

Valley County Wildland Urban Interface

Fire Protection Plan Manual



Valley County Idaho

BOARD OF COUNTY COMMISSIONERS
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WILDLAND URBAN INTERFACE FIRE PROTECTION PLAN

MANUAL TO ASSIST WITH THE OVERSIGHT AND DEVELOPMENT OF THE SUBDIVISION FIRE PROTECTION PLAN FOR VALLEY COUNTY IDAHO



Initiative-taking thinning of hazard fuels in residential subdivisions areas prior to development

In the spring of 2014, the Valley Fire Working Group Legislative Subcommittee completed a two-year process of working with the County Planning and Zoning Commission and Administrator. The series of meetings and workshops served to educate, inform, and empower the stakeholders. The resulting Wildland Urban Interface Fire Protection Plan is a collaborative document. Developers are asked to put wildland fire into their earliest planning stages and utilize the plan to help create a fire adapted landscape to promote safer living in the Wildland Urban Interface. The following document includes an example of a finished plan. The goal is to demonstrate the type of content asked for by this plan. Answering the questions is important, but an even greater benefit occurs when through the process of completing this document, the planner becomes invested in understanding the specific risks associated with building in area where wildfire exists. Each site will yield different and varying results to the queries. The goal is to ask each author to tailor the document so that it results in a meaningful mitigation and planning document that will hold with modification all through the planning process and into the hands of the homeowner. Resources exist to assist with this process and will only result in a plan that is valuable to all stakeholders.

To view the Code on the website:

https://codelibrary.amlegal.com/codes/valleycountyid/latest/valleycounty_id/0-0-0-1

GUIDANCE AND EXAMPLES:

The guidance and examples written below are a combination of best-case scenarios and reality. Not all plans will present locations where slope, aspect, ingress, egress are not significant factors. The Commission uses this plan to help developers understand the importance of fire in Valley County. Resources exist to support the creation of the plan by the selected Professional. Creating a community that understands the meaning of co-existing with fire will be a value-added addition to Valley County. In addition, a developer offering a Firewise worthy community to new homeowners is offering a premium product.

TITLE 10
SUBDIVISION REGULATIONS
CHAPTER 7
WILDLAND URBAN INTERFACE FIRE PROTECTION PLAN

SECTION:

[10-7-1](#) : Purpose

[10-7-2](#) : Definitions

[10-7-3](#) : Basis For Recommendation

[10-7-4](#): Submission Requirements

10-7-1 : PURPOSE:

Valley County's community wildfire protection plan acknowledges that wildfire hazard areas exist throughout the county. Therefore, wildfire mitigation actions are prudent to enable safe habitation in these fire environments. The Valley County Fire Working Group recommends that a requirement for the development and approval of a wildland urban interface fire protection plan be added as an addendum to the Valley County subdivision regulations ordinance. The existence of said plan will assist the Valley County planning and zoning commission and the structural fire districts in satisfying the current subdivision regulation, subsection [10-3-2-6](#) D7 of this title. (Ord. 10-07, 8-26-2010)

[GUIDANCE:](#) Wildfires occur in a variety of terrain, fuels, and weather. This guide is focused on wildfires that occur in the wildland-urban interface, or WUI (pronounced "WOO- ee"). (Ord. 10-07, 8-26-2010) A wildland–urban interface (or WUI) refers to the line, area or zone of where structures and other human development meet or intermingle with undeveloped wildland and or vegetative fuels.

The Subdivision Wildland Urban Interface Fire Protection Plan Manual was developed by the VCFWG to provide consistent, science-based wildfire mitigation standards for subdivision development in the wildland-urban interface. The VCFWG serves as the technical authority for reviewing of Subdivision Wildland Urban Interface Fire Protection Plan Manual and provides recommendations to the county for updates Subdivision Wildland Urban Interface Fire Protection Plan Manual, code and ordinance regarding wildfire. The respective Fire District and the Wildfire Mitigation Director serve as the technical authority for review and inspection of Subdivision Wildland Urban Interface Fire Protection Plans and provide recommendations during the subdivision review process.

This ordinance and manual shall be maintained as living documents and updated by the VCFWG as wildfire science, risk data, and mitigation best practices evolve.

The VCFWG utilizes the National Cohesive Wildland Fire Management Strategy to guide its work, emphasizing fire-adapted communities, resilient landscapes, and effective wildfire response.

10-7-2: DEFINITIONS:

APPROVED: Refers to approval as the result of review, inspection or tests by reason of accepted principles.

ASPECT: Generally, refers to the direction to which a mountain slope faces. For example: A slope that faces the sun in the afternoon has a westerly aspect or is a west facing slope.

DEFENSIBLE SPACE: Refers to that area between a building and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and to provide an opportunity for firefighters to effectively defend the building.

GUIDANCE: Defensible space is the natural and landscaped area around a structure that is designed and maintained to reduce fire danger. Defensible space is all about minimizing and rearranging fuels. By treating fuels around your home and outbuildings, you influence wildfire behavior, thereby decreasing ignition potential. Where homes are close to each other, defensible spaces may overlap to provide added protection for the neighborhood. A minimum defensible space of one hundred feet is recommended for homes and outbuildings on flat ground.

EXAMPLE:

Home Ignition Zones

- **Immediate Zone** (0-5 feet from the home) is the most important area to protect when your home is at risk for wildfire. (No fuel zone)
- **Intermediate Zone** (5-30 feet from the home) is the area transitioning away from the home where fuels should be reduced.
- **Extended Zone** (30-100 feet from the home) is the area where you can interrupt fire, reduce the size of the flames to keep fire lower to the ground, to keep it from spreading.

Vegetation should be managed to increase the effectiveness of fire suppression strategies in the event of a wildland fire.

- Remove weak, dying, and sick trees, thin standing trees to create crown openings spaced to approximately 10 feet between crowns.
- Remove ladder fuels (lower branches) that may carry fire into the crowns of larger, overstory trees.
- Dispose of all excess vegetative material by chipping or hand-piling and burning when conditions are favorable.

For more information

- <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA/The-ember-threat-and-the-home-ignition-zone>
- <http://idahofirewise.org/firewise-landscapes/>

FIRE-RESISTANT ROOF: There are four commercial roof fire ratings: Class A, B, C, and Unrated. Class A rating is obtained when material survives a severe fire test. Class B ratings are awarded after withstanding moderate fire exposure and Class C demonstrates survivability of only the lightest fire test.

GUIDANCE: Refer to Valley County Chapter 1 Building Codes, Regulations and Permits 6-1-8. Class B or higher is required for all roofs requiring building plan submittals as per building code 6-1-8. Wood shingle roofs are acceptable in design but should be rated as class A per valley county code 6-1-8. The NFPA Guide notes that many wildfires are spread by embers landing on flammable roofs that ignite structures.

FORESTED: Idaho Code title 38, chapter 1 (Idaho forestry act) defines "forestland" as meaning "any land which has upon it sufficient brush or flammable forest growth of any kind or size, living or dead, standing or down, including debris or growth following a fire or removal of forest products, to constitute a fire menace to life (including animal) or property".

FUEL BREAK: A natural or man-made barrier strategically located using topography to provide optimal fire control, typically to avoid vegetation or composed of vegetation arranged in such a way as to prevent fire spread.

GUIDANCE: A shaded fuel break is a strip of forest, often along a ridge, road or property line, where understory brush and small, flammable trees are removed, and larger trees are pruned to create space, reducing the ladder fuels so fires move slower and drop to the ground, but the canopy remain to provide shade, making it less hospitable for intense fire spread. The most advantageous location and design must be individually determined after considering fuels, topography, weather and other constructed or planned improvements.

Example: Construct a Shaded Fuel Break along the south boundary (See example page 19, # 7; Planned live and dead fuel treatment actions). This fuel break should be at least 100 feet wide, and the overstory leave trees spaced about 20-25 feet apart to obtain a minimum of 10-foot live crown distance. Recommend leaving the fire resilient tree species (i.e. Ponderosa pine and Douglas-fir). This shaded fuel break will reduce continuous fuel from adjacent public lands.

PROFESSIONAL: Can include qualified professional forester, fire ecologist, or comparable experience. Professionals can be prequalified by the commission or recommended by the Valley County fire working group and kept on record at the planning and zoning office.

GUIDANCE: Individuals or firms seeking approval to prepare Subdivision Wildland–Urban Interface (WUI) Fire Protection Plans shall apply to be included on the County’s approved

list of plan preparers. To be considered, applicants must submit the following to the Planning and Zoning Department:

- A current resume outlining relevant education, training, certifications, and professional experience related to wildfire mitigation, land use planning, forestry, fire protection, or related fields.
- A cover letter describing qualifications, experience preparing similar plans, and familiarity with local wildfire risk and mitigation standards.

Submitted materials will be reviewed by the Planning and Zoning Commission and/or Valley County Fire Working Group. Approval to prepare Subdivision WUI Fire Protection Plans shall be granted at the discretion of the Planning and Zoning Commission based on demonstrated qualifications and experience.

Once approved, the individual or firm will be added to the County's list of qualified plan preparers. Inclusion on the list does not guarantee acceptance of any specific plan submission, and all plans remain subject to review and approval through the standard subdivision and agency review process.

PROFESSIONAL FORESTER: An individual holding at least a Bachelor of Science degree in forestry from an accredited four (4) year institution. (This is consistent with Idaho state tax commission rule 960 of the Idaho administrative code, Idaho state tax commission, IDAPA 35.01.03, section 04.)

SLOPE: The degree of vertical rise or fall, measured in feet, divided by the horizontal run, measured in feet and expressed as a percentage.

STRUCTURE: That which is built or constructed, an edifice or building of any kind or any piece of work artificially built up or composed of parts joined together in some manner.

VALLEY COUNTY FIRE WORKING GROUP: This group is given charter by the Valley County board of commissioners and is tasked with oversight of the community wildfire protection plan. This group is represented by local fire departments, SITPA, public land managers (USFS, IDL, BOR), bureau of homeland security, Valley County Natural Resource Consultants, etc.

GUIDANCE: The Valley County Fire Working Group (VCFWG), chartered in 2007 by the Valley County Board of Commissioners, is a multi-agency advisory body comprised of representatives from public land management agencies, structural and wildland fire agencies, and Idaho State Parks within Valley County.

The Subdivision Wildland Urban Interface Fire Protection Plan Manual was developed by the VCFWG to provide consistent, science-based wildfire mitigation standards for subdivision development in the wildland-urban interface. This ordinance and manual shall be maintained as living documents and updated by the VCFWG as wildfire science, risk data, and mitigation best practices evolve. The VCFWG utilizes the National Cohesive Wildland Fire Management Strategy to guide its work, emphasizing fire-adapted communities, resilient landscapes, and effective wildfire response.

WILDFIRE: A wildland fire originating from an unplanned ignition, such as lightning, volcano, unauthorized and accidental human caused fire, and prescribe fires that are declared wildfires.

WILDLAND URBAN INTERFACE AREA: The line, area or zone where structures and other human development meets or intermingles with wildland or vegetative fuels. (Ord. 10-07, 8-26-2010)

GUIDANCE: A wildland–urban interface (or WUI) refers to the zone of transition between unoccupied land and human development. Communities that are within 1.5 miles of the zone may also be included.

EXAMPLE: The proposed subdivision is located within the Wildland–Urban Interface (WUI), where residential development directly interfaces with forested lands and natural vegetation. The site contains moderate to heavy fuel loads and limited access, resulting in an elevated wildfire risk. As such, development within the subdivision requires implementation of WUI mitigation measures, including defensible space, fuel reduction treatments, emergency access standards, and ongoing vegetation management to reduce wildfire hazards and protect public safety.

10-7-2 : BASIS FOR RECOMMENDATION:

Valley County adopted the International Fire Code, 2015, published by the building officials and Code Administrators International INC, adopted by the Idaho Fire Marshal. The adopted version of the foregoing codes shall be deemed superseded by successive versions of such codes as they are adopted or approved by the Idaho Building Code Board and the State of Idaho (see VCC 6-1-4.b)(Ord.10-07, 8-26-2010)

GUIDANCE: By Valley County Fire Working Group endorsing this implementation plan, all signed parties agree that reducing the threat of wildland fire to people, communities, and ecosystems will require continued assessment and collaboration. The goals of the Subdivision Wildland-Urban Interface Fire Protection Plan Manual identify opportunities to:

- Improve Firefighter and Public Safety
- Improve Fire Prevention and Suppression
- Reduce Hazardous Fuels
- Restore Fire-Adapted Ecosystems
- Promote Community Assistance
- Its three guiding principles are:
 - Priority setting emphasizes the protection of communities and other high-priority watersheds at-risk.
 - Collaboration among governments and representative stakeholders
 - Accountability through performance measures and monitoring of results.

10-7-3 : SUBMISSION REQUIREMENTS:

A. General: All developers of proposed subdivisions shall provide a wildland urban interface fire protection plan (the plan) for review and then approval by the planning and zoning commission with their preliminary plat application or planned unit development submittal. The plan shall be submitted to the Wildfire Mitigation Director by Planning and Zoning Staff for review and comments to the Planning and Zoning Commission.

GUIDANCE: Developers are encouraged to coordinate with the appropriate fire protection agencies prior to submitting a Subdivision Wildland–Urban Interface (WUI) Fire Protection Plan with a preliminary plat application. Early coordination helps ensure that wildfire mitigation measures, access, water supply, and design standards are consistent with local fire protection requirements and reduces the need for revisions during the formal review process.

Developers may submit draft plans or direct questions to the respective fire district, the County Wildfire Mitigation Director, and Southern Idaho Timber Protection Association (SITPA) and/or jurisdiction having authority, for informal review, technical guidance, and clarification of wildfire mitigation requirements. Coordination may include meetings, written comments, or other consultation as appropriate. Pre-submittal consultation is voluntary and does not constitute formal approval; however, feedback provided by these agencies should be considered in the final Subdivision WUI Fire Protection Plan submitted with the preliminary plat.

B. Content: The plan shall be based upon a site-specific wildfire risk assessment that includes consideration of location, topography, aspect, flammable vegetation, climatic conditions and fire history. The plan shall address water supply, access, fire protection systems and equipment, defensible space, and vegetation management.

1. Preparation: The plan shall be developed by a "professional" (see definition in section [10-7-2](#) of this chapter). Professionals can be prequalified by the commission, and a list will be maintained at the Valley County planning and zoning office.
2. Format: The plan shall consist of two (2) sections:
 1. Wildfire Risk Assessment
 2. Wildfire Risk Mitigation

[GUIDANCE:](#) Subdivision Fire Plans shall vary based on site conditions. An example Subdivision Fire Plan template is provided to demonstrate the format and level of detail expected for both the Wildfire Risk Assessment (10 elements) and Wildfire Mitigation sections (9 elements). Applicants should use the template as guidance while adapting plans to the specific conditions of their site.

[GUIDANCE:](#) If development is proposed in multiple phases, the Subdivision Wildland–Urban Interface (WUI) Fire Protection Plan shall reflect the phased approach by addressing wildfire mitigation measures applicable to each phase of development.

For phased developments, the Subdivision WUI Fire Protection Plan may be updated and submitted for each phase of development or submitted as a single comprehensive plan. When submitted as a single plan, wildfire mitigation measures shall be clearly delineated, broken out, and identified for each phase of development, specifying the mitigation actions required to be completed prior to or concurrent with each phase.

All phased mitigation measures shall be consistent with the overall wildfire risk assessment, access and water supply requirements, fuel treatment standards, and long-term maintenance provisions identified in the Subdivision WUI Fire Protection Plan.

3. Submittal, Implementation and Verification:
 - A. The plan shall be submitted with the preliminary plat application to the Valley County planning and zoning office.
 - B. Planned mitigation work must be completed or financially guaranteed prior to the recordation of the final plat. A schedule for the phased completion of mitigation work may be approved in conjunction with recordation of final plats.

GUIDANCE: Utilizing the mitigation measures recommended in the Subdivision Fire Plan, all work shall be completed and reviewed for compliance by the respective fire district, Valley County Wildfire Mitigation Director and in accordance with applicable local authorities. If the recommended mitigation work cannot be completed prior to recording the final plat, a financial guarantee shall be established, based on the estimated cost of the remaining mitigation work, to ensure that all required actions are completed in accordance with the plan. Financial guarantee will be requested by a letter of credit, bond or escrow account at 120% of cost.

- C. Verification of completed implementation of mitigation actions will be the responsibility of the jurisdictional structural fire district. Where no structural fire district exists, the Valley County sheriff shall appoint a county representative. Each authority will act in conjunction with the office of the Wildfire Mitigation Director.

GUIDANCE: It is the responsibility of the developer to request a final inspection from respective fire district, Wildfire Mitigation Director and/or jurisdiction having authority to verify that all mitigation requirements have been met that were stated in the Subdivisions WUI Fire Protection Plan.

Required inspections shall occur prior to final plat approval and/or issuance of building permits, as determined by Valley County. Inspections for water, access, and commercial development requirements shall be requested through the Respective Fire District. Wildfire mitigation treatments shall be requested and approved by the Valley County Wildfire Mitigation Director.

4. Exceptions: Proposed administrative plats of less than five (5) lots and proposed subdivisions with lands less than twenty percent (20%) "forested" (see definition in section [10-7-2](#) of this chapter) are exempt from the professional requirement. For proposed subdivisions fitting these descriptions, the developer shall complete the plan (see the fire protection form). The plan for an administrative plat can be approved by the administrator upon receiving an approval letter from the Valley County Wildfire Mitigation Director in conjunction with the applicable fire district.
5. Cost: The cost and implementation of the plan preparation shall be the responsibility of the applicant.
6. Plan Retention: The approved plan shall be retained at the Valley County planning and zoning office and the jurisdictional fire district or designated agency where no fire district exists. (Ord. 10-07, 8-26-2010)

WILDLAND URBAN INTERFACE FIRE PROTECTION PLAN

Title 10, Chapter 7

Example Subdivision Name



The following is an example of a Subdivision Wildland Urban Interface Fire Protection Plan, provided to guide applicants in preparing plans for wildfire risk assessment and mitigation. This example illustrates the type of information and level of detail expected, but each plan should be tailored to the unique conditions of the site.

Applicants should use this template as guidance while developing a Subdivision Wildland Urban Interface Fire Protection Plan that meets all requirements of the ordinance and is specific to the site under review.

The plan is organized into two primary sections:

A. Wildfire Risk Assessment

This section identifies and evaluates site-specific wildfire hazards, including fuels, topography, access, water supply, and historical fire patterns. Examples are provided to demonstrate how risk factors can be documented and analyzed.

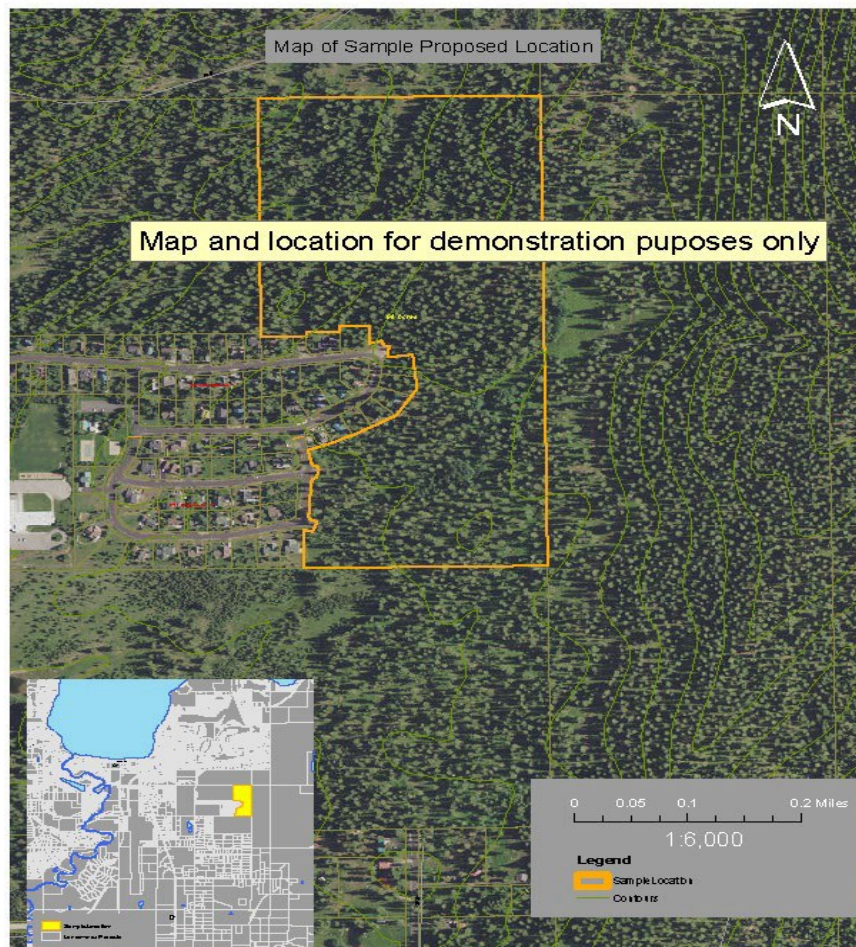
B. Wildfire Mitigation Measures

This section outlines recommended mitigation actions to address identified risks. Examples are provided for structural treatments, vegetation management, defensible space, access improvements, and other measures required to reduce wildfire risk within the subdivision.

A. Wildfire Risk Assessment: This portion of the plan includes a map and narrative describing the status of the land to be developed. As a minimum, the following 10 elements shall be addressed:

- Topographic map
- Site description includes discussion of slope(s), aspect(s), and significant topographic features.
- Narrative describing existing vegetation and fuel hazards, distribution and continuity.
- Fire history, including historical occurrence, causes, typical wind and climatic conditions which influence fire behavior.
- Existing roads and bridges, including a description of widths, grade percentages and weight limits.
- Location of existing structures and an estimate of the proposed density, types and sizes of planned structures.
- Infrastructure that may affect wildland fire risk (i.e., existing power lines, railroad lines, propane tanks, etc.).
- Description of existing features that may assist in controlling wildfire (i.e., fuel breaks, water sources, etc.).
- Current structural and wildland fire jurisdiction agencies.
- Effect of proposed development on current wildland fire risk within the development area and to adjacent landowners

1. Topographic map.



2. Site description includes discussion of slope(s), aspect(s), and significant topographic features.

EXAMPLE: The proposed subdivision lies on the eastern boundary of the McCall city impact area and is in Pts. of E2NW and the E2SW of Section 12, Township 17 North, Range 4 East. The property is located between Woodlands, Spring Mountain, and Deer Forest subdivisions. The main access to the property is provided off Long Valley Road, a paved county road that is the major route from McCall to Yellowpine.

The road services a school, fire station and market. The road is maintained year-round. Access to the area from state highway 55 is available on three main tributary roads. The property is approximately sixty acres. The elevation is approximately 5500 feet with a class 2 seasonal stream flowing through the south third of the parcel. All acreage is timbered with small open meadows. The parcel is flat. Little Elk Lake is located three miles north as the crow flies

3. Narrative describing existing vegetation and fuel hazards, distribution and continuity.

EXAMPLE: The timber stand has had little management activity conducted over the past 15 years. The primary tree species is Ponderosa pine mixed with Douglas-fir, Grand fir, and Aspen. The understory vegetation consists of thornbrush and other small shrubs such as snowberry as well as various forbs and grasses.

The amount of dead woody material on the ground or standing is minimal as the landowner has been allowing firewood removal. Also, the amount of ground vegetation is minimal due to the dense tree canopy which inhibits sunlight reaching the forest floor. There is no record of this ground being used for commercial range land.

4. Fire history, including historical occurrence, causes, typical wind and climatic conditions which influence fire behavior.

EXAMPLE: The local fire authority reports a human caused fire in 2017 which was quickly extinguished. Detailed Fire History is included in the County Wildfire Protection Plan. Further example of wind conditions: The Cascade Lake is subject to predominant southwest winds in the area and expose the north and east shore to wind conditions that can contribute to development of high intensity, uncontrollable wildland fire.

5. Existing roads and bridges, including a description of widths, grade percentages and weight limits.

EXAMPLE Currently no internal roads. Future roads will have 20–24 ft width, <5% grade, loop roads, and cul-de-sac turnarounds for emergency vehicles

6. Location of existing structures and an estimate of the proposed density, types and sizes of planned structures.

EXAMPLE: No structures currently exist on the site. The proposed density for this site is one single family unit per one-half acre. Includes five acres of open space communal area. Pathways for mixed recreational use planned throughout the community. Open space corridors planned to offer privacy buffers and allow for vegetation and fuels treatment supported by HOA fees. A multi-use community center will service the development

7. Infrastructure that may affect wildland fire risk (i.e., existing power lines, railroad lines, propane tanks, etc.).

EXAMPLE: No current utilities, including powerlines, phone lines and propane exist to date. Propane tanks will be placed for future home sites for heat and utilities. Full development to include up to forty-five lots. The average size is one quarter of an acre.

The timber stand within the property consists of overcrowded clumps of young trees. The property is surrounded by timber stands that have not been managed for many years and are dense. There are numerous small slash piles that were not burned. Due to its contributions to ladder fuels and competition for resources, the understory represents a primary focus for fuel reduction treatments and long-term forest health improvements.

8. Description of existing features that may assist in controlling a wildfire (i.e., fuel breaks, water sources, etc.).

EXAMPLE: Currently there are no fuel breaks or water sources on the parcel. To the north of proposed development, a class 1 stream exists. Adjacent to the parcel is a recently treated tree farm utilizing shaded fuel breaks. A development on the west side features paved roads and existing hydrants. All utilities will be installed underground.

9. Current structural and wildland fire jurisdictional agencies.

EXAMPLE: Structural and wildland fire protection provided by the McCall Fire Protection District. Wildland protection on nearby private timberlands provided by Southern Idaho Timber Protective Association. The USDA Forest Service also provides wildland fire protection in the area.

10. Effect of proposed development on current wildland fire risk within the development area and to adjacent landowners.

DISCUSSION: A wildfire risk assessment summary is recommended to establish an overall wildfire risk rating for the proposed development. This summary should clearly explain the factors contributing to the assigned risk rating and how those factors influence wildfire behavior within the development area and on adjacent properties.

At a minimum, the assessment should address wildfire hazard risk, timber stand conditions and vulnerabilities, availability of water for fire suppression, access and response considerations, and the relationship of the site to surrounding properties and land uses. The summary should describe how existing conditions and proposed development may increase or reduce wildfire risk, including potential impacts to neighboring landowners.

This summary is intended to support the evaluation of the effect of the proposed development on current wildland fire risk and to inform the selection and prioritization of appropriate mitigation measures.

EXAMPLE: Low Wildfire Risk Rating

The proposed subdivision is assigned a Low Wildfire Risk rating. Vegetation on the site consists of sparse or well-managed fuels with minimal ladder fuels and low surface fuel continuity. The parcel is generally flat with limited topographic features that would contribute to rapid fire spread.

Water supply for fire suppression is readily available through existing hydrants or a municipal system, and access routes meet emergency response standards. Surrounding properties include developed or treated lands that limit fuel continuity. With existing conditions and planned mitigation measures in place, wildfire ignition potential and spread are limited, and the proposed development is not expected to increase wildfire risk to adjacent landowners.

EXAMPLE: Moderate Wildfire Risk Rating

The proposed subdivision is assigned a Moderate Wildfire Risk rating. The timber stand consists of mixed conifer species with moderate canopy density and some ladder fuels present. Surface fuels are discontinuous but may support surface fire under dry and windy conditions.

The parcel has limited slope influence; however, prevailing winds may contribute to increased fire behavior during peak fire season. Water supply and access are considered adequate for emergency response. Surrounding properties include a mix of residential development and managed forest lands. Implementation of planned mitigation measures, including shaded fuel breaks and defensible space treatments, is expected to reduce wildfire risk within the development and minimize impacts to adjacent landowners.

EXAMPLE: High Wildfire Risk Rating

The proposed subdivision is assigned a High Wildfire Risk rating. The site contains dense, continuous fuels with significant ladder fuels and heavy surface fuel loading. Steep slopes.

Water supply for fire suppression is limited, and access routes may constrain

emergency response capabilities. Surrounding properties include undeveloped or heavily forested lands with similar fuel conditions, increasing the potential for large, fast-moving wildfires that could impact multiple ownerships. Without substantial mitigation, the proposed development could increase wildfire risk to both the subdivision and adjacent landowners. Comprehensive, site-specific mitigation measures are required to reduce risk to an acceptable level prior to development.

B. Wildfire Risk Mitigation: This portion of the plan includes a map(s) and narrative detailing planned wildfire hazard mitigation actions to be taken by the developer prior to individual lot development to mitigate risks to life and property from wildland fire. As a minimum, the following 9 elements shall be addressed:

- Access- planned ingress and egress routes
- Water supply for structural and wildland fire response.
- Estimated response time and distances for jurisdictional fire agencies.
- Planned internal fire protection systems and/or equipment, including buried tanks, wells, hydrants, drylines, etc., along with protective measures for systems and/or equipment.
- Proposed infrastructure, including bridge standards, road widths, grades, signage, aboveground/belowground power lines, etc.
- Safety zone locations.
- Planned live and dead fuel treatment actions.
- Long term maintenance schedule to sustain fuel treatment effectiveness.
- Analysis of the overall change in wildland fire risk within the development and to adjacent landowners once the planned mitigation actions are implemented

1. Access - planned ingress and egress routes.

GUIDANCE: All subdivisions shall provide safe and adequate ingress and egress routes for residents and emergency responders. Access design shall comply with applicable Valley County Road and driveway standards, fire district access requirements, and any relevant state highway regulations. Road and driveway widths, grades, turnarounds, and surfacing shall meet or exceed the minimum standards established in the Valley County Code and adopted fire access standards.

Access routes should be designed to support emergency vehicle movement under wildfire conditions and should include consideration of multiple access points where feasible. Dead-end roads and cul-de-sacs must provide approved turnarounds suitable for fire apparatus. Driveway standards, including maximum length, grade, and turn radius, shall comply with county and fire authority requirements.

All roads and driveways shall be clearly signed, maintained for year-round access, and include visible, reflective addressing to support rapid emergency response. Early coordination shall occur to ensure compliance with the County Road Department, Respective Fire District, and the Idaho Department of Transportation (IDT) where access connects to county or state-maintained roads

EXAMPLE: Ingress and egress to the subdivision is provided from State Highway 55 and is adequate for emergency vehicle access. Roads and driveways are designed and constructed in compliance with Valley County roadway and driveway standards and respective fire district access requirements.

Internal roads include looped configurations and cul-de-sacs with approved turning radii to allow fire apparatus to enter and exit without backing long distances. Road and driveway grades are suitable for emergency vehicles under all weather conditions. All roads are clearly signed, and residences are identified with reflective address numbers greater than four (4) inches in height.

The Valley County Road Department and the Idaho Department of Transportation were consulted during project design to ensure compliance with access standards and to support safe and efficient emergency response.

2. Water supply for structural and wildland fire response.

GUIDANCE: The Subdivision Fire Plan shall describe the availability and adequacy of water resources to support both structural and wildland fire suppression. This discussion should identify **existing** water sources and evaluate their suitability for emergency response.

Water supply considerations may include, but are not limited to, community or municipal water systems, private or shared wells, surface water sources such as lakes, ponds, streams, rivers, or reservoirs. The plan should identify seasonal variability, access limitations, and any constraints that could affect water availability during wildfire events.

EXAMPLE: Water for structural and wildland fire response is available from multiple sources in the vicinity of the proposed subdivision. Three surface water resources associated with Payette Lake provide potential drafting locations that supplement existing groundwater supplies. The surrounding area is served by nine groundwater wells that support residential water use.

3. Estimated response time and distances for jurisdictional fire agencies.

EXAMPLE: McCall Fire and EMS are located less than one mile from the entrance to the development. Estimated response time is 5-10 minute

4. Planned internal fire protection systems and/or equipment, including buried tanks, wells, hydrants, drylines, etc., along with protective measures for systems and/or equipment.

GUIDANCE: This discussion should identify **proposed** water sources and evaluate their suitability for emergency response. Where applicable, the plan should describe the location, spacing, and accessibility of fire hydrants, dry hydrants, drafting sites, or other fire protection infrastructure. Coordination with the Respective Fire District shall occur to ensure water supply meets fire suppression needs and aligns with adopted fire flow and access standards.

EXAMPLE: All residences within the subdivision will be connected to the McCall City water system. Fire hydrants are planned at designated locations throughout the development in coordination with the Respective Fire District. Hydrant placement and access are designed to support efficient fire suppression and meet applicable fire protection standards.

EXAMPLE: A 30,000-gallon water storage tank will be required by Respective Fire District to be installed to provide additional water supply for structural protection. A yearly inspection is required to ensure the water level is maintained. This water system will have to provide an adequate water supply for the entire proposed subdivision.

5. Proposed infrastructure, including bridge standards, road widths, grades, signage, aboveground/belowground power lines, etc.

EXAMPLE: Hydrants planned throughout the community. No additional storage tanks. Road widths will be 20-24 feet throughout the development. Surfaced grade less than 5%. Posted street signs at each intersection. Residence numbers will be greater than four inches and made of reflective material. Access to all forms of firefighting equipment provided to include adequate turnaround in all cul-da-sac locations. Residence signage using reflective material. Streets signs easily visible in all weather and light.

6. Safety zone locations.

GUIDANCE: Safety zone locations shall be identified to support resident evacuation, temporary refuge, and firefighter operations during a wildfire incident. Safety zones should be incorporated into a pre-incident action plan and referenced within community covenants, conditions, and restrictions (CC&Rs) or homeowners association (HOA) documents, as applicable.

The plan should identify escape routes and evacuation procedures to encourage resident preparedness prior to an incident. Safety zones must be clearly mapped,

accessible under emergency conditions, and designed to minimize exposure to radiant heat, ember fall, and flame contact.

Periodic coordination between the fire service authority and the homeowners or resident committee should occur to review, update, and maintain the safety zone locations, evacuation routes, and pre-incident action plan. Updates should reflect changes in development, vegetation, fire behavior science, or access conditions.

Safety zones may include community open spaces, parks, paved areas, or other low-fuel areas that can safely accommodate residents during an emergency. These areas should be maintained to remain effective over time.

EXAMPLE: A centrally located community green space is designated as the primary emergency gathering and safety zone. The area is maintained with low-fuel landscaping and defensible space to reduce wildfire exposure. The safety zone is clearly identified on subdivision maps and signage and is accessible via multiple evacuation routes.

An evacuation and safety zone plan is integrated into the HOA covenants and provided to all residents upon occupancy. The plan is reviewed annually with the respective fire district, and updates are made as needed to reflect changes in development, access, or wildfire risk conditions.

7. Planned live and dead fuel treatment actions, including modification through thinning, pruning, piling, chipping, and fuel break construction; and removal through commercial harvest, chipping and hauling or prescribed burning.

GUIDANCE: The Subdivision Fire Plan shall identify planned live and dead fuel treatment actions designed to reduce wildfire intensity, interrupt fuel continuity, and improve firefighter safety. Treatments must address both surface and ladder fuels and be consistent with current wildfire mitigation standards and best available science.

Prior to development site plan preparation and infrastructure installation, hazard fuels should be reduced to established specifications. Treatments may include thinning, pruning, piling, chipping, mastication, fuel break construction, commercial harvest, hauling of biomass, or prescribed burning where appropriate and permitted.

Thinning of dense tree stands should reduce crown continuity and increase spacing between leave trees. As a general standard, leave trees may be spaced to achieve an average of fifteen (15) feet between crowns, adjusted based on slope and site conditions. Lower branches (ladder fuels) should be pruned to approximately ten (10) feet above ground level or one-third of the tree height, whichever is less, to reduce the potential for surface fires transitioning into crown fires.

Dead, dying, or diseased trees should be removed or treated through mastication or chipping. Slash and woody debris generated from treatments must be properly

disposed of through chipping, hauling, piling and burning (where permitted), or other approved methods to prevent additional fuel accumulation.

Strategically located shaded fuel breaks should be established along subdivision perimeters, road corridors, and other key areas to reduce fire intensity and provide safer access for emergency responders. Treatments within the Home Ignition Zone (0–100 feet from structures) shall be incorporated to reduce ember ignition potential and radiant heat exposure

EXAMPLE: Shaded fuel breaks were established along the subdivision perimeter and internal road corridors to interrupt continuous fuel pathways. Dense conifer stands were thinned to achieve an average spacing of fifteen (15) feet between tree crowns. Ladder fuels were removed by pruning lower branches to approximately ten (10) feet. Dead and dying trees were removed or masticated, and resulting slash was chipped and hauled to an approved facility. A defensible space program was implemented requiring Home Ignition Zone treatments (0–100 feet) around all structures, including removal of flammable shrubs, reduction of surface fuels, and maintenance of lean, clean, and green zones near structures.

These treatments reduce fire intensity and improve access and safety for firefighting operations while maintaining overall forest health and aesthetics.

8. Long term maintenance schedule to sustain fuel treatment effectiveness.

GUIDANCE Wildfire mitigation within a subdivision must be maintained over time to remain effective. This development is intended to exist in concert with the surrounding natural ecosystem and promote long-term forest health and stewardship. Sustainable fuel treatments require ongoing maintenance, coordination among landowners, and adaptive management as vegetation grows and site conditions change.

The long-term maintenance schedule should describe how fuel treatment effectiveness will be sustained throughout the life of the development. Maintenance actions should reduce wildfire risk while maintaining forest health, aesthetics, and ecological function. The schedule should identify responsible parties (e.g., HOA, landowners), inspection frequency, maintenance intervals, and enforcement mechanisms.

Fuel treatment standards must be clearly defined and consistently applied throughout the subdivision. Maintenance activities should align with Firewise principles, state forestry guidance, and local wildfire mitigation plans.

EXAMPLE: The subdivision will implement a long-term fuel maintenance program managed by the homeowners association (HOA) and enforced through community covenants. Fuel treatment standards are applied uniformly across all lots, open space areas, and common corridors.

Maintenance activities include:

- Maintaining adequate spacing between tree crowns to reduce fire spread potential
- Removing ladder fuels by pruning lower branches
- Managing surface fuels such as needles, woody debris, and slash
- Removing dead, dying, or diseased vegetation
- Maintaining defensible space zones around all structures
- Conducting annual inspections of treated areas
- Performing maintenance thinning or pruning every three (3) to five (5) years, depending on vegetation growth and site conditions
- Ongoing removal of regrowth and invasive species
- Seasonal cleanup prior to peak fire season
- Prohibiting open burning during the closed burn season (May 10 – October 20)

The HOA conducts annual reviews of fuel treatment effectiveness and coordinates with local fire authorities as needed. Maintenance standards and schedules are adjusted over time based on wildfire risk assessments, vegetation response, and updated fire behavior science.

9. Analysis of the overall change in wildland fire risk within the development and to adjacent landowners once the planned mitigation actions are implemented.

GUIDANCE: The planned wildfire mitigation actions are designed to reduce the likelihood, intensity, and spread of wildfire while improving overall community and landscape resilience. These actions directly address the primary factors that contribute to wildfire behavior: fuel load, fuel continuity, and ignition potential.

EXAMPLE: Treatments within the Home Ignition Zone (0–100 feet from structures) significantly reduce the risk of structure ignition from ember showers, radiant heat, and direct flame contact. Maintaining defensible space around homes increases firefighter safety and improves the probability of successful structure protection during a wildfire event.

EXAMPLE: Strategic placement of shaded fuel breaks and defensible space treatments interrupt continuous fuel pathways that allow wildfire to spread rapidly across the landscape. Increased spacing between tree crowns and removal of ladder fuels reduce the likelihood of surface fires transitioning into crown fires, which are more dangerous and difficult to suppress.

EXAMPLE: Fuel treatments along roads, driveways, and evacuation routes enhance visibility, access, and safety for emergency responders. Reduced roadside vegetation lowers the risk of fire spread along transportation corridors and provides safer locations for fire suppression activities.

RESOURCES:

Idaho Firewise
<http://idahofirewise.org/>

National Fire Prevention Association
<https://www.nfpa.org/News-and-Research/News-and-media/Press-Room/News-releases/2012/Firewise-Communities-Program-launches-new-complimentary-online-toolkit>

Valley County - County Wildfire Protection Plan
<http://www.co.valley.id.us/community/wildfire-mitigation/>

McCall Fire and EMS
<https://www.mccallfire.com/>

Donnelly Rural Fire Protection District
<http://www.donnelyfire.net>

Cascade Fire
<https://www.cascaderuralfire.com>

Southern Idaho Timber Protective Association
<http://www.sitpa.org/>

Standards for development in the Wildland Urban Interface can be found in several sources, including Planning for Wildfire in the Wildland-Urban Interface: A Resource Guide for Idaho Communities. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2845046

The National Wildfire Coordinating Group Glossary
https://www.nwcg.gov/glossary/a-z#letter_p

* Miller, Stephen R. and Wuerzer, Thomas and Vos, Jaap and Lindquist, Eric and Mowery, Molly and Holfeltz, Tyre and Stephens, Brian and Grad, Alexander, Planning for Wildfire in the Wildland-Urban Interface: A Resource Guide for Idaho Communities (September 28, 2016). Available at SSRN: <https://ssrn.com/abstract=2845046> or <http://dx.doi.org/10.2139/ssrn.2845046>

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