

**West Darling
Bush Fire Management Committee**

Bush Fire Risk Management Plan



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Authorisation

In accordance with Part 3 Division 4 of the Rural Fires Act 1997, this Draft Plan has been prepared by the West Darling Bush Fire Management Committee and has been endorsed at the BFMC meeting on 10th May 2019 for submission to the Bush Fire Coordinating Committee.

Recommended

Chairperson 
West Darling Bush Fire Management Committee

Approved


On behalf of the
NSW Bush Fire Coordinating Committee
8/6/21

Amendment List

Amendment		Entered	
Number	Date	Signature	Date

Glossary

Assets: anything valued by the community which includes houses, crops, heritage buildings and places, infrastructure, the environment, businesses, and forests, that may be at risk from bush fire.

Bush Fire: a general term used to describe fire in vegetation, includes grass fire.

Bush Fire Hazard: the potential severity of a bush fire, which is determined by fuel load, fuel arrangement and topography under a given climatic condition.

Bush Fire Risk: the chance of a bush fire igniting, spreading and causing damage to the community or the assets they value.

Bush Fire Risk Management: a systematic process that provides a range of treatments which contribute to the well being of communities and the environment, which suffer the adverse effects of wildfire/bush fire.

Bush Fire Threat: potential bush fire exposure of an asset due to the proximity and type of a hazard and the slope on which the hazard is situated.

Consequence: outcome or impact of a bush fire event.

Fire Fighting Authorities: the NSW Rural Fire Service, NSW Fire Brigades, the National Parks and Wildlife Service and Forests NSW.

Likelihood: the chance of a bush fire igniting and spreading.

Major Bush Fire: A bush fire which requires the attendance of multiple brigades, or causes damage to property or injury to one or more persons.

Display area: geographic area determined by the Bush Fire Management Committee which is used to provide a suitable area and scale for community participation and mapping display purposes.

Recovery costs: the capacity of an asset to recover from the impacts of a bush fire.

Risk Acceptance: an informed decision to accept the consequences and the likelihood of a particular risk.

Risk Analysis: a systematic process to understand the nature of and to deduce the level of risk.

Risk Assessment: the overall process of risk identification, risk analysis and risk evaluation.

Risk Identification: the process of determining what, where, when, why, and how something could happen.

Risk Treatment: the process of selection and implementation of measures to modify risk.

Vulnerability: the susceptibility of an asset to the impacts of bush fire.

Chapter 1. Introduction

1.1 Background

Under the *Rural Fires Act 1997* the Bush Fire Coordinating Committee (BFCC) must constitute a Bush Fire Management Committee (BFMC) for each area in the State, which is subject to the risk of bush fires. Each BFMC is required to prepare and submit to the BFCC a draft Bush Fire Risk Management Plan (BFRMP).

A BFRMP is a strategic document that identifies community assets at risk and sets out a five-year program of coordinated multi-agency treatments to reduce the risk of bush fire to the assets. Treatments may include such things as hazard reduction burning, grazing, community education, fire trail maintenance and establishing community fireguard groups.

Annual programs to implement the treatments identified in this plan will be undertaken by the relevant land managers and fire fighting authorities.

In exercising its functions under the *Rural Fires Act 1997*, including the preparation of a draft bush fire risk management plan, the West Darling BFMC is required to have regard to the principles of ecologically sustainable development (ESD).

This document and the accompanying maps together form the BFRMP for the West Darling BFMC area.

This BFRMP has been prepared by the West Darling BFMC and covers both public and private lands. This BFRMP must be reviewed and updated within each successive five-year period from the constitution of the BFMC.

The BFCC recognises that climate change has the potential to increase bush fire risk. The risk assessment process applied in this BFRMP is based on current climatic conditions. The BFCC will monitor information on climate change and will modify the process when necessary.

1.2 Aim and Objectives

The **aim** of this BFRMP is to minimise the risk of adverse impact of bush fires on life, property and the environment.

The **objectives** of this BFRMP are to:

- reduce the number of human-induced bush fire ignitions that cause damage to life, property and the environment;
- manage fuel to reduce the rate of spread and intensity of bush fires, while minimising environmental/ecological impacts;
- reduce the community's vulnerability to bush fires by improving its preparedness; and
- effectively contain fires with a potential to cause damage to life, property and the environment.

1.3 Description of the West Darling BFMC Area

1.3.1 Location and land tenure

The West Darling BFMC area is located in Far Western New South Wales and is not part of any local government area. The area that makes up the West Darling BFMC area is known as the Unincorporated Area of NSW and is managed by the Dept of lands.

The area covered by the West Darling BFMC is 9.4 million hectares and includes the land tenures outlined in Table 1.1.

Land Manager	% of BFMC area
National Parks & Wildlife Service	8 %
Forest Corporation NSW	0 %
Department of Lands	0 %
Local Government	0 %
Private	91 %
All other	1 %

Table 1.1 Land Tenure

1.3.2 Climate and bush fire season

The typical / average climate in the West Darling BFMC area is characterised by a hot, arid climate with the driest months usually from May to September and the bush fire season running from October to March. It is unusual to have major fires until well into November or December. There is significant variation in rainfall in the West Darling area, often unreliable with long periods of low rainfall and drought a natural feature of this district.

Prevailing weather conditions associated with the bush fire season in the West Darling BFMC area are hot dry days with temperatures often exceeding 40°C, humidity of less than 10% and dry westerly winds. There are frequent dry electrical storms during the bush fire season.

1.3.3 Population

The population of the West Darling BFMC area is approximately 1100 people, most of whom live on isolated rural properties. The Unincorporated Area also includes the villages of Silverton, Tibooburra and Milparinka. Due to the nature of the country surrounding these settlements, it is unlikely that evacuations would ever be required during a bush fire. The City of Broken Hill has a population of approximately 20,000; however this area is not covered by this plan.

1.3.4 History of bush fire frequency and ignition cause

Bushfires on a large scale are an irregular occurrence in the West Darling Rural Fire District. Such events usually only occur after a prolonged period of above average rainfall. Such conditions occurred in 1950-51, 1955-56, 1975-76, 1984-85. These large scale wild fires usually originate from electrical storms associated with hot, dry north westerly winds.

Chapter 2. Identifying and Assessing the Bush Fire Risk

2.1 Process

The Australia/New Zealand Standard *AS/NZS 4360: 2004 Risk Management* was used as the basis for the risk assessment process. See Figure 2.1 for the steps involved. For a detailed description of the process undertaken see the Bush Fire Risk Management Planning Guidelines for Bush Fire Management Committees on the RFS website: www.rfs.nsw.gov.au.

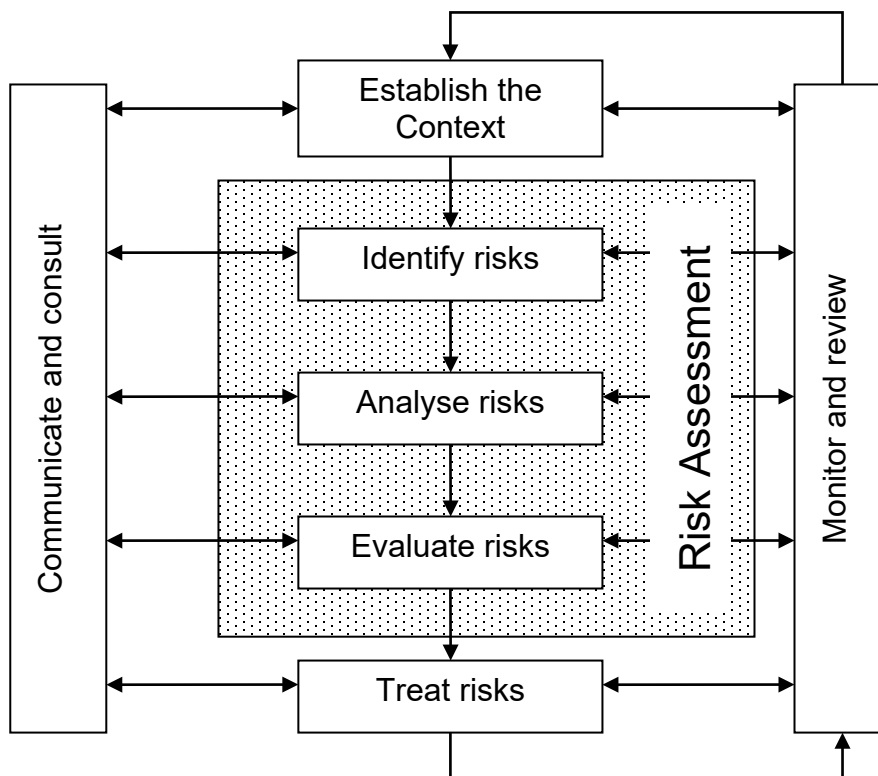


Figure 2.1 Overview of the risk assessment process

2.2 Communication and Consultation

Community participation is an integral part of risk management. The Community Participation Strategy involved developing and implementing a process to address the needs, issues and concerns of stakeholders within the BFMC area in regards to the BFRMP. See Appendix 1 for the Community Participation Strategy used by the West Darling BFMC in preparing this BFRMP.

2.3 Identifying the Bush Fire Risk

Identifying the level of bush fire risk firstly involved identifying important community assets considered to be at risk from bush fire in the West Darling BFMC area, and then assessing the likelihood and consequence ratings.

2.3.1 Assets

BFMC members and the community, including RFS volunteers, identified assets within the West Darling BFMC that they believed were at risk of bush fire.

The assets were divided into four asset types:

Human settlement

- Residential areas including urban bushland interface areas and rural properties;
- Special Fire Protection areas including schools, hospitals, and tourist facilities; and
- Other human settlement areas including commercial and industrial areas where distinct from major towns.
- Neighbourhood Safer Place (NSP) is defined by the Rural Fires Act 1997 as land or a building designated as a neighbourhood safer place under section 62C. NSPs provide a place of last resort for people during a bush fire. All designated NSP locations for NSW are available at www.rfs.nsw.gov.au

Economic

- Agricultural; e.g. major silos, regional saleyards, cropping/grazing land;
- Commercial/industrial e.g. major industries, waste treatment plants, sawmills;
- Infrastructure e.g. large power lines, gas and oil pipelines, railway lines, electricity substations, communication facilities;
- Tourist and recreational e.g. tourist sites and facilities, resorts, retreats;
- Mines;
- Commercial forests e.g. pine plantations, eucalypt plantations and commercial native forests; and
- Drinking water catchments.

Environmental

- Threatened species, populations and ecological communities and Ramsar wetlands;
- Locally important species and ecological communities, such as species and ecological communities especially sensitive to fire.

Cultural

- Aboriginal significance – Aboriginal places and items of significance;
- Non-indigenous heritage – places and items arising from the early occupation of NSW by European or other non-indigenous settlers; and
- Other cultural assets – community halls, clubs and recreational facilities.

See Appendix 2 for the full list of assets identified in the West Darling BFMC area. See maps in appendix 4 for the location of assets to be treated under this BFRMP.

2.3.2 Assessing the Bush Fire Risk - Consequence

Once the assets were identified, the consequence of a bush fire impacting on these assets was assessed.

See Appendix 2 for the consequence ratings assigned to each asset identified in the West Darling BFMC area.

The different asset types had different assessment processes used to determine the consequence. These processes are identified below.

Human settlement

A potential fire behaviour model using vegetation type, slope and separation distance was used to produce a threat rating for human settlement assets. The vulnerability of the asset to a bush fire was also assessed and a rating assigned. These ratings were then used to assess the consequence of a bush fire impacting upon a human settlement asset.

Special Fire Protection (SFP) assets were considered inherently more vulnerable to bush fire due to mobility capacity, knowledge or other issues relating to their inhabitants, (e.g. the elderly, infirm, children or tourists) and therefore stricter requirements for vulnerability assessment and rating were applied.

Economic

The level of economic impact e.g. local, regional or state, as well as the economic recovery costs (how long and complicated a financial recovery will be) of the asset were identified. These ratings were used to assess the consequence of a bush fire impacting upon an economic asset.

Environmental

Environmental assets with known minimum fire threshold were assessed to determine if they were at risk of a bush fire within the 5 year life of the BFRMP using fire history data. Those environmental assets which were within or above the fire threshold were not assessed in the BFRMP, as the negative impact of a fire within the 5 year period was determined as being low and may even be of benefit to the asset and surrounding habitat.

The vulnerability of an environmental asset was determined by its conservation status and its geographic extent (distribution across the landscape). Vulnerability and potential impact of bush fire were used to assess the consequence of a bush fire impacting upon an environmental asset.

Cultural

For non-indigenous historical, Aboriginal and other cultural assets a potential fire behaviour model using fuel load, slope and proximity was used to produce a threat rating. The physical vulnerability of the asset to a bush fire was also assessed. These ratings were then used to assess the consequence of a bush fire impacting upon a cultural asset.

2.3.3 Assessing the Bush Fire Risk - Likelihood

For all asset types the likelihood of a bush fire occurring was assessed. This involves considering fire history, including ignition cause and patterns, known fire paths, access, containment potential and potential fire run (size of the vegetated area). See Appendix 2 for the likelihood ratings assigned to each asset identified in the West Darling BFMC area.

2.3.4 Identifying the level of risk

The consequence and likelihood ratings were then used to identify the level of risk. See Appendix 2 for the risk ratings assigned to each asset identified in the West Darling BFMC area.

2.3.5 Evaluating the Bush Fire Risk

Once the risk ratings for each asset were identified, they were evaluated to:

- a) confirm that risk levels identified in the risk analysis process are appropriate and reflect the relative seriousness of the bush fire risk;
- b) identify which assets require treatments; and
- c) identify treatment priorities.

2.3.6 Prioritising Treatments

No organisation has limitless resources to deal with adverse risk. It is therefore necessary to define priorities. The bush fire risk ratings determined were used to prioritise the risk treatments, i.e. areas of extreme risk were considered first for treatment, then very high, then high then medium then low.

2.3.7 Risk Acceptability

The West Darling BFMC is not accepting any risk for assets identified in this Bush Fire risk Management Plan. Consequently every asset has been assigned a specific treatment. Routine BFMC wide treatments will also be undertaken for these assets to further reduce the bush fire risk.

Chapter 3. Treating the Risk

3.1 Bush Fire Management Zones

Bush Fire Management Zones were identified within the West Darling BFMC area and mapped. These zones identify the fire management intent for a specific area. See Table 3.1 for descriptions of the zones and their purposes. The four categories of Bush Fire Management Zones are:

- Asset Protection Zone (APZ);
- Strategic Fire Advantage Zone (SFAZ);
- Land Management Zone (LMZ); and
- Fire Exclusion Zone (FEZ).

Some of these zones (usually Land Management Zones) may be further classified within this category by the land manager, e.g. LMZ -Heritage Management Zone (NPWS).

Zone	Purpose	Suppression Objective(s)	Zone characteristics
Asset Protection Zone	To protect human life, property and highly valued public assets and values.	To enable the safe use of Direct Attack suppression strategies within the zone. To minimise bush fire impacts on undefended assets.	As per RFS document <i>Standards for Asset Protection Zones</i> .
Strategic Fire Advantage Zone	To provide strategic areas of fire protection advantage which will reduce the speed and intensity of bush fires, and reduce the potential for spot fire development; To aid containment of wildfires to existing management boundaries.	To improve the likelihood and safe use of: Parallel Attack suppression strategies within the zone. and/or Indirect Attack (back burning) in high to very high fire weather conditions within the zone. To reduce the likelihood of: Crown fire development within the zone. and/or Spot fire ignition potential from the zone.	Zone width related to suppression objectives and dependant upon: <ul style="list-style-type: none"> • Topography • Aspect • Spotting propensity • Location of adjacent firebreaks • Mosaic pattern of treatment Assess Overall Fuel Hazard (OFH) once vegetation communities reach minimum fire thresholds within this plan. Management practices should aim to achieve mosaic fuel reduction patterns so that the majority of the SFAZ has an OFH of less than high.
Land Management Zone	To meet relevant land management objectives in areas where APZs or SFAZs are not appropriate.	As per the land management and fire protection objectives of the responsible land management agency. To reduce the likelihood of spread of fires. To undertake mosaic burning	As appropriate to achieve land management e.g. heritage and/or fire protection e.g. broad scale mosaic burning objectives.
Fire Exclusion Zone	To exclude bush fires.	N/A	Variable dependant on size of fire sensitive area requiring protection.

Table 3.1 Bush Fire Management Zones: Purpose, objectives and characteristics

NB: OFH refers the Overall Fuel Hazard Guide as described in the document published by (Dept. of Sustainability and Environment 3rd ed. 1999 & NPWS version); State-wide procedures for assessment of fuel hazard will be developed in conjunction with the BFCC.

Note: All areas that are not mapped or described as APZs or SFAZs are considered as LMZs.

3.2 BFMC Wide Treatments

BFMC wide treatments are activities which reduce the overall bush fire risk within the BFMC area and are undertaken on an ongoing basis as part of normal business. These treatments are not linked to specific assets in the BFRMP, rather they are applied across all or part of the BFMC area as designated by legislation or agency policy. BFMC wide treatments include the following:

- **Reviewing the bush fire prone land map**

These maps identify bush fire prone land and are used to trigger whether a development application is assessed using *Planning for Bush Fire Protection*¹.

- **Ensuring developments in bush fire prone land comply with *Planning for Bush Fire Protection***

This assessment process requires new applications for development to include bush fire protection measures.

- **Using the Local Environment Plan/s (LEPs) to control developments in areas with a bush fire risk**

LEPs can be used to exclude development in extreme bush fire risk areas or where bush fire protection measures cannot be incorporated.

- **Varying the standard bush fire danger period as required**

In years where the weather is particularly adverse the bush fire danger period may be brought in early or extended. This is assessed every year by the BFMC.

- **Requiring permits during the bush fire danger period**

In the bush fire danger period a fire safety permit is required to light a fire in the open. Permits specify conditions such as fire fighting equipment that must be on site, or restrict burns based on weather conditions.

- **Prosecution of arsonists/offenders**

Under the *Rural Fires Act 1997* persons may be prosecuted for breaching the conditions on a fire permit, lighting a fire during a Total Fire Ban, allowing fire to escape their property, or other breaches of the Act.

- **Investigation of bush fire cause**

All bush fires which do not have a known cause are investigated to identify how they started.

¹ NSW Rural Fire Service 2006 *Planning for Bush Fire Protection: A guide for councils, planners, fire authorities and developers.*

- **Normal fire suppression activities**

Responding to bush fire is a normal business activity for the fire fighting authorities.

- **Assessing and managing compliance with strategic fire fighting resource allocation provisions**

Strategic fire fighting resource allocation provisions is the process used to identify the number of stations, brigades and appliances required in an area, and considers members, training, assets and hazards.

- **Preparation of a S52 Operations Coordination Plan**

The Operations Coordination Plan is prepared biannually and sets out how coordinated fire fighting will occur. It includes specific operational restrictions on fire fighting techniques in certain areas, where fires will be managed from, and how agencies involved can communicate during operations.

- **Fire Management Plans or Plans of Management**

Some land management agencies have developed fire management plans or plans of management with specific fire or fuel management strategies, for example a Forests NSW Regional Fuel Management Risk Plan, a NPWS Fire Management Strategy. These publicly exhibited plans form the basis for operational fire planning on public parks, reserves and forests.

- **Bush Fire Hazard Complaints**

If someone is concerned about possible bush fire hazards on a neighbouring property or any other land, then this can be reported to the RFS Commissioner or their local RFS Fire Control Centre. The complaint will be investigated and may result in a notice being issued to the landowner or manager to reduce the hazard.

3.3 Asset Specific Treatments

There are five broad strategy groups available to treat the bush fire risk to assets identified in the BFRMP process, four of which are employed by the West Darling BFMC.

The types of asset specific treatments in each strategy group are listed below. A full list of the treatment strategies in the West Darling area are in Appendix 3.

Strategy	Targeted treatments used in the West Darling BFMC area
Hazard Reduction	<ul style="list-style-type: none"> • Inspect Communications Towers every 2 years, checking for asset protection zone (APZ) compliance, and all weather fire appliance access. • Inspect asset protection zones (APZ) annually and maintain as required. • Review and implement NPWS Fire Management Plans annually.
Community Engagement	<ul style="list-style-type: none"> • Promote Bush Fire Survival Planning by directly targeting vulnerable communities annually with an updated program.
Preparedness	<ul style="list-style-type: none"> • Inspect Neighbourhood Safer Places for compliance annually.
Ignition Management	<ul style="list-style-type: none"> • Undertake an annual media campaign promoting the Fire Permit process by direct contact with members and broadly via various media outlets.
Property Planning	<ul style="list-style-type: none"> • This strategy not employed by this Bush Fire Risk Management Plan.

Table 3.2 Asset specific treatments used in the West Darling BFMC area

3.4 Fire Thresholds

The vegetation in the West Darling BFMC area was classified into fire threshold categories.

Vegetation formation	Minimum SFAZ Threshold	Minimum LMZ Threshold	Maximum Threshold	Notes
Rainforest	NA	NA	NA	Fire should be avoided.
Alpine complex	NA	NA	NA	Fire should be avoided.
Wet Sclerophyll forest (shrubby subformation)	25	30	60	Crown fires should be avoided in the lower end of the interval range.
Wet Sclerophyll forest (grassy subformation)	10	15	50	Crown fires should be avoided in the lower end of the interval range.
Grassy woodland	5	8	40	Minimum interval of 10 years should apply in the southern Tablelands area. Occasional intervals greater than 15 years may be desirable.
Grassland	2	3	10	Occasional intervals greater than 7 years should be included in coastal areas. There was insufficient data to give a maximum interval; available evidence indicates maximum intervals should be approximately 10 years.
Dry sclerophyll forest (shrub/grass subformation)	5	8	50	Occasional intervals greater than 25 years may be desirable.
Dry sclerophyll forest (shrub subformation)	7	10	30	Occasional intervals greater than 25 years may be desirable.
Heathlands	7	10	30	Occasional intervals greater than 20 years may be desirable.
Freshwater wetlands	6	10	35	Occasional intervals greater than 30 years may be desirable.
Forested wetlands	7	10	35	Some intervals greater than 20 years may be desirable.
Saline wetlands	NA	NA	NA	Fire should be avoided.
Semi-arid woodlands (grassy subformation)	6	9	No max	Not enough data for a maximum fire interval.
Semi-arid woodlands (shrubby subformation)	10	15	No Max	Not enough data for a maximum fire interval.
Arid shrublands (chenopod subformation)	NA	NA	NA	Fire should be avoided.
Arid shrublands (acacia subformation)	10	15	No Max	Not enough data for a maximum fire interval.

Table 3.3 Fire Thresholds for Vegetation Categories

3.5 Annual Works Programs

The land management agencies and fire fighting authorities responsible for implementing the treatments identified in this plan will include those treatments in their annual works programs detailing how, when, and where the required activities will be undertaken.

3.6 Implementation

When the treatments identified in this BFRMP are implemented there are a number of issues that need to be considered by the responsible agency including environmental assessments and approvals, smoke management and prescribed burn plans.

Local permit issuing/hazard reduction burning exclusion periods

In the West Darling BFMC area the issuing of permits is not permitted during the period from 23rd December to 2nd January each year.

Chapter 4. Performance Monitoring and Reviewing

4.1 Review

This BFRMP must be reviewed and updated within each successive five-year period from the constitution of the BFMC. The West Darling BFMC will also review this plan as necessary to account for any changes in context or risk. This may be triggered by a range of circumstances, including but not limited to:

- changes to the BFMC area, organisational responsibilities or legislation;
- changes to the bush fire risk in the area; or
- following a major fire event.

4.2 Monitoring

The BFMC is required to monitor progress towards the completion of treatment works listed in the BFRMP, and the timeliness of the works.

4.3 Reporting

The BFMC is required to report annually to the BFCC on its progress in implementing the bush fire risk management activities identified in this plan.

4.4 Performance Measurements

State wide performance measurements which are linked to the BFRMP have been identified by the BFCC. All BFMCs must use these to monitor and report on their success in reducing the bush fire risk in their BFMC area.

Appendix 1 Community Participation Strategy

Target Group	Method of Communication	Method of Notification	Key Message	Message Format	Agency Responsible	Timeline / Frequency
Committee Membership	<ul style="list-style-type: none"> Quarterly meetings Out of Session discussions 	<ul style="list-style-type: none"> Letters Agenda Items Report to meetings 	<ul style="list-style-type: none"> Introduce BFRMP Identify assets & assessments Discuss treatment options Identify responsible agencies Validate S52 Ops Plans 	<ul style="list-style-type: none"> Face-to-face meetings Teleconference Printed media Emails 	RFS (via Exec Officer)	<ul style="list-style-type: none"> Agendas out 1 month before meeting Meetings – February, May, August, November (unless otherwise agreed)
RFS Volunteers	<ul style="list-style-type: none"> District Liaison Meetings Senior Management Team Meetings Brigade meetings District Newsletters 	<ul style="list-style-type: none"> Letters Emails Telephone calls Agenda Items 	<ul style="list-style-type: none"> Introduce BFRMP Identify assets & assessments Discuss treatment options Identify responsible agencies Validate S52 Ops Plans 	<ul style="list-style-type: none"> Printed media / Flyers Email correspondence Direct involvement through BFMC volunteer reps Council Website 	RFS (via Exec Officer)	<ul style="list-style-type: none"> As required based on the information being sought through the committee – via their Brigade representatives
Other Agencies (e.g. LEMC)	<ul style="list-style-type: none"> Direct mail / email 	<ul style="list-style-type: none"> Report to Meetings 	<ul style="list-style-type: none"> Introduce BFRMP Identify assets & assessments Discuss treatment options 	<ul style="list-style-type: none"> Presentations Maps 	RFS (via Exec Officer)	<ul style="list-style-type: none"> Quarterly in line with planned BFMC meetings
General Public	<ul style="list-style-type: none"> Written or verbal 	<ul style="list-style-type: none"> Phone calls Mail Outs Email Community Groups Local Newspaper 	<p>Maintaining Community participation Provide feedback Request comments on considered issues</p>	<ul style="list-style-type: none"> Presentations Flyers Council Website 	All Agencies	<ul style="list-style-type: none"> As required by legislation e.g. 42 days' notice for consultations

Appendix 2 Asset Register

Map reference number	Asset type	Asset sub type	Asset name	Asset Location	LGA	Display area	Likelihood	Consequence	Risk	Priority	Treatment number
8	Environment	Endangered	Endangered Flora and Fauna	Scattered remotely throughout the Far West	Unincorporated Area	Unincorporated Area	Unlikely	Catastrophic	High	3C	9;10
38	Environment	Vulnerable	Vulnerable Flora and Fauna	Scattered remotely throughout the Far West	Unincorporated Area	Unincorporated Area	Unlikely	Major	Medium	4	9;10
46	Economic	Tourist and Recreational	Broken Hill Outback Resort	Approx 15km East of Broken Hill on Barrier Highway	Unincorporated Area	Unincorporated Area	Likely	Minor	Medium	4	43
101	Economic	Infrastructure	Comms Tower - Coombah (Mast)	126km south of Broken Hill on Silver City Hwy	Unincorporated Area	Unincorporated Area	Unlikely	Minor	Low	NA	57;59
102	Human Settlement	Residential	Broken Hill City	460km west of Cobar via Barrier Hwy	Unincorporated Area	Unincorporated Area	Unlikely	Minor	Low	NA	58
103	Cultural	Aboriginal Significance	Aboriginal Sites - Mutawintji (NPWS)	NPWS Reserves	Unincorporated Area	Unincorporated Area	Unlikely	Minor	Low	NA	9
104	Cultural	Aboriginal Significance	Aboriginal Sites - Private Land	Located on various grazing properties	Unincorporated Area	Unincorporated Area	Unlikely	Minor	Low	NA	10
105	Human Settlement	Residential	Silverton	30km north west Broken Hill	Unincorporated Area	Unincorporated Area	Unlikely	Minor	Low	NA	58
106	Economic	Drinking Water Catchment	Stephens Creek Reservoir	17km northeast of Broken Hill via Barrier Hwy	Unincorporated Area	Unincorporated Area	Unlikely	Moderate	Low	NA	10
107	Economic	Drinking Water Catchment	Umberumberka Reservoir	33km northwest of Broken Hill via Silverton Rd	Unincorporated Area	Unincorporated Area	Unlikely	Moderate	Low	NA	10
108	Human Settlement	Residential	Milparinka	294km north of Broken Hill on Silver City Hwy	Unincorporated Area	Unincorporated Area	Unlikely	Minor	Low	NA	58
109	Human Settlement	Residential	Tibooburra	332km north of Broken Hill on Silver City Hwy	Unincorporated Area	Unincorporated Area	Unlikely	Minor	Low	NA	58
110	Economic	Infrastructure	Comms Tower - Glen Lyon	'Scarsdale' 2898 Menindee Road, Menindee	Unincorporated Area	Unincorporated Area	Unlikely	Moderate	Low	NA	59
111	Economic	Infrastructure	Comms Tower - Thackaringa	3905 Barrier Highway, Broken	Unincorporated Area	Unincorporated Area	Unlikely	Moderate	Low	NA	59
112	Economic	Infrastructure	Comms Tower - Broken Hill	136 Eyre Street, Broken Hill	Unincorporated Area	Unincorporated Area	Unlikely	Moderate	Low	NA	59
113	Economic	Infrastructure	Comms Tower - Anderson Hill	9362 Barrier Highway, Little Topar	Unincorporated Area	Unincorporated Area	Unlikely	Moderate	Low	NA	59
114	Economic	Infrastructure	Comms Tower - Tibooburra	3 King Street, Tibooburra	Unincorporated Area	Unincorporated Area	Unlikely	Moderate	Low	NA	59
115	Human Settlement	Residential	Packsaddle	Silverton Highway, north of Broken Hill	Unincorporated Area	Unincorporated Area	Unlikely	Moderate	Low	NA	58
116	Economic	Infrastructure	Broken Hill Solar Farm	Barrier Highway, 5 km west of Broken Hill	Unincorporated Area	Unincorporated Area	Unlikely	Moderate	Low	NA	59
120	Economic	Infrastructure	Gas Pipeline - Unincorporated Area	Runs NW-SE through LGA	Unincorporated Area	Unincorporated Area	Unlikely	Minor	Low	NA	56
123	Economic	Infrastructure	Silverton Wind Farm	5km North of Silverton and 25km north-east of Broken Hill	Unincorporated Area	Unincorporated Area	Unlikely	Minor	Low	NA	46

Appendix 3 Treatment Register

Priority (Risk Rating)	Asset ID	Asset Name	Asset Location	Class	Subclass	Strategy	Treatment ID	Action Description	Responsible Agencies	Other RA	Support Agencies	Other SA	1718	1819	1920	2021	2122	
3C (High)	8	Endangered Flora and Fauna	Scattered remotely throughout the Far West	Environmental	Endangered	Hazard Reduction	9	Implement NPWS Fire Management Plans	NPWS		RFS		[1718]	[1819]	[1920]	[2021]	[2122]	
						Ignition Management	10	Annual media campaign promoting Permit process	RFS		FRNSW		[1718]	[1819]	[1920]	[2021]	[2122]	
4 (Medium)	38	Vulnerable Flora and Fauna	Scattered remotely throughout the Far West	Environmental	Vulnerable	Hazard Reduction	9	Implement NPWS Fire Management Plans	NPWS		RFS		[1718]	[1819]	[1920]	[2021]	[2122]	
						Ignition Management	10	Annual media campaign promoting Permit process	RFS		FRNSW		[1718]	[1819]	[1920]	[2021]	[2122]	
NA (Low)	46	Broken Hill Outback Resort	Approx 15km East of Broken Hill on Barrier Highway	Economic	Tourist and Recreation	Hazard Reduction	43	Inspect & maintain access & APZs every 2 years	Private;RFS		Other	Relevant agencies who utilise the towers		[1819]		[2021]		
	101	Comms Tower - Coombah (Mast)	126km south of Broken Hill on Silver City Hwy	Economic	Infrastructure	Hazard Reduction	57	Inspect & maintain access & APZs every 2 years	Police		RFS			[1819]		[2021]		
							59	Inspect & maintain access & APZs every 2 years	Private;RFS		Other	Relevant agencies who use the tower		[1819]		[2021]		
	102	Broken Hill City	460km west of Cobar via Barrier Hwy	Human Settlement	Residential	Community Education	58	Provide pre-season information to Communities	RFS		LGA;FRNSW			[1718]	[1819]	[1920]	[2021]	[2122]
	103	Aboriginal Sites - Mutawintji (NPWS)	NPWS Reserves	Cultural Heritage	Aboriginal Significance	Hazard Reduction	9	Implement NPWS Fire Management Plans	NPWS		RFS			[1718]	[1819]	[1920]	[2021]	[2122]
	104	Aboriginal Sites - Private Land	Located on various grazing properties	Cultural Heritage	Aboriginal Significance	Ignition Management	10	Annual media campaign promoting Permit process	RFS		FRNSW			[1718]	[1819]	[1920]	[2021]	[2122]
	105	Silverton	30km north west Broken Hill	Human Settlement	Residential	Community Education	58	Provide pre-season information to Communities	RFS		LGA;FRNSW			[1718]	[1819]	[1920]	[2021]	[2122]
	106	Stephens Creek Reservoir	17km northeast of Broken Hill via Barrier Hwy	Economic	Drinking Water	Ignition Management	10	Annual media campaign promoting Permit process	RFS		FRNSW			[1718]	[1819]	[1920]	[2021]	[2122]
	107	Umberumberka Reservoir	33km northwest of Broken Hill via Silverton Rd	Economic	Drinking Water	Ignition Management	10	Annual media campaign promoting Permit process	RFS		FRNSW			[1718]	[1819]	[1920]	[2021]	[2122]
	108	Milparinka	294km north of Broken Hill on Silver City Hwy	Human Settlement	Residential	Community Education	58	Provide pre-season information to Communities	RFS		LGA;FRNSW			[1718]	[1819]	[1920]	[2021]	[2122]
	109	Tibooburra	332km north of Broken Hill on Silver City Hwy	Human Settlement	Residential	Community Education	58	Provide pre-season information to Communities	RFS		LGA;FRNSW			[1718]	[1819]	[1920]	[2021]	[2122]
	110	Comms Tower - Glen Lyon	'Scarsdale' 2898 Menindee Road, Menindee	Economic	Infrastructure	Hazard Reduction	59	Inspect & maintain access & APZs every 2 years	Private;RFS		Other	Relevant agencies who use the tower		[1819]		[2021]		
	111	Comms Tower - Thackaringa	3905 Barrier Highway, Broken	Economic	Infrastructure	Hazard Reduction	59	Inspect & maintain access & APZs every 2 years	Private;RFS		Other	Relevant agencies who use the tower		[1819]		[2021]		
	112	Comms Tower - Broken Hill	136 Eyre Street, Broken Hill	Economic	Infrastructure	Hazard Reduction	59	Inspect & maintain access & APZs every 2 years	Private;RFS		Other	Relevant agencies who use the tower		[1819]		[2021]		
	113	Comms Tower - Anderson Hill	9362 Barrier Highway, Little Topar	Economic	Infrastructure	Hazard Reduction	59	Inspect & maintain access & APZs every 2 years	Private;RFS		Other	Relevant agencies who use the tower		[1819]		[2021]		
	114	Comms Tower - Tibooburra	3 King Street, Tibooburra	Economic	Infrastructure	Hazard Reduction	59	Inspect & maintain access & APZs every 2 years	Private;RFS		Other	Relevant agencies who use the tower		[1819]		[2021]		
	115	Packsaddle	Silverton Highway, north of Broken Hill	Human Settlement	Residential	Community Education	58	Provide pre-season information to Communities	RFS		LGA;FRNSW			[1718]	[1819]	[1920]	[2021]	[2122]
116	Broken Hill Solar Farm	Barrier Highway, 5 km west of Broken Hill	Economic	Infrastructure	Hazard Reduction	59	Inspect & maintain access & APZs every 2 years	Private;RFS		Other	Relevant agencies who use the tower		[1819]		[2021]			
120	Gas Pipeline - Unincorporated Area	Runs NW-SE through LGA	Economic	Infrastructure	Hazard Reduction	56	Inspect & maintain access & APZs every 2 years	Private;RFS		Other	Relevant agency/company utilising towers		[1819]		[2021]			
123	Silverton Wind Farm	5km North of Silverton and 25km north-east of Broken Hill	Economic	Infrastructure	Hazard Reduction	46	Inspect Fire Breaks annually & maintain as reqd	Private		RFS			[1718]	[1819]	[1920]	[2021]	[2122]	

West Darling BFMC Bush Fire Risk Management Plan 2021

West Darling Area - Map Display Area

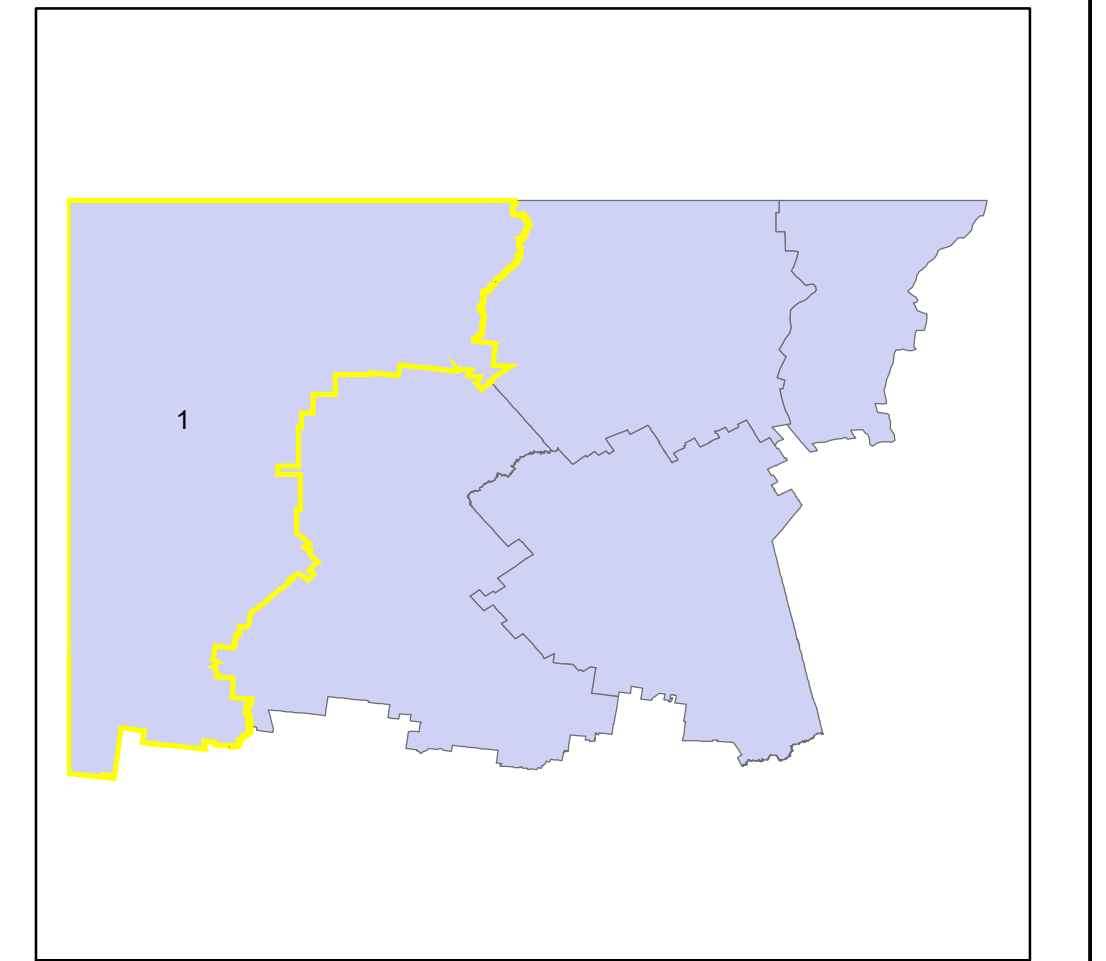
Map 1 of 1

This Bush Fire Risk Management Plan (BFRMP) has been prepared by the Far West Bush Fire Management Committee (BFMC) pursuant to section 52 of the Rural Fires Act 1997.

The aim of this BFRMP is to reduce the adverse impact of bush fires on life, property and the environment.

- The objectives of this BFRMP are to:
- reduce the number of human-induced bush fire ignitions that cause damage to life, property or the environment;
 - manage fuel to reduce the spread and intensity of bush fires while minimising environmental/ecological impacts;
 - reduce the community's vulnerability to bush fires by improving its preparedness; and
 - effectively contain fires with a potential to cause damage to life, property and the environment.

This map forms part of the BFRMP for the West Darling BFMC, covering the local government area(s) of Unincorporated Area. It should be viewed in conjunction with the accompanying BFRMP document which provides further details on the BFMC area, the assets assessed and the risk assessment process used.



Review
Under the Rural Fires Act 1997 this plan must be reviewed and updated within each successive five year period following the constitution of the BFMC. The Far West BFMC will also review this plan as necessary. This may be triggered by a range of circumstances, including but not limited to:

- changes to the BFMC area, organisational responsibilities or legislation;
- changes to the bush fire risk in the area; or
- following a major fire event.

Assets
This BFRMP identifies the assets that are considered by the Far West BFMC and community to be at risk from bush fires, assesses the bush fire risk to each asset and assigns treatments designed to mitigate the risk. Assets in the BFMC area identified as requiring treatments are listed in the assets table. Other assets within the BFMC area that were assessed as not requiring treatments within the life of this plan are listed in the appendix to the BFRMP document. The Map Ref number "NA" denotes non-spatial assets.

Treatments
Specific treatments assigned to assets in the Far West area are listed in the treatments table and linked to the assets which they are designed to protect. Standard BFMC wide treatments (i.e. not linked to a specific asset) which occur on an ongoing basis within the BFMC area are:

- reviewing the bush fire prone land map;
- ensuring developments in the bush fire prone land comply with Planning for Bush Fire Protection;
- using the Local Environment Plan's (LEPs) to control development in areas with a bush fire risk;
- varying the standard bush fire danger period as required;
- requiring permits during bush fire danger periods
- prosecution of arsonists/offenders
- investigation of bush fire cause;
- normal fire suppression activities;
- assessing and managing compliance with strategic fire-fighting resource allocation management systems;
- preparation of a S&S Operations Coordination Plan;

Note on LMZ: All areas not specifically mapped as an APZ, SFAZ or FEZ are considered as LMZ for this risk management plan. For areas identified by an LMZ polygon on the map, please refer to the BFRMP document for the specific land management objectives.

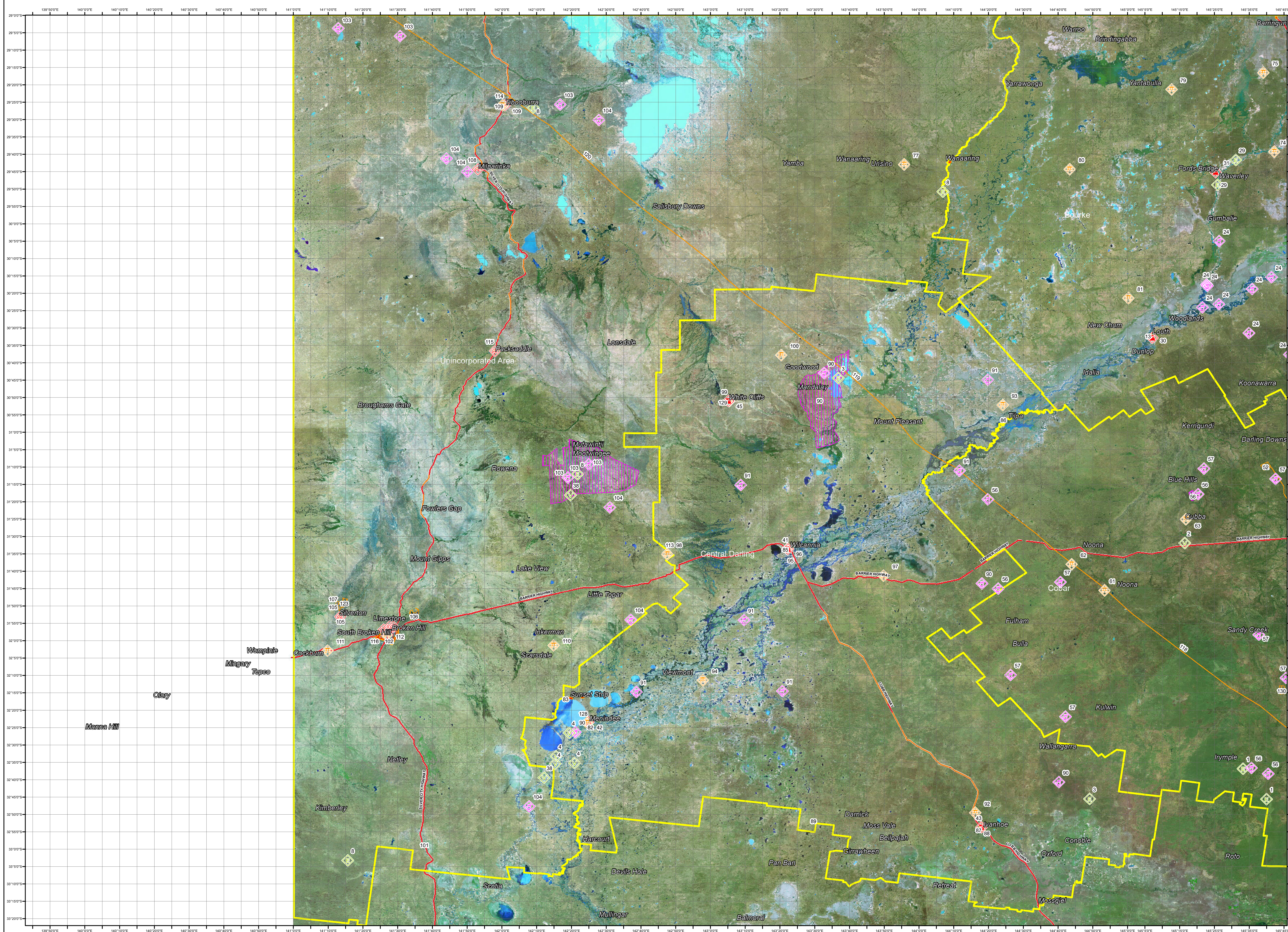
Zone	Purpose	Suppression	Zone
Asset Protection Zone	To protect human life, property and highly valued public assets and values.	To enable the safe use of Direct Attack suppression strategies within the zone. To minimise bush fire impacts on undefended assets.	As per RFS document Standards for Asset Protection Zones.
Strategic Fire Advantage Zone	To provide strategic areas of fire protection advantage which will reduce the speed and intensity of bush fire, and reduce the potential for spot fire development. To aid containment of wildfires to existing management boundaries.	To improve the likelihood and safe use of Parallel Attack suppression strategies within the zone. - Location of adjacent fire breaks - Spotting propensity for spot fire Indirect Attack (back burning) in high to very high fire weather management conditions within the zone. To reduce the likelihood of: Crown fire development within the zone; and/or Spot fire ignition potential from the zone.	Zone width related to suppression objectives and dependant upon: - Topography - Aspect - Location of adjacent fire breaks - Mosaic pattern of treatment Assess Overall Fuel Hazard (OFH) once vegetation communities reach minimum fire thresholds within this plan. Management practices should aim to achieve mosaic fuel reduction patterns so that the majority of the SFAZ has an OFH of less than high.
Land Management Zone	To meet relevant land management objectives in area where APZs or SFAZs are not appropriate.	To reduce the likelihood of spread of fires. To undertake mosaic burning.	As appropriate to achieve land protection objectives of the responsible land management agency. To reduce the likelihood of spread of fires. To undertake mosaic burning.
Fire Exclusion Zone	To exclude bush fires.	N/A	Variable dependant on size of fire sensitive area requiring protection.

Disclaimer
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Authorized by: _____ of Far West BFMC.
Date created: Monday, 4 January 2021

BFRMP version 2.1.28.0



Map Ref	Asset name	Asset type	Subtype	Risk level	Priority	Treatment
8	Endangered Flora and Fauna	Environment	Endangered	High	3C	T9;T10
38	Vulnerable Flora and Fauna	Environment	Vulnerable	Medium	4	T9;T10
46	Broken Hill Outback Resort	Economic	Tourist and	Medium	4	T43
101	Comms Tower - Coambah (Mast)	Economic	Infrastructure	Low	NA	T57;59
102	Broken Hill City	Human	Residential	Low	NA	T56
103	Aboriginal Sites - Mutawintji (NPWS)	Cultural	Aboriginal	Low	NA	T9
104	Aboriginal Sites - Private Land	Cultural	Aboriginal	Low	NA	T10
105	Silverton	Human	Residential	Low	NA	T58
106	Stephens Creek Reservoir	Economic	Drinking	Low	NA	T10
107	Umberumberka Reservoir	Economic	Drinking	Low	NA	T10
108	Mijarinka	Human	Residential	Low	NA	T58
109	Tibooburra	Human	Residential	Low	NA	T58
110	Comms Tower - Glen Lyon	Economic	Infrastructure	Low	NA	T59
111	Comms Tower - Thackaringa	Economic	Infrastructure	Low	NA	T59
112	Comms Tower - Broken Hill	Economic	Infrastructure	Low	NA	T59
113	Comms Tower - Anderson Hill	Economic	Infrastructure	Low	NA	T59
114	Comms Tower - Tibooburra	Economic	Infrastructure	Low	NA	T59
115	Packsaddle	Human	Residential	Low	NA	T58
116	Broken Hill Solar Farm	Economic	Infrastructure	Low	NA	T59
120	Gas Pipeline - Unincorporated Area	Economic	Infrastructure	Low	NA	T56
123	Silverton Wind Farm	Economic	Infrastructure	Low	NA	T46

Assets

- Human - Residential
- Human - Other
- Special Fire Protection - Locally Important
- Economic - Agricultural
- Economic - Commercial
- Economic - Infrastructure
- Economic - Tourism and Recreational
- Economic - Mines
- Commercial Farms
- Drinking Water Catchments
- Environmental - Locally Important
- Environmental - Vulnerable (Species)
- Environmental - Endangered (Species)
- Cultural - Aboriginal Heritage
- Cultural - Other
- Cultural - Non-Indigenous

Bush Fire Management Zones

- Fire Exclusion Zone (FEZ)
- Asset Protection Zone (APZ)
- Land Management Zone (LMZ)
- Strategic Fire Advantage Zone (SFAZ)

Base Data Layers

- Major Roads Sealed
- Major Roads Unsealed
- Secondary Road Sealed
- Secondary Road Unsealed
- Local Road Sealed
- Local Road Unsealed
- Local Road Unspecified
- AVD Track Unspecified
- Path
- Heavy Rail
- Light Rail
- Heavy Rail Siding
- Drainage Perennial
- Drainage Non Perennial
- Hydro-Line Perennial
- Hydro-Line Non Perennial
- Contour (10m)
- Contour (100m)
- Map Display Area
- Local Government Area
- Crown Land
- State Forests
- National Park

*Note - Some base data layers may not be displayed on map

ID	Treatment strategy	Action	Agencies (Support)
T9	Hazard Reduction	Implement NPWS Fire Management Plans	NPWS (RFS)
T10	Ignition Management	Annual media campaign promoting Permit	RFS (FRNSW)
T43	Hazard Reduction	Inspect & maintain access & APZs every 2 years	Private, RFS (Relevant agencies)
T46	Hazard Reduction	Inspect Fire Breaks annually & maintain as reqd	Private, RFS (Relevant)
T56	Hazard Reduction	Inspect & maintain access & APZs every 2 years	Private, RFS (Relevant)
T57	Hazard Reduction	Inspect & maintain access & APZs every 2 years	Police (RFS)
T58	Community Education	Provide pre-season information to Communities	RFS (LGA, FRNSW)
T59	Hazard Reduction	Inspect & maintain access & APZs every 2 years	Private, RFS (Relevant agencies)