

# Appendix A

## Complexity Analysis Guide

### Introduction

An integral part of IFPM is the unit complexity analysis. Upon implementation of IFPM in 2004, all federal wildland fire management agencies were required to complete a unit complexity analysis. For some positions, the level of IFPM Qualification Standards and series was based on the unit's complexity rating. A rating of low, moderate or high was assigned for each unit, with higher qualification standards for more complex units. The following IFPM positions are based on unit complexity.

- Unit Fire Program Manager
- Wildland Fire Operations Specialist
- Prescribed Fire and Fuels Specialist
- Center Manager

Complexity is evaluated based upon the area of responsibility (geographic or otherwise) for the unit being rated. For example, in the Lower Colorado River, BIA, FWS, and BLM share fire management responsibilities. All provide fire management resources, but the BLM provides program management oversight, i.e. the BLM fire program manager reports to the three agency administrators. So, when the three agencies evaluate their respective programs, BLM's area of responsibility would be greater than the other two agencies'.

Determination of program complexity in turn determines the complexity of the Unit Fire Program Manager's position. It does NOT necessarily determine the complexity of subordinate positions that have variable complexity, such as the Prescribed Fire/Fuels Specialist, and Wildland Fire Operations Specialist. Those complexities are determined by the relative complexity of that sub-program within the overall fire management program. The appropriate complexity elements identified in the Complexity Descriptors may assist in making those determinations, but in and of themselves may not be the sole determinants, if, for example other fire duties are included in a Specialist's position description.

**For purposes of this implementation plan, at the program management level a unit is considered to be:**

- Bureau of Indian Affairs - Tribe/Agency
- Bureau of Land Management - District/Field Office
- Fish and Wildlife Service – District /Zone or Refuge
- National Park Service - Park or Area
- Forest Service - Forest/District or Zone

## **Geographic areas are considered to be:**

- Forest Service, Fish and Wildlife Service, National Park Service - Regional
- Bureau of Land Management - State
- Bureau of Indian Affairs – Region

Unit Fire Program Managers assigned to support more than one unit should complete just one complexity analysis covering all units under their responsibility, not a separate complexity analysis for each unit.

## **Guidance for Re-analysis of the Unit's Complexity Rating**

### **Step 1: Establish the need for a re-analysis of the unit's complexity rating**

Changes to a unit's complexity rating can be made at any time. The need for re-analysis may be generated at the local unit level, or from regional or state-level direction. Possible reasons for a re-analysis include, but are not limited to:

- Changes in protection area that increase or decrease a unit's responsibility for providing fire protection.
- The combining of multiple units into an interagency zone or organization
- Addition or subtraction of key components to a unit's fire management program.

Changes to key elements of a fire management program should be "programmatic" and long term, and not adjustments to respond to a temporary arrangement.

### **Step 2: Complete the new complexity analysis**

The unit fire program manager and staff should complete a new complexity analysis, reflecting programmatic changes in the new analysis. The results should then be reviewed at the regional or state level for concurrence. Refer to Appendix B of the IFPM Implementation Plan for agency specific instructions in completing the IFPM Complexity Analysis.

### **Step 3: Review Unit Position Identification Worksheet**

Once the new complexity rating has been determined, fire managers should review their Unit Position Identification Worksheet and update any changes to the minimum qualification standards (MQS) or positive education requirements for the four fire management positions that are dependent on complexity. Refer to the IFPM Standards for description of NWCG qualifications and additional required training for each position at different complexity levels. A copy of the updated Unit Position Identification Worksheet should be provided to the units servicing Human Resource Office and Geographic Fire Program Manager for reference purposes.

#### **Step 4: Determination of Qualification**

If the new complexity rating resulted in changes to an employee's MQS, a new incumbent declaration should be completed and routed to the unit's servicing Human Resource Office. If the employee meets the new MQS, they should be notified in writing of the qualification determination. Refer to Appendix E of the IFPM Implementation Plan for employee notification templates.

Employees that do not meet the new MQS will be required to work with their servicing Human Resources Officer, and Unit Fire Program Manager/Line Officer to develop an IDP with definite timelines to for the employee to meet minimum qualification standard for their position. Once the employee meets their new MQS, they should resubmit the incumbent declaration and be notified in writing of the qualification determination by their servicing Human Resource Office.

#### **Unit Responsibilities**

Each Fire Program Manager at the unit level will complete the Unit Complexity Analysis for all units under their responsibility. The *IFPM Guide*, instructions, supporting documents and worksheet to complete the analysis can also be found on the Internet at: [http://www.nifc.gov/training\\_qual/IFPM/ifpm.htm](http://www.nifc.gov/training_qual/IFPM/ifpm.htm).

The Unit Fire Program Manager is the lead for completing the unit's complexity analysis. It is recommended that additional fire staff be included/consulted when completing the analysis. Unit Fire Program Managers assigned to support more than one unit should complete just one complexity analysis covering all units under their responsibility, not a separate complexity analysis for each unit.

#### **Regional/State Responsibilities**

The Geographic Area Fire Program Manager (GFPM) is responsible for reviewing and leveling the complexity analysis from each unit, to ensure that no glaring errors or discrepancies exist, and that each unit's score is realistic in comparison with other adjacent units.

Individual complexity analysis ratings (high, moderate or low) should be sent to each region's servicing Human Resource Office, with a copy to the Geographic Area Fire Manager.

#### **National Responsibilities**

The National Fire Program manager will receive and review all revised complexity analysis ratings (high, moderate or low) for each fire program management unit from all the regions, and maintain a spreadsheet for analysis and review. The objective of the national level review is to ensure that the complexity analysis has been applied consistently across the regions. The

National Office will also assist in IDP's for employees who fail to meet NWCG qualification standards as a result of the unit complexity change.

## COMPLEXITY ANALYSIS GUIDE

Program Activities - Wildland Fire Management, Prescribed Fire Management, Fuels Management, Prevention (must have approved plan), Preparedness, Aviation, Interagency Operations.

<b>Element</b>	<b>Sub-Element</b>	<b>Rule of Thumb</b>
Program Management	Fire Season	<ul style="list-style-type: none"> <li>• Must have a prescribed fire program to get credit for overlap season.</li> <li>• Permanent full time FMO may rate a “2” if there are no overlapping seasons and season is less than six months.</li> <li>• Season length is the total of prescribed and wildland fire seasons.</li> </ul>
	Budget	<ul style="list-style-type: none"> <li>• Two Program Activities is at least a “3” score.</li> </ul>
	Logistics	<ul style="list-style-type: none"> <li>• Accessibility should be based upon “where fire risk exists that requires IA response.”</li> <li>• Programs managed by other agencies score “low” for logistics (1 or 2).</li> <li>• Remote station is defined as being a satellite station, e.g., guard station, outstation, etc.</li> </ul>
	Workforce Management	<ul style="list-style-type: none"> <li>• Assumes unit fire program manager is being evaluated (supervisor).</li> <li>• First line supervision refers to permanents or furlough positions.</li> <li>• Temporary employees refers to seasonal positions.</li> <li>• If union is not present ignore this factor.</li> </ul>
	Program Objectives	<ul style="list-style-type: none"> <li>• “Internally controversial” implies within the home unit; “externally controversial” is outside home unit.</li> <li>• This sub-element is specific to fire program objectives.</li> </ul>
	Planning	<ul style="list-style-type: none"> <li>• There are no rules of thumb for this sub-element.</li> </ul>
	Contracts	<ul style="list-style-type: none"> <li>• Contract means the unit retains contract oversight responsibilities (COTR, reviews, etc.).</li> </ul>
	Agreements, Cooperators	<ul style="list-style-type: none"> <li>• Contract vs. MOA: Money up front vs. reimbursement.</li> <li>• Contracted services handled in previous sub-element.</li> </ul>

Element	Sub-Element	Rule of Thumb
		<ul style="list-style-type: none"> <li>• MOU means no exchange of funds.</li> </ul>
	Multi-unit	<ul style="list-style-type: none"> <li>• Responsibility is assumed to mean management of the land, which would also include IA responsibility.</li> <li>• Jurisdiction = Determined by governmental authority; Unit = determined by geographic boundary.</li> <li>• Applies to lands for which you are responsible for primary initial attack.</li> <li>• Single jurisdiction, single unit means 1 parcel and 1 owner.</li> <li>• Single jurisdiction, multiple unit means fragmented parcels by one governing body.</li> <li>• Multiple jurisdiction, multiple unit means many owners and many parcels.</li> <li>• Multiple jurisdiction, single unit means one parcel with multiple governing bodies.</li> </ul>
	Socio-Political-Economic	<ul style="list-style-type: none"> <li>• Internal implies within the home unit; external is outside home unit.</li> <li>• Include impact of local AD and seasonal hires in last factor.</li> </ul>
Preparedness	Training & Qualifications	<ul style="list-style-type: none"> <li>• Unit personnel are defined as red-carded individuals only.</li> </ul>
	IA Dispatch Office	<ul style="list-style-type: none"> <li>• There are no rules of thumb for this sub-element.</li> </ul>
	Caches	<ul style="list-style-type: none"> <li>• This should also include consideration for EFF.</li> </ul>
	Support To Other Units	<ul style="list-style-type: none"> <li>• Interagency Coordination/Dispatch Center refers to local dispatch, not a GACC.</li> <li>• Support means provides funds/FTE. Hosts means shop located on unit.</li> <li>• Retardant base includes air tankers and SEATS.</li> </ul>
	Fuels for Fire Danger	<ul style="list-style-type: none"> <li>• Visitation means human-caused ignitions.</li> <li>• "Management activity fuels prevalent with limited mitigation controls" implies persistent high hazard conditions exist because slash treatment cannot or has not been done.</li> <li>• Units not using BI should use an equivalent index and percentiles.</li> <li>• BI values, or equivalent index, should be based upon average for the planning period.</li> </ul>

Element	Sub-Element	Rule of Thumb
	Fire Resource Modules	<ul style="list-style-type: none"> <li>• To receive credit for modules, they must be funded by the unit with regular recurring dollars. Does not include CWN or rarely used resources.</li> <li>• MEL includes everything identified in the budget planning analysis process, plus extended attack modules and support functions (see Guiding Principle #15).</li> <li>• EFF crews should be the number of crews used on an average local extended/initial attack/mop-up incident, not the number of crews identified in the GACC roster.</li> <li>• For NPS include positions on Firepro staffing deficiency list</li> </ul>
Program Interdependence	Consequences of Outcome	<ul style="list-style-type: none"> <li>• Consider diversity (# of program activities), overlap of program activities, skills (likeness or uniqueness) and impact (success or failure).</li> <li>• Program activity “Interagency Operations” is not analyzed in this element. Element is looking at internal program interdependence.</li> <li>• If a unit has 6 of the activities, consider a score of “5.”</li> <li>• If the unit has 3 or fewer program activities, consider a score of “2” or less.</li> <li>• If a unit has 4 to 5 of the program activities, consider a score of “3” or “4.”</li> <li>• This is the only element that is not looking at the current consequences/situation. It addresses consideration for future, possible consequences of additional program activities could have (prevention could reduce occurrence, but not experiencing this now.)</li> </ul>
Land Management Base	Total Acres	<ul style="list-style-type: none"> <li>• Consider total protection acreage, not all land within boundary.</li> <li>• Areas not managed by the unit should not be included.</li> <li>• Response time should be evaluated by traveling on roads.</li> </ul>
	Ownership	<ul style="list-style-type: none"> <li>• Responsibility is assumed to mean management of the land, which would also include IA responsibility.</li> </ul>

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		<ul style="list-style-type: none"> <li>• Jurisdiction = determined by governmental authority; Unit = determined by geographic boundary.</li> <li>• Applies to lands for which you are responsible for primary initial attack.</li> <li>• Single jurisdiction, single unit means 1 parcel and 1 owner.</li> <li>• Single jurisdiction, multiple unit means fragmented parcels by one governing body.</li> <li>• Multiple jurisdiction, multiple unit includes multi-agencies.</li> <li>• Multiple jurisdiction, single unit means one parcel with multiple governing bodies. Multiple jurisdiction, single unit means one parcel with multiple governing bodies.</li> </ul>
	Wildland/Urban Interface	<ul style="list-style-type: none"> <li>• A “4” would be highest possible score without structural fire responsibility.</li> </ul>
	Cultural/Natural Resources	<ul style="list-style-type: none"> <li>• Resource must be “at risk” to direct fire or post-fire effects.</li> </ul>
Wildland Fire	Average Occurrence	<ul style="list-style-type: none"> <li>• Based on a 10-year average.</li> <li>• “Episodes” = at least once every 2 years.</li> </ul>
	Average Acres	<ul style="list-style-type: none"> <li>• Based on a 10-year average.</li> </ul>
	Season Length	<ul style="list-style-type: none"> <li>• There are no rules of thumb for this sub-element.</li> </ul>
	Values	<ul style="list-style-type: none"> <li>• There are no rules of thumb for this sub-element.</li> </ul>
	Wildland Fire Management	<ul style="list-style-type: none"> <li>• Fire Use Management Team = T2 team.</li> </ul>
	Firefighter & Public Safety	<ul style="list-style-type: none"> <li>• See Guiding Principle #14, page 6-6; this discusses safety and how it should be analyzed</li> </ul>
	Fuels and FB	<ul style="list-style-type: none"> <li>• If more than 50% of predominant fuel type is out of historic range of variability or condition class 2 or 3, add 1 point.</li> </ul>
Prescribed Fire	Prescribed Fire	<ul style="list-style-type: none"> <li>• Units should be scored “0” when there are no prescribed fires being performed at all.</li> <li>• “Episodes” of concurrent ignitions include ongoing Wildland Fire Use fires.</li> </ul>
	Multiple Ownership	<ul style="list-style-type: none"> <li>• If no Rx fires being conducted, score a “0.”</li> <li>• Implies that this is conducting joint prescribed burns with other jurisdictions, not supporting off-</li> </ul>

<b>Element</b>	<b>Sub-Element</b>	<b>Rule of Thumb</b>
		unit fires.
	Burn Season Length	<ul style="list-style-type: none"> <li>• If no Rx fires being conducted, score a "0."</li> <li>• This does not include pile burning.</li> </ul>
Mechanical	Treatment Objectives	<ul style="list-style-type: none"> <li>• If no mechanical treatment is being conducted, score a "0."</li> </ul>
	Implementation	<ul style="list-style-type: none"> <li>• If no mechanical treatment is being conducted, score a "0."</li> <li>• If heavy equipment is used consider a minimum score of "2."</li> </ul>
	Values	<ul style="list-style-type: none"> <li>• If no mechanical treatment is being conducted, score a "0."</li> <li>• This sub-element is rated only if the unit is implementing mechanical treatments. Then the rating is based upon the inherent risks to people, property and resources from wildland fire.</li> </ul>
Aviation	Aviation	<ul style="list-style-type: none"> <li>• Contributions (positions, funding) to a shared resource = a minimum score of "2."</li> <li>• Exclusive use resource scores a minimum of "3."</li> <li>• Hosting NMAC or National Shared Resource-type contracts = minimum of "3."</li> </ul>
Prevention	Prevention	<ul style="list-style-type: none"> <li>• Units that administer a permitting system for burning: consider a minimum score of "3."</li> <li>• Consider % of human-caused ignitions: &lt;10%=L; 10-20%=M; &gt;20%=H.</li> </ul>
Education	Education	<ul style="list-style-type: none"> <li>• Consider minimum of "4" if unit has a dedicated full-time position in Fire Prevention/Education.</li> </ul>