

APPENDIX B: PARK COUNTY FIRE PROTECTION

DEFINITIONS

1. **Access (Legal and Physical):**
 - a. **Legal Access:** Each Lot in a Subdivision either abuts a public (city, county, state, or federal) street or road, or the subdivider has obtained adequate and appropriate easements across all necessary properties, from a public road to each Lot in the Subdivision, whether or not a road has been constructed on that property, and had dedicated the easement or private road for public use.
 - b. **Physical Access:** A street or road conforming to the Subdivision design standards provides vehicular access to each Lot in the Subdivision, either from a public street or road, from a road constructed to local road standards in the obtained easements which is dedicated to public use, or from a private road improved to local road standards which has been dedicated to public use.
2. **Accessory Building or Structure:** Any building or structure used incidentally to another building or structure.
3. **Address Identification Signs:** Signs displaying the numeric address (as approved by Park County Geographic Information Systems (GIS) Department) of the structure. Address signs shall meet the rural addressing requirements of Park County GIS Department.
4. **Alternative:** A system, condition, arrangement, material, or equipment submitted to the Fire Protection Authority (FPA) as a substitute for requirements described in the *Park County Subdivision Regulations* or other applicable code requirements.
5. **Approved:** Acceptable to the Fire Protection Authority (FPA) or other entity having jurisdictional authority.
6. **Aspect:** Compass direction toward which a slope faces.
7. **Building:** Any structure used or intended for supporting any occupancy.
8. **Combination Use Structure:** Any structure primarily used as a non-residential structure but has a residential component.
9. **Combustible:** Any material that, in the form in which it is used and under conditions anticipated will ignite and burn (see Noncombustible).
10. **Commercial:** Any structure(s) related to the buying and selling of goods or services, and do not provide permanent living accommodations.

11. **Community Wildfire Protection Plan (CWPP)**¹: Community Wildfire Protection Plans are authorized and defined in Title I of the Healthy Forests Restoration Act (HFRA) passed by Congress on November 21, 2003 and signed into law by President George W. Bush on December 3, 2003.

The Healthy Forests Restoration Act places renewed emphasis on community planning by extending a variety of benefits to communities with a wildfire protection plan in place. Critical among these benefits is the option of establishing a localized definition and boundary for the wildland-urban interface (WUI) and the opportunity to help shape fuels treatment priorities for surrounding federal and non-federal lands.

The CWPP, as described in the Act, brings together diverse local interests to discuss their mutual concerns for public safety, community sustainability and natural resources. It offers a positive, solution-oriented environment in which to address challenges such as; local firefighting capabilities, the need for defensible space around homes and Subdivisions, and where and how to prioritize land management – on both federal and non-federal land.

12. **Defensible Space**: An area as defined by the FPA, between an improved property and potential wildland fire where the combustibles have been removed or modified and maintained with the following intent:
- a. To protect life and property from wildland fire.
 - b. To reduce the potential for fire on improved property spreading to wildland fuels.
 - c. To provide a safe working area for fire fighters protecting life and improved property.
13. **Dwelling**: One or two living units, each providing complete and independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.
14. **Evacuation**: The temporary movement of people and their possessions from locations threatened by a hazard.
15. **Fire Chimney**: Topographical features, usually drainage ways or swales, which tend to funnel or otherwise concentrate fire toward the top of steep slopes.
16. **Fire Hydrant**: A valved connection on a piped year round pressurized water supply system having one or more outlets that is used to supply hose and fire department pumpers with water.
- a. **Dry (Draft) Hydrant**: An arrangement of pipe permanently connected to a year round water source other than a piped, pressurized water supply system, that provides a ready means of water supply for firefighting purposes and that utilizes the drafting (suction) capability of fire department pumpers. The point

¹ The 2006 Park County Community Wildfire Protection Plan (CWPP) can be found at <http://www.nrmrcd.org/documents/FINAL%20Park%20County%20CWPP%202006.pdf>

connection between the water source and the fire department pumper shall be a fire hydrant, approved by the FPA.

- b. **Pressurized Hydrant:** An arrangement of pipe permanently connected to a year round water source with a pressurized water supply system that provides a ready means of water supply for firefighting purposes.
- 17. **Fire Lane:** A means of access or other passageway designated and identified to provide access for emergency apparatus where parking is not allowed.
- 18. **Fire Protection Authority (FPA):** The organization, office, or individual responsible for approving equipment, an installation, or procedure and having jurisdiction (as established by action described in, and in accordance with, Montana Codes Annotated).
- 19. **Fire Protection Feature:** A fire protection feature is any feature outlined in the fire prevention plan or fire control and prevention plan, or any other features that aide in the prevention of fire.
- 20. **Fuel Break:** An area, strategically located for fighting anticipated fires, where the native vegetation has been permanently modified or replaced so that fires burning into it can be more easily controlled. Fuel breaks divide fire-prone areas into smaller areas for easier fire control and to provide access for fire fighting.
- 21. **Fuel Hazard Rating:** A measure of the fire behavior and the difficulty of fire control in non-fire-resistive materials. At the discretion of the FPA, applicable references may include, but are not limited to, those available from DNRC, NFPA, and others.
- 22. **Fuel Loading:** The volume of fuel in a given area generally expressed in tons per acre.
- 23. **Fuel Modification:** Any manipulation or removal of fuels to reduce the likelihood of ignition or the resistance to fire control.
- 24. **Fuels:** All combustible material within the wildland/urban interface, including vegetation and structures.
- 25. **Greenbelt:** An area with fire-resistive vegetation (planted or native), maintained to cause a reduction in fire intensity, and used for purposes other than fire protection (golf course, cemetery, park, playground, mowed park, orchard, etc.).
- 26. **Ground Fuels:** All combustible materials such as grass, duff, loose surface litter, tree or shrub roots, rotting wood, leaves, peat, or sawdust that typically support combustion.
- 27. **Hammerhead "T":** A roadway that provides a "T"-shaped, three point turnaround for emergency equipment that is no narrower than the road it serves. The top of the "T" shall be a minimum of 40 ft (12.19m) long in each direction (see Turnaround).
- 28. **Hazard:** A fuel complex defined by kind, arrangement, volume, condition, and location that determines the ease of ignition or of resistance to fire control.
- 29. **Ladder Fuels:** Fuels that provide vertical continuity allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease.

30. **Life Risk:** Events, actions, or situations created by emergency incidents that have the potential to cause serious injury or death to people.
31. **Life Safety:** Actions taken to prevent the endangerment of people threatened by emergency incidents or by activities associated with the management.
32. **Mitigation:** Action that moderates the severity of a fire hazard or risk.
33. **Noncombustible:** A material that, in the form in which it is used and under the conditions anticipated, will not aid combustion or add appreciable heat to an ambient fire.
34. **One-Lot Minor Subdivision:** The Subdivision of an existing parcel into two parcels, with one parcel under 160 acres, and one parcel 160 acres or greater.
35. **Professional Engineer (PE):** An engineer licensed in Montana and verified by the Subdivision Administrator.
36. **Public-Access Easement:** A thoroughfare that has been dedicated for public use.
37. **Rated Roof:** A roof constructed with a “roof covering assembly” that is listed as meeting the requirements for Class A, B, or C “roof covering assembly materials”
38. **Residential:** Any structure(s) providing permanent living accommodations without a commercial component, and do not meet the definition of a combination use structure.
39. **Roadway:** An open way for passage of vehicles giving access to more than one parcel.
40. **Setback:** Distance between a structure and the closest property boundary.
41. **Shall:** Indicates a mandatory requirement.
42. **Should:** Indicates a recommendation or that which is advised but not required.
43. **Shoulder:** Surface of a road adjacent to the traffic lane.
44. **Slash:** The accumulation of any burnable, organic material that has been severed or removed from its natural state.
45. **Slope:** Upward or downward incline or slant, usually calculated as a percent of slope [rise or fall per 100 ft (30.45m) of horizontal distance].
46. **Street or Road Identification Signs:** Any sign containing words, numbers, directions, or symbols that provide information to emergency responders.
47. **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 definite manner.

48. **Survivable Space:** Survivable space is defined as the characteristics of a structure to survive a wildland fire on its own. The survivability of a structure in the Wildland Urban Interface greatly increases by incorporating fuel management techniques, minimizing firebrand receptive beds, such as, debris, pine needles, firewood stacks, etc., and performing regular maintenance. Nothing provides a guarantee that a structure will survive a wildland fire. The use of the term "survivable space" is a reference to the combination of topographical location of the building site, design, and fuel/vegetation management to limit the ignition zone around a structure. Appropriate and applicable survivable space provision provide the best chance for a structure to resist loss and/or major damage during a wildland fire, on its own, without direct suppression intervention by firefighters.
49. **Traffic Lane:** That portion of a roadway that provides a single lane of vehicle travel in one direction.
50. **Turnaround:** A portion of roadway, unobstructed by parking, that allows for a safe reversal of direction for emergency equipment.
51. **Turnouts:** A widening in a travel way of sufficient length and width to allow emergency vehicles to pass one another.
52. **Validation:** To confirm or establish the reasoning or justification of something. When applicable, validation shall be provided by the Commission, Fire District Boards, or their respective designated representatives.
53. **Vegetation Management Plan:** A vegetation management plan reduces the amount fuel available for wildland fires, reducing the probability of a rapidly spreading wildland fire. Elements of the plan include removal of slash, snags, other ground fuels, ladder fuels and dead trees, and thinning of live vegetation.
54. **Water Fill Site:** Any tank(s) or pond(s) to be used for fire protection purposes.
55. **Water Supply:** A source of water for fire fighting activities.
56. **Wildland Fire:** An unplanned and uncontrolled fire spreading through vegetative fuels, at times involving structures.
57. **Wildland/Urban Interface (or Structure-Wildland Interface):** An area where improved property and wildland fuels are both present.

I. GENERAL FIRE PROTECTION REQUIREMENTS

All Subdivisions in Park County shall comply with the fire protection requirements in section I and II of this **Appendix** and section VI-Q of the *Park County Subdivision Regulations*.

- A. **Scope:** Section VI-Q of the *Park County Subdivision Regulations* and this **Appendix (B)** represents the **MIMIMUM** fire protection requirements for Subdivisions in Park County.
- B. **Purpose:** The purpose of the Park County Fire Protection Standards is to minimize the threat/risk of fire and to facilitate the protection of life and property in Park County. These standards are designed to allow subdividers a variety of options for providing fire protection.
- C. **Fire Protection Review:** During the Fire Protection Plan review process, as identified under section VI-Q-C.5 of the *Park County Subdivision Regulations*, all Fire Protection Requirements, Plans, and features shall be reviewed by the Subdivision administrator and the FPA having jurisdiction. However, the FPA having jurisdiction may designate another FPA or qualified expert to review Fire Protection Requirements for a proposed Subdivision. Review of Fire Protection Requirements by a qualified expert shall be at the expense of the subdivider.
- D. **FPA Requirements/Authority:** Depending on fire protection requirements for each proposed Subdivision, the FPA may require any of the Fire Protection Plans described in this Appendix, and/or require additional fire protection features (additional features required after an application has been deemed sufficient under section II-A-6 of the *Park County Subdivision Regulations* shall be stated as recommended findings and conditions of preliminary plat approval). The FPA shall provide validation for requiring specific Fire Protection Plans and/or additional requirements.
- E. **Alternative Fire Protection Technologies, Features, and Systems:** Alternative fire protection technologies, features or systems proposed by the subdivider may be approved by the FPA where they provide fire protection equivalent to or greater than the requirements in this Appendix. Alternative fire protection technologies, features, and systems should address any combination of the following;
1. Access;
 2. Water Supply for Structure Fires;
 3. Water Supply for Wildfires;
 4. Defensible and/or Survivable Space;
 5. Any Other applicable fire protection requirements as outlined in section VI-Q of the *Park County Subdivision Regulations*, or this Appendix (B).
- F. **Design:** The FPA may require any fire protection features be engineered by a licensed P.E. in the State of Montana. See section I-D (above).
- G. **Hydrants:** The type and location of all hydrant(s) shall be approved by the FPA.

- H. Fire Emergency Easements:** The subdivider shall provide easements for all fire protection features, allowing for any fire emergency access, training, and inspection in perpetuity.
- I. Residential Structures:** Any Subdivision allowing residential structures greater than 3,600 square feet, or greater than 35 feet in height, may be required to provide additional fire protection features as determined by the FPA, or outlined in the current Fire Code, as adopted by the State of Montana.
- J. Mixed Subdivisions:** Subdivisions with mixed residential and commercial buildings shall have fire protection requirements using portions (residential, commercial, etc.) of these fire protection requirements that address all uses for the Subdivision. Any combination of fire protection requirements shall be approved by the FPA, or outlined in the current Fire Code, as adopted by the State of Montana.
- K. Subdivider/Property Owner Responsibilities:** Depending on the fire protection plan, the subdivider and/or homeowner(s) shall be responsible for installing/providing and maintain all fire protection features required as conditions of final plat approval.
- L. Fire Protection Maintenance:** All fire protection features shall be maintained to original performance capabilities in perpetuity by the homeowner(s), or homeowners association.
- M. Water fill sites:**
1. All water fill pond(s) shall be engineered, inspected, and approved by a P.E. licensed in the State of Montana.
 2. All water fill tank(s) 30,000 gallons or greater shall be engineered, inspected, and approved by a licensed P.E. in the State of Montana.
 3. All hydrants shall be clearly marked so as to not allow any parking within 30' on either side.
 4. All water fill sites shall have reflective markings for identification at night.
 5. Subdivider(s) offering fire protection package(s) under section II of Appendix B have the option of using multiple tank(s) and/or pond(s) to meet water capacity requirements. The number, design, and location of all tank(s) and/or pond(s) shall be approved by the FPA.
- N. Water Rights:** When applicable, the subdivider shall provide verification of all necessary water rights for any fire protection feature involving water use.
- O. Fire Protection Covenants:** All covenants mandatory to meet the fire protection requirements shall be recorded with the Subdivision final plat. Any amendment to the fire protection covenants must be approved by the County Commission and the FPA, or the FPA's designated representative. The FPA is granted standing in the covenants of the Subdivision for the purpose of enforcing all the fire protection requirements. A fire protection note, calling attention to the fire protection requirements shall be placed on the final Subdivision plat.

The following covenants may be included as a requirement of the fire protection plan to mitigate potential threats from fire. This list is not all inclusive:

1. Maintenance of Fire Protection Water Supply Features and Fire Department Use (i.e., open fill sites, buried water tanks, other applicable water supply features)
 - i. Fire protection features must be maintained to their original performance capability in perpetuity by, and at the expense of, the property owner(s).
 - ii. Performance of all fire protection water supply features shall be certified bi-annually, by the use of field measures, by a qualified expert, as may be identified under Montana Code Annotated (MCA). The bi-annual certification by the qualified expert shall be at the expense of the property owner(s).
 - iii. The qualified expert(s) shall submit a report, in writing, to the property owner(s) or property owners association to ensure continued specified capabilities.
 - iv. The property owner(s) or property owners association shall, at the request of the FPA or the Park County Community Development Department, provide the bi-annual certification report for any fire protection features on the property.
2. The FPA, at their discretion, may enter the premises and utilize and test any outdoor water supply fire protection features, in perpetuity.
3. Property owner(s) are responsible for having Fire Alarms (smoke detectors) and Carbon Monoxide (C.O.) detectors installed in all structures/buildings.

Back-up Power Requirements: The FPA, at their discretion, may require back-up power for any water supply fire protection features (see section I-D above).

II. FIRE PROTECTION PACKAGES

The following is a list of fire protection packages for specific Subdivision categories. Subdivider's are encouraged to select a fire protection option that provides the most effective and efficient fire protection for their proposed Subdivision, and/or offer alternative fire protection technologies, features, or systems as outlined in section I-E (above). Any chosen Fire Protection Package shall be included in the Fire Protection Plan (see section VI-Q-B and C of the *Park County Subdivision Regulations* outlining the appropriate process for development, review, and approval of the Fire Protection Plan).

A. Fire Protection Requirements for a One Lot Minor Residential Subdivision: For a one (1) Lot minor residential Subdivision, the subdivider or property owner shall provide one of the following fire protection packages: attachment

1. An automatic self-supplying storage tank or pond with a minimum available water supply of 10,000 gallons with an approved hydrant system capable of delivering 500 gallons-per-minute. The storage tank or pond location shall be within the Subdivision and approved by the FPA; or
2. The FPA, at their discretion, may recommend waiving the required water supply requirements (under section II-A-1.a above) if the subdivider has proposed alternative fire protection technologies, features, or systems that address the applicable fire protection requirements under section VI-Q of the *Park County Subdivision Regulations*, and Appendix B. In making this recommendation, the FPA shall provide a legally defensible validation for waiving the additional water supply and shall verify that waiving the additional water supply will not diminish fire protection services to the Subdivision.

B. Fire Protection Requirements for a Two-through Nine-Lot Residential Subdivision: For a (2) two-through (9) nine-Lot residential Subdivision, the subdivider or property owner(s) shall provide one of the following fire protection packages:

1. An automatic self supplying storage tank(s) or pond(s) with a minimum available water supply of 30,000 gallons with an approved hydrant system capable of delivering 500 gallons-per-minute. The storage tank(s) or pond(s) location shall be within the Subdivision and approved by the FPA; or
2. The FPA, at their discretion, may recommend waiving all or a portion of the water supply requirements (under section II-B-2.a above) if the subdivider has proposed alternative fire protection technologies, features, or systems that address the applicable fire protection requirements under section I-E.1-4 of this Appendix (B). In making this recommendation, the FPA shall provide a legally defensible validation for waiving the additional water supply and shall verify that waiving the additional water supply will not diminish fire protection services to the Subdivision.

C. Fire Protection Requirements for Major Residential Subdivision (10 through 49 Lots/units):

For major residential Subdivisions with (10) ten through (49) forty-nine Lots/units, the subdivider or property owner(s) shall provide one of the following fire protection packages:

1. Fire protection water supply system capable of 1,000 gallons-per-minute at 20 psi minimum through an approved public water system with pressurized fire hydrant(s), for a minimum of 120 minutes. The distribution of fire hydrants shall meet the requirements of the current edition of Fire Code, as adopted by the State of Montana; or
2. An automatic self supplying storage tank(s) and/or pond(s) with a minimum available water supply of 60,000 gallons with an approved hydrant system capable of delivering 500 gallons-per-minute. The storage tank(s) and/or pond(s) location shall be within the Subdivision and approved by the FPA; or
3. The FPA, at their discretion, may recommend waiving a portion of the water supply requirements (under section II-C.1 and 2 above) if the subdivider has proposed alternative fire protection technologies, features, or systems that address the applicable fire protection requirements under section I-E.1-4 of this Appendix (B). In making this recommendation, the FPA shall provide a legally defensible validation for waiving the additional water supply and shall verify that waiving the additional water supply will not diminish fire protection services to the Subdivision.

D. Fire Protection Requirements for Major Residential Subdivisions (50 or more Lots/units):

For major residential Subdivisions with (50) fifty or more Lots/units, the subdivider or property owner(s) shall provide one of the following fire protection packages:

1. Fire protection water supply system capable of 1,000 gallons-per-minute at 20 psi minimum through an approved public water supply system with pressurized fire hydrant(s), for a minimum of 120 minutes. The distribution of fire hydrants shall meet the requirements of the current edition of the Fire Code, as adopted by the State of Montana; or
2. An automatic self supplying storage tank(s) and/or pond(s) with a minimum available water supply of 120,000 gallons with an approved hydrant system capable of delivering 1,000 gallons-per-minute. The storage tank(s) and/or pond(s) location shall be within the Subdivision and approved by the FPA; or
3. The FPA, at their discretion, may recommend waiving all or a portion of the water supply requirements (under section II-D.1 and 2 above) if the subdivider has proposed alternative fire protection technologies, features, or systems that address the applicable fire protection requirements under section I-E.1-4 of this Appendix (B). In making this recommendation, the FPA shall provide a legally defensible validation for waiving the additional water supply and shall verify that waiving the additional water supply will not diminish fire protection services to the Subdivision.

E. Fire Protection Requirements for Commercial Subdivisions and Buildings:

For all commercial Subdivisions and buildings, the subdivider shall provide fire protection in accordance to the current addition of the Fire Code, as adopted by the State of Montana.

F. Special Requirements for Subdivisions Proposed in the Wildland Urban Interface (WUI):

For Subdivision proposed in the Wildland Urban Interface (WUI), as may be identified by the United States Forest Service, the Montana Department of Natural Resources and Conservation, the local FPA, a local growth policy, or a Community Wildfire Protection Plan (CWPP), the subdivider shall comply with the following additional requirements, along with all other applicable provisions for fire protection of the *Park County Subdivision Regulations*, and this Appendix;

1. **Fire Prevention and Control Plan:** A Fire Prevention and Control Plan shall accompany the submission of any application for preliminary plat approval (in addition to the Fire Prevention Plan). The Fire Prevention and Control Plan shall be included in the Fire Protection Plan (see section VI-Q-B and C of the *Park County Subdivision Regulations* outlining the appropriate process for development, review, and approval of the Fire Protection Plan).

The **Fire Prevention and Control Plan** shall include the following items:

- a. A detailed analysis of the wildfire hazards on the site, as influenced by existing vegetation and topography;
 - b. A detailed map showing the areas that are to be cleared of dead, dying, or severely diseased vegetation;
 - c. A detailed map of the areas that are to be thinned to reduce the interlocking canopy of trees; and
 - d. A detailed plan for the creation, implementation and management of a survivable space, as described under section II-F-9 (below) of Appendix B.
 - e. The identification of roads, driveways, and bridges sufficient for emergency vehicle access and fire suppression activities.
 - f. A detailed implementation / management plan illustrating the necessary steps and processes needed to mitigate all high fire hazards on the property, including an implementation / mitigation time line and all maintenance requirements.
2. **Additional Water Feature Requirements:** The FPA may require the subdivider to provide additional water supply features.
 3. **Primary and Secondary Access:** If required by the FPA, a Secondary Access shall be provided to all Subdivisions in the Wildland Urban Interface (WUI), and shall meet the definitions of physical and legal access as defined under the *Park County Subdivision Regulations*.
 4. **Bridges:** Bridges providing access to the Subdivision must be built to a design load capacity of 40 tons and constructed of non-flammable materials.
 5. **Road Right-of-Ways:** Road right-of-ways must be cleared of slash and shall be maintained, in perpetuity, in a fire resistive state by the property owner(s) and/or property owners association.

6. **Building Sites:** Building sites may not be located on slopes greater than 25 percent or at the apex of fire chimneys, as determined by the FPA.
7. **Implementation and Maintenance Provisions:** Provisions for the implementation and maintenance of the Fire Prevention and Control Plan shall be included in the covenants, conditions, and restrictions for the proposed Subdivision. A property owners' association shall be formed and designated to enforce and maintain covenants, conditions, and restrictions for the proposed Subdivision.
8. **Survivable Space:** Survivable space is defined as the characteristics of a structure to survive a wildland fire on its own. The survivability of a structure in the Wildland Urban Interface (WUI) greatly increases by incorporating fuel management techniques, minimizing firebrand receptive beds, such as, debris, pine needles, firewood stacks, etc., and performing regular maintenance. Nothing provides a guarantee that a structure will survive a wildland fire. The use of the term "survivable space" is a reference to the combination of topographical location of the building site, design, and fuel/vegetation management to limit the ignition zone around a structure. Appropriate and applicable survivable space provision provide the best chance for a structure to resist loss and/or major damage during a wildland fire, on its own, without direct suppression intervention by firefighters.
 - a. **Survivable Space Provisions:** Subdivider(s) are encouraged to develop and incorporate the most current and applicable survivable space standards in the Fire Protection Plan. Any survivable space provisions offered by the subdivider(s) are subject to approved by the FPA and the governing body.
9. **Fuel Breaks and Open Space:** Open space, park land, and recreation areas (including riding or hiking trails) shall be located, where appropriate, to separate residences and other buildings from areas containing high fire fuels and approved by the FPA.