Gwydir Wetlands
State Conservation Area
Fire Management Strategy (Type 2)
2020 - 2025

This strategy should be used in conjunction with aerial photography and field reconnaissance

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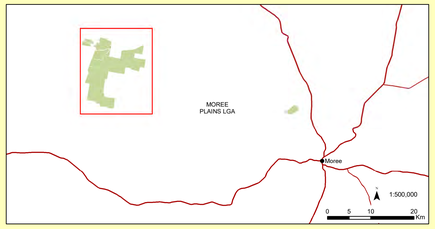
Planning, Industry & Environment

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

Locality Map



Map details

Datum: D_GDA_1994 Zone 55 Geographic Coordinate System: GCS_GDA_1994 Noted scales: True when printed on A 0 size paper.
Topographic Map : 1:50,000 Weemelah 8739-N; Goonal 8739-S

Local Government Area: Moree Plains

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer (24 hour)	8275 1742
	Narrabri Area Office (bus. hours)	6792 7300
NSW Rural Fire Service Gwydir Team	Michael Brooks	0427 101 124
	Duty Officer	6792 3667
	Zone Office	6792 3667
	Moree Office	6752 2452
	Curragundi: John Greer	6753 3244 0427 104 100
Emergency Services	Police, Ambulance, Fire and Rescue NSW	000
SES		132 500
Police	Moree	6757 0799
Council	Moree Plains	6757 3222

Communications

Service	Channel	Location and Comments
NPWS Repeaters	311 301	• Gwabegar • The Tops (marginal reception)
RFS	N008	• Digital Voting
UHF - CB		• Small fires channel 10, large fires determined by IMT
Aviation - CTAF	134.70	NIB frequency unless another frequency is allocated on an incident
Cellphone		• Mobile coverage is generally poor for most of the reserve (possible in the vicinity of Watercourse Rd). There is a mobile phone booster at Bunnor house. A satellite phone is recommended elsewhere.

Operational Guidelines

Aerial Operations	• 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. • Aircraft may be the only option where risk of bogging prevents ground-based crews from reaching the fire. • All aerial ignition operations require the consent of a senior NPWS officer or the Section 44 Appointee.
Backburning	• All personnel must be fully briefed before backburning operations begin. • Backburning in areas of Low – Moderate OFH will require the use of wind, or low humidity to maximise effectiveness. • Where possible back burning should be timed for late afternoon or early evening.
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. • The initial Incident Controller will liaise with the RFS to ensure that the agency in command is determined and an Incident Controller is appointed.
Containment Lines	• 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. • All personal 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. • Access is limited and fire behaviour can be extreme in the Big Leather and Gingham wetlands. For this reason, containment lines should be located on the margins of the wetlands to enhance crew safety. Direct attack may be undertaken on small smouldering fires in low wetland vegetation with clear escape routes. • Management trails are subject to periodic inundation and present risk of bogging. Causeways may be impassable when wet. • The location of Curragundi Scheme Pipelines must be checked.
Earthmoving Equipment	• Plant may only be used with the prior consent of a senior NPWS Officer. • Plant must always be guided and supervised by an experienced officer, and accompanied by a support vehicle (NPWS). When engaged in direct or parallel attack, this vehicle must be a fire fighting vehicle. • Graders are the preferred type of heavy plant on this reserve. • Plant must be washed down, where practicable, prior to it entering NPWS estate and again on exiting NPWS estate.
Fire Suppression Chemicals	• The use of foam, wetting agents and retardants will NOT be permitted within 50 metres of dams and watercourses holding water. • The aerial use of gels and retardants should be approved by a senior NPWS officer. • The use of retardants requires the approval of a senior NPWS officer.
Rehabilitation	• Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation. Windrows should be removed to allow water dispersal. • Drainage lines and channels disturbed by the construction of containment lines must be rehabilitated.
Water Points	• The tanks from the cap and pipe scheme are good sources of water. • Consider deployment of a bulk water carrier to support fire operations.
Smoke Management	• Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations.
Visitor Management	• Implement the emergency management plan during Severe + Fire Danger, or when fires are threatening walking trails and public use facilities. Ensure the closure is advertised on the NPWS visitor website. • A risk assessment of any guided activities will be undertaken if the FDI is Very High+, or if • there is a fire in the reserve.
WARNINGS	• **Potential EXTREME fire behaviour in tall sedgelands and reed beds and ephemeral grasslands.** • Beware large melon holes may develop on tracks in dry conditions. • Bogging in heavy clay soils with only small amounts of rain. • Bore drains and water channels have limited crossing points. Ensure crossing points are marked on the operations maps.
	Black text – general guidelines **Blue text** – reserve specific guidelines **Red text** – important warnings

Heritage Guidelines

Aboriginal Cultural Heritage	**IS 1 –** As far as possible protect site from fire. Do not cut down trees. **IS 2 –** As far as practicable protect the site from fire. Avoid all ground disturbance and driving over sites. Avoid water bombing which may cause ground disturbance. **IS 3 –** Avoid all ground disturbance. Avoid water bombing. Site may be burnt by fire without damage. **Modified trees** • As far as possible, protect the site from fire, and do not cut trees • Use of foams & retardant is acceptable. **Habitation sites** • Exclude control line construction from sites. Consider a buffer zone of about 50 metres from the sites. • AHIMS databases must be checked as part of planning for fire operations.
Historic Sites	**Old Dromana Woolshed, Historic Grain Silo and Yards** • As far as possible, protect from fire. • Use of foams & retardant is acceptable.
Threatened Fauna & Flora	• The protective actions for threatened fauna have been incorporated into the Operational Guidelines • Machinery should be excluded from the habitat of the Endangered Ecological Community "Marsh Club Rush Wetlands and Riparian Open Woodlands". • Tree removal should be avoided in the endangered Ecological Community "Coolibah – Black Box Woodlands".
Soil Erosion Management	• The soils within the reserve are generally highly dispersive, and very susceptible to erosion after disturbance. The construction of control lines aligned to the direction of water flow will be particularly vulnerable. • Light blading must be employed during control line construction • Removal of windrows after fire operations to allow water dispersal should occur as soon as operations are complete.

Suppression Strategies

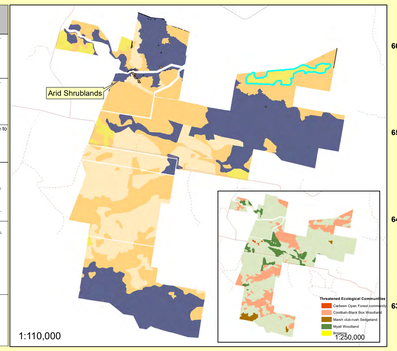
Conditions	Guidelines
Tall Reed and Sedge Wetlands	
All Conditions	• Control lines should be established outside reeds or use existing trails, channels and low fuel areas. • Allow reed beds and Marsh Club-rush to burn out. • Direct attack may be undertaken on small smouldering fires in low wetland vegetation with clear escape routes.
All other vegetation types	
Fire danger rating LOW - HIGH	• Consider a broad containment strategy using existing roads, allowing long-term management requirements for biodiversity. • Direct and parallel attack may be applied with earthmoving machinery and fire units.
Fire danger rating VERY HIGH - EXTREME	• Fallback to existing trails and roads, recently burnt areas or vegetation with LOW OFH, when fire runs exceed control line construction rates. • Secure and deepen control lines on the next predicted downwind side of the fire. • Backburning effectiveness will drop significantly in the after humidity starts to rise in the early evening.
Fire danger rating CATASTROPHIC	• Revert to property protection.

Fire Season Information

Wildfires	The critical wildfire season occurs during November to January, or anytime in late Spring to early Autumn after a long period of above average rainfall.
Prescribed Burning	Prescribed burning in the woodlands is only likely to be effective where above average rainfall has led to prolific grass growth. Prescribed burning in the wetlands can be undertaken in late winter and early spring. The following guidelines should be considered: • There should be sufficient soil moisture to protect the sub-surface rhizomes. • Light up access and containment lines should be constructed by slashing during dry conditions. • Burning should be done with a prevailing wind that will carry the fire to low fuel areas within the reserve.

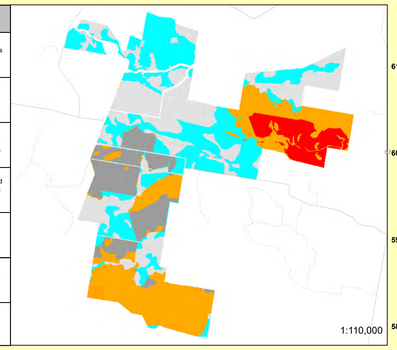
Vegetation

Vegetation Formation (Keith)	Vegetation Management Guidelines	Fire Behaviour
Semi-arid Woodlands (Grassy sub-formation) Belah / Cooibah / Myall Rosewood	• Avoid fire intervals of less than 20 years. Maintain a range of age classes to 40 years.	• Potential rates of spread are Low-Mod due to low OFH. • Fire may carry through this community after successive wet seasons have produced a grassy understorey.
Semi-arid Woodlands (Shrubby sub-formation) Lignum and river coobs	• Avoid fire intervals of less than 20 years. Maintain a range of age classes to 40 years.	• Potential rates of spread are Low-Mod due to low OFH. • Fire may carry through this community after successive wet seasons have produced a grassy understorey.
Arid Shrublands (Chenopod sub-formation) Five-minute grass, spiked rice flower	• Avoid fire intervals of less than 6 years. • Maintain a range of age classes to 40 years. • Communities containing Callitris should have a minimum fire interval of 10 years.	• Potential rate of spread is low due to **Low-Mod** OFH in most years. • Localised areas of High OFH may produce areas of higher fire intensity.
Freshwater Wetlands Common reed, spiked sedge, marsh club rush, coolibah and lignum	• An interval of five events less than 2 years should be avoided, a minimum interval of greater than 6 years is preferable. • In River Cooba and Lignum associations a minimum interval of 10 years is preferred. • Prescribed burning is not permitted under conditions of severe drought stress.	• Potential rates of spread are generally high due to very high or above fuel loads in wetlands. • The entire reedbed will burn out in dry conditions. • Potential rates of spread will be lower in River Cooba associations.
Grasslands	• The minimum interval between fire events should be 2 years. • The maximum interval between fire events should be 10 years.	• Potential rates of spread are dependent on seasonal conditions. • Low OFH and hence low rates of spread occur in dry years. • A Moderate to High OFH may develop after successive wet seasons producing continuous ground cover. In these conditions potential rate of spread may be Moderate to Very High.
Grassy Woodlands Poplar Box	• The minimum fire interval in healthy stands of these grassy woodlands is five years. Where the health of the woodlands in compromised, the minimum fire interval should be increased to 10 years. • The maximum fire interval is 40 years.	• Potential rates of spread are Low-Mod due to low OFH. • Fire may carry through this community after successive wet seasons have produced a grassy understorey.



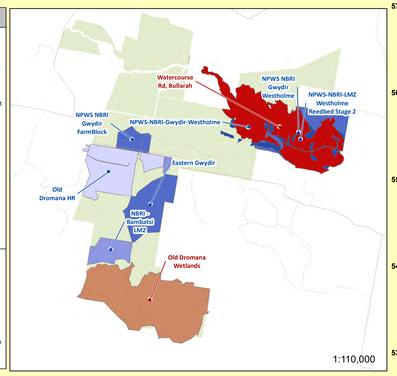
Vegetation Fire Thresholds

Vegetation Threshold	Treatment
Too Frequently Burnt	Fire thresholds have been exceeded. Protect from fire as far as possible.
Vulnerable to Frequent Fire	The area will be Too Frequently Burnt if it burns this year. Protect from fire as far as possible.
Within Threshold	Fire history is within the threshold for vegetation in this area. A burn is neither required nor should one necessarily be avoided.
Long Unburnt	Fire frequency is below fire thresholds in the area. A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.
Unknown	Insufficient data to determine fire threshold.
No Regime Assigned	Areas which do not have recommended fire intervals assigned to them eg. cleared land, rock.
NB. Fire thresholds are defined for vegetation communities to conserve biodiversity	



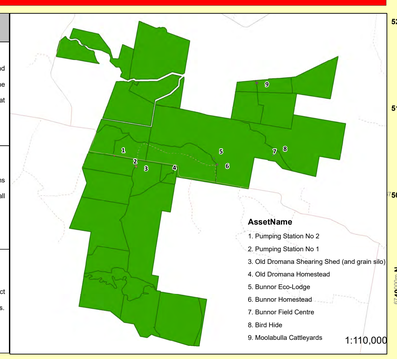
Fire History

Fire Type	Fire Details
Prescribed Burn	2017-18: Westholme Reedbed Stage 2 – Intense fire that removed most standing vegetation in the reed bed 2017-18: Eastern Gwydir – Moderate – low intensity patchy burn that removed some surface and near-surface fuels 2016-17: Gwydir Farmblock – Patchy low intensity burn that removed some surface and near-surface fuels 2016-17: Gwydir Westholme – Intense fire that removed most standing vegetation in the reed bed 2013-14: Bambatsi LMZ – Moderate intensity fire that removed much of the surface and near-surface fuels in a grassland dominated by Bambatsi grass 2012-13: Old Dromana – Moderate intensity fire that removed much of the surface and near-surface fuels in grassland dominated by native grasses
Wildfire	2019-20: Watercourse Rd, Bullarah – Intense fire that removed most standing fuel in the Gingham Watercourse reed bed 2016-17: Gwydir Westholme – Intense fire that removed most standing fuel in the Gingham Watercourse reed bed 2013-14: Old Dromana Wetlands – Intense fire that removed most standing fuel in the Big Leather Watercourse reed bed



Risk Management Information

Fire Management Zone	Treatment
Asset Protection Zones	The objective of **APZ**s 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 **SFAZ**s is to reduce fire intensity in locations to assist containment of wildfires, by maintaining the Overall Fuel Hazard less than HIGH.
Land Management Zones	The objective of **LMZ**s is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.



Operations Map