

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 of any agency on site must 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 BP/MC 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 (see Fire suppression chemicals). - 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. - Trails that comply with the Bush Fire Coordinating Committee Policy 1103 "Fire Trails" are identified on this operations map.
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. - As a minimum, management trails identified on the operations map are maintained to a standard to provide access to Category 2, 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 timbers.
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 that has 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 tankler 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"> - Use of retardants is prohibited in the Burrinjuck Catchment Area. - Use of chemicals must be authorised by the senior NPWS Officer. - As far as possible, exclude the use of surfactants within 50m of watercourses and dams.
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.
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. - 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 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 may be made to replace water used after the fire, as required.

SUPPRESSION STRATEGIES

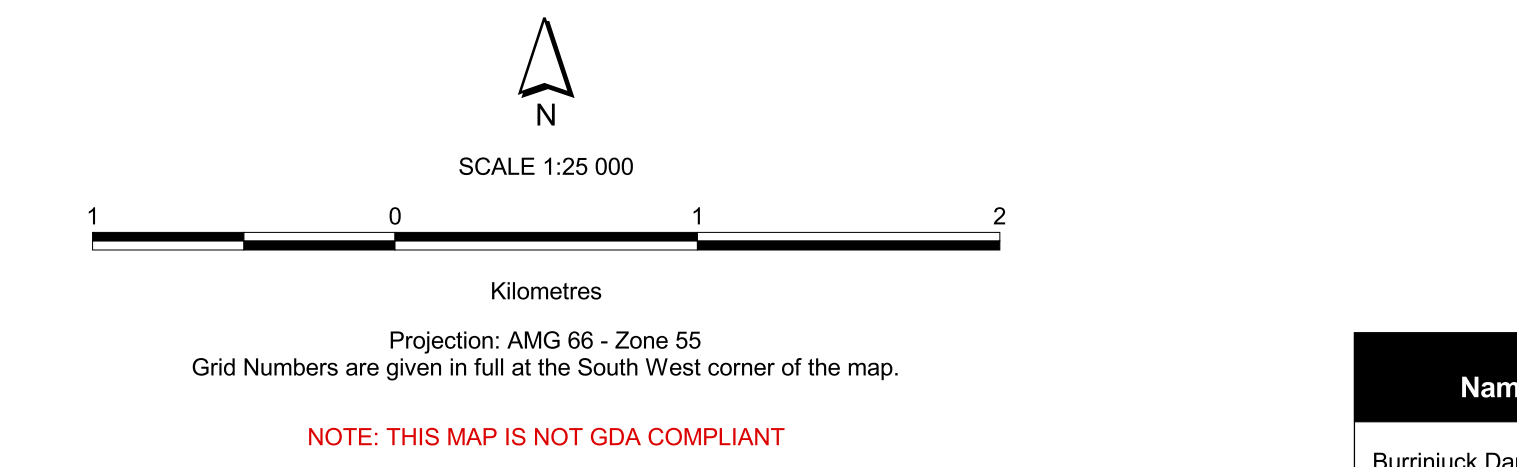
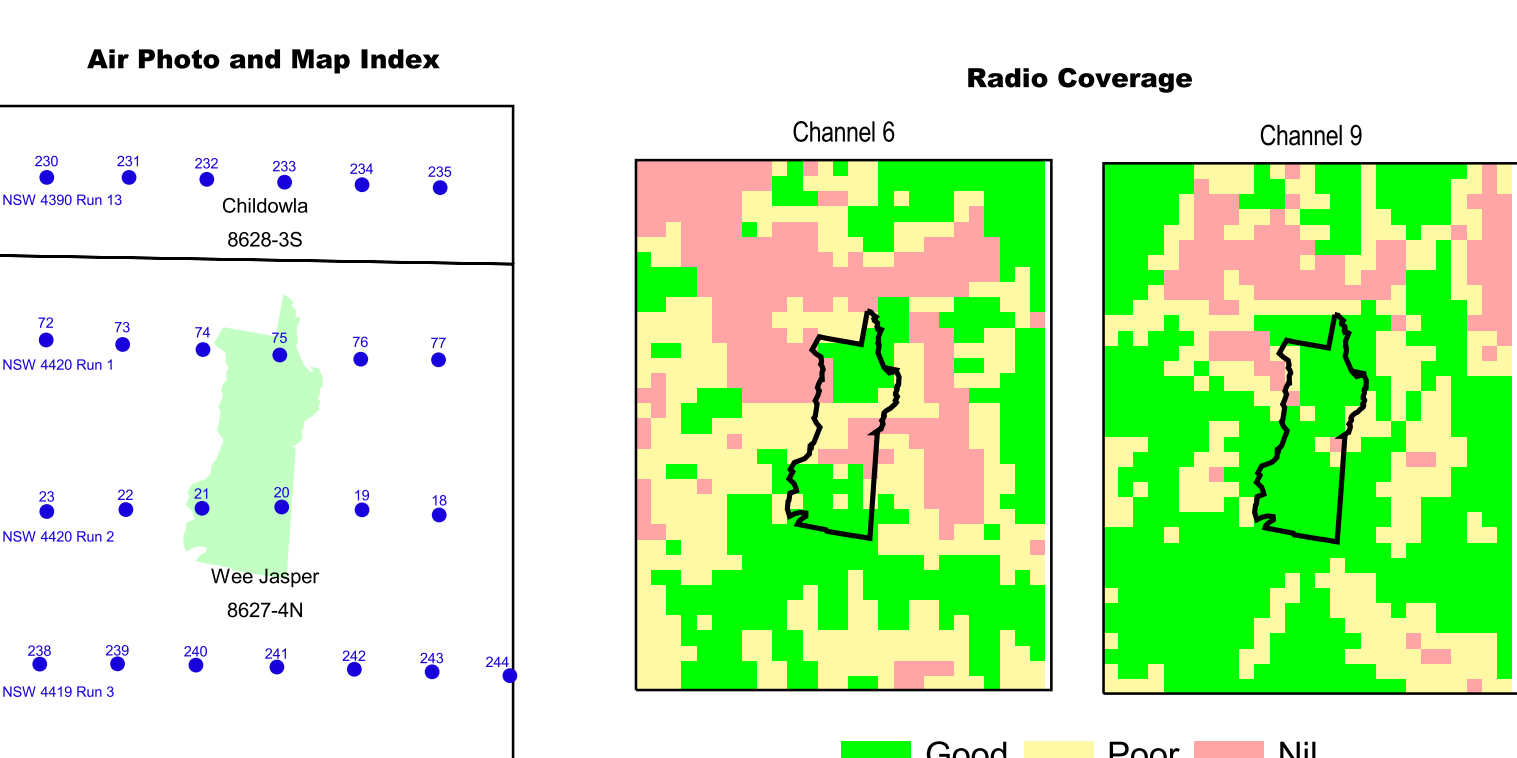
FFDI	OPERATIONAL GUIDELINES
Current Low - Mod & Forecast Low - Mod	<ul style="list-style-type: none"> - Undertake direct, parallel or indirect attack along existing containment lines. - Where practicable, consider maximising the fire area in accordance with the requirements of any proposed prescribed 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 flanks 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.

FIRE SEASON INFORMATION

The critical fire season occurs between November and March, when the potential for fire events is at its highest. Particular care and monitoring is required during periods of prolonged drought when the negative Southern Oscillation Index precedes the fire season, and when low pressure systems dominate central and southern Australia during and leading up to the fire season. During these times fire may exhibit high intensity behaviour in windy conditions and exceed current rate of spread indices. Periods of extended drought, may give rise to higher potential bushfire behaviour during winter.

Any proposed prescribed burning should be undertaken before late autumn precipitation occurs. Least likely period to disrupt fauna during prescribed burning is at the end of March and April, depending on weather conditions (past, present and forecast). Any fire in spring should be avoided.

During the fire season prevailing winds during the day are from the west and northwest. All ignitions under a SW influence should be managed with the potential for flanks to become heads when W to NW wind trends return.



Legend

○ Assembly Area	○ Farm Dam	○ Spotheight	○ Survey Landmark	○ Staging Area	○ Airbase	○ Water Point - Helicopter	○ Water Point - Vehicle	○ Helipad	○ Refuge Area	○ Escape Route																									
○ Homestead Complex	○ Threatened Fauna	○ Threatened Flora	○ Asset Buffer Zone	○ BFCO Primary Trail	○ Standard	○ Secondary	○ Dormant	○ Management Trail	○ Cat 1	○ Cat 2	○ Cat 7	○ Cat 9	○ Walking Track	○ Railway	○ Landing Ground	○ Gas Pipe Line	○ Major Power Line (With Voltage)	○ Minor Power Line	○ State Border	○ 100m Contour	○ 20m Contour	○ Cadastre	○ River	○ Creek	○ Drainage Line	○ Waterbody	○ DEC Estate - HMZ1	○ DEC Estate - HMZ2	○ Other DEC Estate	○ Crown Land	○ State Forest	○ Timber Plantation	○ Wooded Area	○ Karst Area	○ Recently Burnt Area

South West Slopes Region

Black Andrew Nature Reserve

Fire Operations Map 2006

Version: August 2006, ISBN: 1 74137 272 0, DEC: 2005/98

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 3.6)	<ul style="list-style-type: none"> - Where possible: - 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 4.10)	<ul style="list-style-type: none"> - Powerlines run through the reserve. - Where possible: - Follow operational guidelines - Liaise with Transgrid, ensure crew safety and establish asset protection methods appropriate to weather and fire conditions.

HERITAGE MANAGEMENT ZONE GUIDELINES

ZONE	GUIDELINES (WITHIN THE ZONE)
HMZ 1 (High Priority)	<ul style="list-style-type: none"> - Where possible: - Contain fires to small areas and lower potential intensity and manage to produce mosaic burn patterns. - Avoid the use of earth moving machines. - Avoid the use of surfactants/retardants. Retardants are prohibited in the catchment of Burrinjuck Dam. - Protect mature trees and avoid felling large and hollow bearing trees during "mop up" activities. - Prescribed fire should be avoided, unless deemed necessary for ecological purposes.
HMZ 2	<ul style="list-style-type: none"> - Where possible: - Minimise the potential for fire to spread and/or contain to existing control lines. - Where wildfires occur in untreated areas programmed for prescribed burning (ie. SFMZ), - 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 within DEC policy guidelines. - Retardants are prohibited in the catchment of Burrinjuck Dam.

CULTURAL HERITAGE GUIDELINES

THEME	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 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, bora 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 on the advancing 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 practicable, ensure site is protected by constructing trails or hand tool lines on the advancing fire side. - Clear, by hand (whipper snippers, brush cutters, mowers), excess fuels from the site. - Avoid direct attack methods on sites. - Aerial water bombing, use of foams and 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 (50m). 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.
Historic Heritage	<ul style="list-style-type: none"> - Mine shafts have been recorded in the reserve, which may be dangerous for fire crews and machinery. - Minimise new trail construction or ground disturbance near recorded sites. - Ensure earth moving equipment is guided through terrain where deemed necessary for containing fires. - Fire should be excluded from at least 20 metres of mine shafts. - Use of foam or aerial line drops should be used around sites, reducing potential damage to timber lined shafts through direct attack methods.

RADIO COMMUNICATIONS

AGENCY/RESOURCE	CHANNEL	MRX FREQ.	MTX FREQ.	NOTES
NPWS (VHF)	6	MRX 78.7750	MTX 81.2750	M Gnnini - may be marginal in some areas of this reserve.
	9	MRX 79.3500	MTX 81.8500	Black Trig - may be marginal in some areas of this reserve.
NPWS (VHF)	17	82.3875	82.3875	Channel to be determined by ground crew, crew leaders, division commanders etc. Any changes will be noted in IAP.
FIRE GROUND	18	79.8375	79.8375	
	19	79.9625	79.9625	Mount Spring
RFS (UHF)	19	412.5000	403.0500	Black Trig
	74	418.6625	409.2125	Black Trig
AIRCRAFT COMMUNICATIONS (Fire Communication)		119.10 Mhz	State wide	
(Fire Communication)		120.80 Mhz	State wide	
(Fire Communication)		122.80 Mhz	State wide	
Traffic Advisory		123.45 Mhz	State wide	
Frequencies F-C-TAF)		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	OTHER ORGANISATIONS
SWS Tumult Regional Office 6947 7000	Yass Fire Control Centre 6226 3100	Department of Lands 6953 5261
SWS Tumult Area Office Fax 6947 4170	Tumult Fire Control Centre 6941 2222	Burrinjuck Dam 6227 8121
Incident Answering Service (IAS) 1800 029 104	State Operations (24 hrs) 6947 5400	State Forests 6947 3911
SWS Queanbeyan Area Office 6299 2929	EMERGENCY SERVICES 0 0 0	Willemotts 6948 3276
	POLICE - Yass 6226 9399	Transgrid - Operations Control (24 hr) 6226 9698
	AMBULANCE 13 12 33	Wildlife Rescue - Goulburn 4822 3688
Yass Valley Local Government 6226 3444	SES Yass 6226 3444	NEIGHBOUR INFORMATION
Bungle Tumult ALC 6947 4518	Fire Brigade - Yass 6226 1058	Consult SWS Region databases

Black Andrew Nature Reserve - Waypoints

Name	Ref No	Description	Easting	Northing	Longitude	Latitude
Burrinjuck Dam	H2	Waterpoint - helicopter	645880	6125481	148° 35' 55"	35° 00' 10"
Plantation	H4	Staging Area	645884	6115997	148° 35' 30"	35° 05' 20"
Dam Trail	H4	Remote helipad	645905	6122929	148° 35' 54"	35° 01' 32"
Grahams Rd	H1	Staging Area	640721	6112715	148° 32' 39"	35° 07' 06"
Hill Top	H1	Staging Area	642186	6120700	148° 35' 32"	35° 02' 41"
Hill Top Airstrip	H1	Airstrip	642193	6119735	148° 33' 33"	35° 03' 16"
Macphersons Swamp Creek	H3	Remote helipad	644714	6120899	148° 35' 42"	35° 02' 38"
Village	H5	Remote helipad	645623	6125371	148° 35' 40"	35° 00' 13"