



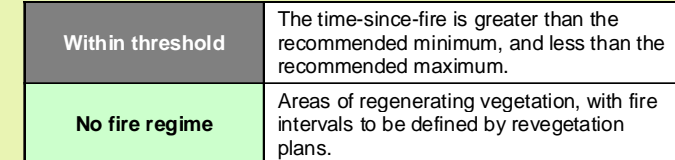
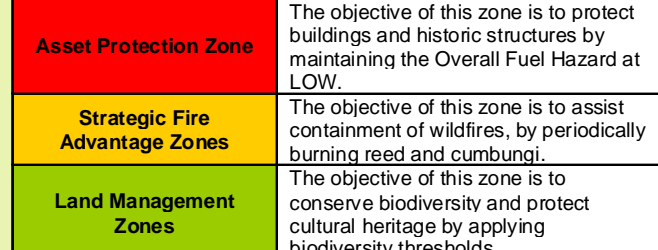
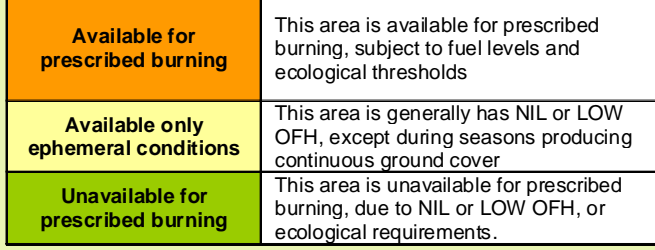
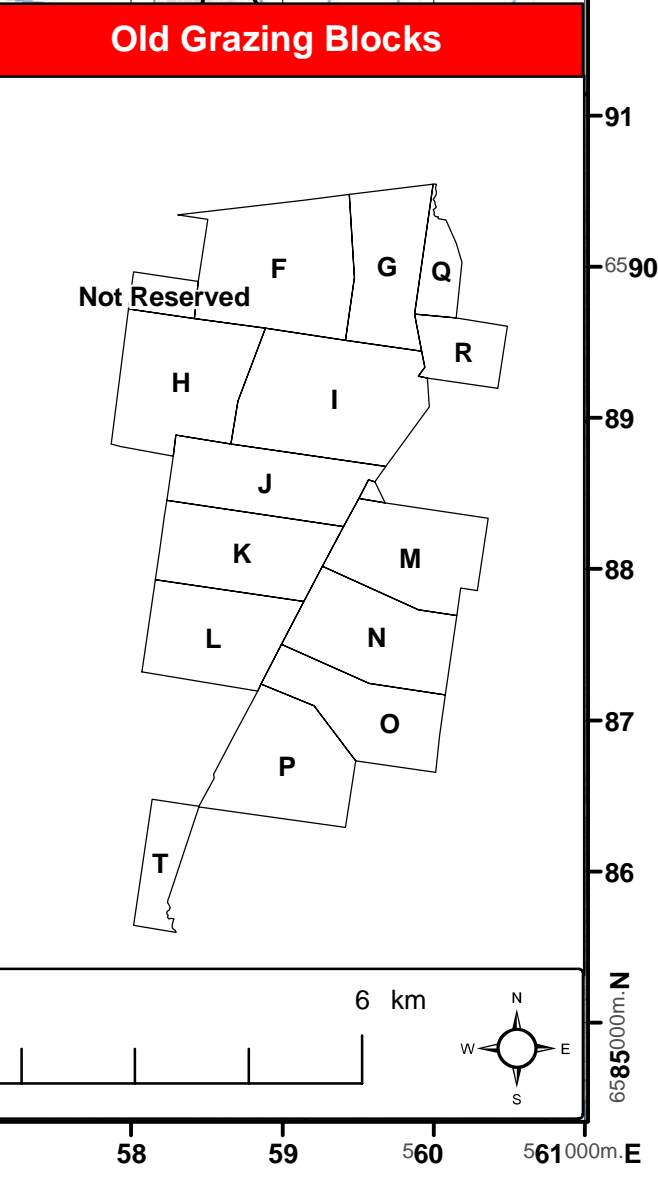
Related documents

- Bowen, S., Simpson, S. (2010) *Changes in the extent and condition of the vegetation communities of the Macquarie Marshes floodplain 1991 – 2008*. Report to Department of Environment, Climate Change and Water
- NSW National Parks and Wildlife Service (2012) *Fire Management Manual*
- Department of Environment, Climate Change and Water (2010) *Macquarie Marshes Adaptive Environmental Management Plan*
- NSW National Parks and Wildlife Service (1983) *Macquarie Marshes Nature Reserve Fire Plan of Management*
- NSW National Parks and Wildlife Service (2000) *Macquarie Marshes Nature Reserve Fire Environmental Plan 2000 – 2004*

Contact Information		
Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer (24 hour)	6842 3041
	Coonambarran Area Office (bus. hours)	6842 1311
NSW RFS North West	Zone Manager	0417 253 289
	Duty Officer	6822 4422
RFS Rural Fire Brigades	Buckingham-Lemongrove Brigade – David Thornton	6824 4367
	Glenore Brigade –	6824 2070
	North Area Brigade – Lloyd Johnson	6828 4235
	Quambone Rural Brigade – Robert Sinclair	6823 7177
NSW Fire Brigade	Shingle Hut Brigade – Gary Shelton	000
	Newcastle	13 2500
Emergency Services	Police, Fire, Ambulance	6863 2244
SES		6822 1488
Police	Calinda	6847 4204
	Coonamble	6822 1333
Council	Warren	6847 6600
	Coonamble	
	Warren	

Operational Guidelines	
General	Guidelines
Aerial operations	<ul style="list-style-type: none"> Aerial operations will be managed by trained and competent personnel. This includes directing aerial bombing and aerial ignition operations The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances. All aerial ignition operations require the consent of the NPWS Regional Manager or the Section 44 Appointee.
Backburning	<ul style="list-style-type: none"> All personnel must be fully briefed before back burning operations begin. Backburning in areas of Low – Moderate OFH will require the use of wind, or low humidity to maximise effectiveness. The first containment agency on site may assume control of the fire, but then must ensure the relevant land management agency is notified promptly.
Command & Control	<ul style="list-style-type: none"> On the arrival of other containment agencies, the initial Incident Controller will consult with regard to the ongoing command, control and incident management team requirements as per the relevant EPMC Plan of Operations. New containment lines require the prior consent of a senior NPWS officer. Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact.
Containment Lines	<ul style="list-style-type: none"> Exclusion areas for containment line construction are: <ul style="list-style-type: none"> reed beds (see exceptions in WARNINGS) areas adjacent to Aboriginal sites historic precincts and sites fretline construction will <ul style="list-style-type: none"> avoid removal of trees in all open woodlands avoid removal of mature trees in riverine forests minimise ground disturbance in scalded areas (lift blade) avoid mixed grasslands unless dry All personnel involved in containment line construction should be briefed on, and must consider both natural and cultural heritage sites in the location. All containment lines not required for other purposes should be closed immediately at the cessation of the incident.
Earthmoving Equipment	<ul style="list-style-type: none"> Graders may only be used with the prior consent of a senior NPWS Officer. Graders 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. Graders must not work in machinery exclusion areas. Graders must be washed down, where practicable, prior to it entering NPWS estate and again on exiting NPWS estate. The use of foam, gels and retardants will NOT be permitted within 100 metres of: <ul style="list-style-type: none"> areas defined as wetland, standing water, watercourses and dams Personnel should be briefed to prevent foam use in sensitive areas. The use of retardants requires the approval of the Regional Manager or delegate
Rehabilitation	<ul style="list-style-type: none"> Drainage lines and channels disturbed by the construction of containment lines must be rehabilitated as soon as possible, prior to the end of the wildfire suppression operation. Consider deployment of a bulk water carrier to support fire operations. Consider deployment of 1,000 litre pallet tanks, to be refilled by helicopters, to reduce fire unit turn around
Watering points	<ul style="list-style-type: none"> Potential smoke impacts and mitigation times will be assessed during the planning of fire operations.
Smoke Management	<ul style="list-style-type: none"> The area is generally closed to the public. No guided activities will be permitted during periods of Severe Fire Danger, or during fire operations.
Visitor Management	<ul style="list-style-type: none"> Fire suppression crews, and equipment should not enter reed beds for suppression purposes due to extreme fire behaviour potential. <ul style="list-style-type: none"> (Exception 1: areas of reduced reed cover as a result of droughts and wetland retreat) (Exception 2: dry conditions, short distance and safe access) The riverine forests and woodlands contain a very high level of dead standing timber, a result from recent dieback. This poses a significant risk to firefighters, especially after the passage of a fire. The reserve contains gilgai country which produces depressions and holes that are a hazard to cross-country travel. Vehicles should avoid areas of wet black soil due to the risk of bogging.
WARNINGS	

Suppression Strategies	
Conditions & forecast	Guidelines
	<p>Wetland grasslands – Reed Beds and Cumbungi</p> <ul style="list-style-type: none"> Control lines should be established outside reeds, using existing trails, channels, moist vegetation and low fuel areas Allow reed beds to burn out Exceptions to control line location are listed in "Operational Guidelines"
All conditions	<p>All other vegetation types</p> <ul style="list-style-type: none"> A broad containment strategy using existing roads, tracks, scalded areas, low fuel areas and moist vegetation. Where practicable, and with an analysis of short and medium forecasts, consider maximising the fire area, for ecological purposes. Direct or parallel attack with plant and fire units. Fallback to existing fire trails or open country when fire runs exceed capacity to construct containment lines Secure final back as soon as possible on the next predicted downwind side.
Stable conditions forecast Winds < 15 kph	
Unstable conditions forecast Winds > 15 kph	





Macquarie Marshes Reserves

Macquarie Marshes Nature Reserve & Macquarie Marshes State Conservation Area Fire Management Strategy 2011 - 2016

Mapsheets 2 of 2

This strategy should be used in conjunction with aerial photography and field reconnaissance. These data are not guaranteed to be free from error or omission. The NSW National Parks and Wildlife Service and its employees disclaim liability for any act done on the information in the data and any consequences of such acts or omissions.

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This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of the Rural Fires Act 1997.

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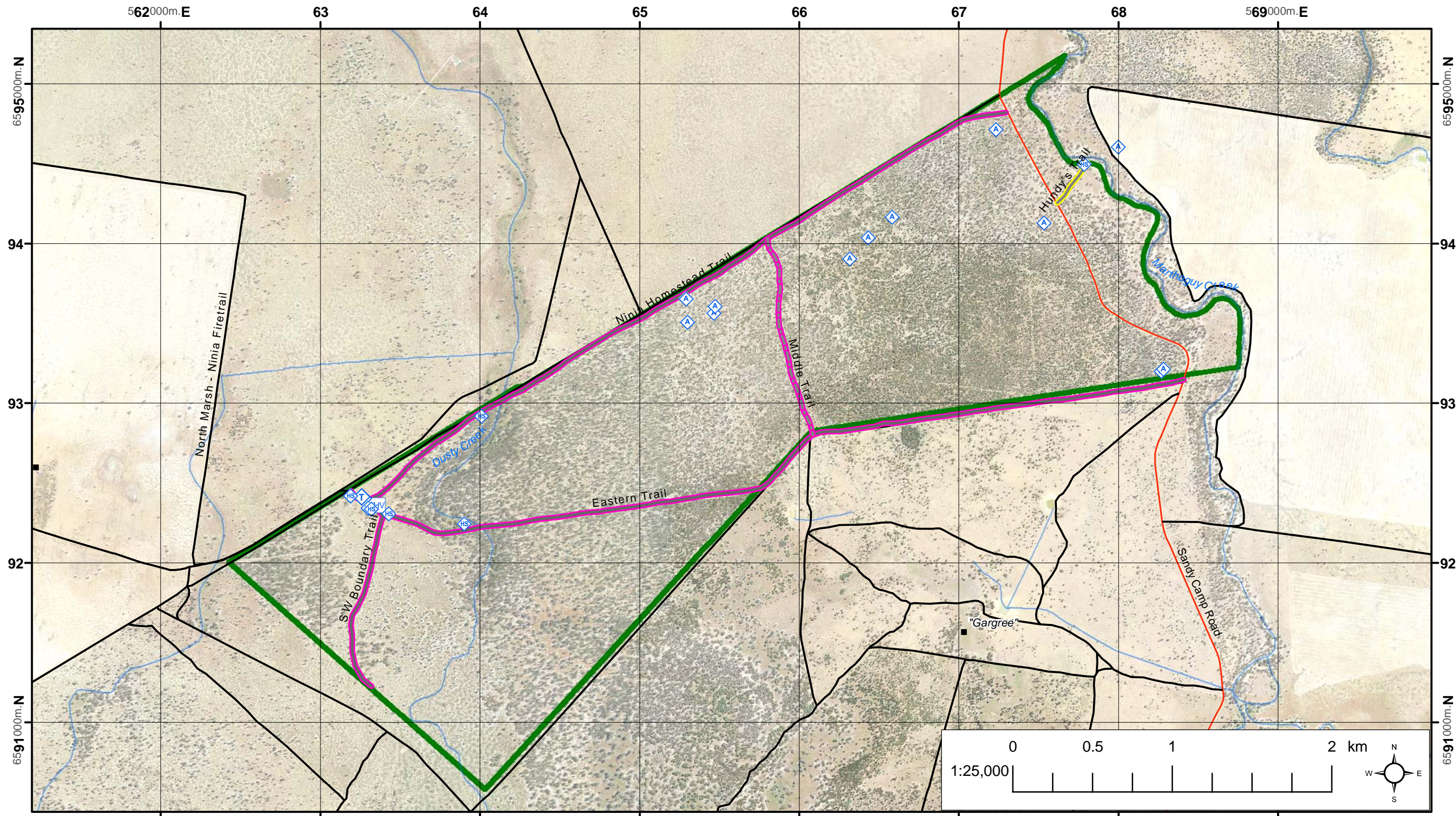
Date Approved: 3 April 2013

Operational Guidelines - Heritage (Ninia & South Marsh)	
Resource	Guidelines
Aboriginal Cultural Heritage Site Management	Modified trees (AS1), including scarred trees <ul style="list-style-type: none">Protect the site from fire, clear base of litter and shrubs, exclude site tree from fire where possibleFoam may be used to protect the tree, or to extinguish fireDo not cut trees
	Ground based sites (AS2), including: <ul style="list-style-type: none">artefacts, hearths & earth moundsProtect site from any ground disturbance, including the use of earth-moving equipment and vehicles
Historic Heritage Site Management	Grave Site - Marlagay Creek <ul style="list-style-type: none">Apply a machinery exclusion zone for a radius of 25 metres Historic precincts, including: Ninia homestead, Keatings yards, Murrays Yards <ul style="list-style-type: none">Protect the site from fire, exclude area from fire where possibleFoam may be used to protect the structures, or to extinguish fire
Threatened Flora and Fauna Management	Endangered ecological communities - including: <ul style="list-style-type: none">Poplar Box - Coolibah Woodlands and Myall woodlandsAvoid the removal of mature trees Endangered ecological communities - Riparian Open Woodlands <ul style="list-style-type: none">Exclude construction of control lines Threatened fauna and species subject to CAMBA, JAMBA & KAMBA Treaties <ul style="list-style-type: none">The protective actions for subject species are incorporated into the Operational Guidelines

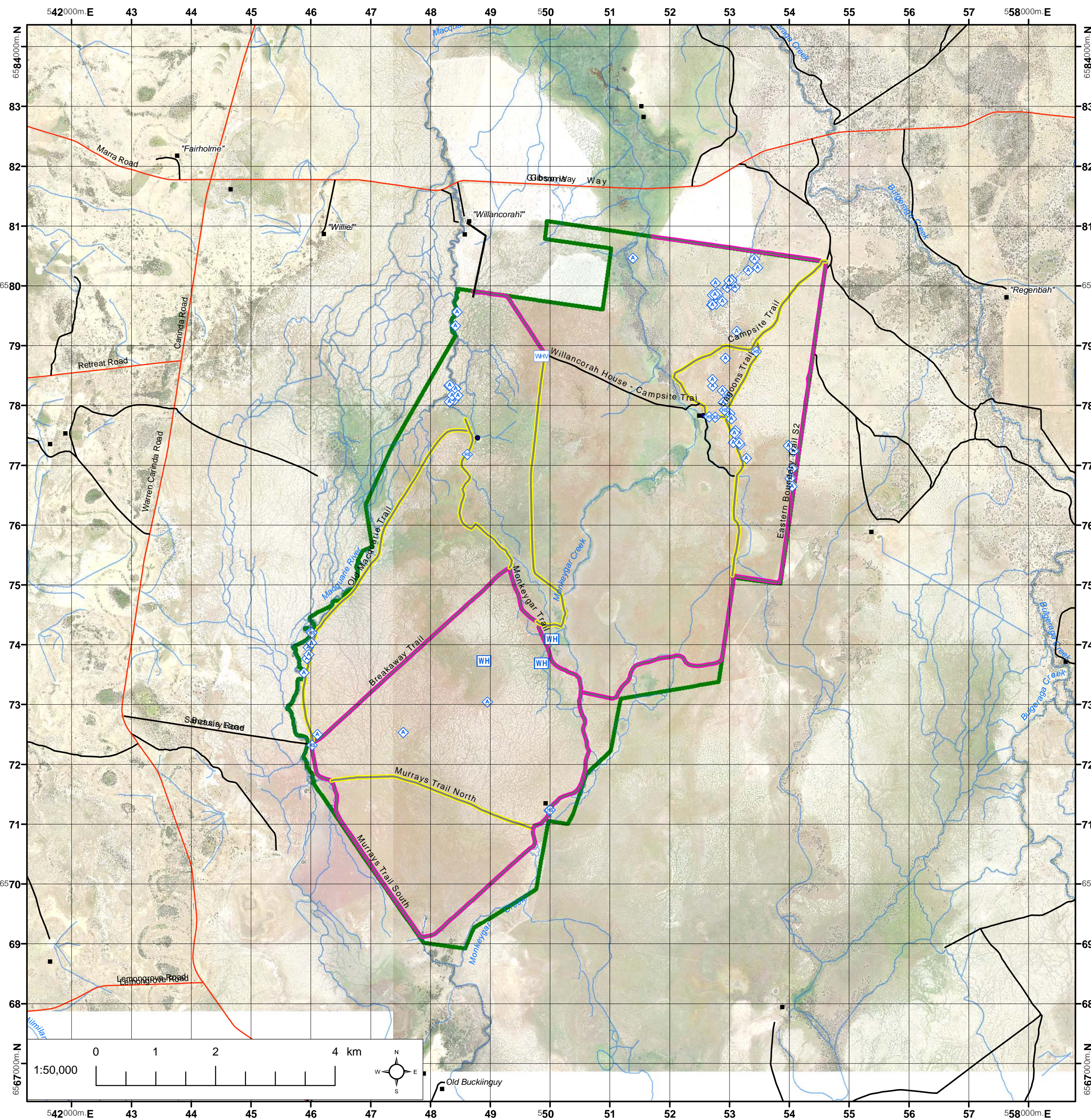
Vegetation management guidelines		
Community	Management guidelines	Fire Behaviour
Tall reed beds and cumbungi Common reed / Cumbungi	<ul style="list-style-type: none">An interval between fire events less than 2 years should be avoidedPrescribed burning guidelines in fire season information must be implementedPrescribed burning not permitted under severe drought stress	<ul style="list-style-type: none">Potential rates of spread is usually high due to Extreme OFHThe entire reed bed will burn out during dry conditionsSpread on flanks is limited when burning in standing water
Wet grasslands Water Couch / Marsh Club Rush	<ul style="list-style-type: none">An interval between fire events less than 2 years should be avoidedPrescribed burning not permitted under severe drought stress	<ul style="list-style-type: none">Potential rates of spread is usually low due to Low OFHDuring ephemeral seasons, potential rates of spread may be high due to grass cover
Grasslands & Cleared areas	<ul style="list-style-type: none">Vegetation cover dominated by chenopods during most seasonsContinuous grass cover may occur during episodic ephemeral seasonsNo prescribed burning recommended, unless stated by a Revegetation Plan	<ul style="list-style-type: none">Potential rates of spread is usually low due to Low OFHDuring ephemeral seasons, potential rates of spread may be high due to grass cover
Riverine forests & woodlands River Red Gum / River Coota	<ul style="list-style-type: none">Avoid high intensity fire eventsAn interval between fire events less than 10 years should be avoidedExclude fire from designated regeneration areas	<ul style="list-style-type: none">Potential rates of spread is usually low due to Low - Moderate OFHHigh intensity fire will occur with channels containing reed
Floodplain Woodlands Poplar Box / Black Box / Coolibah	<ul style="list-style-type: none">An interval between fire events less than 20 years should be avoided	<ul style="list-style-type: none">Potential rates of spread is usually low due to Low OFHFire may carry through this community after successive wet seasons producing a grassy understorey
Dry Woodlands Bendish Red Gum / Widgee / Lignum	<ul style="list-style-type: none">An interval between fire events less than 20 years should be avoided	<ul style="list-style-type: none">Potential rates of spread is usually low due to Low OFHFire may carry through this community after successive wet seasons producing a grassy understorey

Legend	
■	Structure
◆	Dam
◆	Threatened Property
WH	Water Point V & H
WH	Water Point Vehicle
◆	Aboriginal Sites
◆	Historic Site
—	Essential, Cat 1
—	Essential, Cat 7
—	Important, Cat 1
—	Important, Cat 7
—	Dormant
—	Standard Road
—	Vehicular Track
—	Watercourse
—	Fire Exclusion
—	Machinery Exclusion
—	NPWS Estate

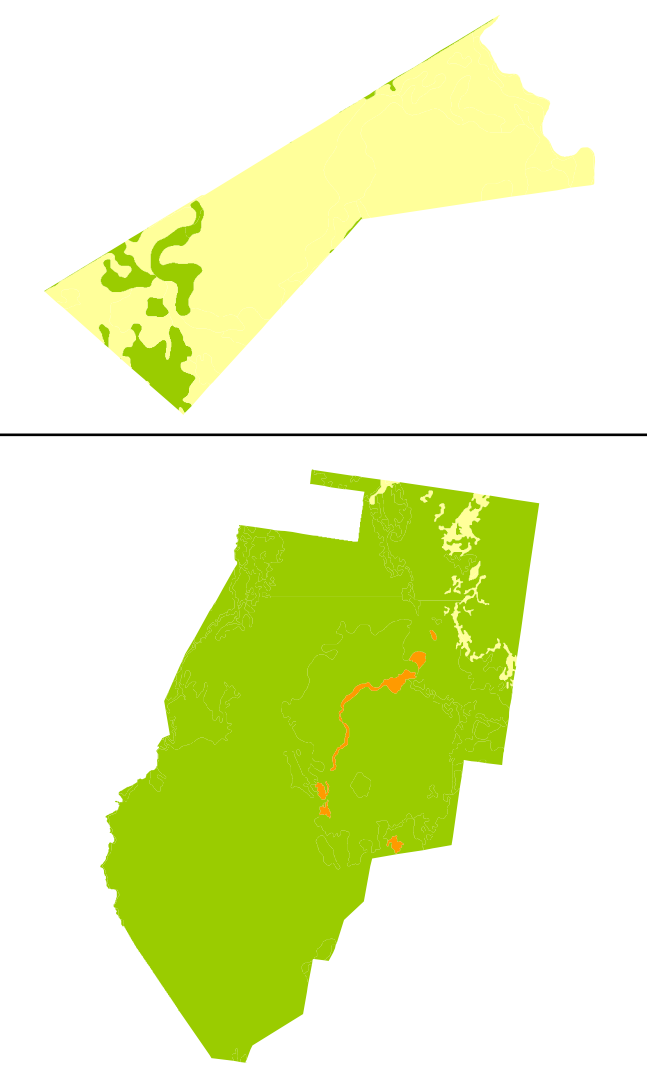
Incident Map Ninja



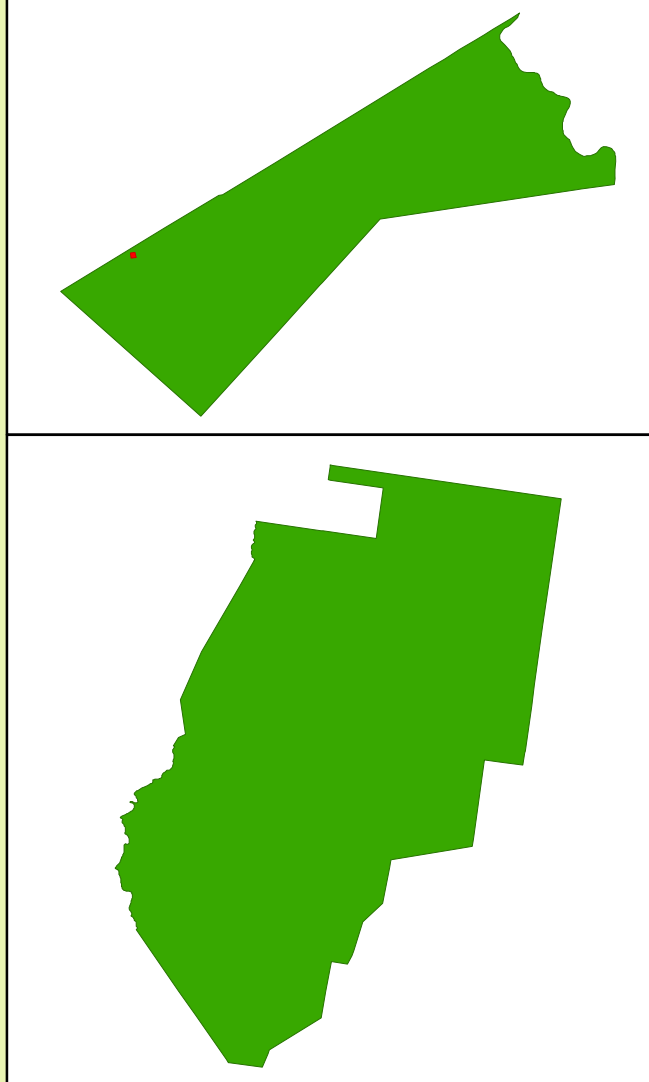
Incident Map South Marsh



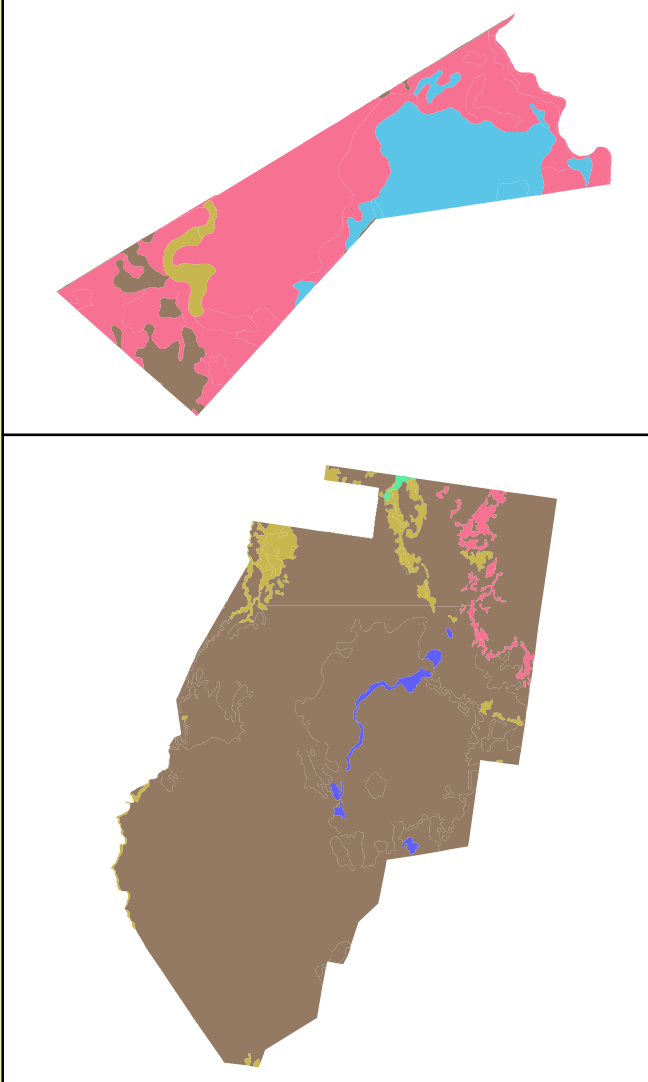
Prescribed Burn Availability



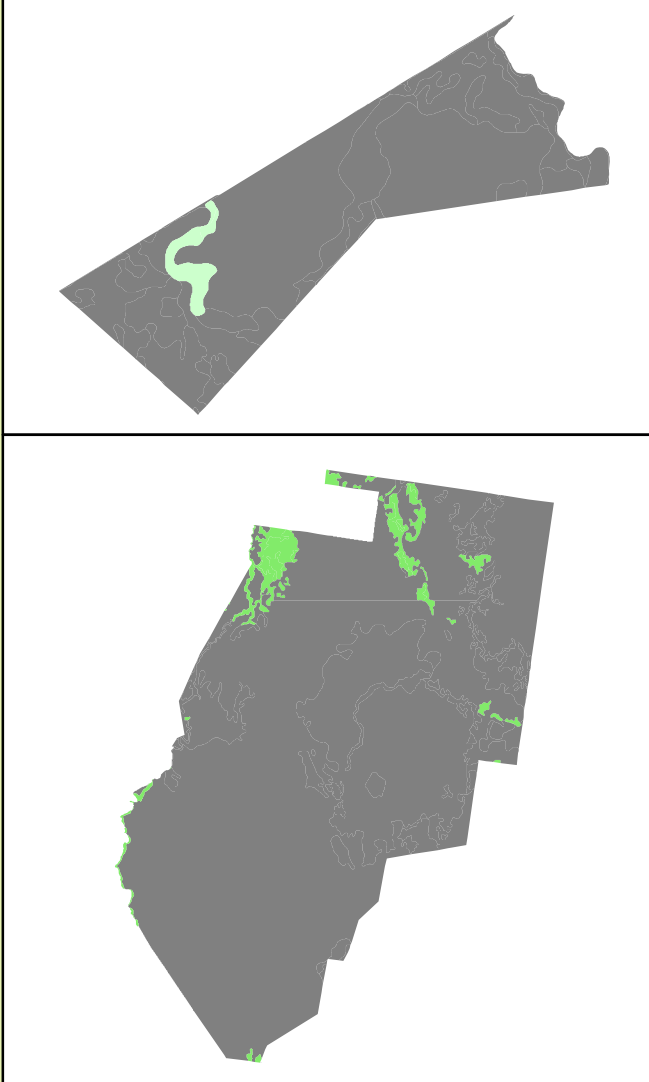
Bushfire Risk Management Strategies



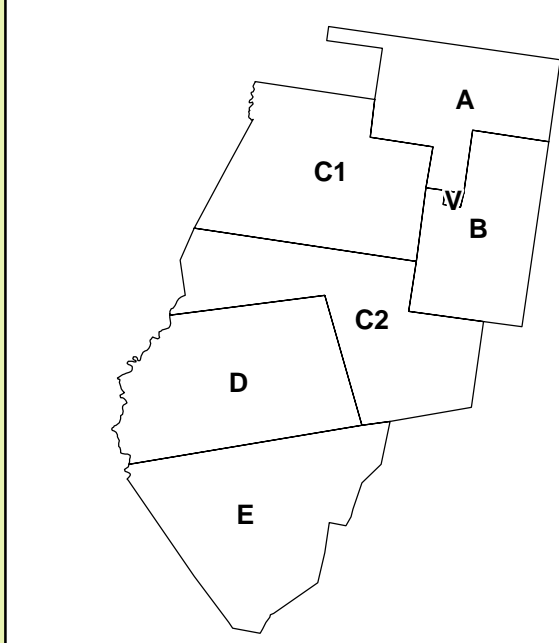
Vegetation



Thresholds



Old Grazing Blocks



Available for prescribed burning	This area is available for prescribed burning, subject to fuel levels and ecological thresholds
Available only ephemeral conditions	This area is generally has NIL or LOW OFH, except during seasons producing continuous ground cover
Unavailable for prescribed burning	This area is unavailable for prescribed burning, due to NIL or LOW OFH, or ecological requirements

Asset Protection Zone	The objective of this zone is to protect buildings and historic structures by maintaining the Overall Fuel Hazard at LOW
Strategic Fire Advantage Zones	The objective of this zone is to assist containment of wildfires, by periodically burning reed and cumbungi
Land Management Zones	The objective of this zone is to conserve biodiversity and protect cultural heritage by applying biodiversity thresholds

Broad Vegetation Communities	
■	Chenopod grasslands
■	Dry floodplain woodlands
■	Floodplain woodlands
■	Open wetlands
■	Riparian forests and woodlands
■	Tall Reed and Cumbungi wetlands
■	Wet grasslands

Within threshold	The time-since-fire is greater than the recommended minimum, and less than the recommended maximum
No fire regime	Areas of regenerating vegetation, with fire intervals to be defined by revegetation plans