**Scoring Criteria**

All ratings were given a 1, 2, 3, or 4 for corresponding low, moderate, high, and extreme impacts respectively.

The following table outlines what those represent for each characteristic examined. Final selection of rating was centered on highest percent of land area that fell into the rating category, unless it was deemed that proximity to communities warranted a different rating due to imminent impacts to communities. It was determine that local knowledge was important in finalizing the ratings.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| WILDLAND FIRE POTENTIAL | | | | | |
| **Attributes**  **Being**  **Rated** | Low = 1 | Moderate = 2 | High = 3 | Extreme = 4 | Comments |
| Probability of Fire Occurrence | Fires per 1000 ac/yr. = 0.022485 or less | Fires per 1000 ac/yr. between 0.071825 and 0.116419 | Fires per 1000 ac/yr. between 0.116420 and 0.266566 | Fires per 1000 ac/yr. greater than 0.266567 |  |
| Flame Lengths  in feet | Less than 2 foot | 2 to 3.9 feet | 4 to 11.9 feet | 12 foot plus |  |
| Rate of Spread  Chains/hour\* | 0 – 9.9 chs/hr | 10 – 19.9 chs/hr | 20 – 39.9 chs/hr | 40 + chs/hr | \*one chain (ch) = 66 feet  40 chains = ½ mile |
| Probability of a Canopy Fire | 0 – 25% Prob. | 25 – 50% Prob. | 50% - 75% Prob. | 75% + Prob. | Percent Chance of Canopy Fire – Prob. |
| Overall Fire Threat Index | 0 - 0.001619 | 0.001620 to 0.002588 | 0.002589 to 0.008316 | 0.008317 to 1.000000 | Based on WWRA map numerical ranges |
| Overall Fire Effects Index | -0.001000 to -0.53104 | -0.531041 to -0.728161 | -0.728162 to -1.035111 | -1.035112 to -9.000000 | Based on WWRA map numerical ranges |
| Overall Fire Risk Index | >= -1.54 to - 4.73 | - 4.731 to – 10.6 | - 10.601 to – 51.46 | - 51.461 to < - 284.77 | Based on WWRA map numerical ranges |

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| --- | --- | --- | --- | --- | --- | --- |
| Fire Protection and Fire Structure Vulnerability | | | | | | |
| Characteristic  being  Rated | Low = 1 | Moderate = 2 | High = 3 | Extreme = 4 | | Comments |
| Protection District Structures to SQ miles coverage | > 1.6 | 1.6 to .40 value | .3999 to .08 | .0799 to 0 | | Calculations were based on the number of structures per square mile in rural protection jurisdictions. Communities without protection were given a 1.5 mile buffer then calculated for the number of structures per square mile. Rating is based on square miles divided by number of structures. |
| Structure  Protection  verse  No Protection |  | Full protection - Local Structure  Protection Available | Mixed Protection areas of both protected and non-protected | No Local Structural Protection exists for the area | | If full protection to all structures is occurring than a 2 rating was given;  If there is protection occurring for some, but not all than a 3 rating is assigned.  A 4 rating was given if there is no local structure protection. |
| Wildland Development Areas | 0 to -1.691651 | -1.691652 to  -2.374715 | -2.374716 to  -3.619995 | -3.619996 to  -9.000000 | | This is a relative measure of impact of fire on Wildland Development Areas. The greater the negative number the more negative impact from fire. Based on WWRA map. |
| Values Impacted Rating | No values exist within area, rarely do areas fall into this category. | Area supports basic Infrastructure such as home utilities, non-primary road systems. | Supports basic infrastructure, non-primary roads, and no more than one important infrastructure | Multiple important access roads, transmission lines, railroad, or a combination of them. | | This includes where people live only but not all structures  Infrastructure includes: powerlines, primary connecting road systems, gas lines, railroads. |
| Level of Community Preparedness | All properties have been treated for wildfire risk reduction. | 50 to 75% of the area is treated for wildfire risk reduction. | 25 to 50% of the area has been treated for wildfire risk reduction | 25% or less of the area has been treated for wildfire risk reduction | |  |
| Suppression  Difficulty  Rating | -1.50; Fast 0-25  Or  -3.19; Med 0-25 | -3.96; Fast 26-40 or  -4.49 ; Slow 0-25 or  -5.19 ; Med 26-40 | -6.16 ; Slow 26-40  -7.04 ; Fast 41-55  -7.64 ; Med 41-55  -8.06 ; Slow 41-55 | -8.54 ; Med 56-74 or  -8.74 ; Fast 56-74 or  -8.88 ; Med 75+ or  -8.91 ; Slow 56-74  -9.00 ; Slow/Fast 75+ | | Based on the difficulty and potentially the cost for a wildfire to be suppressed. How Slope and Fuel Models influences hand crew fireline production capabilities. The higher the negative number the more difficult for suppression. The more area near and around communities that are difficult to suppress the higher the rating. |
| WUI ZONE ATTRIBUTES NOT LISTED ABOVE | | | | | | |
| Fire Regime Condition Class (FRCC) | Locations such as Agriculture, water, urban, barren lands. | Fire Regime Condition Class I | Fire Regime Condition Class II | | Fire Regime Condition Class III | Based on the following references: Hann and Bunnell 2001; Hardy and others 2001; Schmidt and others 2002 |
| Fire Type | 0 = Not likely to burn | 1 – 3 ; Surface fire | 4 – 5; Passive Fire | | 6 – 8; Active Fire | WWRA 2014 |
| Canopy Base Height (CBH) | CBH of 12 foot or higher | CBH of 8 – 12 feet above ground | CBH of 5 – 7 feet above ground | | CBH of 5 foot or less above ground | Height is relative to average height of stand canopy above ground level. Has direct impact on torching trees, transition to crown fire, and spot fires. |

Figure Appendix E - 1. Scoring Criteria for attributes assessed for the development for establishing a numerical rating system in prioritizing fire management efforts on the ground.

**Scoring Results**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Communities  At Risk | Wildland Fire Potential | | | | | | |  | Fire Protection and Fire structure vulnerability | | | | | | |  |
| Fire  Occurrence | Flame Lengths | Rate of Fire Spread | Probability of Canopy Fire | Fire Threat | Fire Effects | Fire Risk | Sub Total Score | Protection - Structures to Sq. mile ratio | Protected verse  non-protected | Wildland Development Area | Values Impacted | Level of Community Preparedness | Suppression Difficulty | Sub Total Score | Grand Total |
| Anthony Lakes | 3/H | 4/E | 2/M | 4/E | 4/E | 2/M | 4/E | 23 | 3/H | 4/E | 2/M | 3/H | 4/E | 2/M | 18 | 41 |
| Blue Springs | 3/H | 2/M | 2/M | 4/E | 2/M | 1/L | 2/M | 16 | 4/E | 4/E | 1/L | 2/M | 2/M | 2/M | 15 | 30 |
| Camp Elkanah | 3/H | 2/M | 2/M | 1/L | 2/M | 2/M | 3/H | 15 | 3/H | 4/E | 1/L | 3/H | 4/E | 1/L | 16 | 31 |
| Cove | 3/H | 2/M | 2/M | 4/E | 4/E | 2/M | 4/E | 21 | 4/E | 2/M | 3/H | 2/M | 4/E | 3/H | 17 | 38 |
| Elgin, Palmer Junction | 2/M | 4/E | 2/M | 4/E | 2/M | 3/H | 3/H | 20 | 4/E | 2/M | 3/H | 4/E | 4/E | 2/M | 19 | 39 |
| Hilgard, Perry | 3H | 2/M | 2/M | 3/H | 4/E | 4/E | 4/E | 22 | 2/M | 4/E | 2/M | 4/E | 4/E | 3/H | 19 | 41 |
| Imbler, Summerville | 3/H | 4/E | 2/M | 4/E | 4/E | 3/H | 4/E | 24 | 3/H | 2/M | 3/H | 2/M | 4/E | 3/H | 17 | 41 |
| Island City, La Grande | 3/H | 2/M | 2/M | 1/L | 3/H | 4/E | 3/H | 18 | 4/E | 2/M | 4/E | 4/E | 4/E | 1/L | 19 | 37 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Communities  At Risk Issues | Wildland Fire Potential | | | | | | |  | Fire Protection and Fire structure vulnerability | | | | | |  |  |
| Fire Occurrence | Flame Length | Rate of Fire Spread | Probability of Canopy Fire | Fire Threat | Fire Effects | Fire Risk | Sub Total Score | Protection – Structures to Sq, Mile Ratio \*\* | Available Structure Protection \*\* | Wildland Development Areas | Values Impacted | Level of community Preparedness | Suppression Difficulty | Sub Total Score | Grand Total |
| Kamela | 3/H | 3/H | 2/M | 4/E | 1/L | 4/E | 3/H | 20 | 2/M | 4/E | 1/L | 3/H | 4/E | 2/M | 16 | 36 |
| Medical Springs | 1/L | 2/M | 2/M | 4/E | 2/M | 2/M | 3/H | 16 | 2/M | 2/M | 2/M | 2/M | 4/E | 2/M | 14 | 30 |
| Mount Emily  (mention MERA and recreation use) | 3/H | 4/E | 2/M | 4/E | 3/H | 2/M | 4/E | 22 | 3/H | 3/H | 3/H | 2/M | 4/E | 3/H | 18 | 40 |
| North Powder | 3/H | 2/M | 2/M | 2/M | 2/M | 2/M | 2/M | 15 | 2/M | 2/M | 2/M | 4/E | 4/E | 1/L | 15 | 30 |
| Spout Springs | 1/L | 4/E | 3/H | 4/E | 4/E | 4/E | 4/E | 24 | 3/H | 4/E | 2/M | 3/H | 4/E | 4/E | 20 | 44 |
| Union | 1/L | 2/M | 2/M | 1/L | 2/M | 2/M | 2/M | 12 | 3/H | 2/M | 3/H | 3/H | 4/E | 2/M | 17 | 28 |

Figure Appendix E - 2. Identified communities at risk and their corresponding attribute rankings. \*\* Does not have a corresponding map for this attribute.