Watagans National Park
Fire Management Strategy
2006

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.

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Fire Season Information

Wildfires	Bushfire season in Eastern Australia between 1st October and 30th March. This may be extended if weather conditions lead to increased fire danger outside of this period.
Prescribed Burning (NPWS FMM 4.7)	Prescribed burning in this area is normally undertaken in April through to September.

Map Details

Projection	UTM AGD 1966 AMG Zone 56
Air Photo	SFE Watagans_air.std, Warraroo\Xing_air.std, Olney_west_air.std, Olney_east_air.std, Mount_mvall_air.std, Mooloa_air.std, Monkey_face_air.std, Ellalong_air.std, Cooranbong_air.std
1:25K Topographic Map	Morisset 9131-1N, Quorrobolong 9132-2S, 3rd Edition, (LPI). Kurri Kurri 9132-3N, Quorrobolong.sch
GBD Map	Newcastle, page 138
LGA	Lake Macquarie, Cessnock
Electorate	Lake Macquarie, Cessnock

Related Documents

- National Parks and Wildlife Service Fire Management Manual, September 2000.
- Vegetation Mapping of Watagans National Park & Jilliby State Conservation Area Summary Report, 2006.
- Watagans National Park & Jilliby State Conservation Area Draft Plan of Management, 2006.

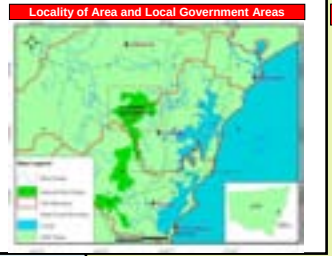
Communications Information

Service	Channel	Location and Comments
NPWS - VHF	CH 24 Duplex CH 29 Simplex	• Variable coverage
UHF - CB	CH 10 Forestry	• Available in most NSWFB and RFS vehicles • Choose channel on fire-ground with NSWFB and RFS
Mobile Phone - GSM	-	• Variable coverage

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Regional Duty Officer (24 hour)	4320 2404
	Central Coast Area Manager	4320 4401
	Fire Management Officer	4320 4269
	Regional Operations Coordinator	4320 4242
	Central Coast Regional Office	4320 4200
Rural Fire Service	Hunter Zone: Cessnock/Maitland	4991 1733 (after hours)
	Cessnock/Maitland	4991 1733 (after hours)
	Lake Macquarie	4950 2222 (Lake Macquarie)
	Lake Macquarie/Wyong	4352 5222 (24 Hour)
SES	Cessnock	000
	Lake Macquarie	4921 0930
	Cessnock	4991 2444
Police	Emergency	000
	Toronto	4950 3699
	Cessnock	4991 0199
	Emergency	000
Ambulance	Emergency	000
	Bookings	131 233
Hospital	John Hunter Hospital-Lambton	4921 9000
	Cessnock, Vine Street, Cessnock	4991 0991
Council	Lake Macquarie City Council	4921 0333
	Cessnock City Council	4993 4100
State Forests	Hunter Regional Office, Maitland	4931 6666

Locality of Area and Local Government Areas



Bushfire Suppression

Vegetation

Vegetation Communities and Biodiversity Thresholds

Regime	Vegetation Community	Biodiversity Thresholds
A	Shrubby Dry Sclerophyll Forest	• Avoid successive fires at intervals of <7 years. • Avoid fire exclusion for a period of > 30 years.
B	Wet Sclerophyll Forest	• Avoid successive fires at intervals of <30 years. • Avoid fire exclusion for a period of > 200 years.
C	Semi-mesic grassy forest	• Avoid successive fires at intervals of <10 years. • Avoid successive fires at intervals of >10 years.
D	Rainforest	• Avoid any fire occurrence in planted recovery drifts within

Current Vegetation Status (Fire Thresholds)

Fire Thresholds

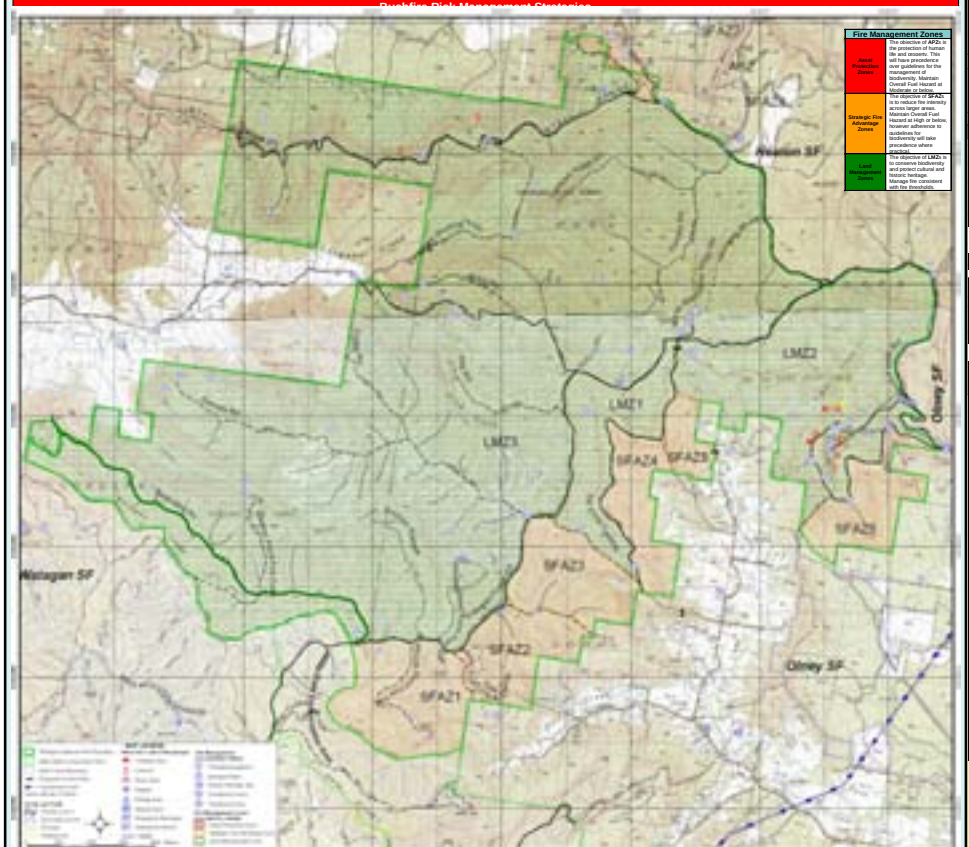
Overburnt	Fire thresholds have been exceeded. *Protect from fire as far as possible.*
Vulnerable	The area will be Overburnt if it burns this year. *Protect from fire as far as possible.*
Recently Burnt	Time since fire is less than the optimal interval, but before that it was within threshold. *Avoid fire if 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.*
Almost Underburnt	Fire is due to be in threshold and may become underburnt with the absence of fire. *A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.*
Exceed Upper Threshold	Fire frequency is below fire thresholds for this area. *A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.*

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

Prescribed Burning Schedule

Zone Name	Strategy
SFA2 2	- Maintain fuel hazard shigh - Hazard Reduction burn from 2010
SFA2 1	- Maintain fuel hazard shigh - Hazard Reduction burn from 2007
SFA2 3	- Maintain fuel hazard shigh - Hazard Reduction burn from 2008

Bushfire Risk Management Strategies



Fire Management Zones

Asset Protection Zones	The objective of APZs is the protection of human life and assets. This will have precedence over guidelines for the management of biodiversity. Maintain Overall Fuel Hazard at Low or below.
Strategic Fire Advantage Zones	The objective of SFAZs 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.
Land Management Zones	The objective of LMZs is to conserve biodiversity and protect cultural and Heritage values. Manage fire consistent with the thresholds.

Operational Guidelines

Refer to Strategy for Fire Management 2002 and Fire Management Manual 2000.
Brief all personnel involved in suppression operations on the following issues:

General

Guidelines	
Aerial Water Bombing (NPWS FMM 4.4; NSW Fire Services Aviation Manual; NPWS Guidelines for Effective Aircraft Management)	• The use of bombing aircraft should support containment operations by providing ground based fire suppression crews. • The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances. • Where practicable foam should be used to increase the effectiveness of the water. • Ground crews must be alerted to water bombing operations.
Aerial Ignition (NPWS FMM 4.2.20 & 4.4.7; NSW Fire Services Aviation Manual; NPWS Guidelines for Effective Aircraft Management)	• Aerial ignition may be used during back-burning or fuel reduction operations where practicable, but only with the prior consent of NPWS Regional Manager or Section 44 delegate. • Utilise procedures to rapidly crossness back-burns down slope where practicable.
Backburning (NPWS FMM 4.6)	• Temperature and humidity trends must be monitored carefully to determine the safest times to implement back-burns. Generally, when the FDI is Very High or greater, backburning should commence when the humidity begins to rise in the late afternoon or early evening. With a lower FDI backburning may be safely undertaken during the day. • Where practicable, clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down trees prior to the arrival of the bushfire ignition. • Avoid lines of fire from the bottom of slopes where a long and reversing up slope burn is likely.
Command & Control (NPWS FMM 4.2)	• 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 restard to the sessions command, control and incident management team requirements as per the relevant BFMC Plan of Operations.
Containment Lines (NPWS FMM 7.2 & 3.9)	• 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. • Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation. • All containment lines not required for other purposes should be closed at the cessation of the incident. • All personnel involved in containment line construction should be briefed on the relevant protection of heritage sites in the location.
Earthmoving Equipment (NPWS FMM 4.2.20 & 4.3)	• Earthmoving equipment may only be used with the prior consent of a senior NPWS officer, and then only if the probability of its success is high. • Earthmoving equipment must be always 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 firefighting vehicle. • Containment lines constructed by earthmoving equipment should consider the construction of drainage features, observe the Threatened Species and Cultural Heritage Operational Guidelines, and be surveyed, where possible, to identify unknown cultural heritage sites. • Earthmoving equipment should be washed down, where practicable, prior to entering NPWS estate.
Fire Advantage Recording	• All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
Fire Suppression Chemicals (NPWS FMM 4.2.20 & 4.19)	• Wetting and foaming agents (surfactants) are permitted for use in wildfire suppression. • The use of fire retardant is only permitted with the prior consent of the senior NPWS officer, and should be avoided where reasonable alternatives are available. • Exclude the use of surfactants and retardants within 50m of rainforest, watercourses, dams and swamps. • Areas where fire suppression chemicals are used must be mapped and the used product's name recorded. • The Threatened Species Operational Guidelines are to be observed.
Rehabilitation (NPWS FMM 4.1)	• Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Smoke Management (NPWS FMM 4.4)	• The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations. • Where smoke becomes a hazard on local roads or highways, the police and relevant media must be notified. • Smoke management must be in accordance with relevant RTA traffic management guidelines.
Visitor Management (NPWS FMM 5.4 & 4.19)	• The reserve must be closed to the public during periods of extreme fire danger or during wildfire suppression operations.

Resource Guidelines

Resource		Guidelines
		Aboriginal Cultural Heritage Site Management (NPWS FMM 4.11)
Cultural Heritage	A1	• Avoid all ground disturbances including the use of earth moving machinery, handline construction and driving over sites. • Avoid water bombing which may cause ground disturbance.
	A2	• Avoid all ground disturbances including the use of earth moving machinery, handline construction and driving over sites. • Avoid water bombing which may cause ground disturbance.
	A3	• Avoid all ground disturbances including the use of earth moving machinery, handline construction and driving over sites. • Avoid water bombing which may cause ground disturbance. • Site may be burnt by bushfire, backburn or prescribed burn without damage.
		Historic Heritage Management (NPWS FMM 4.11)
Cultural Heritage	HS1	• Heritage site unlikely to be affected by fire. Low RCHMS* Priority
	HS2	• High RCHMS* priority. • Avoid fire, including wildfire, backburning & HR.
	HS3	• High or low RCHMS* priority. • Avoid fire, including wildfire, backburning & HR.
	HS4	• Low RCHMS* priority. • Low impact except where post-fire erosion causes artefact movement or changes to site.
		Threatened Property
Property		• Where possible property owners with assets at risk from a wildfire event should be kept informed regarding the progress of the fire, and ask for an assessment of their current level of asset protection guidelines.
		Threatened Flora Management (NPWS FMM 4.14)
Flora	FL 1	• Avoid interfire intervals of < 10 years. • Avoid the use of earthmoving machinery. • Avoid the use of retardant.
	FL 2	• Apply fire regimes which maintain floristic and structural diversity. Low frequency, low intensity burns. • Avoid the use of earth machinery in known locations. • Avoid the use of retardants and foams in locations where this species occurs formally as opposed to seasonally.
		Threatened Fauna Management (NPWS FMM 4.14 & 5.4)
Fauna	FA1	• No burning around nesting sites (tree hollows / dense vegetation) at any time. • No slashing, trittering or tree removal. • Exclude fire from old growth moist forest communities. • Utilise mosaic burns in foraging habitat. • Avoid use of machinery around nesting sites in breeding season.
	FA2	• Protect hollow bearing trees in locations where these species are known to occur. • Avoid use of machinery around known nests (tree hollows) during breeding season (August - September). • Avoid high intensity fires to maintain large mature eucalypts in the canopy.
	FA3	• Fire is likely to impact this species if critical habitat is damaged or removed - as far as possible exclude fire from wetland habitats of known locations. • Avoid use of machinery in known locations.
	FA4	• Protect hollow bearing (live and dead trees) and large mature trees which will provide future hollows. • Avoid too frequent burning resulting in reduction of understorey vegetation and fallen timber.
	FA5	• Avoid Allocasuarina thickets when undertaking mechanical forms of hazard reduction. • Utilise mosaic burn avoiding high intensity fires. • Avoid fire around hollow bearing trees. • No fire, smoke or machinery around nesting site during breeding season (autumn and winter).
	FA6	• Utilise mosaic burn in areas containing preferred food resources (Swamp Mahogany Eucalyptus robusta, Grey Gum Corymbia maculata and Red Bloodwood Corymbia gummifera). • Limit use of fire in these areas during winter. • Avoid burning in known habitat during breeding season (July – November). • Avoid hazard reduction burn during winter and spring in areas of eucalyptus currently in flower.
	FA7	• As far as possible, avoid fire around large tree and log hollows in known locations. • Utilise mosaic burn to maintain suitable habitat and food resources. Wet down large log hollows prior to burn. • Limit use of fire and machinery during breeding season (April - July) in known locations.
	FA8	• Species likely to be unaffected by low to moderate intensity fires. • High intensity crown fires have potential to kill individuals and directly reduce habitat. • Prescribed burns within known or potential habitat should be low intensity and restricted to <10ha. • Protect know populations from fire, especially during the breeding season.
	FA9	• Vegetation burn mosiaes should aim to achieve a mosaic of age classes within habitat communities across the reserves. • Prevent known & potential habitats from being impacted by a fire event. • Conduct bush regeneration where appropriate.
	FA10	• No burning around known roost sites (Caves). • Avoid the use of fire and machinery around known camps and flowering tree species. • Utilise mosaic burn in foraging habitat; avoid fire in the breeding season (spring – summer).
	FA11	

Helipad Location

	Label	Latitude	Longitude
[illegible]	HP 1	• 33° 58.430' South	• 151° 21.764' East
	HP 2	• 33° 58.053' South	• 151° 23.505' East
	HP 3	• 33° 05.462' South	• 151° 22.622' East
	HP 4	• 33° 01.903' South	• 151° 22.022' East
	HP 5	• 33° 03.218' South	• 151° 19.170' East
	HP 6	• 33° 03.341' South	• 151° 24.437' East
	HP 7	• 33° 04.630' South	• 151° 21.452' East

Suppression Strategies

Current FDR	Forecast FDR	
Low – Mod	Low – Mod	• As far as possible, undertake indirect, parallel or direct attack along existing control lines. • As far as possible, maximise area burnt without threatening assets, including biodiversity. • Identify and survey backup control lines.
Low – Mod	> = High	• Undertake indirect, parallel or direct attack to minimise the time taken to contain the fire. • Construct new control lines if necessary to minimise the time to contain the fire. • Identify and survey backup control lines.
High	All	• Undertake indirect attack along existing or newly constructed control lines. • Secure and deepen control lines along the next predicted downwind side of the fire. • Identify and survey backup control lines.
All	All	• Ensure there is sufficient time to secure control lines before the fire gets to them. • If there is insufficient time to secure control lines, fall back to the next potential control line. • As far as possible, implement threatened species and cultural heritage management guidelines.