

##### PRESCRIBED FIRE COMPLEXITY RATING WORKSHEET

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| --- | --- | --- | --- | --- | --- | --- |
| Site: |  | | Unit: |  | State: |  |
| Planning Assessment | | | | Day of Burn Assessment | | |
| Rating (circle) Low Moderate High | | by:  (date) | | Rating (circle) Low Moderate High | by:  (date) | |

Weighting factor X complexity Value = total points. Sum of total points = Complexity Score

Complexity Score Values: Low: 40 - 90 Moderate: 91 – 140High:141 – 200

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | *Planning Assessment* | | | *Day of Burn Assessment* | | |
| Complexity element | Weighting factor | Complexity value | Total  Points | Mitigation Measures | Complexity value | Total  Points | Mitigation Measures |
| *1. Safety* | 5 |  |  |  |  |  |  |
| *2. Threats to unit boundaries* | 5 |  |  |  |  |  |  |
| *3. Fuels and fire behavior* | 5 |  |  |  |  |  |  |
| *4. Objectives* | 4 |  |  |  |  |  |  |
| Sub Total | | |  |  | |  |  |

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|  | | Planning Assessment | | | *Day of Burn Assessment* | | |
| Complexity element | Weighting factor | Complexity value | Total  Points | Mitigation Measures | Complexity value | Total  Points | Mitigation Measures |
| *5. Management organization* | 4 |  |  |  |  |  |  |
| *6. Wildland / urban Interface* | 3 |  |  |  |  |  |  |
| *7. Natural, cultural, social values* | 3 |  |  |  |  |  |  |
| *8. Air quality values* | 3 |  |  |  |  |  |  |
| *9. Logistics* | 2 |  |  |  |  |  |  |
| *10. Tactical operations* | 2 |  |  |  |  |  |  |
| *11. Cooperator*  *coordination* | 1 |  |  |  |  |  |  |
|  | Sub total | Page 1 |  |  | Page 1 |  |  |
| Page 2 |  | Page 2 |  |
| **Complexity Score**  (circle rating at top of page 1) |  | |  |  | |  |  |

Prescribed Fire Complexity Rating Worksheet Numeric Rating Guide

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| --- | --- | --- | --- | --- |
| COMPLEXITY ELEMENT | Complexity Value | | | |
| 1 | 3 | | 5 |
| *1. Safety* | Safety issues are easily identifiable and mitigated | 1. Number of significant issues have been identified  * All safety hazards have been identified on the LCES worksheet (ICS 215) and mitigated | | 1. SOF1 or SOF2 required 2. Complex safety issues exist |
| *2. Threats to unit boundaries* | 1. Low threat to boundaries 2. POI<50% 3. Boundaries naturally defensible | 1. Moderate threat to boundaries 2. 50<POI<70% 3. Moderate risk of slopover or spot fires  * Boundaries need mitigation actions for support to strengthen fuel breaks, lines, etc. | | 1. High threat to boundaries 2. POI>70% 3. High risk of slopover or spot fires 4. Mitigation actions necessary to compensate for continuous fuels |
| *3. Fuels/Fire Behavior* | 1. Low variability in slope & aspect 2. Weather uniform and predictable 3. Surface fuels (grass, needles) only 4. Grass/shrub, or early seral forest communities 5. Short duration fire 6. No drought indicated | 1. Moderate variability in slope & aspect 2. Weather variable but predictable 3. Ladder fuels and torching 4. Fuel types/loads variable 5. Dense, tall shrub or mid-seral forest communities 6. Moderate duration fire 7. Drought index indicates normal conditions to moderate drought; expected to worsen | | 1. High variability in slope & aspect 2. Weather variable and difficult to predict 3. Extreme fire behavior 4. Fuel types/loads highly variable 5. Late seral forest communities or long-return interval fire regimes 6. Altered fire regime, hazardous fuel /stand density conditions 7. Potentially long duration fire 8. Drought index indicates severe drought; expected to continue |
| *4. Objectives* | 1. Maintenance objectives 2. Prescriptions broad 3. Easily achieved objectives | 1. Restoration objectives 2. Reduction of both live and dead fuels 3. Moderate to substantial changes in two or more strata of vegetation 4. Objectives judged to be moderately hard to achieve 5. Objectives may require moderately intense fire behavior | | 1. Restoration objectives in altered fuel situations 2. Precise treatment of fuels and multiple ecological objectives 3. Major change in the structure of 2 or more vegetative strata 4. Conflicts between objectives and constraints  * Requires a high intensity fire or a combination of fire intensities that is difficult to achieve |
| COMPLEXITY ELEMENT | Complexity Value | | | |
| 1 | 3 | 5 | |
| *5. Management Organization* | 1. Span of control held to 3 2. Single resource incident or project | 1. Span of control held to 4 2. Multiple resource incident or project 3. Short-term commitment of specialized resources | 1. Span of control greater than 4 2. Multiple branch, divisions or groups 3. Specialized resources needed to accomplish objectives 4. Organized management team (FUMT, IMT) | |
| *6. Wildland / urban Interface* | 1. No risk to people or property within or adjacent to fire | 1. Several values to be protected 2. Mitigation through planning and/or preparations is adequate 3. May require some commitment of specialized resources | 1. Numerous values and/or high values to be protected 2. Severe damage likely without significant commitment of specialized resources with appropriate skill levels | |
| *7. Natural, Cultural, and Social Values to be Protected* | 1. No risk to natural, cultural, and/or social resources within or adjacent to fire | 1. Several values to be protected 2. Mitigation through planning and/or preparations is adequate 3. May require some commitment of specialized resources | 1. Numerous values and/or high values to be protected 2. Severe damage likely without significant commitment of specialized resources with appropriate skill levels | |
| *8. Air Quality Values to be Protected* | 1. Few smoke sensitive areas near fire 2. Smoke produced for less than 1 burning period 3. Air quality agencies generally require only initial notification and/or permitting 4. No potential for scheduling conflicts with cooperators | 1. Multiple smoke sensitive areas, but smoke impact mitigated in plan 2. Smoke produced for 2-4 burning periods 3. Daily burning bans are sometimes enacted during the burn season 4. Infrequent consultation with air quality agencies is needed 5. Low potential for scheduling conflicts with cooperators | 1. Multiple smoke sensitive areas with complex mitigation actions required 2. Health or visibility complaints likely 3. Smoke produced for greater than 4 burning periods 4. Multi-day burning bans are often enacted during the burn season 5. Smoke sensitive class 1 airsheds 6. Violation of state and federal health standards possible 7. Frequent consultation with air quality agencies is needed 8. High potential for scheduling conflicts with cooperators | |

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| COMPLEXITY ELEMENT | Complexity Value | | |
| 1 | 3 | 5 |
| *9. Logistics* | 1. Easy access 2. Duration of fire support is less than 4 days | 1. Difficult access 2. Duration of fire support between 4 and 10 days 3. Logistical position assigned 4. Anticipated difficulty in obtaining resources | 1. No vehicle access 2. Duration of support is greater than 10 days 3. Multiple logistical positions assigned 4. Remote camps and support necessary |
| *10. Tactical Operations* | 1. No ignition or simple ignition patterns 2. Single ignition method used 3. Holding requirements minimal | 1. Multiple firing methods and/or sequences 2. Use of specialized ignition methods (i.e. terra-torch, Premo Mark III) 3. Resources required for up to one week 4. Holding actions to check, direct, or delay fire spread | 1. Complex firing patterns highly dependent upon local conditions 2. Simultaneous use of multiple firing methods and/or sequences 3. Simultaneous ground and aerial ignition 4. Use of heli-torch 5. Resources required for over 1 week 6. Multiple mitigation actions at variable temporal and spatial points identified. Success of actions critical to accomplishment of objectives 7. Aerial support for mitigation actions desirable/necessary |
| *11. Cooperator Coordination* | 1. Cooperators not involved in operations 2. No concerns | 1. Simple joint-jurisdiction fires 2. Some competition for resources 3. Some concerns | 1. Complex multi-jurisdictional fires 2. High competition for resources 3. High concerns |