|  |  |  |  |
| --- | --- | --- | --- |
| Incident Name: | **SQF Canyon** | Analysis Level: | **Critical Infrastructure** – Primary Assets Only |
| State(s): | **California** | FSPro Analysis Name: |  |
| RAVAR Requested:  Report Date: | **14 September 2010**  **15 September 2010** | FSPro Projected From: | **14 September 2010**  **7-day projection** |
| RAVAR Analyst: | Jon Rieck, RMRS  Missoula – 406.329.3425  [jrieck@fs.fed.us](mailto:jrieck@fs.fed.us) | FSPro Analyst: | Anne Birkholz  559.565.3704  Anne\_birkholz@nps.gov |
| RAVAR Code: | CI\_A\_20100915\_jr | ICS-209 Incident Number: | CA-SQF-3564 |

NOTE: This report accompanies a RAVAR analysis map.

**All RAVAR products are intended for STRATEGIC use only. It is always advised that values analyzed and displayed on RAVAR maps be verified by local knowledge.**

**FSPro Information:**

* Details relating to FSPro assumptions, including barrier files, can be found by choosing the ‘View Report’ tab while the FSPro analysis is selected on the WFDSS website or by contacting the FSPro Analyst listed above.
* NOTE: The < 1% spread probability zone is displayed on the map (pale pink zone), but assets within are not summarized. This zone represents “the rare event” – confidence in this prediction is undetermined.

**Critical Infrastructure Analysis – Primary Assets Only**

**General Assessment:**

* The Canyon Fire is burning **25** mi **NE** of Bakersfield on the Sequoia National Forest in Kern County California.
* ***Assuming no further suppression,*** the **7**-day fire spread projection indicates omni-directional growth with greater potential growth to the **E.**
* Communities threatened:
  + Havilah -  **1** mi **SE** of the mapped fire perimeter in the > 80% spread zone.
  + Miracle Hot Springs - **1** mi **N** of the mapped fire perimeter in the > 80% spread zone.
  + Bodfish - **3** mi **NE** of the mapped fire perimeter in the > 80% spread zone.
  + Keyesville - **5** mi **N** of the mapped fire perimeter in the 20-40% spread zone.
* Major Infrastructure:
  + Transportation Infrastructure:
    - State Hwy 178 runs **SW-NE** through all spread zones within the mapped perimeter.
    - County Hwy 483/Lake Isabella Blvd runs **N-S** through all spread zones **E** of the mapped perimeter.
  + Power Transmission lines: run **N-S** through all spread zones proximate to County Hwy 483 through all spread zones **E** of the mapped perimeter.
  + Oil & Gas Pipelines: *none identified per available data*
  + Communication Towers: numerous towers scattered throughout the spread zones.

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* Water Resources: *None identified per available data*
  + Water Supply Infrastructure:
    - Dams, Intakes, & Treatment Plants*:* 
      * Kern Diversion Dam located **3** mi **SW** and downstreamof the mapped fire perimeter in the 60-80% spread zone.
      * Isabella Dam located **5** mi **NE** and upstream of the mapped perimeter in the 20-40% spread zone.
      * Boreal Electric Power Plant located **7** mi **NE** of the mapped perimeter in the 5-20% spread zone.
      * Isabella Hyrdo Electric Power Plant located **7** mi **NE** of the mapped perimeter in the 5-20% spread zone.
    - Water Pipelines, Aqueducts, Canals: located **2** mi **W** and downstreamof the mapped fire perimeter throughout all spread zones.
* Other resources threatened:

*If high priority natural and cultural resource values are present, please defer to the protocols of your Geographic Area for reporting natural and cultural resources.*

* + Other resources identified in ICS-209 not otherwise reported: Structures in the Goff Ranch, Valley Vista and Bodfish Canyon areas as well as the Piute Cypress RNA.
  + Wild & Scenic Rivers – *None identified* *per available data*

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**Values assessed in this Report:**

**NOTE: Analysis of assets within the 80% Spread Probability Zone includes values-at-risk that may be within the active fire perimeter; any assets within the active perimeter are not independently analyzed.**

**Jurisdictions within FSPro Spread Zones (acres):** Area designated as “Private” may possibly be State or County; verify with local knowledge

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Jurisdiction** | **USFS - Total** | | **BLM** | | **DOD** | | **State** | | **Private** | |
| **FSPro Zone** | In Zone | Cum. | In Zone | Cum. | In Zone | Cum. | In Zone | Cum. | In Zone | Cum. |
| > 80% | 30,458 | 30,458 | 8,341 | 8,341 | 0 | 0 | 1 | 1 | 9,095 | 9,095 |
| 60 - 80 % | 7,748 | 38,206 | 2,661 | 11,001 | 0 | 0 | 0 | 1 | 1,621 | 10,715 |
| 40 - 60 % | 7,435 | 45,641 | 3,689 | 14,690 | 0 | 0 | 0 | 1 | 2,938 | 13,653 |
| 20 - 40 % | 6,372 | 52,013 | 4,910 | 19,600 | 0 | 0 | 0 | 1 | 4,319 | 17,972 |
| 5 - 20 % | 9,538 | 61,551 | 9,556 | 29,156 | 151 | 151 | 158 | 159 | 5,593 | 23,565 |
| 1 - 5 % | 29,525 | 91,076 | 7,472 | 36,628 | 54 | 205 | 0 | 159 | 16,937 | 40,501 |

**Designated Roadless and Wilderness Areas (acres):** These acres are subtotals of the Federal (USFS/DOI) jurisdiction acres

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Jurisdiction** | **USFS - IRA** | | **USFS - RNA** | | **Wilderness Areas** | | **BLM - Wilderness Study Areas** | |
| **FSPro Zone** | In Zone | Cum. | In Zone | Cum. | In Zone | Cum. | In Zone | Cum. |
| > 80% | 21,074 | 21,074 | 0 | 0 | 0 | 0 | 2,499 | 2,499 |
| 60 - 80 % | 5,911 | 26,985 | 0 | 0 | 0 | 0 | 1,003 | 3,502 |
| 40 - 60 % | 5,816 | 32,801 | 0 | 0 | 0 | 0 | 1,183 | 4,685 |
| 20 - 40 % | 4,115 | 36,917 | 0 | 0 | 0 | 0 | 424 | 5,108 |
| 5 - 20 % | 6,299 | 43,215 | 0 | 0 | 0 | 0 | 0 | 5,108 |
| 1 - 5 % | 19,596 | 62,811 | 145 | 145 | 0 | 0 | 0 | 5,108 |

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**Estimates of Structure Values at Risk:** Estimate is derived from analysis of Kern County data; count represents building cluster points\*.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Acres Threatened** | | **Kern County** | | | |
| **Fire Spread Probability Zone** | **Acres by Zone** | **Cumulative Acres** | **Count by Zone** | **Cumulative Count** | **Value by Zone** | **Cumulative Value** |
| > 80% | 47,894 | 47,894 | 290 | 290 | $43,399,080 | $43,399,080 |
| 60 - 80 % | 12,029 | 59,923 | 215 | 505 | $32,175,180 | $75,574,260 |
| 40 - 60 % | 14,062 | 73,985 | 289 | 794 | $43,249,428 | $118,823,688 |
| 20 - 40 % | 15,602 | 89,586 | 208 | 1,002 | $31,127,616 | $149,951,304 |
| 5 - 20 % | 24,995 | 114,582 | 297 | 1,299 | $44,446,644 | $194,397,948 |
| 1 - 5 % | 53,989 | 168,571 | 794 | 2,093 | $118,823,688 | $313,221,636 |
| **Expected Value (without suppression):** | | 67,980 |  | 679 |  | $101,665,338 |

**NOTE: Expected Value = Sum of each Value by zone × Probability of Fire Spread within**

\* Building Cluster Points approximate the location of one or more structures. Most building cluster points represent the center of parcels where county assessor records indicate taxable improvements are present, but may also represent structure point locations identified by county officials. Location accuracy of cluster points decreases with large parcel areas. **Building Clusters points are intended for STRATEGIC USE ONLY. It is always advised that specific structure location be verified by local knowledge.**  Valuation of building cluster points is based on inflation adjusted average home value of $149,652 for Kern County per U.S. Census data. Commercial assets may be undervalued.

|  |  |  |
| --- | --- | --- |
|  | **USFS Structures** | |
| **Fire Spread Probability Zone** | **Count by Zone** | **Cumulative Count** |
| > 80% | 3 | 3 |
| 60 - 80 % | 0 | 3 |
| 40 - 60 % | 0 | 3 |
| 20 - 40 % | 0 | 3 |
| 5 - 20 % | 1 | 4 |
| 1 - 5 % | 0 | 4 |
| **Expected Value(without suppression):** | | 3 |

|  |  |  |
| --- | --- | --- |
|  | **BLM Structures** | |
| **Fire Spread Probability Zone** | **Count by Zone** | **Cumulative Count** |
| > 80% | 0 | 0 |
| 60 - 80 % | 0 | 0 |
| 40 - 60 % | 0 | 0 |
| 20 - 40 % | 0 | 0 |
| 5 - 20 % | 5 | 5 |
| 1 - 5 % | 0 | 5 |
| **Expected Value (without suppression):** | | 1 |

**\*\*\*\* *Report continues on next page \*\*\*\****

**Communication Towers:**

|  |  |  |
| --- | --- | --- |
| **Communication Towers** | | |
| **FSPro Zone** | In Zone | Cum. |
| > 80% | 0 | 0 |
| 60 - 80 % | 3 | 3 |
| 40 - 60 % | 0 | 3 |
| 20 - 40 % | 0 | 3 |
| 5 - 20 % | 27 | 30 |
| 1 - 5 % | 3 | 33 |

**Power Transmission Lines (mi):**

|  |  |  |
| --- | --- | --- |
| **Power Transmission Lines (mi)** | | |
| **FSPro Zone** | In Zone | Cum. |
| > 80% | 8.0 | 8.0 |
| 60 - 80 % | 0.8 | 8.7 |
| 40 - 60 % | 1.3 | 10.1 |
| 20 - 40 % | 1.1 | 11.1 |
| 5 - 20 % | 3.6 | 14.8 |
| 1 - 5 % | 6.3 | 21.0 |

**Dams – Supply and Other:**

|  |  |  |
| --- | --- | --- |
| **Dams - Supply and Other** | | |
| **FSPro Zone** | In Zone | Cum. |
| > 80% | 0 | 0 |
| 60 - 80 % | 1 | 1 |
| 40 - 60 % | 0 | 1 |
| 20 - 40 % | 0 | 1 |
| 5 - 20 % | 1 | 2 |
| 1 - 5 % | 0 | 2 |

**\*\*\*\* *Report continues on next page \*\*\*\****

**Water Pipelines & Aquaducts (mi):**

|  |  |  |
| --- | --- | --- |
| **Water Pipelines & Aquaducts (mi)** | | |
| **FSPro Zone** | In Zone | Cum. |
| > 80% | 0.8 | 0.8 |
| 60 - 80 % | 0.5 | 1.3 |
| 40 - 60 % | 0 | 1.3 |
| 20 - 40 % | 0.0 | 1.3 |
| 5 - 20 % | 5.4 | 6.7 |
| 1 - 5 % | 6.8 | 13.5 |

**Other Landmarks:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **OTHER LANDMARKS** | **Count** | **FSPro Zone** |  | **OTHER LANDMARKS** | **Count** | **FSPro Zone** |
| Borel Powerhouse | 1 | > 80 % |  | Smith Ranch | 1 | 5 - 20 % |
| Camp or campsite | 1 | > 80 % |  | Auxiliary Dam Campground | 1 | 1 - 5 % |
| Goff Ranch | 1 | > 80 % |  | Brady Ranch | 1 | 1 - 5 % |
| Havilah Forest Service Station | 1 | > 80 % |  | Browns Mill | 1 | 1 - 5 % |
| Hobo Campground | 1 | > 80 % |  | Camp - Non-FS | 1 | 1 - 5 % |
| Hobo Forest Service Station | 1 | > 80 % |  | Cannon Ranch | 1 | 1 - 5 % |
| Myers Ranch | 1 | > 80 % |  | Davis Campground | 1 | 1 - 5 % |
| Arch Site - Ruins | 1 | 60 - 80 % |  | Davis Forest Service Station | 1 | 1 - 5 % |
| Democrat Hot Springs | 1 | 60 - 80 % |  | Democrat Fire Station | 1 | 1 - 5 % |
| Double S Ranch | 1 | 60 - 80 % |  | Democrat Guard Station (histor | 1 | 1 - 5 % |
| Harrington Ranch | 1 | 60 - 80 % |  | Faust Mill | 1 | 1 - 5 % |
| Juniper Hills Country Club | 1 | 60 - 80 % |  | French Gulch Lake Patrol Station | 1 | 1 - 5 % |
| Lazells Ranch | 2 | 60 - 80 % |  | Kern Valley Marina | 1 | 1 - 5 % |
| Arch Site - Ruins | 1 | 40 - 60 % |  | Kissack Cove Boat Ramp | 1 | 1 - 5 % |
| Knox Ranch | 2 | 40 - 60 % |  | Lower Richbar Campground | 1 | 1 - 5 % |
| Arch Site - Ruins | 2 | 20 - 40 % |  | Paradise Cove Campground | 1 | 1 - 5 % |
| Peterson Landmark Object | 1 | 20 - 40 % |  | Picnic Area - FS | 2 | 1 - 5 % |
| Arch Site - Ruins | 1 | 5 - 20 % |  | Pioneer Point Campground | 1 | 1 - 5 % |
| Cook Peak Lookout | 1 | 5 - 20 % |  | Richbar Guard Station | 1 | 1 - 5 % |
| Flood Ranch | 1 | 5 - 20 % |  | South Fork Picnic Area | 1 | 1 - 5 % |
| KERN RIVER-KEYSVILLE | 1 | 5 - 20 % |  | Tungsten Chief Mill (historica | 1 | 1 - 5 % |
| KEYSVILLE CAMPING UNITS | 1 | 5 - 20 % |  |  |  |  |
| Liebel Ranch | 1 | 5 - 20 % |  |  |  |  |
| Main Dam Campground | 1 | 5 - 20 % |  |  |  |  |
| Russell Ranch | 1 | 5 - 20 % |  |  |  |  |
| Shead Ranch | 2 | 5 - 20 % |  |  |  |  |
| Slippery Rock Picnic Area | 1 | 5 - 20 % |  |  |  |  |

**END OF REPORT**