

APPENDIX C:

DEMONSTRABLE CORE COMPETENCIES REQUIRED FOR WILDLAND FUELS CERTIFICATIONS

Fourteen (14) core competencies are required for the Wildland Fuels Technician (WFT) certification, 28 for the Wildland Fuels Manager (WFM) or Senior Wildland Fuels Manager (SWFM) certifications, and 20 for the Wildland Fuels Scientist (WFS) or Senior Wildland Fuels Scientist (SWFS) certifications. Applicants will be evaluated based on the narrative that they provide to describe how they meet each competency. Evaluators will give applicants a score of **1** for each competency met, and a **0** for unmet competencies. To receive a passing score, applicants must demonstrate knowledge, skills, and experience in at least 80% of the required competency areas for their chosen certification level. The certification committee sets the 80% threshold to be 11, 22, 22, 16, and 16 competency areas for the Fuels Technician, Fuels Manager, Senior Fuels Manager, Fuels Scientist, and Senior Fuels Scientist, respectively.

Core competencies		WFT	WFM	SWFM	WFS	SWFS
1. Sampling and Monitoring						
1.1	Measure fuel loading: Use of common fuel loading methodologies including Planar Intercept, Photoload, ocular estimation and comparison to fuel loading photoguides.	1	1	1	1	1
1.2	Measure canopy fuels: Ability to determine canopy bulk densities, canopy height, as well as other attributes leading to third dimension fire conditions.	1	1	1	1	1
1.3	Species identification: Correct identification of locally relevant and common species.	1	1	1	1	1
1.4	Dendrochronology: Understand use of tree growth patterns and meaning for management. Using an increment borer; interpreting fire return intervals, growth patterns, and stand age determination; stump interpretation.		1	1	1	1
1.5	Local-unit specific measurements: Local thresholds of concern; measurements relevant to the local ecology; custom fuel models; locally significant factors affecting fuel management projects.		1	1		
1.6	Fire behavior fuel models: Understanding of the standard 13 and 40 fuel models, as well as locally derived fuel models.	1	1	1	1	1
1.7	Fuel moisture sampling: Ability to implement and report fuel moisture sampling through oven-weight or other methodologies.	1	1	1		
1.8	Implementing sampling protocols: Field-level vegetation/project objective monitoring; fuel moisture data collection; fuel model inputs; transects/intercept protocols; canopy loading protocols.	1	1	1	1	1
1.9	Design and manage sampling protocols: Work with specialists to determine monitoring needs; design sampling protocols grounded in scientific literature; design implementable sampling designs.		1	1	1	1
1.10	Interpret and report collected data: Demonstrate understanding of collected data and its meaning for operational considerations. Report the information in databases and internal/external communication routes.		1	1	1	1
2. Fuels Management Fundamentals						
2.1	Fuel manipulation techniques: Demonstrate knowledge of standard fuels manipulation techniques such as thinning, chipping, piling, prescribed fire, etc.	1	1	1	1	1
2.2	Implement the fuels project plan: Follow the implementation document to ensure consistency with project objectives, design features, mitigation measures. Be able to communicate that to contractors, staff, and/or cooperators.	1	1	1		
2.3	Design and implement a fuels project: Participate in the planning and analysis phases of project design. Demonstrate ability to migrate intent from planning/analysis documents into implementable actions.		1	1		
2.4	Participate in prescribed burning: Show participation in prescribed fire activities in an operational, monitoring, or command capacity.	1	1	1		
2.5	Manage a prescribed fire program: Demonstrate oversight function for a prescribed fire program including planning, implementing, monitoring, and participation.		1	1		
2.6	Evaluate the success/failure of objectives: Ability to identify objectives before and after fuels treatments and compare them to planning document standards.	1	1	1	1	1
3. Fire Ecology						
3.1	Application of fire ecology: Demonstrate practical experience with incorporating fire ecology principles into project planning, implementation, and monitoring. Project consistency with known fire regimes, fire attributes, and ecosystem processes.	1	1	1	1	1
3.2	Fire effects: Demonstrate understanding of first and second order fire effects and it's application within fuels management.	1	1	1	1	1
3.3	Applied fire regime management: Demonstrate managing for a fire regime within current and projected-climate fire regime constraints.		1	1	1	1
3.4	Local fire ecology: Incorporate locally-significant fire ecology drivers into the fuels management program. Incorporate known plant responses to fire and mechanical manipulation into project design.		1	1		
3.5	Fire ecology/fuels research: Design and implement scientifically rigorous studies or monitoring that address research questions related to fire ecology or fuels management. Demonstrate a publication history of related research.				1	1
3.6	Analyze and interpret data: Perform scientifically rigorous analysis of qualitative or quantitative data related to fire ecology or fuels management. Interpret results in the context of fuels management.				1	1
4. Fuels Program Management						
4.1	Wildfire and fuels management policies: Proficient understanding of local/state/territory/federal policies that affect the applicant's sphere of fuels management operations.		1	1	1	1
4.2	Land management planning: Provide input to and/or participate in the interdisciplinary process of land management planning for fire and fuels management purposes.	1	1	1		
4.3	Involvement with environmental analysis: Direct involvement in the analyzation of proposed land management actions through writing a specialist report or other contributory technical document.		1	1		
4.4	Communicate clearly orally: Ability to verbally translate intent into action.		1	1	1	1
4.5	Communicate clearly in writing: Ability to translate intent into action through writing.		1	1	1	1
4.6	Leadership principles: Demonstrate leadership principles by modeling professionalism in fire and fuels management through actions rooted in operational and scientific integrity.	1	1	1	1	1
4.7	Fuels program budget: Oversee expenditures associated with project planning and/or implementation. Ensure that available funding is leveraged efficiently and appropriately to reduce waste and maximize public benefit.		1	1		
4.8	Cross-discipline coordination: Demonstrate an integrated process for conducting fuels management work, showing sensitivity and awareness of other ecosystem resources such as habitat, water, air quality, etc.		1	1	1	1
Total number of core competencies						
80% threshold (required minimum score to pass competency section of application)						