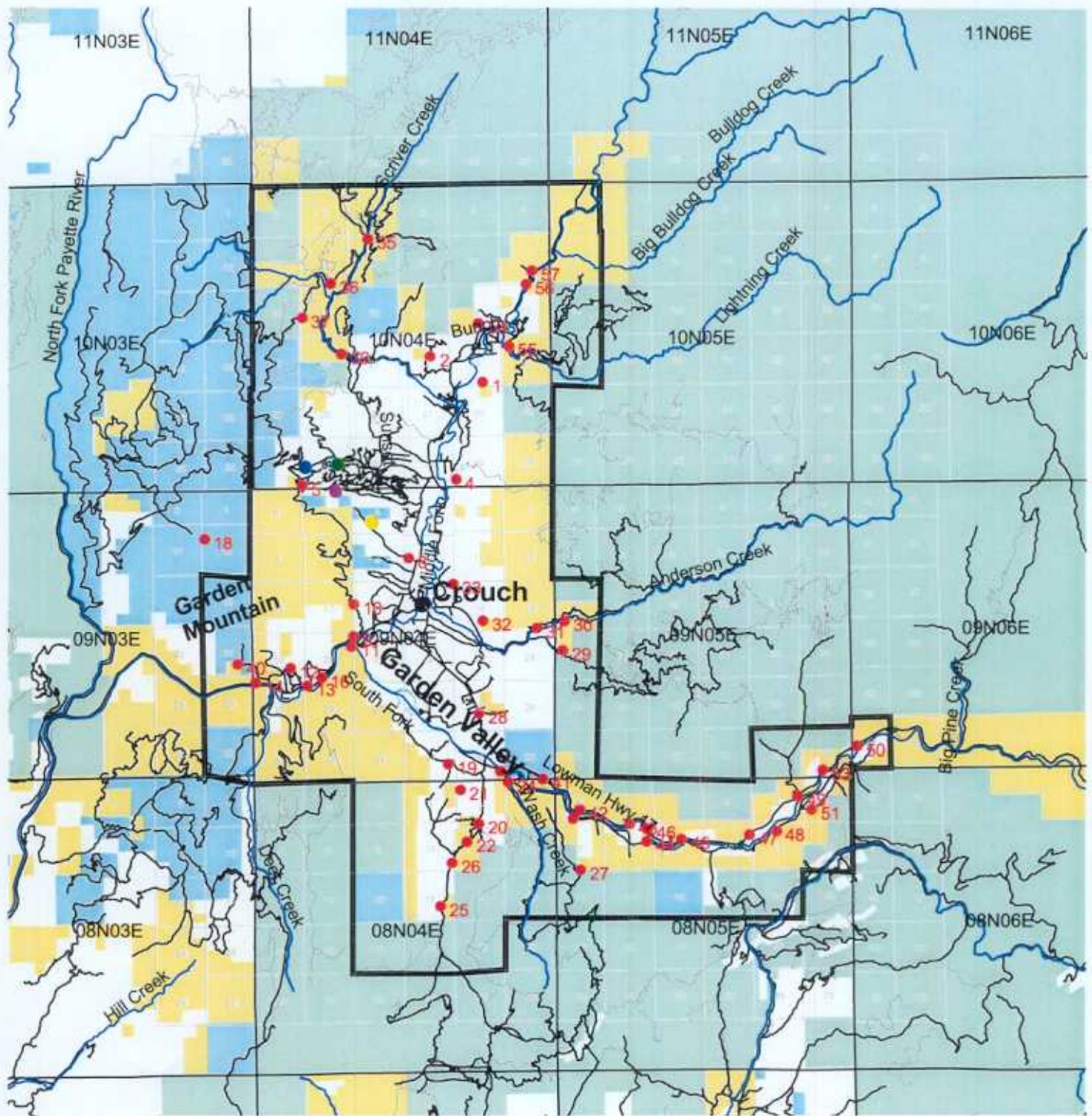
Video: Firewise Landscaping, Part 2-Design and Installation.

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: Garden Valley-Crouch Assessment Area and Fuel Survey Points

Date: December 2001

Scale:



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Legend:

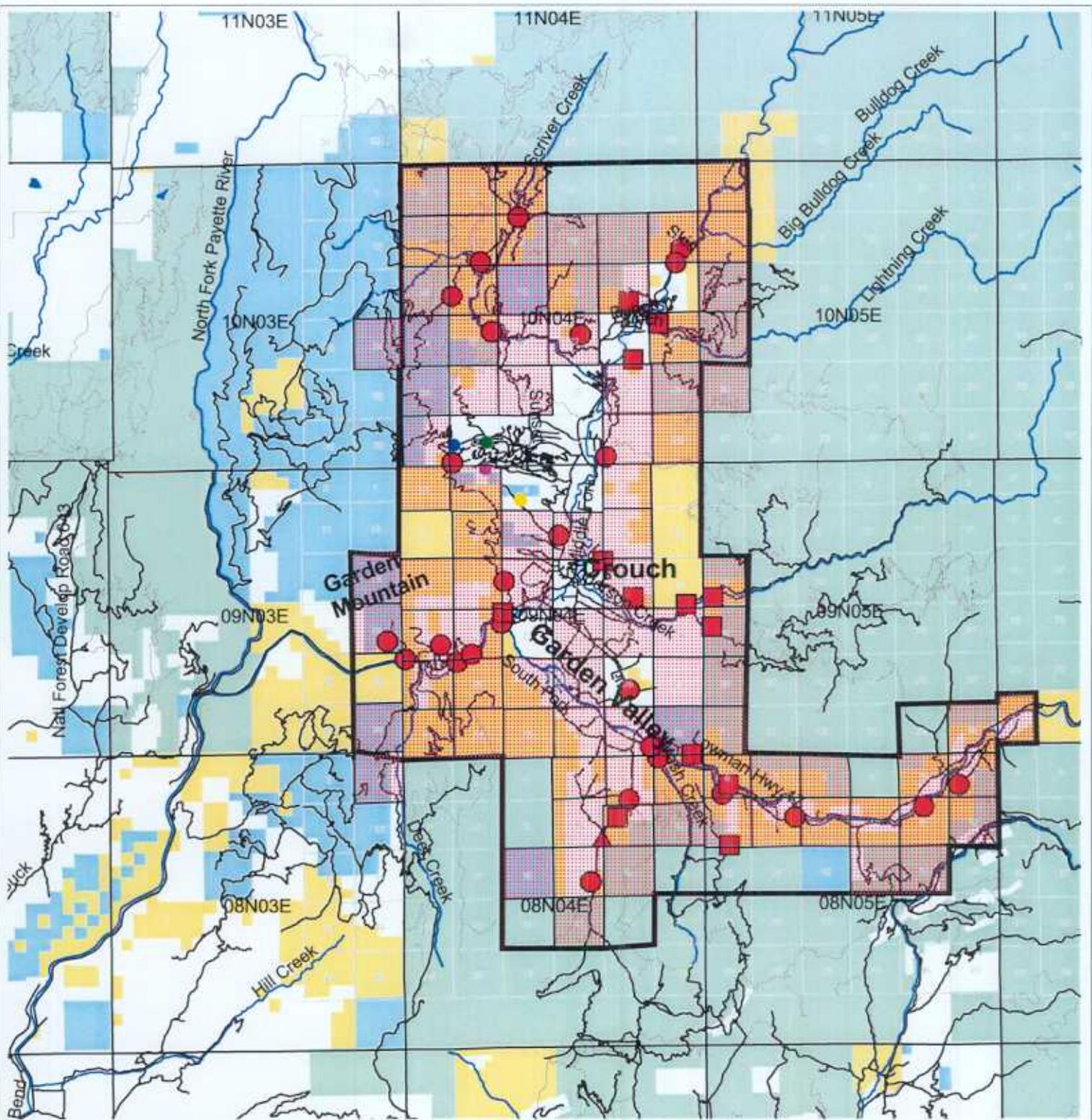
-  Assessment Area
-  Survey Points
-  Road

Ownership:

-  Private
-  B.L.M.
-  State of Idaho
-  US Forest Service
-  Open water

Subdivisions:

-  Valley-Hi
-  Shilo Estates
-  Castle Mountain
-  Terrace Lakes



Map 2: Highest Risk Areas for Fuel and Fire Suppression within the Garden Valley-Crouch Assessment Area

Date: December 2001



Legend:

- Assessment Area
- Road

Subdivisions:

- Valley-Hi
- Shilo Estates
- Castle Mountain
- Terrace Lakes

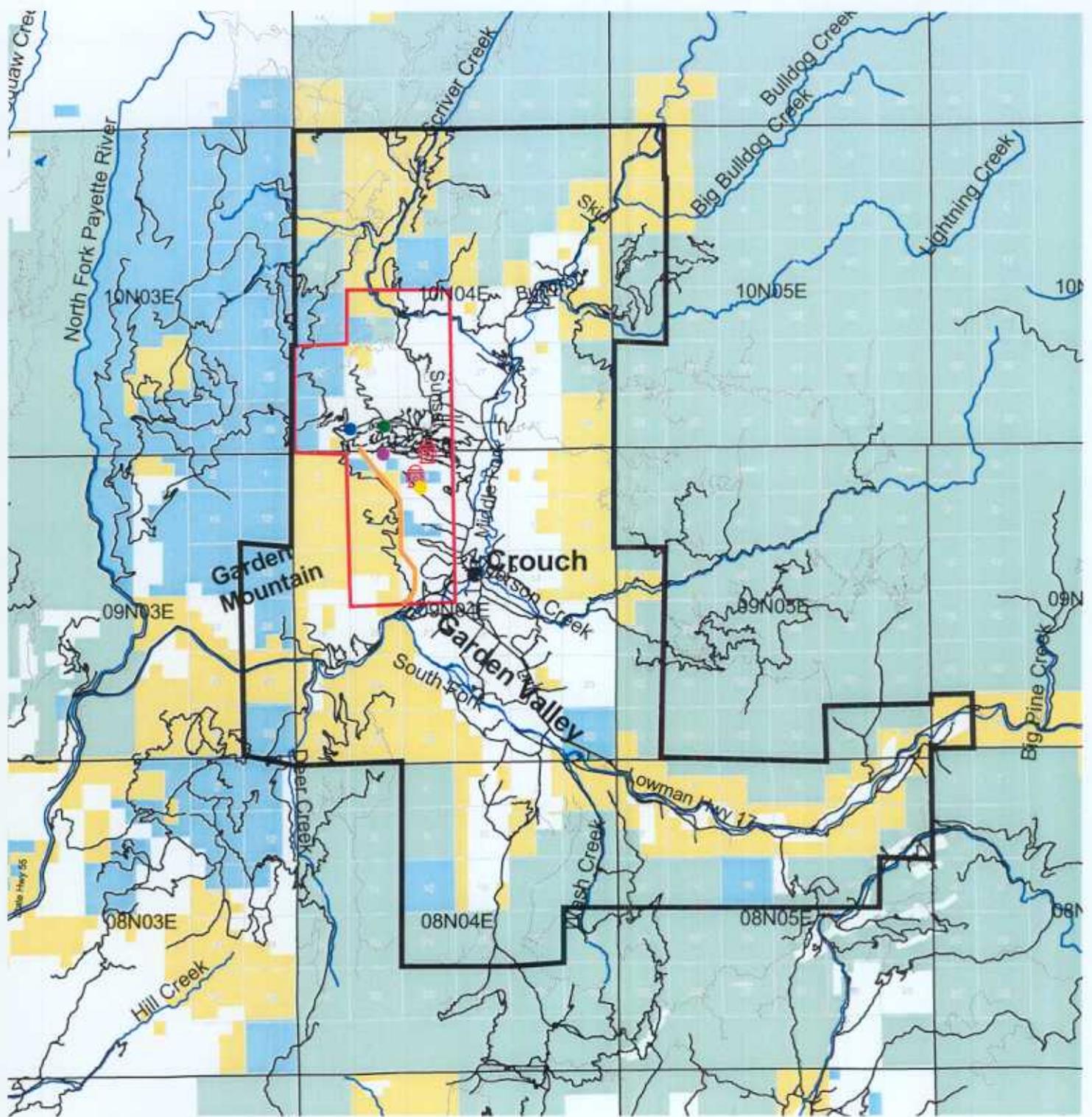
Ownership:

- B.L.M.
- Open water
- Private
- State of Idaho
- Forest Service

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

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Map 3: Proposed Mitigation Projects in the Garden Valley-Crouch Assessment Area

Date: December 2001



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Legend:

- Assessment Area
- Road

Subdivision:

- Valley-Hi
- Shilo Estates
- Castle Mountain
- Terrace Lakes

Ownership:

- B.L.M.
- Open water
- Private
- State of Idaho
- Forest Service

Mitigation:

- Proposed Road Improvements
- Proposed Hydrant
- Proposed Fuels Reduction