

OPERATIONAL GUIDELINES

ACTIVITY	OPERATIONAL GUIDELINES
Command, control and firefighting operations Fire Response (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 BFMC Plan of Operations. Use of earth-moving equipment, retardants and aerial suppression must be approved by a senior NPWS officer prior to works.
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-covers 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. 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 well down these trees as part of the backburn ignition preparation.
Back burning (NPWS FMM 4.8)	<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 9, unless otherwise indicated. Dormant trails may be used as a strategic control line during an incident (where they exist), however may need some mechanical work to clear regenerating vegetation and fallen timber.
Control lines (NPWS FMM 3.9)	<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 sign on or a 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 from gullies to avoid severe erosion.
Earth moving machinery (NPWS FMM 4.3)	<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.
Fire suppression chemicals (NPWS FMM 4.9)	<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 Worksites Manual requirements.
Post fire rehabilitation (NPWS FMM 5.1)	<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 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.
Smoke management (NPWS FMM 3.4)	<ul style="list-style-type: none"> Transmission lines (Powerlines) Water supplies

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"> Gully lines 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.

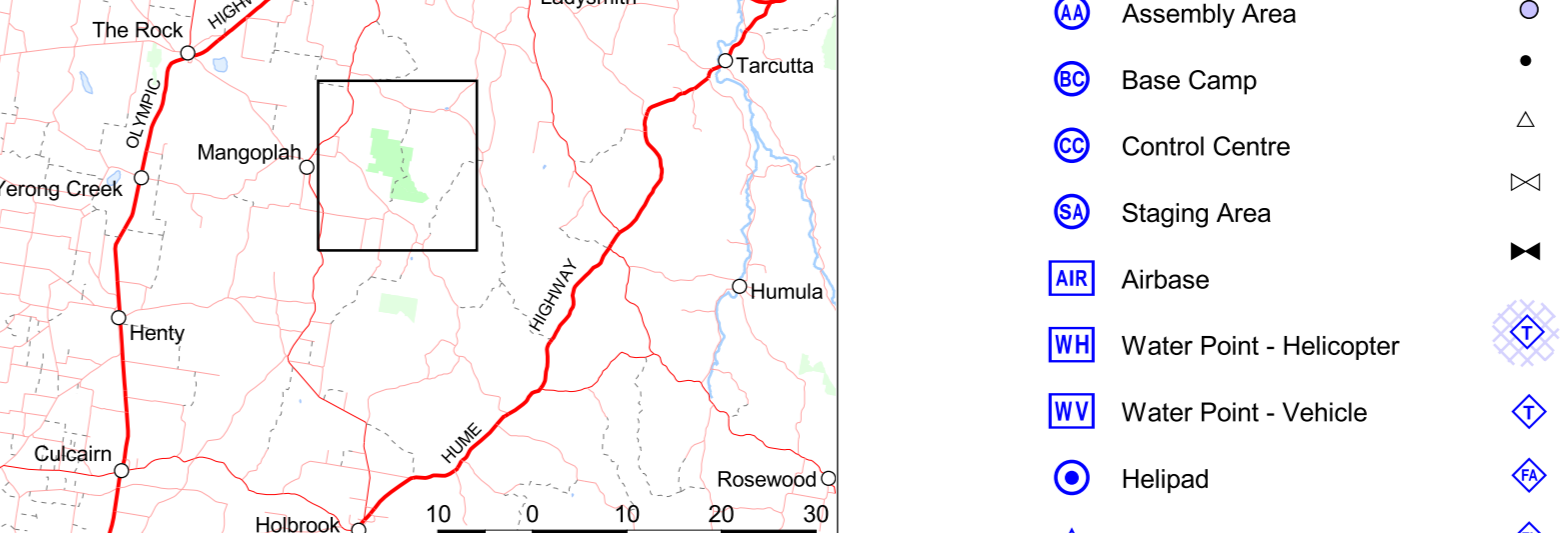
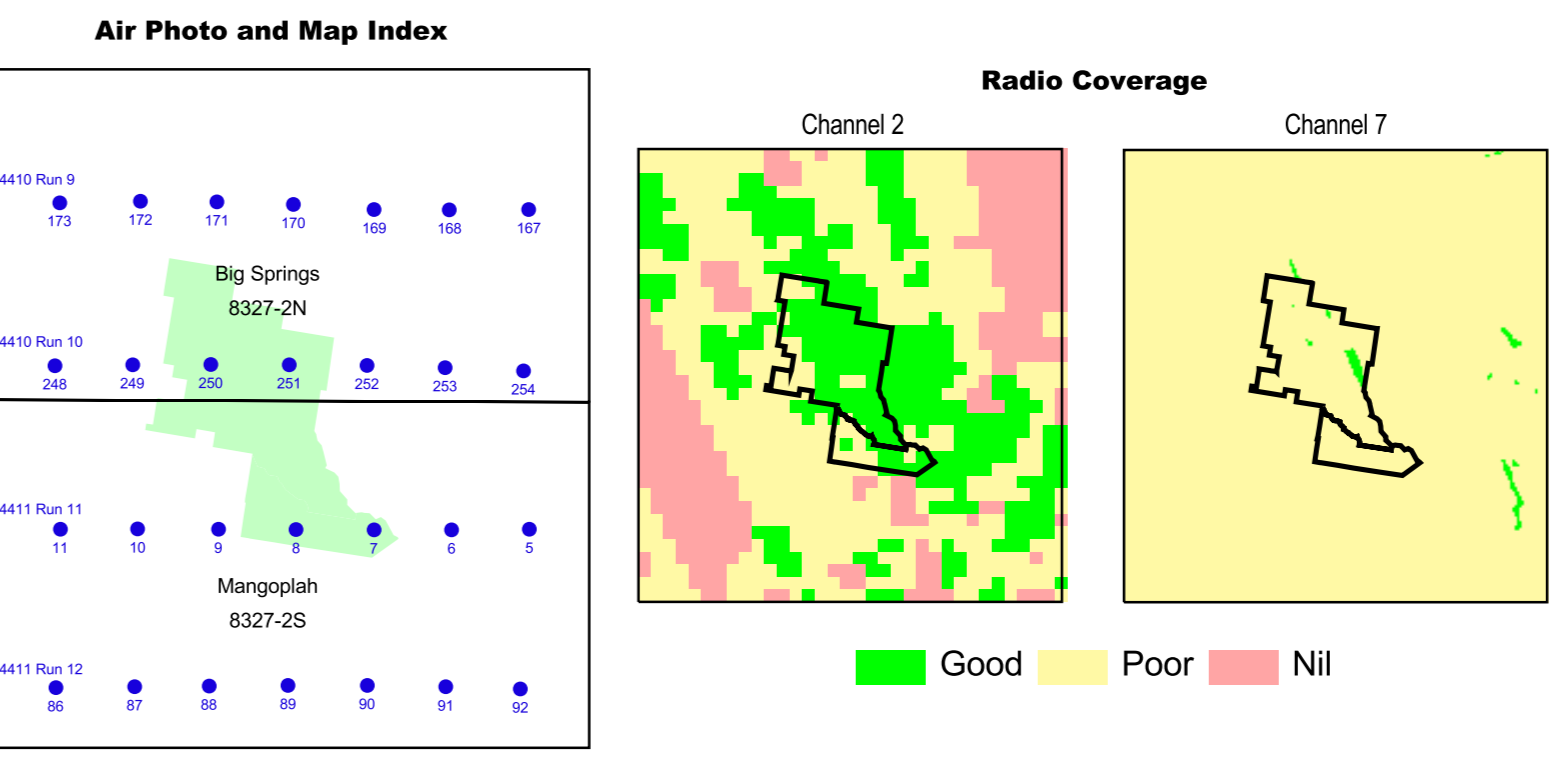
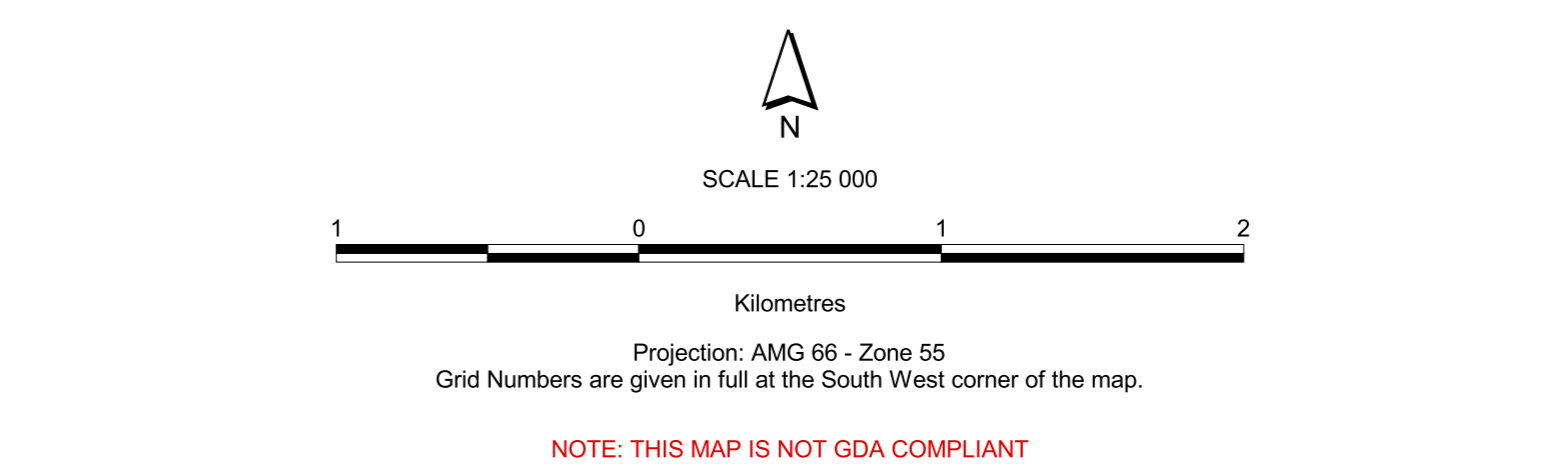
FIRE SEASON INFORMATION

The critical fire season occurs between December and March, when the potential for fire events is at its highest. Particular care and monitoring is required during periods of prolonged drought. Southern Oscillation indices occur and low pressure systems dominate through central and southern Australia during and leading up to the summer 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 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 north and northwest. In the evenings and nights winds can often come from the SW.

All ignitions under a SW influence should be managed with the potential for flanks to become heads when IV to NW wind trends return.



South West Slopes Region

Livingstone National Park & State Conservation Area

Fire Operations Map 2006

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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

ACTIVITY	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"> There are no recorded assets within the reserve.

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 machinery. Avoid the use of surfactants/retardants. 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: Clear fuels, with hand tools, from tree base and/or foam base to 3m up tree trunk. Do not clear or fall 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.

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. Liaise with the relevant heritage officer and/or representative where considered necessary.
Scarred trees	<ul style="list-style-type: none"> 1 2
Rock arrangements, rock engravings, bora rings, etc	<ul style="list-style-type: none"> 2
Art sites and overhangs	<ul style="list-style-type: none"> 3
Open camp sites	<ul style="list-style-type: none"> 4
"Mine Shafts"	<ul style="list-style-type: none"> 5

FMM - contains extracts from NSW National Parks and Wildlife Service Fire Management Manual (December 2004). For the purposes of public release, some information will not be displayed due to obligations under the Freedom of Information Act 1989, Privacy and Personal Information Protection Act 1998, regulations and amendments, and Memorandum of Understanding between the Department of Environment and Conservation and Aboriginal Communities.

CONTACT PHONE NUMBERS

NATIONAL PARKS AND WILDLIFE SERVICE	COUNCILS	EMERGENCY SERVICES	0 0 0
SWS Tumult Office (BH) 6647 7000	Wagga Wagga Council 6026 9100	POLICE - Wagga (Ph) 6921 0544	
SWS Tumult Office Fax 6647 4170	Wagga Wagga ALC 1900 629 104	POLICE - Wagga (Fax) 6921 0534	
Incident Answering Service (AH) 1900 629 104		AMBULANCE 13 1233	
RURAL FIRE SERVICE	NEIGHBOUR INFORMATION	State Emergency Service Wagga 6931 6701	
Wagga Wagga Fire Control Centre (Ph) 6931 5855	Consult SWS Region databases	Fire Brigade - Wagga 6921 3022	
(Fax) 6931 5626			
6931 5500			
Duty Officer 8741 5400		OTHER ORGANISATIONS	
State Operations (24 hrs)		WIRES (24 Hr) 6921 5135	

RADIO COMMUNICATIONS

AGENCY/RESOURCE	CHANNEL	MRX FREQ.	MTX FREQ.	NOTES
NPWS (VHF)	2	MRX 77.6375	MTX 80.1375	Jingelic - covers most of the reserve area.
	7	MRX 78.7625	MTX 81.2625	Mt Yarem - radio coverage through to Wagga Wagga and Tumult.
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)	55	MRX 413.375	MTX 403.925	RFS to determine primary communications during an incident.
	77	MRX 418.625	MTX 403.375	110.9 Hz TX & RX
RFS (UHF) CB	27	Pulitrop - BFB		
	37	Mangoplah BFB		
AIRCRAFT COMMUNICATIONS				
(Fire Communication)		119.10 Mhz	State wide	
Traffic Advisory		120.80 Mhz	State wide	
Frequencies F-CTAF		123.45 Mhz	Pilots (light chat) "The Numbers" channel	Unauthorized and inappropriate use of Aviation Channels is a criminal offence
		128.70 Mhz	State wide	
		132.75 Mhz	State wide	

Mobile Phone Coverage - generally, good coverage across the reserve area.

Livingstone National Park - Waypoints

Name	Ref No	Description	Easting	Northing	Longitude	Latitude
North Livingstone	H1	Staging Area, Refuge Area, Helipad	531500	608800	147° 20' 48"	35° 20' 33"
Burrandina Hall	H2	Staging Area, Refuge Area, Airbase, Helipad	531600	608700	147° 20' 53"	35° 20' 00"
Big Springs	H3	Waterpoint - Helicopter	531700	609100	147° 20' 53"	35° 21' 24"
Berlich		Staging Area, Refuge Area	533100	6087200	147° 21' 52"	35° 21' 28"
Livingstone Dam		Waterpoint - Helicopter	532200	608100	147° 21' 20"	35° 21' 24"
McRae's Trail		Waterpoint - Vehicle	531700	6083200	147° 20' 57"	35° 23' 38"

- Assembly Area
- Base Camp
- Control Centre
- Staging Area
- Airbase
- Water Point - Helicopter
- Water Point - Vehicle
- Helipad
- Refuge Area
- Escape Route
- Farm Dam
- Spotheight
- Survey Landmark
- Gate
- Locked Gate
- Homestead Complex
- Asset
- Threatened Fauna
- Threatened Flora
- Trailer
- Asset Buffer Zone
- BFCC Standard Trail
 - Primary
 - 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
- NP/SCA Boundary
- State Border
- 100m Contour
- 20m Contour
- Cadastre
- River
- Creek
- Waterbody
- DEC Estate - HMZ1
- DEC Estate - HMZ2
- Other DEC Estate
- Crown Land
- State Forest
- Timber Plantation
- Wooded Area
- Karst Area
- Recently Burnt Area
- Drainage Line