

South West Slopes Region Mundoonen Nature Reserve Fire Operations Map 2005

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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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LIFE & PROPERTY GUIDELINES

Visitor Safety (NPWS FMM 3.8)

- Determine likelihood of walkers having animal rescue from Hume Highway pull-off.
- Close the entrances to the reserve off the Hume Highway.
- 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 wildlife or prescribed fire exists within the reserve area.

Asset Protection (FMM 4.11)

- There are a number of assets to the east of the reserve and a Communications Tower on Mount Mundoonen.
- Use existing and treated AP Zones to assist fire suppression activities.

NATURAL HERITAGE GUIDELINES

TYPE	GUIDELINES
Threatened Fauna	<ul style="list-style-type: none"> - Where possible, minimise the size and intensity of fire to reduce the potential impacts on species habitat. - Protect mature, hollow bearing trees and avoid tree felling in areas these species are identified. - Avoid the use of fire suppression chemicals within 100 m of swamps, streams, farm dams & river flats.
HMZ 1	<ul style="list-style-type: none"> - Where possible, avoid ground disturbance (dozer lines & hand tool lines cause high impact). - Utilise strategic fire advantages to prevent wildfire entering the zone. - All ignitions in the zone will be, conditions permitting, directly attacked to contain the fire to the smallest possible perimeter. - If direct suppression is not possible, attempts will be made to promote burn patterns using incendiaries, water bombing etc. - Efforts will focus on restricting fires to smallest block using existing control lines (secondary and dormant trails). - If possible, the intensity of wildfire will be reduced to prevent crown scorch to protect koala populations.
HMZ 2	<ul style="list-style-type: none"> - Wildfires will be suppressed by effective means. - If possible, intensity of wildfires will be reduced to prevent crown scorch to protect koala habitat.

CULTURAL HERITAGE GUIDELINES

TYPE	GUIDELINES
Aboriginal & 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. - Liaise with the relevant heritage officer and/or representative where considered necessary.
Scarred trees	<ul style="list-style-type: none"> - Clear fuels, with hand tools, from tree base and/or foam base to 3 m up tree trunk. - Do not clear or fell trees. - Where possible, avoid new trail construction within 20 m 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.
Open camp sites	<ul style="list-style-type: none"> - Avoid ground disturbance or within close proximity of the site (30 m). 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.
Charcoal pits	<ul style="list-style-type: none"> - Shallow charcoal pits have been recorded within the park, may damage machinery and/or injure personnel if fallen into. - Ensure plant and crews are aware of site locations.

FIRE SEASON INFORMATION

Analysis of Yass weather data from 1986-1998 demonstrates that while conditions of low relative humidity are common in summer, few days occur where 3 pm temperatures exceed 35°C and winds exceed 20 km/h. On average, less than one day each year experienced these conditions with a relative humidity of less than 35%.

Days of very high forest fire danger occur at lower temperatures (>25°C) under westerly winds, or at higher temperatures (>30°C), often associated with north-westerly winds.

Severe fire seasons in the Southern Tablelands are characterised by some or all of the following:

- High Kyrill Beelch Drought Index (exceeding 50 for several weeks)
- Strongly negative SOI (-12 or less associated with El Niño events)
- Absence of rain bearing events from the north-west of the continent
- Absence of cyclone events to the north and north-east of the continent
- Typical summer weather patterns (of low pressure systems and associated cold fronts)

Historic fire patterns in the reserve are not strongly correlated to severe seasonal conditions, but are driven primarily by human caused ignition events close to or in the reserve.

RADIO COMMUNICATIONS

AGENCY/RESOURCE	CHANNEL	MRX FREQ.	MTX FREQ.	NOTES
NPWS (VHF)	6	MRX 78.7750	MTX 81.2750	Mt Ginini - may be marginal in some areas of this reserve.
	8	MRX 78.7500	MTX 81.2500	Mt Cronin - may be 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.
	18	79.8375	79.8375	
FIRE GROUND	19	79.9625	79.9625	
	19	79.8375	79.8375	
RFS (UHF)	19	79.8375	79.8375	
	74	79.9625	79.9625	
AIRCRAFT COMMUNICATIONS (Fire Communication Traffic Advisory Frequencies F-CTAF)		119.10 Mhz		State wide
		120.80 Mhz		State wide
		122.80 Mhz		State wide
		123.45 Mhz		Pilots (chit chat) "The Numbers" channel
	128.70 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	RURAL FIRE SERVICE	EMERGENCY SERVICES
SWS Queanbeyan Area Office 6299 9229	Yass Fire Control Centre 6226 3100	POLICE - Yass 6226 3939
SWS Queanbeyan Area Office Fax 6297 8408	Gunning FCC (Yass) 6226 3100	POLICE - Gunning 4845 1244
Incident Answering Service (AH) 1800 629 104	State Operations (24 hrs) 8741 5400	AMBULANCE SES Yass 6226 3444
SWS Regional Office (Tumut) 6947 7000		Fire Brigade - Yass 6226 1058

NEIGHBOUR INFORMATION

Consult SWS Region databases

Upper Lachlan Local Government	4845 1312	OTHER ORGANISATIONS
Onenwal Aboriginal Land Council	6226 3911	Roads and Traffic Authority 131 7000
		Wildlife Rescue - Goulburn 4822 3888

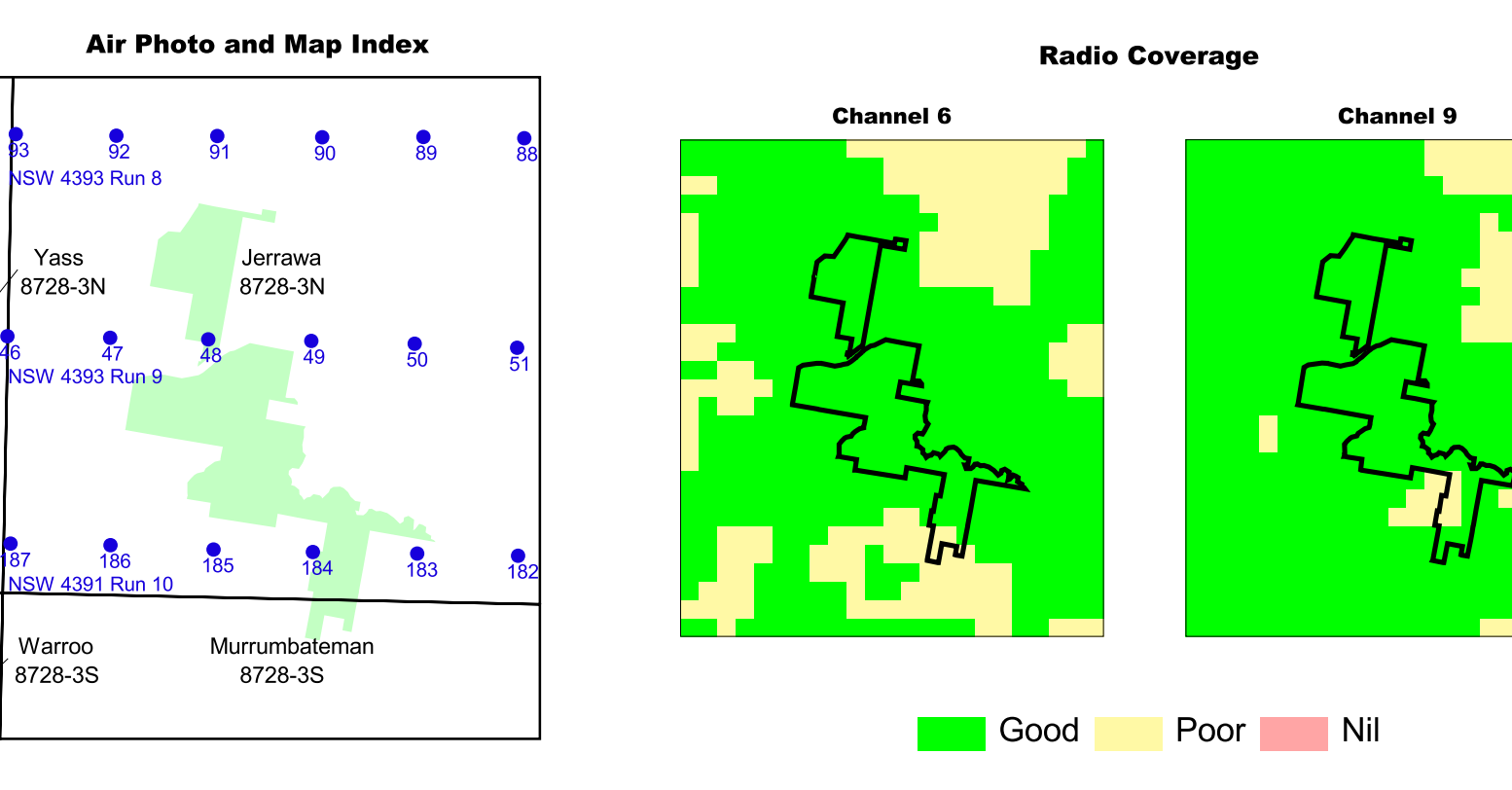
OPERATIONAL GUIDELINES

ACTIVITY	OPERATIONAL GUIDELINES
Command, control and firefighting arrangements (FMM 4.1 & 4.2)	<ul style="list-style-type: none"> - First fire personnel of any agency on site may 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 BFMC 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 commenced on the instruction of the incident controller or senior NPWS officer. - Water bombing operations should support containment operations by aggressively attacking flanks, 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 fibrous barked 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.
Earth moving machinery (NPWS FMM 4.3)	<ul style="list-style-type: none"> - Strategies involving earth-moving equipment must be approved by the 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 with that equipment available to contact support personnel in an emergency. Plant involved in direct or parallel attack must be accompanied by either a slip-on or a fire tanker 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 20-50 m 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 50 m 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 in incident action planning.
Smoke management (NPWS FMM 3.4)	<ul style="list-style-type: none"> - The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations. This is especially relevant to the safety of vehicles on the Hume Highway. - 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. - Prepare and implement fall back containment strategies. - 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 Worksites Manual requirements.
Transmission lines (Powerlines)	<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 lines
Water supplies	<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

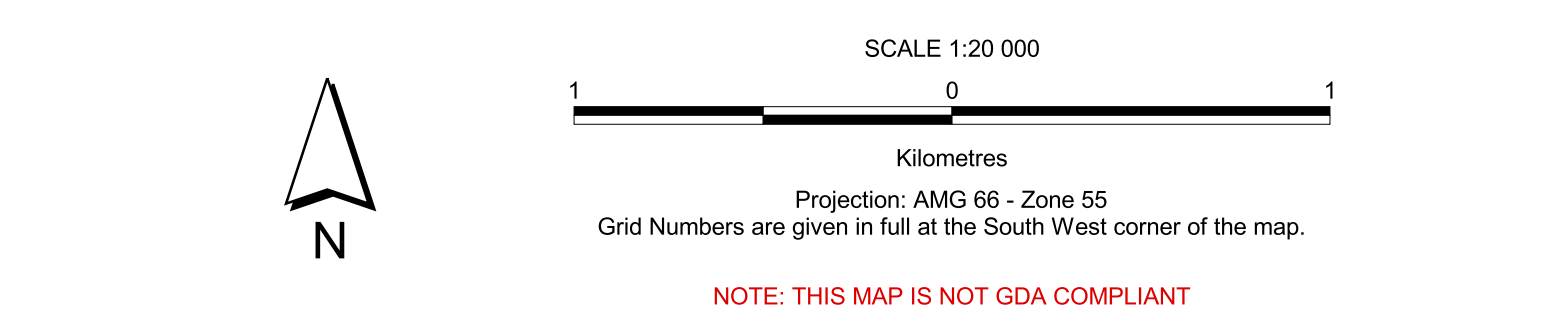
FFDI	OPERATIONAL GUIDELINES
Current Low - Mod & Forecast Low - Mod	<ul style="list-style-type: none"> - Undertake direct, parallel or indirect attack along existing containment lines. - Where practicable, consider maximising the fire area in accordance with the requirements of any proposed prescribed burns in the fire planning strategy and Bushfire Management Committee agreements.
Current Low - Mod & Forecast High or >	<ul style="list-style-type: none"> - In order to minimise the fire area and secure the flanks as soon as possible, undertake direct, parallel or indirect attack along the closest containment lines. - Pay particular attention to the flank on the next predicted down wind side. - Consider fall back containment strategies
Current High or > & Forecast High or >	<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.
Fire Advantages	<ul style="list-style-type: none"> - Streams in the reserve are intermittent and should not be regarded as passive control lines under normal conditions - Reserve trails will function as fire advantages

Note: Always ensure there is sufficient time to secure containment lines prior to the fire impacting upon them.



Mundoonen Nature Reserve - Waypoints

Name	Heli Ref	Description	Easting	Northing	Longitude	Latitude
Highway Dam	H1	Waterpoint - Vehicle/Helicopter	687890	6143870	149° 03' 13"	34° 49' 46"
Main Gate		Assembly Area	687460	6143870	149° 02' 56"	34° 48' 45"
North Powerline Dam		Waterpoint - Vehicle	688830	6142110	149° 03' 55"	34° 50' 44"
Old Gap		Staging Area	686270	6140660	149° 02' 15"	34° 51' 33"
Scrubby Ridge		Staging Area	685930	6146210	149° 01' 57"	34° 48' 33"
South Powerline Dam		Waterpoint - Vehicle	689780	6141760	149° 03' 33"	34° 50' 57"
Swamp Gully Clearing		Staging Area	687440	6141940	149° 03' 01"	34° 50' 51"
Swamp Gully Dam		Waterpoint - Vehicle	687370	6142330	149° 03' 06"	34° 50' 36"
West Highway		Staging Area	686330	6143200	149° 02' 16"	34° 50' 11"
Wyoming		Staging Area	685490	6145130	149° 01' 41"	34° 49' 09"



Assembly Area	Farm Dam	BFCC Standard Trail	Dormant Trail	100m Contour
Base Camp	Spotheight	Primary	Walking Track	20m Contour
Control Centre	Survey Landmark	Secondary	Railway	Cadastral
Staging Area	Gate	Dormant	Landing Ground	Mundoonen NR
Airbase	Locked Gate	Management Trail	Minor Power Line (With Voltage)	Other DEC Estate
Water Point - Helicopter	Homestead Complex	Cat 1	River	Crown Land
Water Point - Vehicle	Asset	Cat 2	Creek	Wooded Area
Helipad	Passing Bay	Cat 7	Drainage Line	Recently Burnt Area
Refuge Area	Turning Bay	Cat 9	Waterbody	Asset Buffer Zone
Escape Route		Other Roads		Heritage Management Zone 1 (HMZ1)
		Sealed Road		
		Main Unsealed Road		
		Minor Unsealed Road		
		Trail		

