

Koonaburra National Park Fire Management Strategy 2024

This strategy should be used in conjunction with aerial photography and field reconnaissance during incidents and the development of incident action plans.

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This strategy is a relevant Plan under Section 38 (a) and Section 44 (b) of Rural Fires Act 1997.

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Related Documents: NPWS Fire Management Manual

Map Details

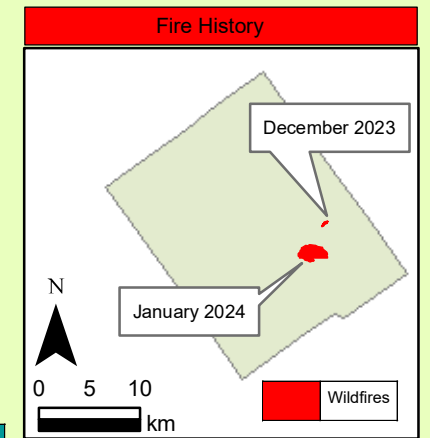
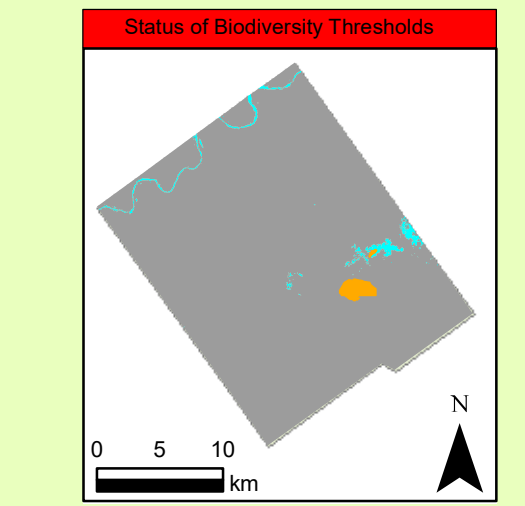
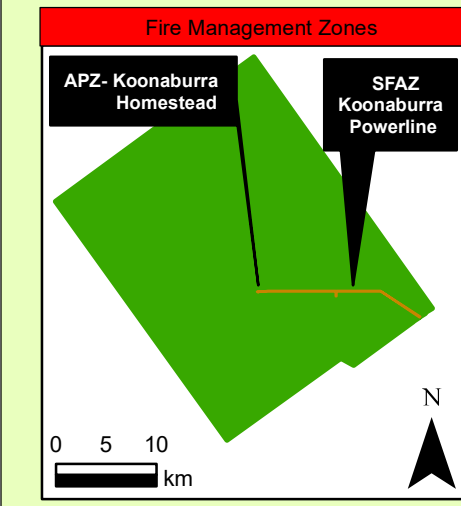
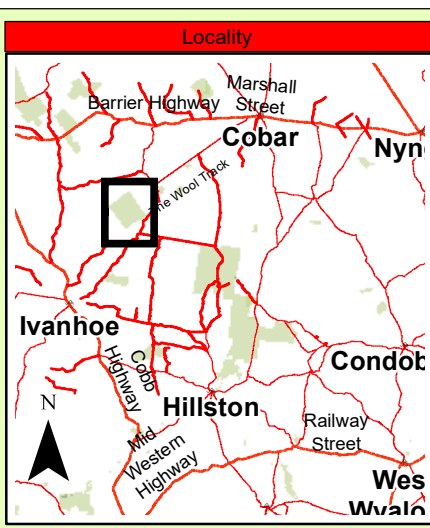
Date: Geometric Datum of Australia (GDA) 1984 Topographic Maps
Projection: Map Grid of Australia (MGA) Zone 55
Scale: 1:100,000 Date: Topographic 25, 50k

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	West Branch Duty Officer	02 8275 1740
	National Parks Office Dubbo (business hrs)	02 6841 7100
	National Parks Office Bathurst (business hrs)	02 6332 7640
Area Western Command	RFS Headquarters Sydney	02 8741 5555
NSW Rural Fire Service	Far West District	02 6836 1226
Bushfire Information Line	1800 NSW RFS	1800 679 737
Emergency Services	Police, Fire & Ambulance	000
SES	In an emergency call	132 500
Police	Cobar Station	02 6830 9899
Council	Cobar Shire Council	02 6836 5888
Local Aboriginal Land Council	Cobar	02 6836 1144
Neighbours	Call the NPWS Dubbo office for more information	02 6841 7100

Communications Information

Service	Channel	Location and Comments
NPWS VHF Radio	44	Full coverage not available. NPWS has a portable VHF repeater in situ at Yathong NR to boost communications, do not rely on this for communications.
Portable Repeater		
Aircraft		Contact the State Air Desk for frequency allocation
Mobile phone coverage		Average. Some patches with Cell-f
Satellite Phone		Good reception
UHF	Undefined	Limited, but good between vehicles if within short range.



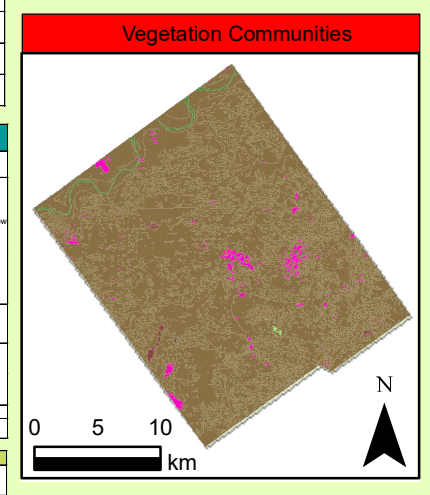
Fire Management Zones

Asset Protection Zones	The objective of APZs is the protection of human life and property. This will have precedence over guidelines for the management of biodiversity. Maintain Overall Fuel Hazard at Moderate or below.
Strategic Fire Advantage Zones	The objective of SFZs is to reduce fire intensity across larger areas. Maintain Overall Fuel Hazard at High or below, however adherence to guidelines for biodiversity will take precedence where practical. Note: Due to changes in the RFS Bushfire Code, SFZs will be treated by definition as Limited Fire Breaks - a strategic fuel reducer feature in the landscape.
Land Management Zones	The objective of LMZs is to conserve biodiversity and protect cultural and historic heritage. Manage fire consistent with fire thresholds.

Evaluation of Biodiversity Thresholds

Vulnerable to frequent fire	The area will be too frequently burnt if a burn in the next few seasons ➢ Protect from fire as far as possible
Long unburnt	Underburnt, excessive time since last fire, species may become extinct ➢ A fire event is neither required nor should one necessarily be avoided
Within Threshold	Within the threshold for vegetation in this area. Species have had sufficient time to mature and reproduce, and for habitats to develop. ➢ A fire event is neither required nor should one necessarily be avoided

Fire thresholds are defined for vegetation communities to conserve biodiversity. NB: Fire thresholds are defined for vegetation communities to conserve biodiversity. Threshold analysis map needs to be considered with Prescribed burning. Activity map to be considered when determining wildfire and prescribed burning outcomes.



Vegetation management

Note: Vegetation mapping is still being defined. Below is a list of vegetation communities that occur on Lamington Mafford State Conservation Area

Vegetation Formation	Vegetation Community	Vegetation management guidelines	Fire Behaviour
Semi-arid Woodland (Grassy sub-formation)	Cootabah, Black Box, Western Rosewood, Wilga low woodland with grassy understory.	Cootabah is sensitive to high intensity fire (which can inhibit the recruitment of seedlings) and/or too frequent fire, both can kill young plants and some mature trees. • An interval between fire events less than 5-10 years should be avoided	Cootabah woodlands do not sustain enough fuel loads (generally Low - Moderate OFH in dry years) to carry large scale fires.
Semi-arid Woodland (Shrubby sub-formation)	Prostanion, Black, White Cypress & chenopod sandstone	• Chenopod species are sensitive to fire and may be severely impacted if burnt.	Typically, there is not enough fuel load to carry fire in Arid shrublands, both acacia and chenopod sub-formations (OFH Low or dry years).
Arid shrubland (Acacia sub-formation)	Mulga, Ironwood, Scrub Turpentine & Nees fall open shrubland	• An interval between fire events less than 5-6 years should be avoided. • Fire plays no role in the germination of Mulga. • Mulga & Acacia Loderi/Nelaei are susceptible to frequent and/or intense fire. • Acacia Melvillei shrubland - no fire more than once every 20 years	Highly variable fire behaviour depending on the presence and growth of ephemeral fuel loads. High intensity fast moving fire once grasses have cured. Fire behaviour is dominated by winds, both speed and direction. (Even in very low fuel, grass fires can be erratic and fast moving).
Grasslands	Varying grassland species	• An interval between fire events less than 8 years should be avoided. • Fire frequency should normally be determined through on-ground assessment of vegetation health, fuel accumulation and previous fire patchiness and adjusted for wildfire risk and drought cycles.	Highly variable fire behaviour depending on the presence and growth of ephemeral fuel loads. High intensity fast moving fire once grasses have cured. Fire behaviour is dominated by winds, both speed and direction. (Even in very low fuel, grass fires can be erratic and fast moving).
Forested Wetlands	River Red Gum & Prostanion grassy woodland wetland	• Fire should be avoided.	These vegetation communities will generally not carry fire unless there are high ephemeral fuel loads. Moderate to high intensity fires may occur when fuel loads are high or above.
Freshwater wetlands	Canegrass & River Cootabah swampland on drainage depressions	• An interval between fire events less than 5 years should be avoided	

OFH - Overall fuel hazard - A rating system that uses measurements of leaf litter, grasses, shrubs, bark type and bark condition in a given area to determine the hazard.

Ephemeral conditions - generally occur after consecutive years of much higher than average rainfall which leads to a build up of fine fuels such as grasses and herbs. This has the potential to create a continuous fuel loading (grasses - perennial and annual) across all vegetation communities listed above.

Operational Guidelines

Aerial operations	• Aerial operations will be managed by trained and competent personnel. This includes direct aerial bombing and aerial ignition operations. • All aerial ignition operations require the consent of NPWS West Branch Director, Section 44 delegate or as stated in an operational burn plan. • Helipad and Airline sites located at Koonaburra Homestead precinct however, seek local knowledge for air strip condition before operational use.
Backburning	• Backburning must be fully briefed before back-burns operations begin. • Backburning is a valid and useful firefighting tool but should only be undertaken when temperature and humidity allow (late afternoon/evening), by experienced personnel and after careful consideration by the IMT. • Where practicable to map efforts, clear a 1m radius around dead and loose backed trees adjacent to containment lines prior to backburning, or set down these trees during ignition.
Command & Control	• The first combatant agency on site may assume control of the fire but then must ensure the relevant land management agency is notified promptly. • On the arrival of other combatant agencies, the initial Incident Controller will consult with regard to the ongoing command, control and IMT requirements as per the relevant BPMC Plan of Operations.
Containment Lines	• New containment lines require the prior consent of a senior NPWS Officer. • All personnel involved in containment line construction should be briefed and must consider both natural and cultural heritage sites in the location. • Containment line construction using earthmoving equipment must be in accordance with the earthmoving guidelines outlined below. • All containment lines not required for other purposes will be closed at the cessation of the incident. • An containment line construction must be mapped (for future reference and assistance with rehabilitation works). • Construction of new containment lines should be avoided on Koonaburra NP, except where they can be constructed with minimal environmental & cultural impact. • The biodiversity objectives and locations of significant species (Acacia Melvillei) will be considered when locating control lines.
Earthmoving Equipment	• The use of earthmoving equipment must only be used with the prior consent of a senior NPWS Officer with local knowledge. Particular care must be taken in: • Significant cultural heritage landscape areas • Creek and waterway areas • Earthmoving equipment must always be supervised by an experienced officer and accompanied by a support vehicle. When engaged in direct or parallel attack this vehicle must be a fire fighting vehicle. • Earthmoving equipment must be washed down, where practical, prior to it entering NPWS estate and again on exiting NPWS estate. • The use of foam, wetting agents and retardants will be permitted on the reserve.
Fire Suppression Chemicals	• The use of retardant requires the approval of the Area Manager or delegate. • The use of suppression chemicals is not to be applied within 50m of water courses and ground tanks/dams.
Rehabilitation	• Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Watering points	• Water points for vehicles are dispersed across the park, see Incident map for Watering Point locations. • All ground tanks (dams) will be subject to seasonal changes - consult with local NPWS staff for current ground tanks (dams) water status.
Smoke Management	• Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations. • If smoke becomes a hazard on local roads, the police and relevant media must be notified. • This reserve may be closed to visitors during fire danger periods rated Extreme or above and during Fire Operations or Wildfire Incidents. • Roads may become boggy and untrafficable after rain.
Visitor Management	• BEWARE OF OVERHEAD POWERLINES (REFER TO INCIDENT MAP) AND MAKE SURE TO LOOK UP AND LIVE! • BEWARE OF HOT GAS BOTTLES, BURNING RUBBER AND HAZARDOUS MATERIALS NEAR HOMESTEAD SITES

Operational Guidelines - Heritage

Preparation of cultural heritage assessments have revealed evidence that Koonaburra NP has a rich history of Aboriginal occupation

Aboriginal Cultural Heritage Site Management	• Identified trees, including scattered trees • Protect the site from catching fire, clear around base of litter and shrubs • Fences may be used to protect the site, or to extinguish fire • Do not cut trees • Ground based sites, including artefacts, middens, hearths & stone arrangements • Protect sites from any around disturbance, including the use of earth-moving equipment and vehicles • Apply a machinery exclusion area where there is a high concentration of known sites • Area may be burnt • Burn sites • Protect sites from any disturbance by excluding operators by at least 25 metres • Area may be burnt • Identified structures and historic precincts, including buildings (Koonaburra Homestead, and Woolshed site) • As far as possible, protect the sites from fire • Prepare sites by stabilising in years of high ephemeral fuel growth • New containment lines - if unavoidable utilise least destructive method as possible around the perimeter and in accordance with the Operational Guidelines of this strategy • Fences may be used to protect the site, or to extinguish fire • Wooden stock yards, sawmy sheds, oil tanks • Protect the site from fire • Equipment used to protect the sites, or to extinguish fire • Threatened fauna and flora species • Aerial operations is yet to be undertaken to establish presence of threatened species at Koonaburra • Endangered and vulnerable species in the Riverina & Murray Darling Depression Bioregion • Acacia Melvillei/Tarnetii shrublands in the Riverina & Murray Darling Depression Bioregion • The use of earthmoving equipment must only be used with prior consent of a NPWS Officer with local area knowledge of critical habitat zones • Monitoring to report fire response must be initiated after a fire event • Where possible, fire should be avoided from Acacia Melvillei shrubland especially in years of high ephemeral fuel growth
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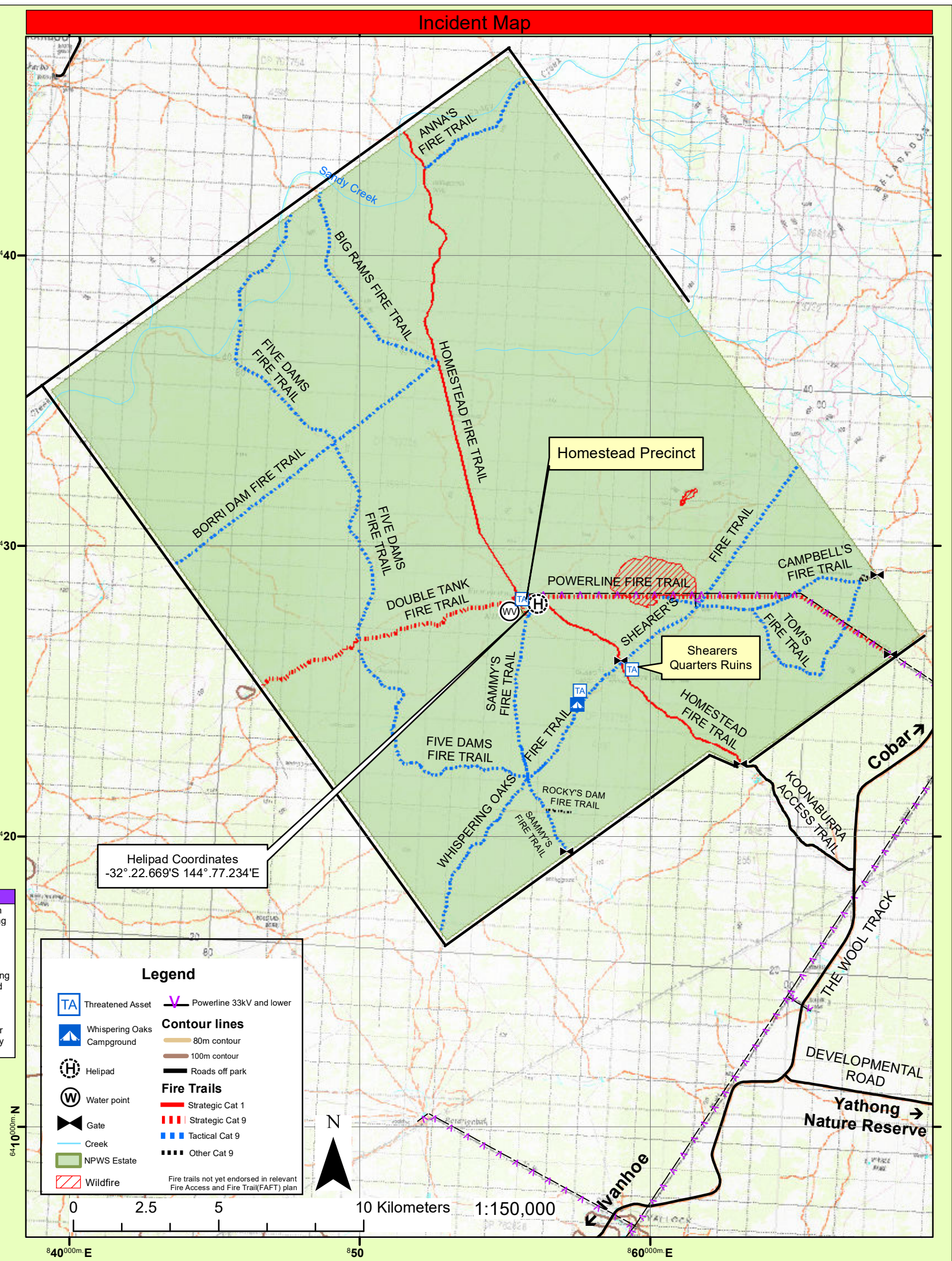
Carbon Sequestration

Koonaburra NP is participating in an Emissions Reduction Fund project to sequester and store carbon in regenerating native vegetation. As the proponent, NPWS has an obligation to manage both hazard reduction burns and wildfire in accordance with the Clean Energy Regulator (CER) guidelines, including following reporting requirements and record keeping. Hazard reduction burning is a valid and permitted management action and is viewed as a sound preventative action to protecting the project area. Fire trails, boundary fences, powerline clearing and waterpoints will be managed in accordance with the Farm Management and Permanence Plan (FMPP). Seek further advice from the local Central West Area staff following any ignition on Koonaburra NP.

Suppression Strategies

WARNING: where high ephemeral fuel growth exists fire can burn with very high intensity and fire runs should be anticipated with winds from any direction. Entanglement risk is very high.

Typical Conditions	Guidelines
• Current or forecasted Fire Danger Rating (FDR) of High or above • FDR of Extreme or above - fire behaviour likely becoming erratic, and plume driven • Extreme rapid-fire growth, crown impact and spotting • Risk to life and/or property escalates with an FBI >50	• Direct attack unlikely in these conditions, generally extremely windy and fires quickly becoming large in areas of fine fuel • Develop a suppression plan using existing and/or potential containment lines • Parallel attack may be applied with earthmoving machinery and fire units • Backburning must be carefully timed to avoid fire runs, generally in the early evening when humidity rises, and wind drops • Any wildfire in Acacia Loderi or Acacia Melvillei shrubland should be kept to the smallest extent possible-if able, engage the use of aircraft as soon as possible when fire is within inaccessible terrain • Firefighter safety is the highest priority during deployment. Fire behaviour possibly erratic and plume driven above an FBI of 50
• Current or forecasted FDR of Moderate • Minimal risk to life or property • Only small area risk to biodiversity exists	• Consider a strategy using direct and indirect attack to contain the fire to the smallest area practicable, using a combination of ground crews, fire units, machinery, and aircraft • Any wildfire in EEC Acacia Loderi shrubland should be kept to the smallest extent possible-observe forecast weather conditions and consider engaging the use of aircraft when fire is in inaccessible terrain



Legend

TA	Threatened Asset	⚡	Powerline 33kV and lower
🌳	Whispering Oaks	📏	Contour lines
🏠	Campground	📏	80m contour
🚰	Helipad	📏	100m contour
🚰	Water point	🛣️	Roads off park
🚰	Gate	🔥	Fire Trails
🚰	NPWS Estate	🔥	Strategic Cat 1
🔥	Wildfire	🔥	Strategic Cat 9
		🔥	Tactical Cat 9
		🔥	Other Cat 9
			Fire trails not yet endorsed in relevant Fire Access and Fire Trail (FAFT) plan