Appendix 2. Key Evaluation Questions

Current priority KEQs.

The Key Evaluation Questions must be used to evaluate the impact and effectiveness of the management strategies and to improve the models and assumptions underpinning them. They must also be used to evaluate the processes underpinning the risk-based approach. Only some KEQs will require on-ground monitoring to be established. These are shown in teal text. The other KEQs can be addressed through desktop evaluation, which will be informed by the data collected through on-ground monitoring.

The KEQs will be maintained as a separate 'living' document on the DELWP website and will be updated as the Program logic is updated.

KEQs relating to outcomes for life and property

Outcomes	Related KEQs
The risk of major bushfires has been reduced to level set by the fuel management strategy	 Impact How has fuel management changed fuel levels within the landscape? Effectiveness How has the fuel management strategy reduced bushfire risk?
	 Improvement How does fuel re-accumulate after fire? Is fuel hazard an adequate measure of risk? Does Phoenix adequately characterise bushfire hazard across the landscape? Is the current fuel classification system appropriate for predicting changes to fuel hazard across the landscape?

KEQs relating to outcomes for ecosystem resilience

Outcomes	Related KEQs
The proportion of the landscape outside Tolerable Fire Interval meets that set by the fuel management strategy	 Impact How has fuel management changed the proportion of vegetation sitting below the minimum or above the maximum Tolerable Fire Interval? Effectiveness How has the fuel management strategy maintained or improved populations of Tolerable Fire Interval sensitive Key Fire Response Species? Has the fuel management strategy maintained the desired amount of the landscape sitting within Tolerable Fire Interval? Improvement Are Key Fire Response Species that set minimum and maximum Tolerable Fire Intervals appropriate species for determining Tolerable Fire Intervals? How appropriate are the current Tolerable Fire Intervals for maintaining species composition and relative abundance within each Ecological Vegetation Division across the landscape? Is the reproductive capacity of species that set minimum Tolerable Fire Interval consistent with the current Tolerable Fire Intervals? How appropriate are the current thresholds for management action for avoiding fundamental change in each Ecological Vegetation Division?

The goal growth stage structure meets that set by the fuel management strategy

Impact

- How has the abundance of key habitat attributes changed as a result of fuel management?
- How has fuel management changed the occupancy of fire sensitive species within their preferred habitat?

Effectiveness

- How has the fuel management strategy changed the deviation from the goal growth stage structure?
- How has the fuel management strategy effectively maintained key habitat attributes and critical growth stages for minimising the deviation from the goal growth stage structure?
- Has the fuel management strategy contributed to the maintenance of populations of fire sensitive species across their distribution in Victoria, through the maintenance of appropriate growth stage structures?

Improvement

- Are the availability of key habitat attributes reflected in the growth stages and linked to occurrence and abundance of species reliant on these attributes?
- Do key habitat attributes regenerate as expected following fire?
- Do the current Ecological Vegetation Division growth stage intervals reflect changes in the abundance of species over time?
- Do the species response curves adequately predict the response of at-risk and fire sensitive species to fire?
- Does the measured Geometric Mean Abundance of Species match the modelled Geometric Mean Abundance of Species derived from modelled species response curves?

KEQs relating to the processes underpinning the risk-based approach

Process	Related KEQs
Strategic Planning Outcome Bushfire management planning decisions are supported by landscape risk and ecological modelling systems and procedures, and informed by research and monitoring	 To what extent are risk assessments applied systematically, repeatedly and consistently across the risk landscape? How are bushfire management objectives at the landscape scale defined? How are monitoring and research used to inform and improve bushfire management strategies? How are monitoring and research used to validate and update models?
Operational Planning Outcome Fire Operations Plans (FOP) are informed by the strategies developed by the BRL teams	How is the FOP informed by the current long-term fuel management strategy?
Tactical Planning Outcome Burn objectives are consistently met and show a clear link to the landscape objectives	 To what extent are the burn objectives informed by the fuel management strategy? To what extent did the burn meet its operational objectives?

KEQs relating to the Monitoring, Evaluation and Reporting program

Programs	Related KEQs
MER Program Outcome	 How are monitoring, evaluation and reporting activities aligned to and effectively measuring and reporting on performance, against the primary objectives?
The effectiveness and efficiency of the Bushfire MER Program is improved overtime	 How has investment of time, budget and people been allotted across monitoring, evaluation and reporting activities?
	• How has investment of time, budget and people been allotted across the different outcomes?
	 How well have the outcomes of the MER Program and research been integrated into the strategic bushfire management planning and decision making processes?