

# Far West Region Paroo-Darling National Park Coonavitra Section Fire Management Strategy 2014



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 (4) and Section 44 (3) of Rural Fires Act 1997.

The NSW National Parks and Wildlife Service is part of the Office of Environment and Heritage.

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Contact: National Parks and Wildlife Service, West Darling Area Office,  
PO Box 788, Broken Hill, NSW 2880. Ph 08 8080 3200

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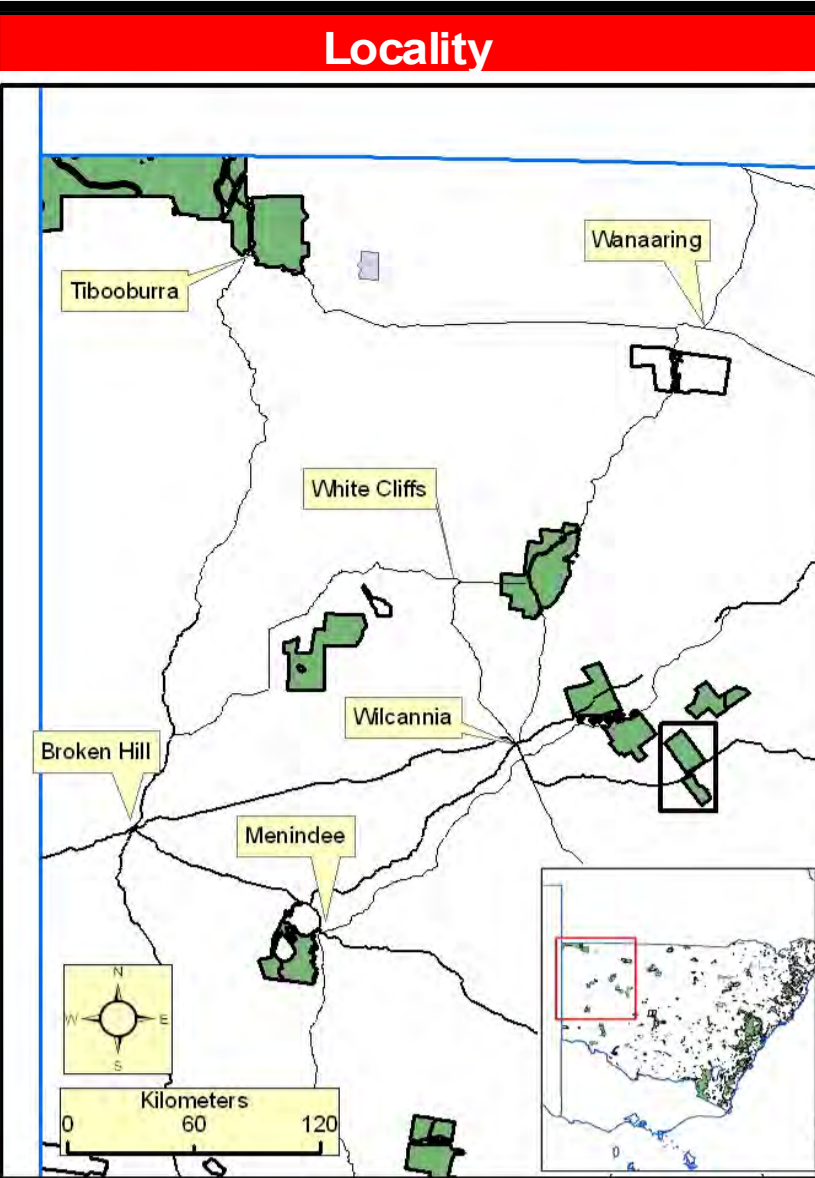
**Map Details**  
Datum: Australian Geocentric Datum of Australia (GDA) 1994 Data: Spot Satellite Imagery: 2005 1:3k Topographic Map: Far West Region, Paroo-Darling National Park, Coonavitra Section FMS 2014  
Projection: Australian Map Grid (AMG) Zone 55  
Scale: Noted scales are true when printed on A3size paper

Fire Season Information	
<b>Wildfires</b>	< The critical wildfire season occurs during November and December. This period may extend into the first half of January. Particular care is required during periods of negative vs Southern Oscillation indices. The end of the critical fire season is often marked by wet storm activity. >
<b>Prescribed Burning</b>	< Prescribed burning should be undertaken before autumn rain occurs. Burning may also be undertaken during late winter and early spring. >

Communications Information		
Service	Channel	Location and Comments
PDNP UHF	35	Peery / Arrowbar / Mandalay, Wilga, Mt Murchison, Coonavitra, Tilpilly and Wilcannia Workshop.
RFS	20	
SES Wilcannia	3	
SES White Cliffs	32	

Contact Information		
Agency	Position / Location	Phone
National Parks & Wildlife Service	Far West Region Duty Officer (24 hours)	08 8080 3222
	Paroo-Darling National Park Office (bus. hours)	08 8083 7900
	West Darling Area Office (bus. hours)	08 8080 3200
Far West Zone NSW Rural Fire Service	Manager - Chris Favelle (bus. hours)	02 6836 1226 0419 691 815
	Operations - Robyn Favelle (mobile)	0407 904 940
	Wilcannia Fire Control (24 hours)	08 8091 5963
Emergency Services		000
	SES	Wilcannia White Cliffs 08 8091 5880 08 8091 6606
Police	Wilcannia	000 08 8083 8091
Council	Central Darling Shire - Wilcannia	08 8083 8910



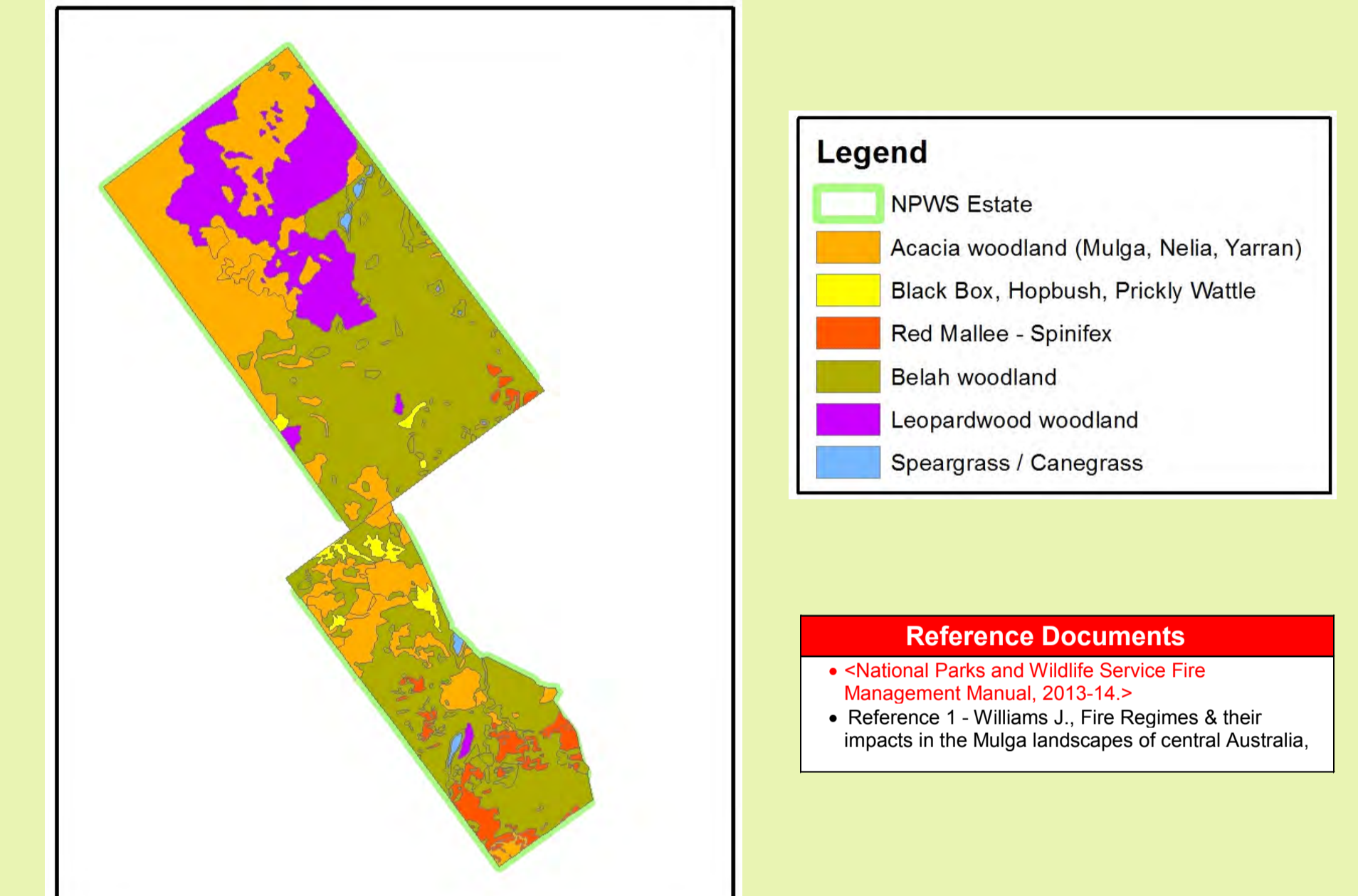
## Operational Guidelines

Operational Guidelines – Managed Sites	
Resource	Guidelines
<b>Aboriginal Cultural Heritage Site Management</b>	<ul style="list-style-type: none"> <li>Some known Aboriginal cultural sites may be identified in this plan on the Incident Map. For further information concerning Aboriginal sites search AHIMS.</li> <li>Brief all personnel involved in containment line construction &amp;/or vehicle based fire suppression operations regarding site locations.</li> <li><b>No ground disturbance including the use of earth moving machinery to construct new trails, hand line construction, vehicles, back burning or water bombing in the vicinity of Aboriginal sites.</b></li> <li>Maintain vigilance for identifying unknown sites during operations.</li> </ul>
<b>Historic Heritage Site Management</b>	<ul style="list-style-type: none"> <li>Brief all personnel involved in containment line construction &amp;/or vehicle based fire suppression operations regarding site locations (see main map).</li> <li>Appropriate fire season preparation will be undertaken around heritage assets, particularly the homestead complexes.</li> </ul>
<b>Threatened Fauna Management</b>	<ul style="list-style-type: none"> <li>A large number of fauna species listed as threatened are recorded and these utilise a wide range of habitats in the Park.</li> <li>Bushfire control operations should aim to:                             <ol style="list-style-type: none"> <li>minimise area affected by wildfire;</li> <li>utilise the identified trails for containment;</li> <li>avoid the construction of new control lines;</li> <li>minimise impact of control operations on key habitat</li> </ol> </li> <li>Where practicable, avoid damaging or removing existing and future hollow bearing trees and protect them from fire.</li> <li><b>NO earth moving machinery, NO new control lines, NO foaming agents within 50m of wetlands, watercourses or dams wherever possible.</b></li> </ul>
<b>Threatened Flora Management</b>	<ul style="list-style-type: none"> <li>Acacia woodland communities (see vegetation map), especially the <i>Neliea (A. Ioderi)</i> Shrubland community highlighted on the Incident Map, are very sensitive to fire and should be protected from both wildfire and back burn operations, particularly where there is high annual fuel load or risk of canopy fire.</li> </ul>
<b>Machinery Exclusion Zone</b>	<ul style="list-style-type: none"> <li><b>Within 50m of wetlands, watercourses or dams wherever possible.</b></li> </ul>

Operational Guidelines – General Operations	
General	Guidelines
<b>Aerial operations</b>	<ul style="list-style-type: none"> <li>Aerial operations will be managed by trained and competent personnel. This includes directing aerial bombing and aerial ignition operations</li> <li>The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances.</li> <li>All aerial ignition operations require the consent of the NPWS Regional Manager or the Section 44 Appointee.</li> </ul>
<b>Backburning</b>	<ul style="list-style-type: none"> <li>All personnel must be fully briefed before back burning operations begin.</li> <li>Backburning in areas of Low – Moderate OFH will require the use of slope, or wind, or low humidity to maximise effectiveness.</li> <li>Where practicable, clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down these trees as part of the backburn ignition. This will reduce mop-up efforts.</li> </ul>
<b>Command &amp; Control</b>	<ul style="list-style-type: none"> <li>The primary objectives of fire suppression activities on NPWS managed lands are to ensure the safety of incident personnel and the public, protect life and property, conserve natural and cultural heritage and maintain cost effectiveness.</li> <li>NPWS should be notified immediately of any fire within or near a NPWS reserve.</li> <li>Where NPWS is not the first responding fire authority to arrive at a fire on NPWS-managed lands, a competent officer of the first arriving fire authority will direct fire management activities until a competent NPWS officer assumes control.</li> <li>On the arrival of other combatant agencies, the initial Incident Controller will consult with regard to the ongoing command, control and incident management team requirements as per the relevant BFMC Plan of Operations.</li> <li>Standard Incident Management Systems are to be applied.</li> </ul>
<b>Containment Lines</b>	<ul style="list-style-type: none"> <li>Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact. New containment lines require the prior consent of a senior NPWS officer.</li> <li>Hand tool lines may be used to contain wildfires to smaller areas where possible.</li> <li>Where practicable, containment lines should consider the protection of drainage features.</li> <li>All personnel involved in containment line construction should be briefed on, and must consider both natural and cultural heritage sites in the location.</li> <li>Where possible under benign weather conditions, consider allowing fires to be contained by previously burnt areas and natural low fuel areas in preference to the construction of new control lines.</li> <li>If containment lines are required, where possible they should link up with fire trails, recently burnt areas and natural low fuel areas and utilise identified primary and secondary trails and existing cleared areas as containment lines.</li> <li>Dozers will operate with scrub-rakes in preference to blades to limit soil disturbance and graders will be preferred in speargrass fuel conditions in open vegetation communities</li> </ul>
<b>Earthmoving Equipment</b>	<ul style="list-style-type: none"> <li><b>Equipment Location:</b> <ul style="list-style-type: none"> <li>Cat 9 slip-on units are based at Wilcannia, Peery and Tilpilly</li> <li>Caterpillar 140H grader (within West Darling Area)</li> <li>Caterpillar 908 loader with scrub-rake (within West Darling Area)</li> </ul> </li> <li>Cat 9 appliances are the preferred vehicle on Paroo-Darling NP. Earth moving equipment may only be used with the prior consent of the Senior NPWS Officer, and then only if the probability of its success is high.</li> <li>Earthmoving equipment must always be guided and 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.</li> <li>Earthmoving equipment must be washed down, where practicable, prior to it entering NPWS estate and again on exiting NPWS estate.</li> <li>Observe the threatened species and cultural heritage operational guidelines.</li> </ul>
<b>Fire Suppression Chemicals</b>	<ul style="list-style-type: none"> <li>The use of foam, wetting agents and retardants will be permitted on the reserve</li> <li>The use of fire suppression chemicals are not to be applied within 50m of water courses, dams and swamps.</li> <li>The use of retardants requires the approval of the Regional Manager or delegate</li> </ul>
<b>Rehabilitation</b>	<ul style="list-style-type: none"> <li>Where practical, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.</li> </ul>
<b>Smoke Management</b>	<ul style="list-style-type: none"> <li>Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations.</li> <li>If smoke becomes a hazard on roads / highways, management must be in accordance with relevant RTA traffic management guidelines.</li> </ul>
<b>Visitor Management</b>	<ul style="list-style-type: none"> <li>The reserve may be closed to the public during periods of extreme fire danger or during fire operations.</li> </ul>
<b>WARNINGS</b>	<ul style="list-style-type: none"> <li><b>Beware overhead powerlines</b></li> </ul>

## Vegetation and Biodiversity Thresholds

Vegetation Communities, Biodiversity Thresholds Fire Behaviour and Availability for Prescribed Burns		
Vegetation Community	Biodiversity Thresholds	Fire Behaviour / Availability for Prescribe Burns
Acacia woodland (Mulga, Neliea, Yarran)	<ul style="list-style-type: none"> <li>No tolerance for fire</li> <li>Acacia woodland communities have adapted to very occasional fires.</li> <li><i>A. Ioderi</i> (Neliea) shrublands are a threatened ecological community and should not be exposed to fire.</li> </ul>	<ul style="list-style-type: none"> <li>Typically not enough fuel exists to carry fire in Acacia woodlands.</li> <li>However after consecutive years of above average rainfall the biomass of annual grass species increases the amount of near surface fuels and may potentially carry a wildfire into Acacia woodlands.</li> </ul>
Red mallee - Spinifex	<ul style="list-style-type: none"> <li>Capable of re-burning every 10 – 15 years</li> <li>Ideally consecutive fires should be spaced a minimum of 20 years apart to allow all species present the opportunity to reproduce</li> </ul>	<ul style="list-style-type: none"> <li>Fire intensity and spread is dependant upon the age and continuity of fuel.</li> <li>Generally Spinifex ground cover increases with time since fire. Fire in older Spinifex will tend to be more intense and less patchy than fires in younger Spinifex.</li> </ul>
Leopardwood woodland	<ul style="list-style-type: none"> <li>Fires once every 15 years – This species benefits from occasional fire events</li> </ul>	<ul style="list-style-type: none"> <li>This species benefit from occasional fire events. Fire can help suckering and regeneration.</li> </ul>
Belah woodland	<ul style="list-style-type: none"> <li>No more than one fire every 20 years</li> <li>Protect Belah from intense fires</li> </ul>	<ul style="list-style-type: none"> <li>This species is sensitive to fires and can be severely affected by intense fire events.</li> </ul>



Legend	
	NPWS Estate
	Acacia woodland (Mulga, Neliea, Yarran)
	Black Box, Hopbush, Prickly Wattle
	Red Mallee - Spinifex
	Belah woodland
	Leopardwood woodland
	Speargrass / Canegrass

Reference Documents	
•	<National Parks and Wildlife Service Fire Management Manual, 2013-14.>
•	Reference 1 - Williams J., Fire Regimes & their impacts in the Mulga landscapes of central Australia.

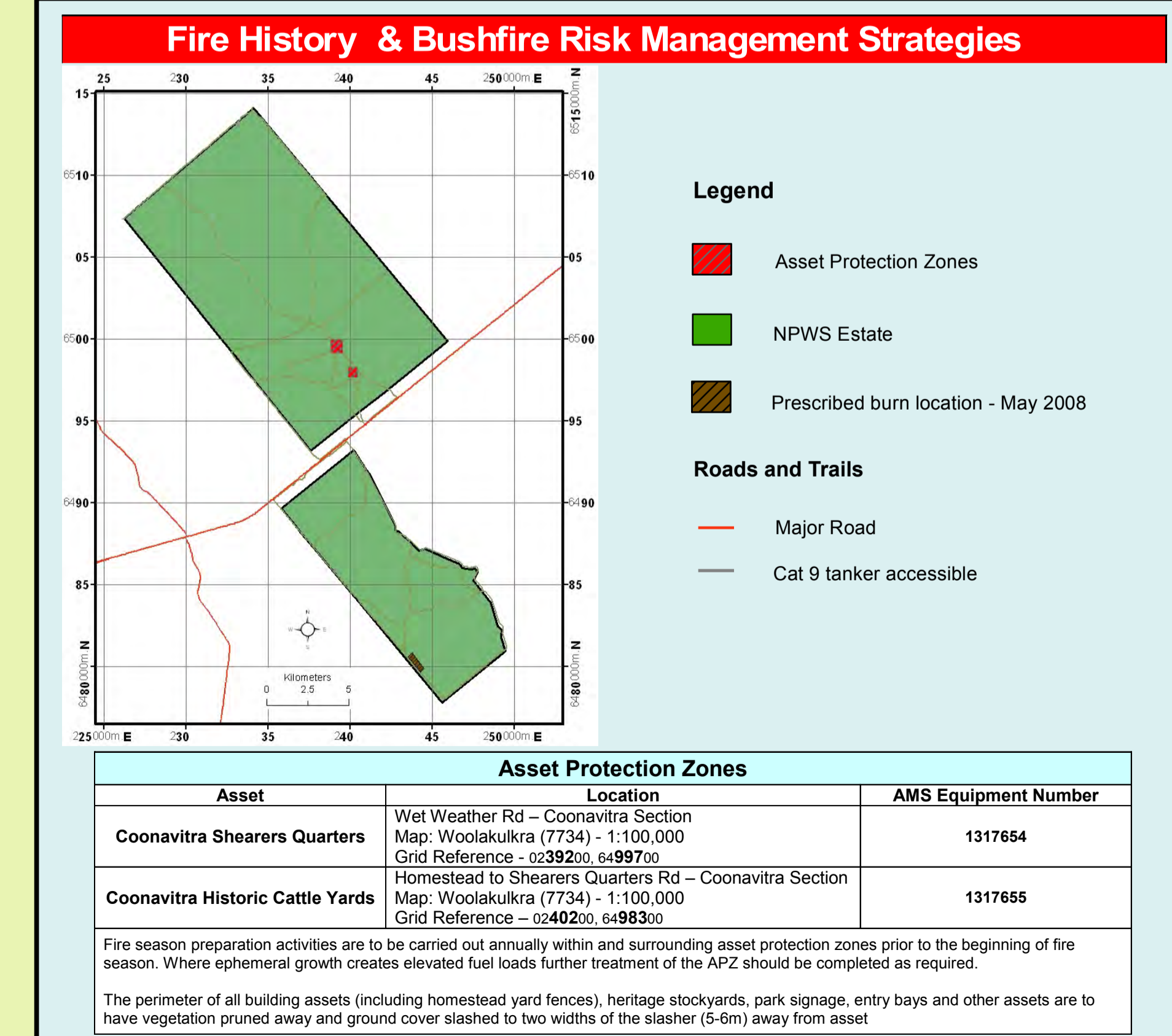
The frequency of fire in the Paroo-Darling National Park area is low. Large scale fires have occurred in the region following consecutive years of above average winter/spring rainfall which have coincided with the LaNina events, the last being 2010/11. Fires following LaNina events occurred in the early 1950's, mid 1970's and mid 1980's. Lightning strikes are thought to be the cause of most fires. These fires started in the south of the Emmdale district and travelled north towards the Darling River.

Vegetation communities on the Park do not generally carry sufficient fuel loads for large scale fires to develop. This is a result of low fuel levels in the understorey and the lack of spatial continuity caused by intermittent areas of bare earth or rocky ground. However spear grass and other annual grasses can form continuous fuel loads during ephemeral conditions.

A small area of Spinifex (*Triodia irritans*) occurs in conjunction with Red mallee (*Eucalyptus socialis*). This vegetation community is generally restricted to sand dune crests and is highly flammable but its discontinuous nature again limits the potential for large fires. Spinifex is a perennial grass, therefore the fuel hazard it presents is not influenced by rainfall.

A hazard reduction burn was carried out in May 2008 along the South-Western border of the Coonavitra reserve. This prescribed burn concentrated on areas of mallee-spinifex along the park boundary to prevent fires escaping or entering the park through this highly flammable corridor of vegetation.

Consecutive fire events should be spaced at approximately 20 year intervals to ensure plant species across the park have the opportunity to reproduce.



Legend	
	Asset Protection Zones
	NPWS Estate
	Prescribed burn location - May 2008

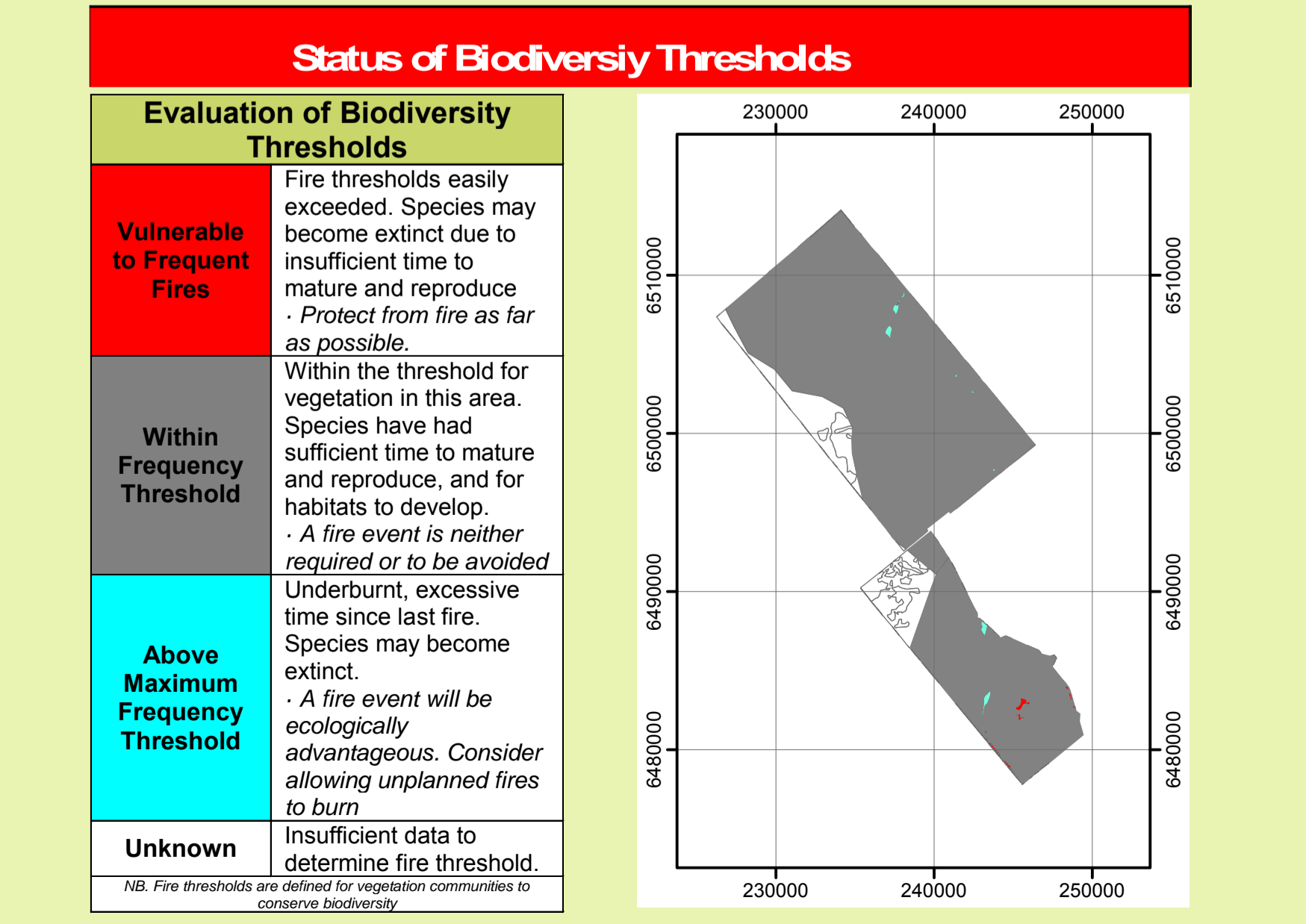
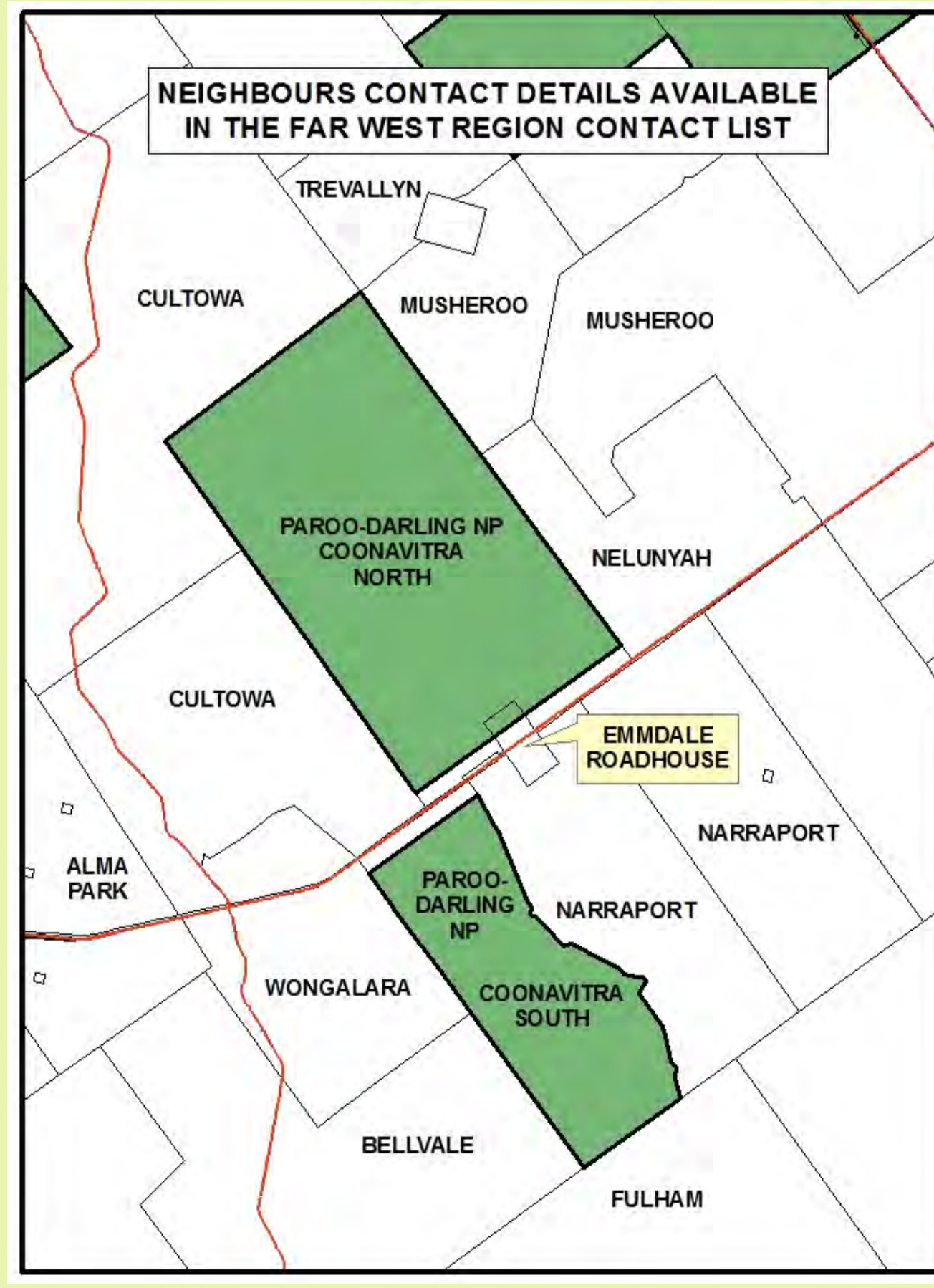
  

Roads and Trails	
	Major Road
	Cat 9 tanker accessible

Asset Protection Zones		
Asset	Location	AMS Equipment Number
Coonavitra Shearers Quarters	Wet Weather Rd – Coonavitra Section Map: Woolakulkra (7734) - 1:100,000 Grid Reference - 0239200, 6499700	1317654
Coonavitra Historic Cattle Yards	Homestead to Shearers Quarters Rd – Coonavitra Section Map: Woolakulkra (7734) - 1:100,000 Grid Reference - 0240200, 6498300	1317655

Fire season preparation activities are to be carried out annually within and surrounding asset protection zones prior to the beginning of fire season. Where ephemeral growth creates elevated fuel loads further treatment of the APZ should be completed as required.

The perimeter of all building assets (including homestead yard fences), heritage stockyards, park signage, entry bays and other assets are to have vegetation pruned away and ground cover slashed to two widths of the slasher (5-6m) away from asset



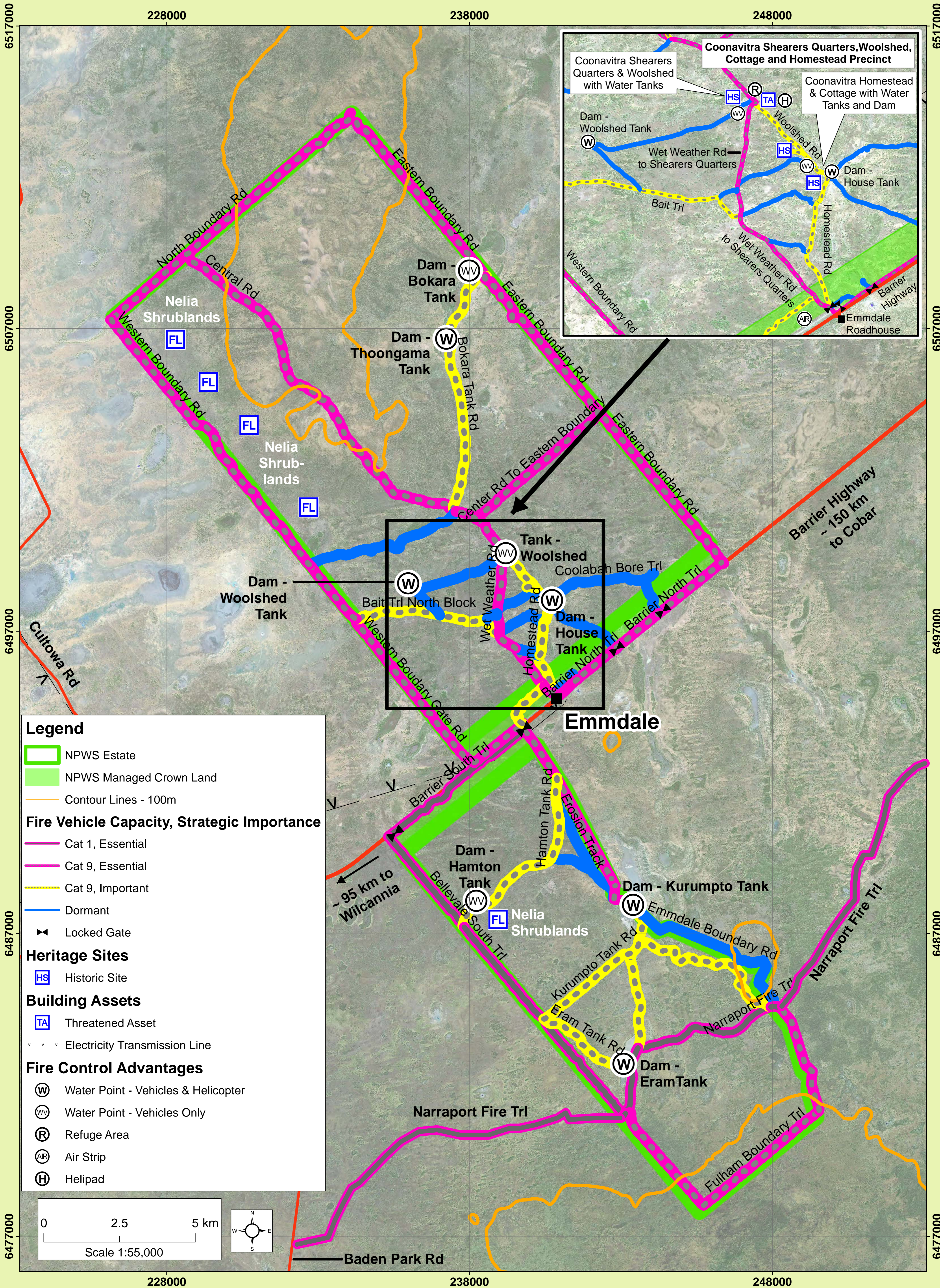
Evaluation of Biodiversity Thresholds	
<b>Vulnerable to Frequent Fires</b>	Fire thresholds easily exceeded. Species may become extinct due to insufficient time to mature and reproduce - Protect from fire as far as possible.
<b>Within Frequency Threshold</b>	Within the threshold for vegetation in this area. Species have had sufficient time to mature and reproduce, and for habitats to develop. - A fire event is neither required or to be avoided
<b>Above Maximum Frequency Threshold</b>	Underburnt, excessive time since last fire. Species may become extinct. - A fire event will be ecologically advantageous. Consider allowing unplanned fires to burn
<b>Unknown</b>	Insufficient data to determine fire threshold.

NB: Fire thresholds are defined for vegetation communities to conserve biodiversity



# Incident Map

## Paroo-Darling NP Coonavitra



**Legend**

- NPWS Estate
- NPWS Managed Crown Land
- Contour Lines - 100m

**Fire Vehicle Capacity, Strategic Importance**

- Cat 1, Essential
- Cat 9, Essential
- Cat 9, Important
- Dormant
- Locked Gate

**Heritage Sites**

- Historic Site

**Building Assets**

- Threatened Asset
- Electricity Transmission Line

**Fire Control Advantages**

- Water Point - Vehicles & Helicopter
- Water Point - Vehicles Only
- Refuge Area
- Air Strip
- Helipad

**Coonavitra Shearers Quarters, Woolshed, Cottage and Homestead Precinct**

Coonavitra Shearers Quarters & Woolshed with Water Tanks

Coonavitra Homestead & Cottage with Water Tanks and Dam

Dam - Woolshed Tank

Wet Weather Rd to Shearers Quarters

Bait Trl

Woolshed Rd

Homestead Rd

Wet Weather Rd to Shearers Quarters

Dam - House Tank

Western Boundary Rd

Barrier Highway

Emmdale Roadhouse

**Emmdale**

Tank - Woolshed

Coolabah Bore Trl

Dam - House Tank

Wet Weather Rd

Homestead Rd

Barrier North Trl

Barrier South Trl

Bait Trl North Block

Wet Weather Rd

Western Boundary Rd

Western Boundary Gate Rd

Hamton Tank Rd

Erosion Track

Dam - Hamton Tank

Nelia Shrublands

Dam - Kurumpto Tank

Emmdale Boundary Rd

Kurumpto Tank Rd

Eram Tank Rd

Dam - Eram Tank

Narraport Fire Trl

Narraport Fire Trl

Fulham Boundary Trl

Baden Park Rd

Barrier Highway ~ 150 km to Cobar

~ 95 km to Wilcannia

