

Pilliga South Fire Management Strategy
 Pilliga Nature Reserve
 Ukerbarley Aboriginal Area
 Ukerbarley State Conservation Area
 Cooleburba State Conservation Area
2016 - 2021

This strategy should be used with aerial photography and field reconnaissance. This is a relevant plan under Section 38 (4) and Section 44 (3) of Rural Fires Act 1997. These data are not guaranteed to be free from error or omission. The NSW National Parks and Wildlife and its employees disclaim liability for any act done on the information in the data and any consequences of such acts or omissions. This document is copyright. Apart from any fair dealing for the purpose of study, research criticism or review, as permitted under the copyright Act, no part may be reproduced by any process without written permission. The NSW National Parks and Wildlife Service is part of the Office of Environment and Heritage. Published by: Office of Environment and Heritage (NSW). Contact: NPWS Northern Plains Region, PO Box 848 Narrabri NSW 2390. Ph 6792 7350. ISBN 978-1-76039-699-2 DEH2017/0072 Date Approved: 16/12/2016

| Communications Information | | |
|----------------------------|--------------|---|
| Service | Channel | Location and Comments |
| NPWS VHF | 312 321 | • Wanda Trig • Needle Mountain Coverage variable due to terrain |
| RFS | N030 N033 | • Wanda Trig • Siding Spring Coverage variable due to terrain |
| UHF - CB | | • Small fires - Channel 10 • Large fires - determined by IMT |
| Aviation | 126.7 | • CTAF |
| Mobile phone | | • Telstra 3G coverage - highly variable, consult coverage maps |

| Contact Information | | |
|-----------------------------------|--|------------------------------|
| Agency | Position / Location | Phone |
| National Parks & Wildlife Service | Duty Officer (24 hour) Coonabarabran Area Office (bus. hours) | 6842 3041 6842 1311 |
| NSW RFS Castlereagh Zone | Zone Manager Duty Officer | 0417 415 032 0417 419 367 |
| RFS Rural Fire Brigades | Dianry - Alan Taylor Yearnman - Denis Hammond | 0499 627 226 0499 627 226 |
| NSW Fire Brigade | Newcastle | 4929 7177 |
| Emergency Services | Police, Fire, Ambulance | 000 |
| SES | | 13 2300 |
| Police | Coonabarabran | 6842 7299 |
| Council | Warrumbungle | 6849 2000 |

Map details
 Datum: GDA 1994 Projection: MGA 1994 Map Zone: 55
 Map Base: SPOF 2011
 Topographic Map 1:50000 BUGAN, BUGALDIE 8735N, COOAS, COONABARABRAN 8735E
 Node scales: True when printed on A1 size paper
 Local Government Area: WARRUMBUNGLE

Fire Season Information

Wildfires

- The critical wildfire season generally occurs during November and December.
- This may commence late September or extend into the first half of January during periods of strongly negative ENSO indices, or very dry summers.
- The end of the critical fire season is often marked by wet storm activity.
- Effective prescribed burning commences once the "critical fire season" and thunderstorm season is over.

Prescribed Burning

- Predicted rain events may be used to limit unbounded burns.
- Prescribed burning attempted after autumn rain is NOT likely to be effective.
- Burning in grassland and wetland areas should be undertaken late winter prior to the germination / resprouting of grasses.

Vegetation

Legend

- Derived grasslands
- Grassy Box woodlands
- Sandstone shrubby woodlands
- Valley woodlands
- Wetlands

Scale 1:250,000

Status of Biodiversity Thresholds

| | |
|-----------------------------|---|
| Too frequently burnt | Consecutive fire intervals are shorter than the recommended minimum interval. |
| Vulnerable to frequent fire | The current fire interval is shorter than the recommended minimum interval. |
| Within threshold | The time-since-fire is greater than the recommended minimum, and less than the recommended maximum. |
| Long unburnt | The current fire interval is longer than the suggested interval. |

Scale 1:250,000

Bushfire Risk Management Strategies

| | |
|--------------------------------|--|
| Strategic Fire Advantage Zones | The objective of this zone 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 this zone is to conserve biodiversity and protect cultural heritage by applying biodiversity thresholds. |

Scale 1:250,000

Vegetation Suitability for Prescribed Burning

| | |
|---|---|
| Available | Available for prescribed burning subject to fuel levels and recommended fire interval thresholds. |
| Available only during VERY HIGH FDI | This area generally has LOW or MODERATE OFH, prescribed burning effective only under VERY HIGH FDI. |
| Available - only ecological management | This area is available for prescribed burning, strictly subject to ecological prescriptions. |
| Availability for burning must be referenced with the Status of Biodiversity Thresholds. | |

Scale 1:250,000

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 Incident Controller. 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. Backburning should be timed for late afternoon and early evening. Where practicable to assist mop-up efforts, clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down these trees during the ignition. |
| 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. Backburning should be timed for late afternoon and early evening. Where practicable to assist mop-up efforts, clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down these trees during the ignition. |
| Command & Control | <ul style="list-style-type: none"> The first combatant agency on site may assume control of the fire, but then must ensure the relevant land management agency is notified promptly. A senior NPWS officer is to liaise with the RFS to ensure that the agency in command and control is determined and an Incident Controller is appointed. |
| Containment Lines | <ul style="list-style-type: none"> Existing or previous roads, tracks and control lines should be used wherever possible. 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 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 end of the incident. Containment lines should not be constructed in areas identified in the guidelines for earthmoving equipment. |
| Earthmoving Equipment | <ul style="list-style-type: none"> Plant may only be used with the prior consent of a senior NPWS officer. Plant must always be supervised by an experienced officer, and accompanied by a fire-fighting vehicle when engaged in direct or parallel attack. Earthmoving machinery will not be permitted to construct containment lines in the following areas (see "Operational Restrictions Map"): steep sandstone slopes and ridges within 100 metres of Aboriginal sites, except within existing fire trails wetland areas valley areas when sub-soils are saturated Phytophthora affected areas |
| Fire Suppression Chemicals | <ul style="list-style-type: none"> The use of foam, gels and retardants will be permitted on the reserve. Fire suppression chemicals are not to be applied within 50m of water courses and dams. The use of retardants requires the approval of a senior NPWS officer. |
| Prescribed burning | <ul style="list-style-type: none"> A restriction on prescribed burning will apply in an area depicted on the "Operational Restrictions Map". Burning should be avoided in this area during September to March. |
| Rehabilitation | <ul style="list-style-type: none"> Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation. |
| Watering points | <ul style="list-style-type: none"> Consider deployment of a bulk water carrier to support fire operations. |
| Smoke Management | <ul style="list-style-type: none"> Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations. |
| Visitor Management | <ul style="list-style-type: none"> The reserve may be closed to the public during periods of extreme fire danger, and will be closed during fire operations. |
| WARNINGS | <ul style="list-style-type: none"> Sub-soils in valley areas can turn to spew and quicksand when saturated. Vehicles and machinery can readily bog to the axles, or worse. Gully areas marked by red gums and tea-tree are also susceptible water-logging. Direct attack in marshy / wetland areas should be avoided, except during prolonged dry periods. This is due to the risk of entrapment. Phytophthora hygiene protocols must be followed in Ukerbarley AA & SCA to limit spread of spores. |

Black text - General guidelines Blue text - Reserve specific guidelines Red text - Major warnings

Operational Guidelines - Heritage

| General | Guidelines |
|---|---|
| Aboriginal Cultural Heritage Site Management | <ul style="list-style-type: none"> Modified trees (IS1), including scarred trees As far as possible, protect site from fire. Do not cut trees. Use of foam, wetting agent & retardant is acceptable. |
| Historic Heritage Site Management | <ul style="list-style-type: none"> Ground based sites (IS2), including: camp sites, artefacts, grinding grooves, waterholes and quarries Protect site from any ground disturbance, including the use of earth-moving equipment and vehicles Resource sites (IS3), including fig-tree groves Protect site from physical disturbance AIMS database must be checked as part of planning for fire operations. |
| Threatened Flora and Fauna Management | <ul style="list-style-type: none"> Ground based sites Apply a machinery exclusion zone for a radius of 25 metres Ukerbarley homestead (711523 6546235), sheds and yards (712100 6546820) Protect the site from fire, exclude area from fire where possible Foam may be used to protect the structures, or to extinguish fire Large-eared Pied Bat maternity site Prescribed burning excluded from September to March over a 500 metre radius. Carex Sedgelands - Ecological endangered community Ukerbarley and Dandy Springs Apply a machinery exclusion area (including areas adjoining the reserve) |

Vegetation Management Guidelines

| Community | Management Guidelines | Fire Behaviour |
|-----------------------------|---|--|
| Wetlands | <ul style="list-style-type: none"> An interval between fire events less than 5 years should be avoided Burning should be conducted only with shallow standing water, or moist soil. Burning should be scheduled late winter, prior to the spring "green-up". | <ul style="list-style-type: none"> Potential rates of spread will be dependent on the seasonal conditions Grass cover will increase rate of spread Potential for intense short distance spotting for areas of long unburnt Apple. |
| Valley woodlands | <ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided | <ul style="list-style-type: none"> Potential rates of spread is moderate to Low / Moderate OFH Grass cover will increase rate of spread Potential for intense short distance spotting for areas of long unburnt Apple. |
| Grassy Box woodlands | <ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided | <ul style="list-style-type: none"> Potential rates of spread is low due to Low OFH Prescribed burning will not be effective during periods of lower fire danger in most areas. |
| Sandstone shrubby woodlands | <ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided A high intensity fire may be permitted after a fire free period 25 years | <ul style="list-style-type: none"> Potential rates of spread is high due to HIGH - VERY HIGH OFH, particularly in areas of Bloodwood and Scribbly Gum |
| Derived grasslands | <ul style="list-style-type: none"> Interval between fires to be determined revegetation guidelines for the reserve | <ul style="list-style-type: none"> Potential rates of spread will be dependent on the density and height of grass cover. |

OFH - Overall fuel hazard - A rating system that includes surface (leaf litter), near surface (low shrubs & grasses), elevated (shrubs), and bark fuels

Suppression Strategies

| Conditions & forecast | Guidelines |
|--|--|
| Years with saturated soils and sub-soils | <ul style="list-style-type: none"> Consider a broad containment strategy using existing trails and roads, recently burnt areas, creek lines or vegetation with LOW OFH. (This is necessary due to the high risk of vehicles and machines bogging) |
| Fire danger rating LOW - HIGH | <ul style="list-style-type: none"> Consider a broad containment strategy using existing trails, allowing long-term management requirements for biodiversity. Direct and parallel attack may be applied with earthmoving machinery and fire units. Allow wetland areas to burn out, with containment lines placed on higher ground. Fallback to existing trails and roads and recently burnt areas when fire runs exceed control line construction rates. Secure and deepen control lines on the next predicted downwind side of the fire. Target backburning operations when the humidity rises in late afternoon and early evening. Back burning effectiveness will drop significantly with rising humidity. Areas with grassy understorey may carry fire 1+ years after fire. Fire runs under extreme conditions may travel at 4 - 6 km/hr. Burnt areas with LOW OFH may hold fire head, if deep enough Burnt areas with MODERATE OFH will reduce intensity. |
| Fire danger rating VERY HIGH - EXTREME | <ul style="list-style-type: none"> Revert to property protection |
| Fire danger rating CATASTROPHIC | <ul style="list-style-type: none"> Revert to property protection |

Incident Map

Map Legend

- NPWS Estate
- State Forest
- Assume all gates are locked
- Gate
- Dam
- Building
- Drainage
- Contour 20 m
- Fire Trails (RFS Policy No. 22007)
- Essential, Cat 1
- Essential, Cat 9
- Important, Cat 1
- Important, Cat 7
- Important, Cat 9
- Dormant
- Other Roads & Trails
- Major Road
- Minor Road
- Other Trails

Site Management (see guideline tables)

- Threatened Property
- Threatened Fauna
- Threatened Flora
- Indigenous Site IS1 Modified tree
- Indigenous Site IS2 Ground-based sites
- Indigenous Site IS3 Resource site
- Historic Site
- Machinery Exclusion Area
- Seasonal Burn Exclusion Area
- Fire History Recent
- Possible phytophthora

Other Fire Control Advantages

- Water Point Vehicle
- Water Point Helicopter
- Water Point Helicopter & Vehicle

Scale: 1:50,000