

OPERATIONAL GUIDELINES

ACTIVITY	OPERATIONAL GUIDELINES
Command, control and firefighting arrangements (Fire Response) (FMM 4.1 & 4.2)	<ul style="list-style-type: none"> First fire personnel on site assume control of the fire, but must ensure the relevant land management agency is promptly notified. On arrival of other fire agencies, the initial incident controller will consult with the other agencies on the ongoing command, control and incident management team requirements as per the relevant BFMIC Plan of Operations. The use of earth-moving equipment, retardants and aerial suppression must be approved by a senior NPWS officer.
Aircraft Operations (NPWS FMM 4.4 & 4.8)	<ul style="list-style-type: none"> Aerial water bombing and aerial ignitions are permissible in this reserve, however can only be used and commented on the instruction of the incident controller or senior NPWS officer. Water bombing operations should support containment operations by aggressively attacking tanks, hotspots, spot-overs and head fires where required. Where possible, foams should be used to increase the effectiveness of water, however limit use within 50m of watercourses and dams. The use of water bombing aircraft without the support of ground based suppression crews should be limited to specific circumstances as determined by the senior NPWS officer. Ground crews must be briefed and alerted to aerial ignition and water bombing operations.
Back burning (NPWS FMM 4.8)	<ul style="list-style-type: none"> All backburning operations must be planned and approved by a senior NPWS officer. All crews must be briefed on the sequence and safety precautions of the operation. Generally, burning should commence when the humidity rises in late afternoon or early evening and spotting is minimal. With a low FDI, burning may be safely undertaken during the day. Where practicable, clear 1m radius around dead and fibrousarked trees adjacent to containment lines prior to burning, or wet down these trees as part of the backburn ignition preparation.
Control lines (NPWS FMM 3.9)	<ul style="list-style-type: none"> Existing constructed or natural fire control advantages should be used, wherever possible, to contain bushfires. Trails that comply with the Bush Fire Coordinating Committee Policy 103 "Fire Trails" are identified on the operations map. As a minimum, management trails identified on the operations map are maintained to a standard to provide access to Category 3, unless otherwise indicated. Dormant trails may be used as a strategic control line during an incident, however may need some mechanical work to clear regenerating vegetation and fallen timber.
Earth moving machinery (NPWS FMM 4.3)	<ul style="list-style-type: none"> Strategies involving earth-moving equipment must be approved by a senior NPWS officer before implementation. Earth-moving equipment must be supervised and guided by an experienced NPWS officer or a person recognised to be appropriately experienced. All earth-moving equipment employed in fire operations must be accompanied by a support vehicle that has equipment available to contact support personnel in an emergency. Plant involved in direct or parallel attack must be accompanied by either a sign or a fire marker for safety purposes. At the commencement of shifts, all operators and guides must be briefed on safety considerations and actions to prevent damage to sensitive natural and cultural heritage. Where possible, control lines running along valley areas should be constructed 20-50m from gullies to avoid severe erosion.
Fire suppression chemicals (NPWS FMM 4.9)	<ul style="list-style-type: none"> Wetting and foaming agents (surfactants) are permitted for use in wildfire suppression. Use of retardants must be authorised by the senior NPWS officer. Retardants should be ammonium sulphate based and should not be used where reasonable alternatives are available. As far as possible, exclude the use of surfactants and retardant within 50m of watercourses and dams. Use surfactants and retardants where natural advantages provide the most effective applications of the chemicals.
Post fire rehabilitation (NPWS FMM 5.1)	<ul style="list-style-type: none"> The rehabilitation process should be addressed during the incident, in the Incident Action Plan. The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations. Where smoke has the potential to be a hazard on local roads or highways the police, RTA, local shire council and relevant media must be notified. Monitor local roads and access for smoke hazards and install road safety/warning signs where necessary. Traffic control must comply with RTA Traffic Control at Workplaces Manual requirements.
Smoke management (NPWS FMM 3.4)	<ul style="list-style-type: none"> May cause danger to ground personnel through smoke conduction of electricity through the air. Contact the relevant authority to turn the power off prior to back burning operations under line.
Transmission lines (Powerlines)	<ul style="list-style-type: none"> Access to water supplies on private property will be negotiated prior to use, except according to S44 provisions. Arrangements will be made to replace water used after the fire, as required.

SUPPRESSION STRATEGIES

Current FFDI	Forecast FFDI	OPERATIONAL GUIDELINES
Low - Mod	Low - Mod	<ul style="list-style-type: none"> Undertake direct, parallel or indirect attack along existing containment lines or new control lines (eg. handtool lines). Where practicable, consider maximising the fire area in accordance with the requirements of any proposed prescribed burns in the fire planning strategy or Bushfire Management Committee agreements. To minimise the fire area and secure the flanks as soon as possible, undertake direct, parallel or indirect attack along the closest control lines. Considerable control lines to reduce the chance of fire escaping. Pay particular attention to the flank on the next predicted down wind side. Plan fall back containment strategies.
Low - Mod	High >	<ul style="list-style-type: none"> Undertake indirect attack along existing or newly constructed containment lines. Secure and deepen containment lines along the next predicted downwind side of the fire. Allow sufficient time to secure containment lines to avoid wasted effort and potential failure. Prepare and implement fall back containment strategies.
High >	High >	<ul style="list-style-type: none"> Prepare and implement fall back containment strategies. Always ensure there is sufficient time to secure containment lines prior to the fire impacting upon them.

FIRE SEASON INFORMATION

The critical fire season occurs between December and January, when the potential for fire events is at its highest. Particular care and monitoring is required during periods of prolonged drought and when negative Southern Oscillation indices occur. During these times fires may exhibit high intensity behaviour in windy conditions and exceed current rate of spread indices. Any proposed prescribed burning should be undertaken before late autumn precipitation occurs. The best period for prescribed burning is during March and April. Any fire during late winter, spring and summer should be avoided.

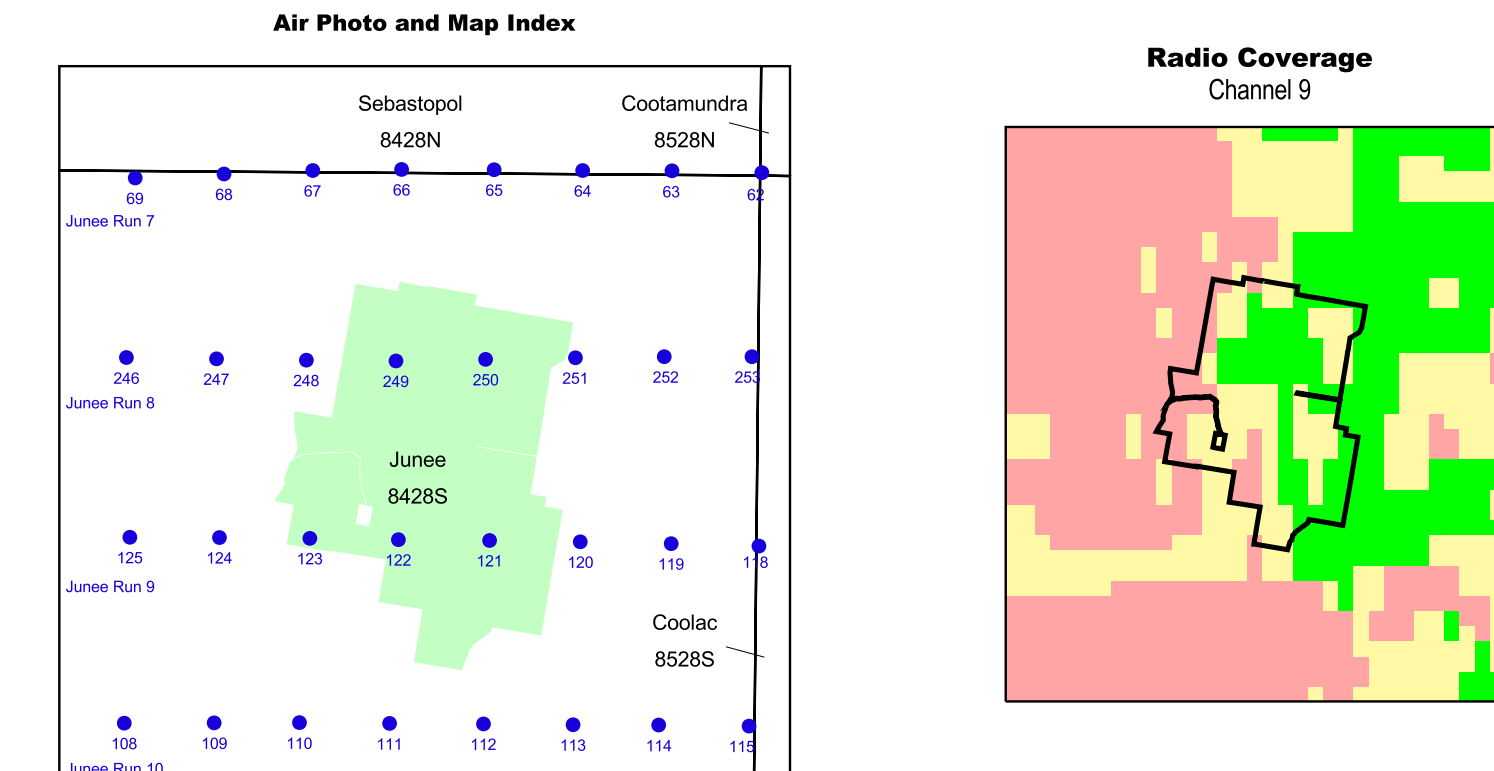
LIFE & PROPERTY GUIDELINES

Visitor safety (NPWS FMM 3.6)

- Visitors in or adjacent to the fire ground will not be permitted unless authorised by the Incident Controller. The presence of visitors should be reported to the incident controller immediately, who will arrange for an evacuation if necessary.
- "Park closed" or "Smoke hazard" signs must be placed in areas used by visitors prior to undertaking prescribed burning.
- Notify media that wildfire or prescribed fire exists within the reserve/area.

Asset Protection (FMM 4.11)

- Use AP Zones to assist fire suppression activities.
- High priority assets include the telecommunications structures on Mount Uandra (leasee Broadcast Australia) and Transgrid powerline (NW corner of reserve).



RADIO COMMUNICATIONS

AGENCY/RESOURCE	CHANNEL	MRX FREQ.	MTX FREQ.	NOTES
NPWS (VHF)	9	MRX 79.3500	MTX 81.8500	Black Trig - marginal in some areas of this reserve.
NPWS (VHF)	17	82.3875	82.3875	Channel to be determined by ground crews, crew leaders, Division commanders etc. Any changes will be noted in IAP.
FIRE GROUND	18	79.8375	79.8375	
	19	79.9625	79.9625	
RFS (UHF)	75	MRX 418.8750	MTX 409.2250	Primary channel
AIRCRAFT COMMUNICATIONS (Fire Communication)		119.10 Mhz		State wide
		120.80 Mhz		State wide
		122.80 Mhz		State wide
		122.45 Mhz		Phox (2hr chat) "The Numbers" channel
		129.70 Mhz		State wide
		132.75 Mhz		State wide

Mobile Phone Coverage: coverage may be marginal in valleys and hill shadow areas.

CONTACT PHONE NUMBERS

NATIONAL PARKS AND WILDLIFE SERVICE	EMERGENCY SERVICES	000 COUNCILS
SWS Regional Office 6947 7000	POLICE - Coolamundra (Bethungra) 6942 0099	Coolamundra Shire Office 6940 2100
SWS Region Far 6947 4170	POLICE - Junee 6924 1444	Junee Shire Office 6924 1277
SWS Operations Room 6947 7707	AMBULANCE 13 13 13	Gundagai Shire Office 6944 0200
Incident Answering Service (IAS) 1800 629 104	Junee Rescue Squad 6924 3450	Wagga Aboriginal Land Council 6921 4055
	SES Junee 6924 3345	Young Aboriginal Land Council 6932 5669
	Fire Brigade - Junee 6942 1411	
Harden Fire Control Centre 6383 3170	Fire Brigade - Coolamundra 6924 1222	Wildlife Rescue 6949 5999
Wagga Fire Control Centre 6921 5655	NEIGHBOUR INFORMATION	Broadcast Australia (24 Hours) 9432 2100
Zone Emergency (24 hrs) 6931 5500	Consult SWS Region databases	Mt Uandra Site #2081

Uandra Nature Reserve - Waypoints

Name	Ref No	Description	Easting	Northing	Longitude	Latitude
Bethungra	H1	Staging Area - Vehicle	578276	6152709	147° 51' 37"	34° 45' 53"
Beverly Hills Trail		Waterpoint - Vehicle	562351	6149686	147° 54' 01"	34° 47' 30"
Brawlin CK		Waterpoint - Vehicle	589184	6147537	147° 56' 22"	34° 48' 38"
Brawlin Springs Rd		Staging Area - Vehicle	6146217	6151413	147° 58' 13"	34° 51' 27"
Euloko		Staging Area - Vehicle	580385	6151413	147° 54' 29"	34° 48' 53"
Euloko Trail		Waterpoint - Vehicle	6146982	6146982	147° 58' 00"	34° 47' 30"
Garage Clear Trail		Waterpoint - Vehicle	588168	6146959	147° 59' 32"	34° 48' 57"
Lake Bethungra		Waterpoint - Vehicle	582073	6152144	147° 54' 20"	34° 48' 10"
Back Tower Trail North	H2	Waterpoint - Helicopter, Waterpoint Vehicle	584276	6145678	147° 55' 16"	34° 47' 33"
Back Tower Trail South		Waterpoint - Vehicle	582231	6148163	147° 54' 36"	34° 48' 19"
Lockhart	H3	Staging Area - Vehicle, Helicopter, Refuge Area	588243	6143516	147° 56' 40"	34° 50' 48"
Lockhart Hill		Waterpoint - Vehicle	582549	6146813	147° 54' 09"	34° 47' 58"
Makeham's Flat Trail		Waterpoint - Vehicle	598123	6143955	147° 56' 31"	34° 50' 58"
Runns Trail East		Waterpoint - Vehicle	586030	6143698	147° 56' 28"	34° 50' 43"
Runns Trail West		Waterpoint - Vehicle	585556	6143641	147° 56' 13"	34° 50' 38"
Tower Trail Gate	H4	Staging Area, Remote Helipad	577449	6147929	147° 50' 48"	34° 48' 28"
Water Trail		Waterpoint - Vehicle	583586	6147902	147° 54' 50"	34° 48' 27"

South West Slopes Region

Uandra Nature Reserve

Fire Operations Map

2005

Version: May 2005 ISBN: 1 74137 341 7 DEC: 2005/162

This Map should be used in conjunction with air photos and ground reconnaissance during incidents and the development of incident action plans.

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NATURAL HERITAGE GUIDELINES

CODE	SPECIES	GUIDELINES
1	Threatened Fauna (recorded non-transient species - hatched areas)	<ul style="list-style-type: none"> Where possible: <ul style="list-style-type: none"> minimise the size and intensity of fire. protected mature, hollow bearing trees and avoid tree felling in hatched areas. avoid ground disturbance, especially in gully lines and water courses. Little to no impact expected from fire. Where possible, avoid ground disturbance (dozer lines & hand tool lines cause high impact).
2	Woolly Ragwort	<ul style="list-style-type: none"> Where possible: <ul style="list-style-type: none"> avoid frequent (<10 years apart) & high intensity fire. avoid ground disturbance, (dozer lines & hand tool lines may cause high impact).

HERITAGE MANAGEMENT ZONE GUIDELINES (WITHIN THE ZONE)

ZONE	GUIDELINES
HMZ 1	<ul style="list-style-type: none"> Where possible: <ul style="list-style-type: none"> Contain fires to small areas and lower potential intensity. Avoid the use of earth moving machines. Avoid the use of surfactants within the zone. Avoid felling large and hollow bearing trees during 'mop up' activities. Prescribed fire should be avoided, unless there is a demonstrated loss of biodiversity/loss.
HMZ 2	<ul style="list-style-type: none"> Where possible: <ul style="list-style-type: none"> Minimise the potential for fire to spread across existing control lines. Prescribed fire or other fuel manipulation program may be applied to the area to reduce potential risks. Manage fire to produce mosaic (patchy burn patterns where weather conditions permit). Earthmoving equipment may be used to contain fire. Retardants and foams may be used to suppress fire.

CULTURAL HERITAGE GUIDELINES

THEME	GUIDELINES
Aboriginal and Historic Heritage (FMM 4.11)	<ul style="list-style-type: none"> Brief personnel involved in control line construction and vehicle based fire suppression operations on site locations and the required management strategies for site protection. Include in Incident Action Plans. Little to no impact expected from fire. Where possible, ensure site is protected by constructing trails or hand tool lines in the advance fire side. Clear, by hand, excess fuels from the site. Avoid direct attack methods (including aerial water bombing) at known sites. Surfactants and retardants in aerial line drops may be used adjacent to, but not directly on sites. Hazard reduction or back burning operations should minimise the potential threat of radiant heat and smoke (carbon deposition) on sites.
Scarred trees	<ul style="list-style-type: none"> Clear fuels, with hand tools, from tree base and/or foam base to 3m up tree trunk. Do not clear or fell trees. Where possible, avoid new trail construction within 20m of trees and construct trails on the advancing fire side of the tree. Hazard reduction or back burning operations should minimise the potential threat of radiant heat on the tree.
Rock arrangements, rock engravings, bore rings, etc	<ul style="list-style-type: none"> Avoid new trail construction or ground disturbance within close proximity of site. Where possible, ensure site is protected by constructing trails or hand tool lines in the advance fire side. Clear, by hand, excess fuels from the site. Avoid direct attack methods (including aerial water bombing) at known sites. Surfactants and retardants in aerial line drops may be used adjacent to, but not directly on sites. Hazard reduction or back burning operations should minimise the potential threat of radiant heat and smoke (carbon deposition) on sites.
Art sites and overhangs	<ul style="list-style-type: none"> Avoid new trail construction or ground disturbance within close proximity of site. Where possible, ensure site is protected by constructing trails or hand tool lines in the advance fire side. Clear, by hand (whipper snippers, brush cutters, mowers), excess fuels from the site. Avoid direct attack methods on sites. Avoid aerial water bombing, use of foams and/or retardants at known sites. Use of foam or aerial line drops may be used adjacent to, but not directly on sites. Hazard reduction or back burning operations should minimise the potential threat of radiant heat and smoke (carbon deposition) on the site.
Open camp sites	<ul style="list-style-type: none"> Avoid ground disturbance at or within close proximity of the site (30m). Earthmoving blades should be raised in these locations to avoid damage to sites on trails, unless a "Consent to Destroy" has been attained. Avoid direct attack methods (including aerial water bombing) at known sites. Use of foam or aerial line drops may be used adjacent to, but not directly on sites.
Euloko Shearing shed and all homestead ruins	<ul style="list-style-type: none"> Minimise the potential damage of radiant heat on the site. Avoid disturbing timber and heritage material within 100m of the homestead ruins or shearing shed (including yards and fence lines) Avoid directly aerial water bombing. Line or spread water drops may have less impact. Foams or retardants may be used to protect structures and ruins.
Chaff cutting steam engines & historic farm equipment	<ul style="list-style-type: none"> Remove fuels or vegetation by hand. Use whipper snippers, brush cutters or mowers and clear away debris. Exclude back burning or planned burning operations within 10-30m of the site, to reduce radiant heat. Avoid directly aerial water bombing. Line or spread water drops may have less impact. Avoid direct application to steel as this may enhance future material corrosion and decay. Foams may be applied to form a protective buffer on the ground around historic features or directly to the wooden structures.
The "pig pens"	<ul style="list-style-type: none"> Trim back/remove regenerating vegetation within the immediate vicinity of the site and to 30m around the site. Use mowers, slashers, chainsaws, whipper snippers, and brush cutters to reduce available fuel/debris from the site. Exclude back burning or planned burning operations within 20-30m of the site, to reduce radiant heat. Avoid directly aerial water bombing. Line or spread water drops may have less impact. Foams may be applied to form a protective buffer on the ground around features or directly to the wooden structures.

FMM: contains extracts from NSW National Parks and Wildlife Service Fire Management Manual (December 2004). For the purposes of public exhibition, some information will not be displayed due to obligations under the Freedom of Information Act 1989, regulations and amendments, and Memorandum of Understanding between the Department of Environment and Conservation and Aboriginal Communities.