Appendix E
Wildland Fire Risk and Complexity Assessment

The Wildland Fire Risk and Complexity Assessment should be used to evaluate firefighter safety issues, assess risk, and identify the appropriate incident management organization. Determining incident complexity is a subjective process based on examining a combination of indicators or factors. An incident's complexity can change over time; incident managers should periodically re-evaluate incident complexity to ensure that the incident is managed properly with the right resources.

Instructions:
Incident Commanders should complete Part A and Part B and relay this information to the Agency Administrator. If the fire exceeds initial attack or will be managed to accomplish resource management objectives, Incident Commanders should also complete Part C and provide the information to the Agency Administrator.

Part A: Firefighter Safety Assessment

Evaluate the following items, mitigate as necessary, and note any concerns, mitigations, or other information.

Evaluate these items	Concerns/Mitigations/Notes
LCES	
Fire Orders and Watch Out Situations	
Multiple operational periods have occurred without achieving initial objectives.	
Incident personnel are overextended mentally and/or physically and are affected by cumulative fatigue.	
Communication is ineffective with tactical resources and/or dispatch.	
Operations are at the limit of span of control.	
Aviation operations are complex and/or aviation oversight is lacking.	
Logistical support for the incident is inadequate or difficult.	

Part B: Relative Risk Assessment

Values				Notes/Mitigation
B1. Infrastructure/Natural/Cultural Concerns **Based on the number and kinds of values to be protected, and the difficulty to protect them, rank this element low, moderate, or high.** Considerations: key resources potentially affected by the fire such as urban interface, structures, critical municipal watershed, commercial timber, developments, recreational facilities, power/pipelines, communication sites, highways, potential for evacuation, unique natural resources, designated areas (i.e., wilderness), T&E species habitat, and cultural sites.	L	M	H	
B2. Proximity and Threat of Fire to Values **Evaluate the potential threat to values based on their proximity to the fire, and rank this element low, moderate, or high.**	L Far	M	H Near	
B3. Social/Economic Concerns **Evaluate the potential impacts of the fire to social and/or economic concerns, and rank this element low, moderate, or high.** Considerations: impacts to social or economic concerns of an individual, business, community or other stakeholder; degree of support for the wildland fire program and resulting fire effects; other fire management jurisdictions; tribal subsistence or gathering of natural resources; air quality regulatory requirements; public tolerance of smoke, including health impacts; potential for evacuation and ingress/egress routes; and restrictions and/or closures in effect or being considered.	L	M	H	
Hazards				**Notes/Mitigation**
B4. Fuel Conditions **Consider fuel conditions ahead of the fire and rank this element low, moderate, or high.** Evaluate fuel conditions that exhibit high ROS and intensity for your area, such as those caused by invasive species or insect/disease outbreaks; and/or continuity of fuels.	L	M	H	
B5. Fire Behavior **Evaluate the current and expected fire behavior and rank this element low, moderate, or high.** Considerations: intensity; rates of spread; crowning; profuse or long-range spotting.	L	M	H	
B6. Potential Fire Growth **Evaluate the potential fire growth, and rank this element low, moderate, or high.** Considerations: Considerations would include current and expected fire growth based on fire behavior analysis and the weather forecast and/or the ability to control the fire.	L	M	H	

Probability				Notes/Mitigation
B7. Time of Season **Evaluate the potential for a long-duration fire and rank this element low, moderate, or high.** Considerations: time remaining until a season ending event.	**L** Late	**M** Mid	**H** Early	
B8. Barriers to Fire Spread **Evaluate the barriers to fire spread and their potential to limit fire growth, and rank this element low, moderate, or high.** Considerations: If many natural and/or human-made barriers are present, rank this element low. If some barriers are present, rank this element moderate. If no barriers are present, rank this element high.	**L** Many	**M**	**H** Few	
B9. Seasonal Severity **Evaluate fire danger indices and rank this element low/moderate, high, or very high/extreme.** Considerations: Fire danger indices such as energy release component (ERC); drought status; live and dead fuel moistures; fire danger indices; adjective fire danger rating; geographic area preparedness level.	**L/M**	**H**	**VH/ E**	
Enter the number of items circled for each column.				

Relative Risk Rating (circle one):

Low	Majority of items are "Low" with a few items rated as "Moderate" and/or "High."
Moderate	Majority of items are "Moderate" with a few items rated as "Low" and/or "High."
High	Majority of items are "High." A few items may be rated as ""Low" or "Moderate."

Part C: Organization

Relative Risk Rating (from Part B)					
Circle the Relative Risk Rating (from Part B)		L	M	H	
Implementation Difficulty					**Notes/Mitigation**
C1. Potential Fire Duration **Evaluate the estimated length of time that the fire may continue to burn if no action is taken and amount of season remaining. Rank this element low, moderate, or high.** Note: This will vary by geographic area.	**N/A** Very Short	**L** Short	**M**	**H** Long	
C2. Incident Strategies (Course of Action) **Evaluate the level of risk to firefighters and aviators required to successfully meet the current strategy and implement the course of action. Rank this element as very low, low, moderate, or high.** Consider the likelihood that the strategy will be successful, the risks to firefighters and aviators; and whether there are clearly defined trigger points.	**Very Low**	**L**	**M**	**H**	
C3. Functional Concerns **Evaluate the need to increase organizational structure to adequately and safely manage the incident, and rank this element very low (minimal resources committed), low (adequate), moderate (some additional support needed), or high (current capability inadequate).** Considerations: Incident management functions (logistics, finance, operations, information, planning, safety, and/or specialized personnel/equipment) are inadequate and needed; availability of resources; access to EMS support; heavy commitment of local resources to logistical support; ability of local businesses to sustain logistical support; substantial air operation which is not properly staffed; worked multiple operational periods without achieving initial objectives; incident personnel overextended mentally and/or physically; Incident Action Plans, briefings, etc. missing or incomplete; performance of firefighting resources affected by cumulative fatigue; and ineffective communications.	**Very Low**	**L**	**M**	**H**	

Socio/Political Concerns					Notes/Mitigation
C4. Objective Concerns **Evaluate the complexity of the incident objectives and rank this element very low, low, moderate, or high.** Considerations: clarity; ability of current organization to accomplish; disagreement among cooperators; tactical/operational restrictions; complex objectives involving multiple focuses; objectives influenced by serious accidents or fatalities.	**Very Low**	**L**	**M**	**H**	
C5. External Influences **Evaluate the effect external influences will have on how the fire is managed and rank this element very low, low, moderate, or high.** Considerations: limited local resources available for initial attack; increasing media involvement, social/print/television media interest; controversial fire policy; threat to safety of visitors from fire and related operations; restrictions and/or closures in effect or being considered; pre-existing controversies/ relationships; smoke management problems; sensitive political concerns/interests.	**Very Low**	**L**	**M**	**H**	
C6. Ownership Concerns **Evaluate the effect ownership/jurisdiction will have on how the fire is managed and rank this element very low, low, moderate, or high.** Considerations: disagreements over policy, responsibility, and/or management response; fire burning or threatening more than one jurisdiction; potential for unified command; different or conflicting management objectives; potential for claims (damages); disputes over suppression responsibility.	**Very Low**	**L**	**M**	**H**	
Enter the number of items circled for each column.					

Part C: Organization (continued)

Recommended Organization (circle one):

Type 5	Majority of items rated as "Very Low"; a few items may be rated in other categories.
Type 4	Majority of items rated as "Low," with some items rated as "Very Low," and a few items rated as "Moderate" or "High."
Type 3	Majority of items rated as "Moderate," with a few items rated in other categories.
Type 2	Majority of items rated as "Moderate," with a few items rated as "High."
Type 1	Majority of items rated as "High"; a few items may be rated in other categories.

Rationale:

Use this section to document the incident management organization for the fire. If the incident management organization is different than the Wildland Fire Risk and Complexity Assessment recommends, document why an alternative organization was selected. Use the "Notes/Mitigation" column to address mitigation actions for a specific element, and include these mitigations in the rationale.

Name of Incident: _____   Unit(s): _____

Date/Time: _____   Signature of Preparer: _____

The RCA is also available at https://www.nwcg.gov/publications/210.