

### OPERATIONAL GUIDELINES

ACTIVITY	OPERATIONAL GUIDELINES
<b>Command, control and firefighting arrangements</b> (FMM 4.1 & 4.2)	<ul style="list-style-type: none"> <li>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.</li> <li>On arrival of 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.</li> <li>The use of earth-moving equipment, retardants and aerial suppression must be approved by a senior NPWS officer.</li> </ul>
<b>Aircraft Operations</b> (NPWS FMM 4.4 & 4.5)	<ul style="list-style-type: none"> <li>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.</li> <li>Water bombing operations should support containment operations by aggressively attacking flanks, hotspots, spook-overs and head fires where required.</li> <li>Where possible, foams should be used to increase the effectiveness of water, however limit use within 50m of watercourses and dams.</li> <li>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.</li> <li>Ground crews must be briefed and alerted to aerial ignition and water bombing operations.</li> </ul>
<b>Back burning</b> (NPWS FMM 4.8)	<ul style="list-style-type: none"> <li>All backburning operations must be planned and approved by a senior NPWS officer.</li> <li>All crews must be briefed on the sequence and safety precautions of the operation.</li> <li>Generally, burning should commence when the humidity rises in late afternoon or early evening and spotting is minimal. With low RH, burning may be safely undertaken during the day.</li> <li>Where practicable, clear 1m radius around dead and broom barked trees adjacent to containment lines prior to burning, or wet down these trees as part of the backburn ignition preparation.</li> </ul>
<b>Control lines</b> (NPWS FMM 3.9)	<ul style="list-style-type: none"> <li>Use of any earth moving equipment on Jones Creek Fire Trail must be approved by Senior NPWS Management as there are significant cultural heritage issues.</li> <li>Existing constructed or natural fire control advantages should be used, wherever possible, to contain bushfires.</li> <li>Trails that comply with the Bush Fire Coordinating Committee Policy 1/03 "Fire Trails" are identified on this operations map as BFCC Standard Trails.</li> <li>As a minimum, Management Trails identified on the operations map are maintained to a standard to provide access to Category 9, unless otherwise indicated.</li> <li>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.</li> <li>Strategies involving earth-moving equipment must be approved by a senior NPWS officer before implementation.</li> <li>Earth-moving equipment must be supervised and guided by an experienced NPWS officer.</li> <li>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 tanker for safety purposes.</li> <li>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.</li> <li>Where possible, control lines running along valley areas should be constructed 20-50m from gullies to avoid severe erosion.</li> </ul>
<b>Earth moving machinery</b> (NPWS FMM 4.3)	<ul style="list-style-type: none"> <li>Use of any earth moving equipment on Jones Creek Fire Trail must be approved by Senior NPWS Management as there are significant cultural heritage issues.</li> <li>Existing constructed or natural fire control advantages should be used, wherever possible, to contain bushfires.</li> <li>Trails that comply with the Bush Fire Coordinating Committee Policy 1/03 "Fire Trails" are identified on this operations map as BFCC Standard Trails.</li> <li>As a minimum, Management Trails identified on the operations map are maintained to a standard to provide access to Category 9, unless otherwise indicated.</li> <li>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.</li> <li>Strategies involving earth-moving equipment must be approved by a senior NPWS officer before implementation.</li> <li>Earth-moving equipment must be supervised and guided by an experienced NPWS officer.</li> <li>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 tanker for safety purposes.</li> <li>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.</li> <li>Where possible, control lines running along valley areas should be constructed 20-50m from gullies to avoid severe erosion.</li> </ul>
<b>Fire suppression chemicals</b> (NPWS FMM 4.9)	<ul style="list-style-type: none"> <li>Wetting and foaming agents (surfactants) are permitted for use in wildfire suppression.</li> <li>Use of retardants must be authorised by a senior NPWS officer.</li> <li>Retardants should be ammonium sulphate based and should not be used where reasonable alternatives are available.</li> <li>As far as possible, exclude the use of surfactants and retardant within 50m of watercourses and dams.</li> <li>Use surfactants and retardants where natural advantages provide the most effective applications of the chemicals.</li> </ul>
<b>Post fire rehabilitation</b> (NPWS FMM 5.1)	<ul style="list-style-type: none"> <li>The rehabilitation process should be addressed during the incident, in the Incident Action Plan.</li> </ul>
<b>Smoke management</b> (NPWS FMM 3.4)	<ul style="list-style-type: none"> <li>The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations.</li> <li>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.</li> <li>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.</li> </ul>
<b>Transmission lines (Powerlines)</b>	<ul style="list-style-type: none"> <li>May cause danger to ground personnel through smoke conduction of electricity through the air.</li> <li>Brief all pilots on the location and type of powerlines within the operations area.</li> <li>Contact the relevant authority to turn the power off prior to back burning operations under lines.</li> </ul>
<b>Water supplies</b>	<ul style="list-style-type: none"> <li>Access to water supplies on private property will be negotiated prior to use, except according to S44 provisions.</li> <li>Arrangements may be made to replace water used after the fire, as required.</li> </ul>

### SUPPRESSION STRATEGIES

FFDI	OPERATIONAL GUIDELINES
<b>Current Low - Mod Forecast Low - Mod</b>	<ul style="list-style-type: none"> <li>Undertake direct, parallel or indirect attack along existing containment lines.</li> <li>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.</li> </ul>
<b>Current Low - Mod Forecast High or &gt;</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Pay particular attention to the flank on the next predicted down wind side.</li> <li>Consider full back containment strategies.</li> </ul>
<b>Current High or &gt; Forecast High or &gt;</b>	<ul style="list-style-type: none"> <li>Undertake indirect attack along existing or newly constructed containment lines.</li> <li>Secure and deepen containment lines along the next predicted downwind side of the fire.</li> <li>Allow sufficient time to secure containment lines to avoid wasted effort and potential failure.</li> <li>Prepare and implement full back containment strategies.</li> </ul>
<b>Fire Advantages</b>	<ul style="list-style-type: none"> <li>Streams in the reserve are intermittent and should not be regarded as passive control lines under normal conditions.</li> <li>Reserve trails may function as fire advantages.</li> </ul>

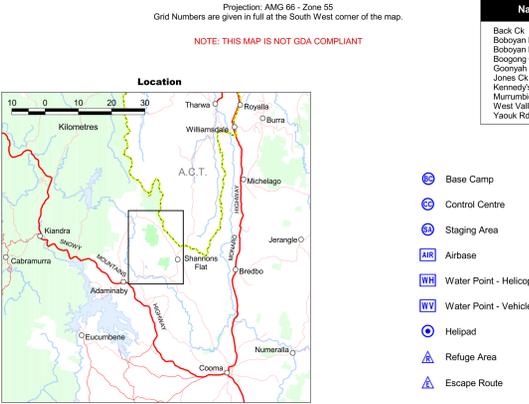
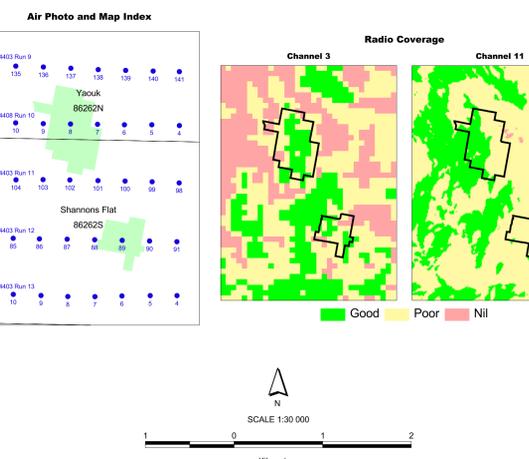
### FIRE SEASON INFORMATION

The critical fire season occurs between January and March, when the potential for fire events is at its highest. Particular care and monitoring is required during periods of prolonged drought when strong negative Southern Oscillation indices precede the fire season, and when low pressure systems dominate central and southern Australia during and leading up to the fire season. During these times fires 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 April (KBDI <80) depending on weather conditions (past, present and forecast). Any fire in spring should be avoided.

During the fire season, winds change rapidly and differ greatly depending on location. Prevailing winds from the west. All ignitions under a SW influence should be managed with the potential for flanks to become heads when W winds return. Easterly conditions can also prove difficult during suppression as winds circulate in the valley and ranges. Strong rota conditions can occur across the local ranges, so fire suppression tactics will have to consider differing approaches across altitudinal range.

In addition, during hot mid-summer and autumn evenings, fire may continue to burn with severity at higher altitudes due to diurnal inversions.



### LIFE & PROPERTY GUIDELINES

ACTIVITY	OPERATIONAL GUIDELINES
<b>Visitor safety</b> (NPWS FMM 3.6)	<ul style="list-style-type: none"> <li>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.</li> <li>"Park closed" or "smoke hazard" signs must be placed in areas used by visitors prior to undertaking prescribed burning.</li> <li>Nasty media that will ignite or prescribed fire exists within the reserve.</li> </ul>
<b>Asset Protection</b> (FMM 4.10)	<ul style="list-style-type: none"> <li>There are no recorded assets within the reserve, however there is a private shed within 100m of the reserve boundary.</li> <li>Respond immediately to reports of fire and keep fire to smallest possible area.</li> <li>Prevent the spread of fire from the reserve to neighbouring property.</li> <li>Work in conjunction with FRFS officers to reduce impacts of on neighbouring properties.</li> </ul>

### HERITAGE MANAGEMENT ZONE GUIDELINES

ZONE	GUIDELINES (WITHIN THE ZONE)
<b>HMZ 1 (High Priority)</b>	<ul style="list-style-type: none"> <li>Where possible:</li> <li>Contain fires to small areas and lower potential intensity and manage to produce mosaic burn patterns.</li> <li>Avoid the use of earth moving machines.</li> <li>Avoid the use of surfactants/retardants.</li> <li>Protect mature trees and avoid felling large and hollow bearing trees during "top up" activities.</li> <li>Prescribed fire should be avoided, unless deemed necessary for ecological purposes.</li> </ul>
<b>HMZ 2</b>	<ul style="list-style-type: none"> <li>Where possible:</li> <li>Minimise the potential for fire to spread and/or contain to existing control lines.</li> <li>Where wildfires occur in unfrequented areas programmed for prescribed burning (ie. SFMZ), fire may be allowed to burn if conditions are appropriate.</li> <li>Prescribed fire of other fuel manipulation program may be applied to the area to reduce potential risks.</li> <li>Manage fire to produce mosaic (patchy) burn patterns (where weather conditions permit).</li> <li>Earthmoving equipment may be used to contain fire within DEC policy guidelines.</li> <li>Retardants and foams may be used to suppress fire, however minimise use within 50m of water courses and dams.</li> </ul>

### CULTURAL HERITAGE GUIDELINES

THEME	GUIDELINES
<b>Aboriginal &amp; Historic Heritage</b> (FMM 4.11)	<ul style="list-style-type: none"> <li>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.</li> <li>Liaise with the relevant heritage officer and/or representative where considered necessary.</li> </ul>
<b>Scared trees</b>	<ul style="list-style-type: none"> <li>1. Clear fuels, with hand tools, from tree base and/or foam base to 3m up tree trunk.</li> <li>Do not clear or fell trees.</li> <li>Where possible, avoid new trail construction within 20m of trees and construct trails on the advancing fire side of the tree.</li> <li>Hazard reduction or back burning operations should minimise the potential threat of radiant heat on the tree.</li> </ul>
<b>Rock arrangements, rock engravings, bora rings, etc</b>	<ul style="list-style-type: none"> <li>2. 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.</li> <li>Clear, by hand, excess fuels from the site.</li> <li>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.</li> <li>Prescribed burn or back burning operations should protect sites from the potential threat of radiant heat and smoke on sites.</li> </ul>
<b>Art sites and overhangs</b>	<ul style="list-style-type: none"> <li>3. 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.</li> <li>Clear, by hand (whipper snippers, brush cutters, mowers), excess fuels from the site.</li> <li>Avoid direct attack methods on sites.</li> <li>Avoid 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.</li> <li>Prescribed burn or back burning operations should protect sites from the potential threat of radiant heat and smoke (carbon deposition) on sites.</li> </ul>
<b>Open camp sites</b>	<ul style="list-style-type: none"> <li>Avoid ground disturbances 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.</li> <li>Avoid direct attack methods (including aerial water bombing) at known sites.</li> <li>Avoid use of foam or aerial line drops may be used adjacent to, but not directly on, sites.</li> </ul>
<b>Historic Heritage (Tribal sites &amp; old fence lines)</b>	<ul style="list-style-type: none"> <li>Avoid new trail construction or ground disturbance within close proximity of site.</li> <li>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.</li> <li>Care should be taken when using direct attack methods on the ground. Cows may be injured and/or equipment may get caught on historic fence lines.</li> </ul>

### RADIO COMMUNICATIONS

AGENCY	CHANNEL	MRX FREQ	MTX FREQ	NOTES
NPWS (VHF)	3	MRX 78.7875	MTX 81.2875	Mt Selwyn - marginal in the north and in gullies.
	11	MRX 79.4000	MTX 81.9000	Bugdown Responder - may be limited on the eastern side of the reserve.
NPWS (VHF) FIRE GROUND	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	
	19	79.9625	79.9625	
RFS (PMR)	71	418.3500	408.9000	Mt Roberts.
	35	413.0750	403.6250	Eurombena.
	79	418.9750	409.5250	Wambrook.
RFS (UHF) CB	6	476.550		Mt Roberts repeater.
	9	476.525		Shannons Flat Brigade.
AIRCRAFT COMMUNICATIONS (Fire Communication Traffic Advisory Frequencies F-CITAF)	119.10 Mhz	State wide		Unauthorised and inappropriate use of Aviation Channels is a criminal offence
	120.80 Mhz	State wide		
	122.80 Mhz	State wide		
	123.45 Mhz	State wide		
	128.70 Mhz	State wide		
132.75 Mhz	State wide			

### CONTACT PHONE NUMBERS

NATIONAL PARKS AND WILDLIFE SERVICE	RURAL FIRE SERVICE	EMERGENCY SERVICES	000
SWS Tumut Office (BH) 6947 7000	Cooma-Monaro Fire Control Centre (Ph) 6452 5533	POLICE - Adaminaby (Ph) 6454 2244	
SWS Tumut Office Fax 6947 5170	SWS Tumut Office (Fax) 6452 3828	Bugdown Responder (Ph) 6454 2609	
SWS Tumut Workshop 6949 5265	Shannons Flat Brigade Duty Officer (Ph) 6427 309 665	POLICE - Cooma (Ph) 6452 0099	
Incident Answering Service (AH) 1800 629 104	Berriedale Fire Control Centre (Ph) 6456 4555	POLICE - Murrumbidgee (Ph) 6452 0022	
COUNCILS		AMBULANCE 13 1233	
Cooma Monaro Council 6947 6542	Duty Officer 6456 3647	SES Southern Highlands 4521 8333	
Waggonga Aboriginal Land Council 4476 1144	State Operations (24 hrs) 8741 5400	Fire Brigade - Cooma 6452 2037	
NEIGHBOUR INFORMATION	OTHER ORGANISATIONS		
Consult SWS Region databases	LACKO (Wildlife Care) 6456 1313		

### Yaouk Nature Reserve - Waypoints

Name	Ref No	Description	Easting	Northing	Longitude	Latitude
Back Ck	H1	Waterpoint Vehicle	670120	6019510	148°53' 11"	35°57' 14"
Boboyan Rd 1	H1	Waterpoint Helicopter, Waterpoint Vehicle	670530	6016390	148°53' 30"	35°58' 55"
Boboyan Rd 2	H1	Waterpoint Helicopter	670600	6016390	148°53' 30"	35°58' 55"
Boopong Ck	H1	Waterpoint Vehicle	665020	6036120	148°49' 35"	35°48' 18"
Coonyah	H1	Waterpoint Vehicle	673780	6022950	148°55' 34"	35°58' 34"
Jones Ck	H3	Waterpoint Helicopter, Waterpoint Vehicle	673980	6022350	148°55' 44"	35°56' 44"
Kennedy's Rd	H4	Staging Area	663740	6036980	148°48' 42"	35°48' 19"
Murrumbidgee River	H4	Waterpoint Helicopter, Waterpoint Vehicle	662910	6033590	148°48' 13"	35°48' 41"
West Valley	H4	Staging Area	667420	6033780	148°51' 12"	35°48' 33"
Yaouk Rd	H4	Staging Area	664020	6034660	148°48' 51"	35°48' 08"