

Newcastle Bush Fire Management Committee

Bush Fire Risk Management Plan

2018 - 2023

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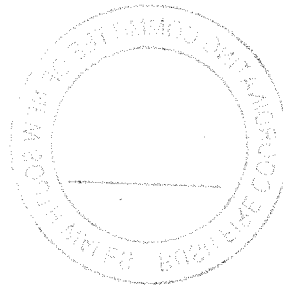
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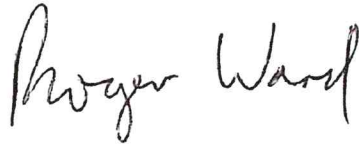
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Authorisation

In accordance with Part 3 Division 4 of the Rural Fires Act 1997, this Plan has been prepared by the Newcastle Bush Fire Management Committee and has been endorsed at the BFMC meeting on 21st September, 2018 for submission to the Bush Fire Coordinating Committee.

Recommended



Chairperson
Newcastle Bush Fire Management Committee

Approved



On behalf of the
NSW Bush Fire Co-ordinating Committee

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 wellbeing 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 Newcastle 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 Newcastle BFMC area.

This BFRMP has been prepared by the Newcastle 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 Newcastle BFMC area

1.3.1 Location and land tenure

The Newcastle BFMC area is located in the Hunter region on the eastern seaboard of New South Wales and includes the Local Government Area of Newcastle.

The area covered by the Newcastle BFMC is 214.5 sq. Kms and includes the land tenures outlined in Table 1.1.

Land Manager	% of BFMC area
National Parks & Wildlife Service	0.4%
Local Government	42%
Private	37.6%
All other	20%

Table 0.1 Land tenure

1.3.2 Climate and bush fire season

The typical / average climate in the Newcastle BFMC area varies significantly and the bush fire season generally runs from October to March.

Prevailing weather conditions associated with the bush fire season in the Newcastle BFMC area are North-westerly winds accompanied by high daytime temperatures and low relative humidity. There are occasional dry lightning storms occurring during the bush fire season. However, due to the proximity to the coast, the climatic conditions are generally milder than western regions and the period of adverse bushfire weather is shorter.

1.3.3 Population and demographic information

The population of the Newcastle BFMC area is approximately 141 000 people. The major population centres are Newcastle, Newcastle East, Newcastle West, The Hill, Cooks Hill, Bar Beach, Merewether, The Junction, Merewether Heights, Maryville, Wickham, Carrington, Stockton, Islington, Tighes Hill, Mayfield, Mayfield East, Mayfield West, Warabrook, Kooragang, Hamilton, Hamilton East, Hamilton South, Hamilton North, Boradmeadow, Adamstown, Adamstown Heights, Kotara, Waratah, Waratah West, Georgetown, Lambton, North Lambton, New Lambton, New Lambton Heights, Jesmond, Birmingham Gardens, Callaghan, Shortland, Sandgate, Wallsend, Elermore Vale, Rankin Park, Maryland, Fletcher, Minmi, Beresfield, Tarro, Black Hill/Lenaghan and Hexham.

1.3.4 History of bush fire frequency and ignition cause

The history of bush fire in the Newcastle Local Government Area reveals that the greatest risk is from fires starting within Lake Macquarie LGA and Cessnock LGA being driven by the prevailing W/NW winds into the Newcastle area.

With the Newcastle LGA predominantly urban development there are risks of minor bush fires which in the past have been contained by local authorities.

The last major bushfire season was 05/06.

The main sources of ignition in the Newcastle BFMC area are:

- Illegal burning off
- Incendiary
- Car dumping
- Lightning

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.

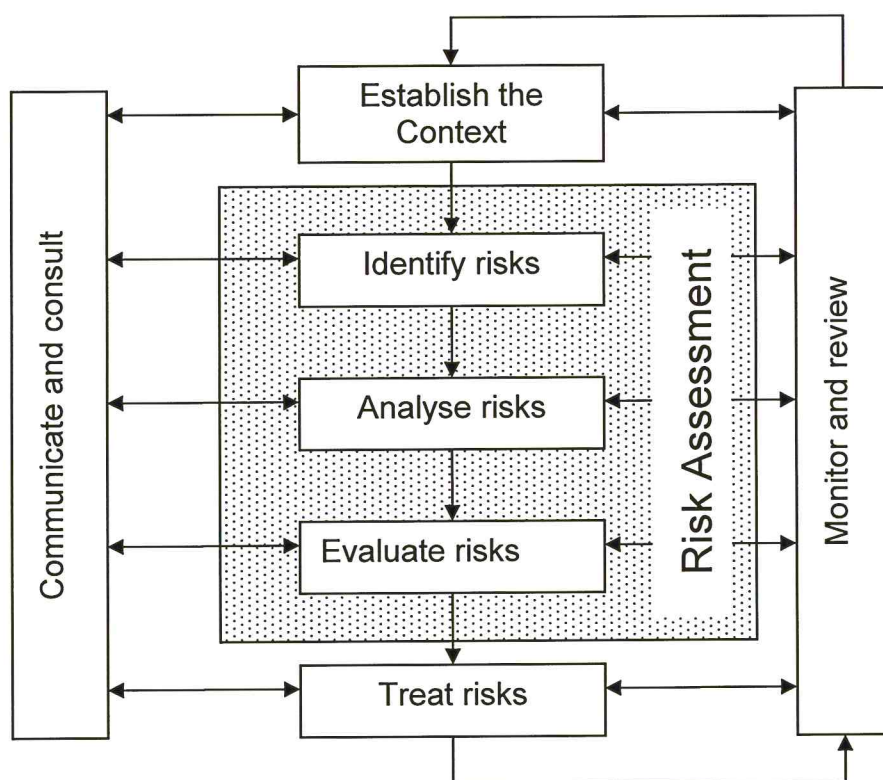


Figure 2.1 Overview of the risk assessment process

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 regard to the BFRMP. See Appendix 1 for the Community Participation Strategy used by the Newcastle 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 Newcastle BFMC area, and then assessing the likelihood and consequence ratings.

2.3.1 Assets

BFMC members and the community, identified assets within the Newcastle 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, nursing homes, 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*. NSP's 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 Newcastle BFMC area. See maps 1-3 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 Newcastle 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 and fire threshold 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 Newcastle 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 Newcastle 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. It was also necessary to prioritise within the risk levels i.e. determining which of the high risks was the most serious. This was done on the basis of the consequence and likelihood ratings.

2.3.7 Risk acceptability

Risks below a certain level were assessed as not requiring treatment within the life of this plan. This is due to a combination of size of the reserve, vegetation type, degree of slope, aspect and no assets located on reserve boundary. Within the Newcastle BFMC area the level of acceptability is high. Areas of low or insignificant risk are likely to be managed by routine procedures and so do not require a specific application of resources.

3 Treating the risk

3.1 Bush Fire Management Zones

Bush Fire Management Zones were identified within the Newcastle BFMC area and mapped (see maps 1 - 3). 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> . Max. fuel load 5 t/ha for forested areas.
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 enable the safe use of Parallel Attack suppression strategies within the zone. To enable the safe use of Indirect Attack (back burning) in high to very high fire weather conditions within the zone. To prevent crown fire development within the zone. To minimise 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 Suggest fuel load managed between 8-12 t/ha for forested areas.
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

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 firefighting equipment that must be on site, or restrict burns based on weather conditions.

- **Prosecution of arsonists/offenders**

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

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.

- **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.

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

Strategy	Targeted treatments used in the Newcastle BFMC area
Ignition Management	Identify hot spots with fire investigation Erect gates and signage and keep gates locked Implement proactive programs
Hazard Reduction	Identify, survey, implement and inspect asset protection zones Identify, survey, implement and assess SFAZ's Develop and implement fuel reduction program in LMZ's
Community Education	Conduct street meetings and community forums Conduct review to determine community needs Conduct 'Farm FireWise' programs Implement Targeted community awareness programs Identify and implement 'Bush FireWise action plans' Identify and implement property preparedness plans Distribution of educational brochures
Property Planning	Identify and implement 'Pre Incident Plans'
Preparedness	Inspect and maintain fire trails

Table 3.2 Asset specific treatments used in the Newcastle BFMC area

3.4 Fire thresholds

The vegetation in the Newcastle BFMC area is currently being reclassified by NPWS and fire threshold categories will be mapped in the future.

Vegetation formation	Minimum SFAZ Threshold (Years)	Minimum LMZ Threshold (Years)	Maximum Threshold (Years)	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 Newcastle BFMC area the issuing of permits/hazard reduction burning is not permitted during Total Fire Ban Days, days of Extreme Fire Danger, or when the Environment Protection Authority declares a 'No Burn Day'.

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 Newcastle 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 objectives have been identified within Appendix G of BFCC Policy 03/2007. All BFMCs must use these to monitor and report on their success in reducing the bush fire risk in their BFMC area.

Appendix 1

NEWCASTLE BUSH FIRE RISK MANAGEMENT PLAN COMMUNITY ENGAGEMENT STRATEGY

Background

One of the primary responsibilities of the Bush Fire Management Committee (BFMC) is to prepare a Bush Fire Risk Management Plan (BFRMP) for their area and to review this plan within each successive 5 year period (section 52 of the *Rural Fires Act 1997*).

As a result of recent changes to legislation, amalgamations of Local Government areas and BFMC's in the state, and issues raised by various stakeholders, a review of the bush fire risk management planning process has been undertaken.

Bush fire risk management planning is a strategic level process which, when undertaken correctly, provides greater protection for the community through a coordinated and cooperative landscape approach to risk reduction. It sets the direction for all bush fire risk management programs, i.e. notified steps, undertaken within an area including an annual works program designed to manage specific hazard reduction works.

Broad community participation throughout the planning process is the best way to provide the community with a sense of awareness and ownership of both the risk and the appropriate risk management strategies.

Emergency Risk Management applies these principles to provide a systematic and disciplined decision-making process, as well as a common language across all organisations and within the community, in the approach to dealing with emergencies.

Main elements of the risk management process

The five main steps in the risk management process, as shown in figure 2.1.1 are integral to the bush fire risk management planning process set out in these guidelines. These are:

1. Establish the context

The committee needs to gain a clear understanding of and agreement on the nature and scope of the issues to be solved, and identify a framework in which the process will be undertaken before the planning process has begun. This comprises Section one of the Plan.

2. Identify the risks

The next step in the process involves describing the nature and scope of the (bush fire) hazards, i.e. the community and the environment within which the bush fire risks occur. This comprises Section two of the Plan.

3. Analyse risks

Once the risks have been identified, they need to be analysed by identifying the level of vulnerability of the community and /or environment to the hazards.

This step involves assessing the likelihood and consequences which then determine the level of risk. This forms part of Section three of the Plan.

4. Evaluate risks

The risks identified in the previous steps are then prioritised, and the levels of acceptability for each risk are determined. This forms part of Section three of the Plan.

5. Treat risks

Specific cost effective risk treatment options (strategies) and associated action plans are developed to reduce the risks to the previously identified acceptable levels. This comprises Section four of the Plan.

Engagement in the process

The Bushfire Management Committee (BFMC) understands that in the preparation of any Plan, initial community engagement is essential.

Community engagement at the initial stages of any project has enormous benefits to the community and the outcome of the project.

The aim of this community engagement is to obtain information that will primarily form the Risk Management Plan. The challenge for the Risk Management Plan is to unify the diverse views of stakeholders and develop a range of measures and strategies that address the requirements of the department.

Study area

The Study Area includes the Local Government Area of Newcastle.

Project objectives

The primary outcome of this project will be to articulate views and aspirations of the community, government and businesses so that they can assist in the preparation of a Bush Fire Risk Management Plan. The Risk Management Plan will provide the necessary framework to ensure greater protection for the community through a coordinated and cooperative landscape approach to risk reduction.

Purpose

In broader terms the consultation will aim to:

- Ensure that specific and targeted communication occurs between the BFMC and the community throughout the development of Bush Fire Risk Management Plan (BFRMP).
- Ensure prominent stakeholders do not make judgements of the acceptability of a risk based on their own perception of risk.
- Provide greater opportunity for local brigades, land holders and other stakeholders to have input into the bush fire risk management process.
- Determine the concerns of the community regarding bush fire risks within the community.

- Ensure that the community's perceptions of risk, as well as their perceptions of benefits, be identified, understood, documented and addressed in the BFRMP.
- Improve community confidence in bush fire risk management across the landscape and provide the community with a sense of ownership of the BFRMP.
- Educate the community regarding bush fire risk management in the area so that they can contribute towards risk reduction.

Proposed methodology

The following Community Engagement Process is proposed as the most efficient, effective and appropriate means to ensure the delivery of the Bush Fire Risk Management Plan.

The Process is comprised of a number of stages, each uniquely focussed on delivering the necessary purpose. The stages of the Community Engagement Process will either be directed at informing stakeholders, inviting stakeholder participation, or seeking feedback.

Stage 1 – Identify scope of works

Representatives of the Bushfire Risk Management Sub-Committee will lead key roles within the communication plan. The plan will use a suite of techniques to inform and engage the community.

This will include various media contacts, analysis, survey, forums, and consultation processes. Members of the Committee are assigned to manage the various functions and actively participate.

Stage 2- Informing the community

A comprehensive communications strategy is proposed as the means of informing the community of the Bush Fire Risk Management Plan. The specific message to be delivered will include:

- Informing the community of the Bush Fire Risk Management Plan;
- What it specifically is and isn't;
- Outline the process involved in developing the Newcastle Bush Fire Risk

Management Plan. Provide details of the consultation process i.e. how the community can participate;

- Reiterate what the next step in the process is, so to advise and minimise anticipated community contact; and
- Where to go for information, only if required.

A variety of mediums will ensure 'viral' marketing (information) regarding the project. This will include:

Web:

Develop a web page link to the Newcastle City Council internet site to be displayed and promoted as the central point for posting information about the project for the 42 day public exhibition period.

Responsibility: Newcastle City Council

Newspaper:

- Newcastle Herald
- Star

Responsibility: Newcastle City Council

Radio:

Media release issued

- KOFM
- 2HD
- ABC
- NEWFM

Responsibility: Newcastle City Council

Hard copies located at:

- **Newcastle City Council Administration Building**
- **Libraries**
 - Newcastle
 - Hamilton
 - Lambton
 - Wallsend

Responsibility: Newcastle City Council.

Stage 3- Establish a Reference Group/Panel

The BFRM Sub-Committee will undertake this function.

Stage 4 – Desktop analysis

The aim of the desktop analysis will be to undertake an intensive investigation of the study area.

The desktop analysis will:

- Identify any additional stakeholders that may have an important contribution to the preparation of the Risk Management Plan.
- Confirm that the selected method or technique of consultation is the best approach. This will ensure that an appropriate consultation is used with each stakeholder.

- Provide information that will assist in providing a picture of what is required in terms of the data and intelligence required to undertake the development of the Risk Management Plan.
- Provide information that will inform the Engagement Kiosk Discussion Guide (outlined later), that is guidelines for the facilitator on what questions and prompts are sought from the stakeholders.

The desktop analysis will include the following:

- Demographic profiling
- Stakeholder profiling
- Location and context research
- Literature review – media/Council report and files
- Site visit – photographs
- Review of the Bush Fire Risk Management Plan Guidelines
- Review of Council maps including tenure maps, zoning maps, heritage maps, aerial photographs and hazards maps
- Review of quantitative data and comments obtained from local residents
- Review of relevant Legislation
- General search of Google, telephone book and community directories
- Research relating to the establishment of other bush fire risk management planning projects and committees

Stage 5a- Engagement Kiosks (data collection)

The BFMC does not recommend conducting public meetings as an engagement strategy. Public meetings are difficult to manage, often encourage attendance by individuals ‘with an axe to grind’, are opportunities for individuals or collectives to monopolise the address system, encourage poor seating arrangements (someone normally has their back to someone), and are difficult to gain valuable and constructive information from participants.

A number of Engagement Kiosks are proposed to compliment the survey in the data collection process. The engagement kiosk is a technique used to gain information from a variety of community members that prefer to speak with someone directly one on one. It is necessary to engage this section of the community, yet they are difficult to consult by the more traditional methods of consultation such as phone surveys or door to door surveys. The kiosk is designed to engage the mobile user.

The Kiosk provides an informal and comfortable opportunity for the community to provide comment. The quality of data that is collected by this method can be very sound because we are gathering information on location where specific example can be pointed out.

The Kiosks will operate with a number of BFMC Sub Committee members who will use a series of standard questions and spontaneous prompts to seek comment. The Kiosk will be equipped with visual aids including maps and photographs to encourage discussion.

The value of this type of technique is the opportunity to engage a variety of users. However, the BFMC is mindful that this type of engagement can also attract residents that may have issues that are not relevant to the preparation of the Risk Management Plan.

Responsibility: BFMC Executive Officer

Stage 5b- One-on-one consultations (data collection)

The quality of information collected within specific timeframes provides an effective and efficient means of engagement. The quality of information obtained has been far better than that obtained during more traditional methods of consultation such as public meetings.

The one on one interview is an opportunity for project staff:

- to outline the project and detail the expected outcomes
- specify their involvement in the process
- present a snap shot of the study area including any initial findings
- gather standardised information from each stakeholder
- provide personal attention to each stakeholder, thereby building a relationship between the project and the stakeholder
- gather information from the stakeholder
- create a partnership approach where trust and transparency is established

Selected government agencies and community organisations will be interviewed using the one-on-one technique.

All BFMC members will be advised of the project and outline how officers can be involved in the development of the Risk Management Plan.

Committee members hold a wealth of information in terms of existing data, information, maps, policies and historical information. This information will add to the findings of the desktop analysis and also provide important input into the preparation of the Plan.

Government Agencies and Non Government Agencies (NGO)

Consultation with Government Agencies and non-government organisations (NGO's) will provide crucial information toward the preparation of the Risk Management Plan. There are those that may be involved in the implementation of the Plan such as the NPWS and those that own land within the study area such as Integral Energy. All are identified as being essential to the preparation of the Plan, and therefore should be included in the consultation strategy.

The suggested method of engagement for all government agencies is the one-on-one interview. This involves a trained facilitator and recorder, meeting key government agencies. Visual aids will be used such as maps and photographs. The facilitator has a list of key outcomes, questions and prompts used to obtain information on the key objectives as stated above. This technique aims to be undertaken in a relaxed atmosphere and at a time that is convenient.

The following government agencies and NGO's are proposed to be consulted and are all current members of the BFMC:

- Rio Tinto Coal & Allied
- Department of Lands
- Roads and Traffic Authority
- TransGrid
- National Parks and Wildlife Service
- Nature Conservation Council
- Newcastle City Council
- NSW Fire Brigade
- NSW Police

5c- Submissions (data collection)

Submissions in writing will be invited from the community. This is an opportunity for stakeholders who prefer not to attend Engagement Kiosks.

It should be noted that this Strategy is subject to additional information supplied by the desktop analysis.

6- Prepare and deliver data report

All of the data collected from the various engagement options and desktop analysis will be collated and provided in a report to the BFMC. This information will complement the existing information supplied by each of the project partners. A Draft Bush Fire Risk Management Plan will be prepared and comments invited.

7- Exhibition of the Draft Bush Fire Risk Management Plan

BFMC propose that the Draft Risk Management Plan be exhibited at strategic locations identified in a desktop analysis and advisory notices be placed around Newcastle directing public to the displays. It is envisaged that this process will avert any possible grandstanding by individuals and groups, whilst providing the opportunity for the community the constructively comment on the proposed Plan.

8- Final report (feedback)

This report is a collation of all relevant information collected in Stage 7. The final report (feedback) provides the last opportunity for stakeholders to have input into the Bush Fire Management Committee endorsed Bush Fire Risk Management Plan.

Appendix 2 - Asset Register

Map ref #	Asset type	Asset sub type	Asset name	Asset Location	Display area	Likelihood	Consequence	Risk	Priority	Treatment number
2	Human Settlement	Special Fire Protection	University of Newcastle	University Drive Callaghan	South West	Almost certain	Catastrophic	Extreme	1A	18; 19; 20; 21; 12
1	Human Settlement	Special Fire Protection	John Hunter Hospital	Lookout Road	South West	Almost certain	Catastrophic	Extreme	1A	13; 14; 15; 16; 17
4	Human Settlement	Residential	Marshall St Properties	Marshall Street Rankin Park	South West	Likely	Catastrophic	Extreme	1B	22; 23; 24; 25
3	Environment	Endangered	Catastrophic consequence flora and fauna	Kooragang Wetlands	North	Likely	Catastrophic	Extreme	1B	26
0	Cultural	Aboriginal Significance	Aboriginal Assets of High vulnerability		North; South East; South West	Likely	Catastrophic	Extreme	1B	26
0	Cultural	Non Indigenous	Non -indigenous sites of high vulnerability		North; South East; South West	Likely	Catastrophic	Extreme	1B	26
8	Human Settlement	Residential	Grinsell Street	Grinsell street Kotara	South West	Likely	Major	Very High	2A	27; 28; 29
9	Human Settlement	Residential	Black Hill Road Rural Residential	Black Hill	North	Likely	Major	Very High	2A	30; 31
5	Economic	Infrastructure	Hunter Water Pump/Reservoir/General Stores	Janet St North Lambton	North	Likely	Major	Very High	2A	32; 33; 34; 35
7	Environment	Endangered	Fire Intolerant Endangered Ecological Communities	Kooragang Island & Glenrock SRA	North; South East	Likely	Major	Very High	2A	26
6	Environment	Endangered	Major Consequence flora and fauna	Kooragang Island	North	Likely	Major	Very High	2A	26
0	Environment	Vulnerable	Flying Fox	Rainforest Area New Lambton Heights	South West	Likely	Major	Very High	2A	26
0	Cultural	Aboriginal Significance	Aboriginal Assets of moderate vulnerability		North; South East; South West	Likely	Major	Very High	2A	26
0	Cultural	Non Indigenous	Non -indigenous sites of moderate vulnerability		North; South East; South West	Likely	Major	Very High	2A	26
10	Human Settlement	Residential	Syгна Close	Syгна Close Rankin Park	South West	Possible	Catastrophic	Very High	2B	36; 37; 38; 39

13	Human Settlement	Residential	115 - 121 Lookout Road	115 - 121 Lookout Road New Lambton Heights	South West	Possible	Catastrophic	Very High	2B	40; 41; 42
14	Human Settlement	Residential	77 & 85 Lookout Road	77 & 85 Lookout Road New Lambton Heights	South West	Possible	Catastrophic	Very High	2B	43; 44; 45
15	Human Settlement	Residential	Carisbrook Avenue New Lambton Heights	Carisbrook Avenue New Lambton Heights	South West	Possible	Catastrophic	Very High	2B	46; 47; 48
16	Human Settlement	Residential	Faul Street Precinct	Faul Street Adamstown Heights	South East	Possible	Catastrophic	Very High	2B	49; 50; 51
17	Human Settlement	Residential	McCaffrey Drv X LookOut Rd	Lookout Rd New Lambton Heights	South West	Possible	Catastrophic	Very High	2B	52; 53; 54
18	Human Settlement	Residential	Scenic Road Properties	Properties adjoining aged care Scenic Road	South East	Possible	Catastrophic	Very High	2B	55; 56; 57
11	Human Settlement	Special Fire Protection	Nursing home - Scenic Lodge	Scenic Drive Merewether	South East	Possible	Catastrophic	Very High	2B	58; 59; 60; 61; 62
12	Human Settlement	Special Fire Protection	Merewether Heights Primary School	Scenic Drive Merewether Heights	South East	Possible	Catastrophic	Very High	2B	63; 64; 65; 66; 67
21	Human Settlement	Residential	Hickson Street	Scenic Drive & Hickson Street Merewether	South East	Likely	Moderate	High	3A	68
25	Human Settlement	Other	NSP - Swimming Centre, Federal Park	6 Frances Street, Wallsend	South West	Likely	Moderate	High	3A	81
28	Human Settlement	Other	NSP - Elermore Vale Park	125A Croudace Road, Elermore Vale	South West	Likely	Moderate	High	3A	81
27	Human Settlement	Other	NSP - Swimming Centre, Lambton Park	102 Durham Road, Lambton	South West	Likely	Moderate	High	3A	81
26	Human Settlement	Other	NSP - Novocastrian Park	24 Orchardtown Road, New Lambton	South West	Likely	Moderate	High	3A	81
30	Human Settlement	Other	NSP - Beresfield Golf Course	261 - 265 Anderson Drive, Beresfield	North	Likely	Moderate	High	3A	82
29	Human Settlement	Other	NSP - Heaton Park	48 Mordue Parade, Jesmond	South West	Likely	Moderate	High	3A	81
24	Economic	Commercial	Weatleys Drive West	Weatleys drive	North	Likely	Moderate	High	3A	69
23	Economic	Infrastructure	Summerhill Waste Centre Electricity Substation	Summerhill Drive Wallsend	South West	Likely	Moderate	High	3A	70; 71; 72
20	Economic	Tourist and Recreational	Wildlife Exhibit	Blackbutt Reserve New Lambton	South West	Likely	Moderate	High	3A	73; 74; 75; 76
22	Economic	Tourist and Recreational	Animal Hospital Kotara	Blackbutt Reserve	South West	Likely	Moderate	High	3A	77; 78; 79; 80
19	Environment	Endangered	Moderate Consequence flora and fauna	North; South East; South West	North; South East; South West	Likely	Moderate	High	3A	26

	Environment	Endangered	Endangered Ecological Communities	North; South East	Likely	Moderate	High	3A	26
0	Human Settlement	Residential	Merewether Heights	South East	Possible	Major	High	3B	83; 84
31	Human Settlement	Residential	Perina Place	South East	Possible	Major	High	3B	95; 96
35	Human Settlement	Residential	Charlotte Street Precinct	South East	Possible	Major	High	3B	97; 98
37	Human Settlement	Residential	Fletcher South Precinct	South West	Possible	Major	High	3B	93; 94
40	Human Settlement	Residential	Floralia Close	South West	Possible	Major	High	3B	85; 86
32	Human Settlement	Residential	Ridgeway Road	South West	Possible	Major	High	3B	87; 88
33	Human Settlement	Residential	Carrington Parade	South West	Possible	Major	High	3B	89; 90
34	Human Settlement	Residential	Fletcher Precinct North	North	Possible	Major	High	3B	106; 107
42	Human Settlement	Residential	Summerhill Waste Management Centre	South West	Possible	Major	High	3B	91; 92
36	Human Settlement	Special Fire Protection	Bishop Tyrrell College	South West	Possible	Major	High	3B	99
41	Human Settlement	Infrastructure	Hunter Water Pump Station	North	Possible	Major	High	3B	103; 104; 105
39	Economic	Infrastructure	Hunter Water Reservoir 2	South West	Possible	Major	High	3B	100; 101; 102
38	Economic	Residential	Rankin Park Precinct	South West	Unlikely	Catastrophic	High	3C	108; 109; 110
43	Human Settlement	Residential	Minmi Precinct	South West	Unlikely	Catastrophic	High	3C	114; 115
46	Human Settlement	Residential	Croudace Street	South West	Unlikely	Catastrophic	High	3C	111; 112; 113
45	Human Settlement	Residential	Brunker Road Precinct	South East	Unlikely	Catastrophic	High	3C	116; 117
47	Human Settlement	Special Fire Protection	Jenny McLeod Aged Care	South West	Unlikely	Catastrophic	High	3C	118; 119; 120; 121
44	Human Settlement	Special Fire Protection	St James Public school	South West	Unlikely	Catastrophic	High	3C	122; 123
48	Human Settlement	Mines	chitter dump	South West	Almost certain	Minor	High	3D	124
49	Economic	Residential	Maryland South Precinct	South West	Unlikely	Major	Medium	4	

58	Human Settlement	Residential	Aries Way	Taurus Street Reserve Elernmore Vale	South West	Unlikely	Major	Medium	4
59	Human Settlement	Residential	Kerry Avenue Reserve No 2	Jubilee Road Elernmore Vale	South West	Unlikely	Major	Medium	4
77	Human Settlement	Residential	Kotara	Kotara	South West	Unlikely	Major	Medium	4
83	Human Settlement	Residential	Archer Crescent Precinct	Archer Crescent, Maryland	South West	Possible	Moderate	Medium	4
57	Human Settlement	Residential	Cardiff Rd New Lambton Heights Precinct	New Lambton Heights	South West	Unlikely	Major	Medium	4
84	Human Settlement	Residential	Black Hill Rural Residential South	Black Hill	North	Unlikely	Major	Medium	4
61	Human Settlement	Residential	Henry Street	Henry Street Merewether	South East	Unlikely	Major	Medium	4
62	Human Settlement	Residential	Macquarie Street	Macquarie Street Merewether	South East	Unlikely	Major	Medium	4
78	Human Settlement	Residential	Lambton Gardens	New Lambton Gardens	South West	Possible	Moderate	Medium	4
79	Human Settlement	Residential	Wallsend Precinct	Wallsend	South West	Possible	Moderate	Medium	4
55	Human Settlement	Residential	New Lambton Precinct	Addison Road, St James Road, Queens Road, Mahogany Drive, Aldyth Street	South West	Possible	Moderate	Medium	4
80	Human Settlement	Residential	Michael Street North Lambton	North Lambton	South West	Unlikely	Major	Medium	4
54	Human Settlement	Residential	Elernmore Vale Precinct	Elernmore Pde, Invermore Close, Balmoral Cl, Craignair Close, Kadina Close	South West	Unlikely	Major	Medium	4
60	Human Settlement	Residential	Braye Park	Eldon & Allowah Street Waratah	South East	Unlikely	Major	Medium	4
56	Human Settlement	Residential	Aldyth Street	Aldyth Street Kotara	South West	Unlikely	Major	Medium	4
65	Human Settlement	Residential	Meredith Street	Meredith & March Street, Kotara	South West	Unlikely	Major	Medium	4
81	Human Settlement	Residential	Shortland North Precinct	Shortland	South West	Possible	Moderate	Medium	4
82	Human Settlement	Residential	Birmingham Gardens Precinct	Birmingham Gardens	South West	Possible	Moderate	Medium	4
68	Human Settlement	Residential	Maryland Precinct	Maryland	North	Possible	Moderate	Medium	4
0	Human Settlement	Residential	Sheridan Avenue Reserve	Lexington Parade, Sheridan Avenue, Ashbury Street Adamstown Heights	South West	Unlikely	Major	Medium	4

75	Human Settlement	Residential	Madison Drive	Madison Drive Adamstown Heights	South West	Unlikely	Major	Medium	4
64	Human Settlement	Residential	Alnwick Road Reserve	Alnwick Road & Bernice Crescent North Lambton	South West	Unlikely	Major	Medium	4
73	Human Settlement	Residential	Black Hill North	Walter parade	North	Possible	Moderate	Medium	4
63	Human Settlement	Residential	Lexington Parade	11 - 13 Lexington Parade Adamstown Heights	South West	Unlikely	Major	Medium	4
74	Human Settlement	Residential	Wheatleys drive North	Wheatleys drive	North	Possible	Moderate	Medium	4
52	Human Settlement	Residential	Sheridan Avenue Precinct	Sheridan Avenue Adamstown Heights	South West	Unlikely	Major	Medium	4
67	Human Settlement	Residential	Anzac Parade	Shepherds Hill	South East	Unlikely	Major	Medium	4
92	Human Settlement	Other	NSP - Merewether Beach Car Park	Cnr Fredrick St and Henderson Pd, Merewether	South East	Likely	Minor	Medium	4 81
91	Human Settlement	Other	NSP - Mitchell Park Sports Field	Mitchell Street, Merewether	South East	Unlikely	Major	Medium	4 81
90	Human Settlement	Special Fire Protection	Maryland Public School	John T Bell Drive Maryland	South West	Unlikely	Major	Medium	4
89	Human Settlement	Special Fire Protection	Glendore Public School	Maryland Drive Maryland	South West	Unlikely	Major	Medium	4
88	Human Settlement	Special Fire Protection	Maryland Shopping Centre	Maryland Drive Maryland	South West	Unlikely	Major	Medium	4
87	Human Settlement	Special Fire Protection	Callaghan College	Janet Street Jesmond	South West	Unlikely	Major	Medium	4
86	Human Settlement	Special Fire Protection	New Lambton Heights Primary School	Lookout Road New Lambton Heights	South West	Unlikely	Major	Medium	4
85	Human Settlement	Special Fire Protection	Kotara School	Seaview Avenue Kotara	South West	Unlikely	Major	Medium	4
66	Human Settlement	Special Fire Protection	Maroba Nursing Home	58 Edith St, Waratah	South East	Unlikely	Major	Medium	4
76	Human Settlement	Special Fire Protection	Kotara High School	Corrison Crescent Adamstown Heights	South West	Unlikely	Major	Medium	4
0	Economic	Commercial	Summerhill Waste Management Centre	Administration Building	South West	Possible	Moderate	Medium	4
50	Economic	Infrastructure	Energy Australia Sub-Station - New Lambton Heights	Croudace St x Russell Rd New Lambton Heights	South East	Possible	Moderate	Medium	4
71	Economic	Infrastructure	Hunter Water Reservoir 5	Off Gun Club Rd Highfields	South East	Unlikely	Major	Medium	4
70	Economic	Infrastructure	Hunter Water Reservoir 3	Lookout Rd X Ridgeway St New Lambton	South West	Unlikely	Major	Medium	4

72	Economic	Infrastructure	Hunter Water Reservoir 6	Hickson Rd Merewether Heights	South East	Possible	Moderate	Medium	4
69	Economic	Infrastructure	Hunter Water Sewage Treatment Plant	Glenrock Lagoon	South East	Possible	Moderate	Medium	4
53	Economic	Tourist and Recreational	NPWS Park Facilities	South West	South West	Possible	Moderate	Medium	4 125; 126
114	Human Settlement	Residential	Lenaghan North	Lenaghan	North	Unlikely	Moderate	Low	NA
94	Human Settlement	Residential	Kerry Avenue Reserve	Kerry Avenue Elermore Vale	South West	Unlikely	Moderate	Low	NA
113	Human Settlement	Residential	Lenaghan South	Lenaghan	North	Unlikely	Moderate	Low	NA
99	Human Settlement	Residential	Shortland Precinct	Waller Street Shortland	South West	Unlikely	Moderate	Low	NA
93	Human Settlement	Residential	Dangarfield Drive	Dangarfield Drive East Elermore vale	South West	Unlikely	Moderate	Low	NA
97	Human Settlement	Residential	Benjamin Drive Reserve	Benjamin Drive WallSEND	South West	Unlikely	Minor	Low	NA
98	Human Settlement	Residential	Sandgate Road Shortland	Sandgate Road Shortland	South West	Unlikely	Moderate	Low	NA
103	Human Settlement	Residential	132 Cardiff Road	132 Cardiff Road Elermore vale	South West	Unlikely	Moderate	Low	NA
102	Human Settlement	Residential	Sunset Boulevard Reserve	Sunset Boulevard & Janet Street North Lambton	South West	Unlikely	Moderate	Low	NA
101	Human Settlement	Residential	Ashbury Street & Lucas Crescent	Ashbury Street & Lucas Crescent Adamstown Heights	South West	Unlikely	Minor	Low	NA
100	Human Settlement	Residential	Princeton Avenue Grayson Avenue precinct	Adamstown Heights	South West	Unlikely	Moderate	Low	NA
110	Human Settlement	Residential	New England Highway Beresfield	Beth St Yarrum Ave	North	Unlikely	Moderate	Low	NA
108	Human Settlement	Residential	Black Hill precinct	Forsythe Parade	North	Unlikely	Moderate	Low	NA
111	Human Settlement	Special Fire Protection	Stockton Rehabilitation Centre	Fullerton Road Stockton	South East	Unlikely	Moderate	Low	NA
106	Economic	Commercial	Army Reserves Barracks	Brunker Rd Adamstown	South East	Unlikely	Minor	Low	NA
112	Economic	Commercial	Fletcher Park	Mimmi, Fletcher Park	South West	Unlikely	Moderate	Low	NA
109	Economic	Commercial	Weatleys Drive East	Enterprise Drive	North	Unlikely	Moderate	Low	NA
95	Economic	Commercial	NCC Community Greening Centre	March Street Kotara	South West	Unlikely	Moderate	Low	NA
105	Economic	Infrastructure	Hunter Water Sewerage Treatment Plant 2	Aden Rd Shortland	South West	Unlikely	Moderate	Low	NA

0	Economic	Infrastructure	Summerhill Waste Centre Electricity Substation	Wester edge of Electricity Substation, Summerhill Drive Wallsend	South West	Unlikely	Moderate	Low	NA
104	Economic	Infrastructure	Hunter Water Reservoir 4	Cnr Grandview Parade and Lookout Rd New Lambton	South West	Possible	Minor	Low	NA
107	Economic	Infrastructure	Hunter Water Sewerage Treatment Plant 3	Stockton	South East	Unlikely	Minor	Low	NA
96	Economic	Infrastructure	vehicle bridge		South West	Possible	Minor	Low	NA

Appendix 3 Treatment Register

Treatment Ref #	Strategy	Priority	Action	Comment	Responsible Agency	Other Responsible Agency	Support Agency	Other Support Agency	Scheduled Action Date	Asset Ref #
12	Hazard Reduction	1A	Maintain SFAZ's	Maintain SFAZ's as per Campus Wide Bushfire Risk Management Strategy.	Other	University of Newcastle			1718; 1819; 1920; 2021; 2122	2
13	Hazard Reduction	1A	Implement prescribed burn program in LMZ and SFAZ	Implement prescribed burn program in conjunction with fuel management strategy for George MacGregor reserve.	LGA		FRNSW; Other	HNEAH	1718; 1819; 1920; 2021; 2122	1
14	Hazard Reduction	1A	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA; Other	HNEAHS			1718; 1819; 1920; 2021; 2122	1
15	Ignition Management	1A	Maintain fire trail security	Ensure gates on all fire trails are secured and locked	LGA				1718; 1819; 1920; 2021; 2122	1
16	Preparedness	1A	Prepare and review Pre Incident Plan	Prepare a Pre incident plan and review Bi annually.	FRNSW				1819; 2021	1
17	Preparedness	1A	Maintain Fire Trails	Maintain fire trails as per works program. Trails should aim to meet BFCC standards.	LGA; Other	HNEAHS			1718; 1819; 1920; 2021; 2122	1
18	Hazard Reduction	1A	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standards as described in RFS document Standards for asset protection zones.	Other	Newcastle University			1718; 1819; 1920; 2021; 2122	2
19	Ignition Management	1A	Security Patrols	Campus security patrol the grounds and access roads. Vehicles are equipped Fire fighting equipment and PPE.	Other	University of Newcastle			1718; 1819; 1920; 2021; 2122	2
20	Preparedness	1A	Prepare and Review Pre Incident Plan	Prepare and review Pre incident plan for the site Bi annually	FRNSW		Other	University of Newcastle	1819; 2021	2
21	Preparedness	1A	Develop communication strategy	Develop and implement a communication strategy that aims at increasing bushfire awareness around campus.	Other	University of Newcastle	FRNSW		1718; 1819; 1920; 2021; 2122	2
22	Hazard Reduction	1B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per NSWLPMA works program	TI CL				1718; 1819; 1920; 2021; 2122	4
23	Community Education	1B	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW		LGA		1819; 2021	4
24	Hazard Reduction	1B	Implement prescribed burn program in SFAZ and LMZ	Implement prescribed burn program in conjunction with fuel management strategy for George MacGregor reserve.	RMS		FRNSW		1718; 1819; 1920; 2021; 2122	4
25	Property	1B	Support existing	Support existing CFU's in Atherton Close and Off	FRNSW				1718; 1819;	4

26	Planning	Other	1B	CFU's	Elbrook Drive.		1920; 2021; 2122
27	Hazard Reduction		2A	Develop guidelines for firefighting operations	BFMC to develop cultural and environmental heritage protection guidelines for consideration during bushfire operations.	LGA, OEH; FRNSW	7; 0; 3; 19; 1920; 2021; 2122
28	Community Education		2A	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	1718; 1819; 1920; 2021; 2122
29	Hazard Reduction		2A	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	1718; 1819; 1920; 2021; 2122
30	Hazard Reduction		2A	Implement prescribed burn program in SFAZ and LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA; RMS	1718; 1819; 1920; 2021; 2122
31	Community Education		2A	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standards as defined in NSW RFS document standards for Asset Protection Zones	LGA	1718; 1819; 1920; 2021; 2122
32	Preparedness		2A	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	1819; 2021
33	Hazard Reduction		2A	Maintain Fire Trails	Maintain fire trails as per works program. Trails should aim to be consistent with BFCC standard	Other	1718; 1819; 1920; 2021; 2122
34	Ignition Management		2A	Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy.	LGA	1718; 1819; 1920; 2021; 2122
35	Hazard Reduction		2A	Maintain fire trail security	Ensure gates on all fire trails are secured and locked	Other	1718; 1819; 1920; 2021; 2122
36	Community Education		2B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program to standard as described in RFS Document Standards for Asset Protection Zones	Other	1718; 1819; 1920; 2021; 2122
37	Hazard Reduction		2B	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	1819; 2021
38	Hazard Reduction		2B	Implement prescribed burn program in SFAZ and LMZ	Implement prescribed burn program in conjunction with fuel management strategy for George MacGregor reserve.	LGA	1718; 1819; 1920; 2021; 2122
39	Preparedness		2B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	1718; 1819; 1920; 2021; 2122
				Investigate	Investigate the possibility of a CFU for the area.	FRNSW	2021

40	Hazard Reduction	2B	possibility of a CFU Implement prescribed burn program in SFAZ and LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA	FRNSW	13
41	Community Education	2B	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	LGA	1819; 2021
42	Hazard Reduction	2B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	LGA	1718; 1819; 1920; 2021; 2122
43	Community Education	2B	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	LGA	1819; 2021
44	Hazard Reduction	2B	Implement prescribed burn program in SFAZ and LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA	FRNSW	1718; 1819; 1920; 2021; 2122
45	Hazard Reduction	2B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	LGA	1718; 1819; 1920; 2021; 2122
46	Community Education	2B	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	LGA	1819; 2021
47	Hazard Reduction	2B	Implement prescribed burn program in SFAZ and LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA	FRNSW	1718; 1819; 1920; 2021; 2122
48	Hazard Reduction	2B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	LGA	1718; 1819; 1920; 2021; 2122
49	Community Education	2B	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	LGA	1819; 2021
50	Hazard Reduction	2B	Implement prescribed burn program in LMZ or SFAZ	Prescribed burn program should aim to be consistent with the Glenrock SCA and Awabakal Fire Management Strategy.	OEH	FRNSW	1718; 1819; 1920; 2021; 2122
51	Hazard Reduction	2B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per LGA and DECCW works program and treatment should aim to meet standard as described in RFS Document Standards for Asset Protection Zones.	LGA; OEH	LGA	1718; 1819; 1920; 2021; 2122
52	Community Education	2B	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	LGA	1819; 2021
53	Hazard Reduction	2B	Implement prescribed burn	Implement prescribed burn program in conjunction with fuel management strategy for George MacGregor	RMS	FRNSW	1718; 1819; 1920; 2021;

54	Hazard Reduction	2B	program in SFAZ and LMZ Inspect and Maintain APZ's	reserve. Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA; RMS	17	2122 1718; 1819; 1920; 2021; 2122
55	Community Education	2B	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	18	1819; 2021
56	Hazard Reduction	2B	Implement prescribed burn program in LMZ or SFAZ	Prescribed burn program should aim to be consistent with the Glenrock SCA and Awabakal Fire Management Strategy.	OEH	18	1718; 1819; 1920; 2021; 2122
57	Hazard Reduction	2B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per DECCW AMS works program and treatment should aim to meet standard as described in RFS Document Standards for Asset Protection Zones.	OEH	18	1718; 1819; 1920; 2021; 2122
58	Hazard Reduction	2B	Implement prescribed burn program in LMZ or SFAZ	Prescribed burn program should aim to be consistent with the Glenrock SCA and Awabakal Fire Management Strategy.	OEH	11	1718; 1819; 1920; 2021; 2122
59	Hazard Reduction	2B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per DECCW AMS works program and treatment should aim to meet standard as described in RFS Document Standards for Asset Protection Zones.	OEH	11	1718; 1819; 1920; 2021; 2122
60	Preparedness	2B	Inspect and maintain Fire Trails as required	Treatment should aim to be consistent with the Glenrock SCA & Awabakal NR Fire Strategy and aim to meet BFCC standard.	OEH	11	1718; 1819; 1920; 2021; 2122
61	Preparedness	2B	Prepare and review Pre Incident Plan	Prepare a Pre incident plan and review Bi annually.	FRNSW	11	1819; 2021
62	Ignition Management	2B	Implement access management	Inspect and maintain access management infrastructure. Treatment should aim to be consistent with current Reserve Plan of Management.	OEH	11	1718; 1819; 1920; 2021; 2122
63	Hazard Reduction	2B	Implement prescribed burn program in LMZ or SFAZ	Prescribed burn program should aim to be consistent with the Glenrock SCA and Awabakal Fire Management Strategy.	OEH	12	1718; 1819; 1920; 2021; 2122
64	Hazard Reduction	2B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	12	1718; 1819; 1920; 2021; 2122
65	Ignition Management	2B	Maintain fire trail security	Inspect and maintain access management infrastructure. Treatment should aim to be consistent with current Reserve Plan of Management.	OEH	12	1718; 1819; 1920; 2021; 2122
66	Preparedness	2B	Prepare and review Pre Incident Plan	Prepare a Pre incident plan and review Bi annually.	FRNSW	12	1819; 2021
67	Preparedness	2B	Maintain Fire Trails as required	Treatment should aim to be consistent with the Glenrock SCA & Awabakal NR Fire Strategy and aim to meet BFCC standard.	OEH	12	1718; 1819; 1920; 2021; 2122

68	Hazard Reduction	3A	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	OEH	1718; 1819; 1920; 2021; 2122	21
69	Hazard Reduction	3A	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	24
70	Ignition Management	3A	Maintain fire trail security	Ensure gates on all fire trails are secured and locked	LGA		1718; 1819; 1920; 2021; 2122	23
71	Preparedness	3A	Maintain Fire Trails	Maintain fire trails as per works program. Trails should aim to meet BFCC Standards	LGA		1718; 1819; 1920; 2021; 2122	23
72	Hazard Reduction	3A	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA; Other	Energy Australia	1718; 1819; 1920; 2021; 2122	23
73	Hazard Reduction	3A	Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA	FRNSW	1718; 1819; 1920; 2021; 2122	20
74	Hazard Reduction	3A	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program to standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	20
75	Ignition Management	3A	Maintain fire trail security	Ensure gates on all fire trails are secured and locked	LGA			20
76	Preparedness	3A	Maintain Fire Trails	Maintain fire trails as per works program to an acceptable standard.	LGA		1718; 1819; 1920; 2021; 2122	20
77	Preparedness	3A	Maintain Fire Trails	Maintain fire trails as per works program to an acceptable standard.	LGA		1718; 1819; 1920; 2021; 2122	22
78	Ignition Management	3A	Maintain fire trail security	Ensure gates on all fire trails are secured and locked	LGA		1718; 1819; 1920; 2021; 2122	22
79	Hazard Reduction	3A	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program to standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	22
80	Hazard Reduction	3A	Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA	FRNSW	1718; 1819; 1920; 2021; 2122	22
81	Hazard Reduction	3A	Maintain Fuels in accordance with Guidelines	Maintain bush fire fuels at or below the level that meets the Essential Selection Criteria specified in the Neighbourhood Safer Places Guidelines prepared by RFS.	LGA		1718; 1819; 1920; 2021; 2122	92; 29; 28; 27; 91; 26; 25

82	Hazard Reduction	3A	Maintain Fuels in accordance with Guidelines	Maintain bush fire fuels at or below the level that meets the Essential Selection Criteria specified in the Neighbourhood Safer Places Guidelines prepared by RFS.	Private	1718; 1819; 1920; 2021; 2122	30
83	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per LGA and DECCW works program and treatment should aim to meet standard as described in RFS Document Standards for Asset Protection Zones.	LGA; OEH	1718; 1819; 1920; 2021; 2122	31
84	Hazard Reduction	3B	Implement prescribed burn program in LMZ or SFAZ	Prescribed burn program should aim to be consistent with the Glenrock SCA and Awabakal Fire Management Strategy.	OEH	1718; 1819; 1920; 2021; 2122	31
85	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	1718; 1819; 1920; 2021; 2122	32
86	Hazard Reduction	3B	Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA	1718; 1819; 1920; 2021; 2122	32
87	Hazard Reduction	3B	Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA	1718; 1819; 1920; 2021; 2122	33
88	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	1718; 1819; 1920; 2021; 2122	33
89	Hazard Reduction	3B	Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA	1718; 1819; 1920; 2021; 2122	34
90	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	1718; 1819; 1920; 2021; 2122	34
91	Hazard Reduction	3B	Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Summer Hill Waste Management Site.	LGA	1718; 1819; 1920; 2021; 2122	36
92	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	1718; 1819; 1920; 2021; 2122	36
93	Hazard Reduction	3B	Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Summer Hill Waste Management Site.	LGA	1718; 1819; 1920; 2021; 2122	40
94	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA	1718; 1819; 1920; 2021; 2122	40

95	Hazard Reduction	3B	Implement prescribed burn program in LMZ or SFAZ	Prescribed burn program should aim to be consistent with the Glenrock SCA and Awabakal Fire Management Strategy.	OEH	FRNSW	1718; 1819; 1920; 2021; 2122	35
96	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	35
97	Community Education	3B	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	LGA	1819; 2021	37
98	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	37
99	Preparedness	3B	Prepare and review Pre Incident Plan	Prepare a Pre incident plan and review Bi annually.	FRNSW		1819; 2021	41
100	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	Other	Hunter Water	1718; 1819; 1920; 2021; 2122	38
101	Preparedness	3B	Maintain Fire Trails	Maintain fire trails as per works program. Trails should aim to be consistent with BFCC standard.	Other	Hunter Water	1718; 1819; 1920; 2021; 2122	38
102	Ignition Management	3B	Maintain fire trail security	Ensure gates on all fire trails are secured and locked	Other	Hunter Water	1718; 1819; 1920; 2021; 2122	38
103	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	Other	Hunter Water	1718; 1819; 1920; 2021; 2122	39
104	Preparedness	3B	Maintain Fire Trails	Maintain fire trails as per works program . Trails should aim to be consistent with BFCC standard.	Other	Hunter Water	1718; 1819; 1920; 2021; 2122	39
105	Ignition Management	3B	Maintain fire trail security	Ensure gates on all fire trails are secured and locked	Other	Hunter Water	1718; 1819; 1920; 2021; 2122	39
106	Hazard Reduction	3B	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program to standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	42
107	Hazard Reduction	3B	Investigate prescribed burn program in the LMZ	Investigate Prescribed burn program with LGA in consultation with OEH	LGA; OEH	FRNSW	1718; 1819; 1920; 2021; 2122	42
108	Property Planning	3C	Support existing CFU's	Support existing CFU's in Atherton Close and Off Elbrook Drive.	FRNSW		1718; 1819; 1920; 2021; 2122	43
109	Hazard Reduction	3C	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	43
110	Hazard Reduction	3C	Implement prescribed burn	Implement prescribed burn program in conjunction with fuel management strategy for George MacGregor	LGA	FRNSW	1718; 1819; 1920; 2021; 2122	43

111	Hazard Reduction	3C	program in SFAZ or LMZ Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy for Blackbutt reserve.	LGA	FRNSW	1718; 1819; 1920; 2021; 2122	45
112	Community Education	3C	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	LGA	1819; 2021	45
113	Hazard Reduction	3C	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	45
114	Community Education	3C	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	LGA	1819; 2021	46
115	Hazard Reduction	3C	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	46
116	Community Education	3C	Undertake Community Education activity	Target interface areas for bushfire community education program	FRNSW	LGA	1819; 2021	47
117	Hazard Reduction	3C	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	47
118	Hazard Reduction	3C	Implement prescribed burn program in SFAZ or LMZ	Implement prescribed burn program in conjunction with fuel management strategy for George MacGregor reserve.	LGA	FRNSW	1718; 1819; 1920; 2021; 2122	44
119	Preparedness	3C	Prepare and review Pre Incident Plan	Prepare a Pre incident plan and review Bi annually.	FRNSW		1819; 2021	44
120	Ignition Management	3C	Maintain fire trail security	Ensure gates on all fire trails are secured and locked	LGA		1718; 1819; 1920; 2021; 2122	44
121	Hazard Reduction	3C	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	44
122	Hazard Reduction	3C	Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program. Should aim to meet standard as described in RFS Document Standards for Asset Protection Zones	LGA		1718; 1819; 1920; 2021; 2122	48
123	Preparedness	3C	Prepare and review Pre Incident Plan	Prepare a Pre incident plan and review Bi annually.	FRNSW		1819; 2021	48
124	Hazard Reduction	3D	Implement prescribed burn program in SFAZ or LMZ	Treatment should aim to be consistent with the Blue Gum hills RP Fire Strategy and aim to meet BFCC Standard.	OEH		1819; 1920; 2021; 2122	49
125	Hazard Reduction	4	Inspect and Maintain APZ's	Inspect and maintain APZ as per LGA and OEH works program and treatment should aim to meet the	OEH		1718; 1819; 1920; 2021;	53

126	Hazard Reduction	4	Implement Prescribed Burn Program in SFAZ or LMZ	standard as described in RFS document Standards for Asset Protection Zones.	2122
1	Hazard Reduction		Inspect and Maintain APZ's	Treatment should aim to be consistent with the Blue Gum Hills RP Fire Strategy and aim to meet BFCC standard.	1819; 1920; 2021; 2122
2	Hazard Reduction		Inspect and Maintain APZ's	Inspect and Maintain APZ as per works program to standard as described in RFS Document Standards for Asset Protection Zones	1718; 1819; 1920; 2021; 2122
3	Hazard Reduction		Inspect and Maintain APZ's	Inspect and Maintain APZ as per NSWLPMA works program	1718; 1819; 1920; 2021; 2122
4	Hazard Reduction		Maintain FEZ	Maintain FEZ around site and ensure no prescribed burning operations are undertaken in area.	1718; 1819; 1920; 2021; 2122
5	Hazard Reduction		Maintain FEZ	Maintain FEZ around site and ensure no prescribed burning operations are undertaken in area.	1718; 1819; 1920; 2021; 2122
6	Hazard Reduction		Maintain FEZ	Maintain FEZ around site and ensure no prescribed burning operations are undertaken in area.	1718; 1819; 1920; 2021; 2122
7	Other		Develop dataset to aid management	Develop a common dataset of vegetation and Fire history to aid enable the successful management of vegetation.	1718; 1819; 1920; 2021; 2122
8	Hazard Reduction		Maintain FEZ	Maintain FEZ around site and ensure no prescribed burning operations are undertaken in area.	1718; 1819; 1920; 2021; 2122
9	Preparedness		Prepare and review Pre Incident Plan	Prepare a Pre incident plan and review Bi annually.	1819; 2021
10	Preparedness		Maintain Fire Trails	Maintain fire trails as per works program. Trails should aim to meet BFCC standard.	1718; 1819; 1920; 2021; 2122
11	Community Education		Undertake Community Education activity	Target interface areas for bushfire community education program	1819; 2021

Appendix 4 Maps

Map 1 North Newcastle

Map 2 South West Newcastle

Map 3 South East Newcastle

Newcastle BFMC Bush Fire Risk Management Plan 2019

North - Map Display Area
Map 1 of 3

The Bush Fire Risk Management Plan (BFRMP) for the Bush Fire Management Unit (BFMU) is a strategic document that provides a framework for the management of bush fire risk in the BFMU. The BFRMP is developed in accordance with the Bush Fire Management Act 2002 and the Bush Fire Management Regulations 2003. The BFRMP is a living document that is reviewed and updated regularly to ensure it remains relevant and effective. The BFRMP is developed in consultation with the community and other stakeholders. The BFRMP is a key document in the Bush Fire Management Unit's risk management process. The BFRMP is developed in accordance with the Bush Fire Management Act 2002 and the Bush Fire Management Regulations 2003. The BFRMP is a living document that is reviewed and updated regularly to ensure it remains relevant and effective. The BFRMP is developed in consultation with the community and other stakeholders. The BFRMP is a key document in the Bush Fire Management Unit's risk management process.



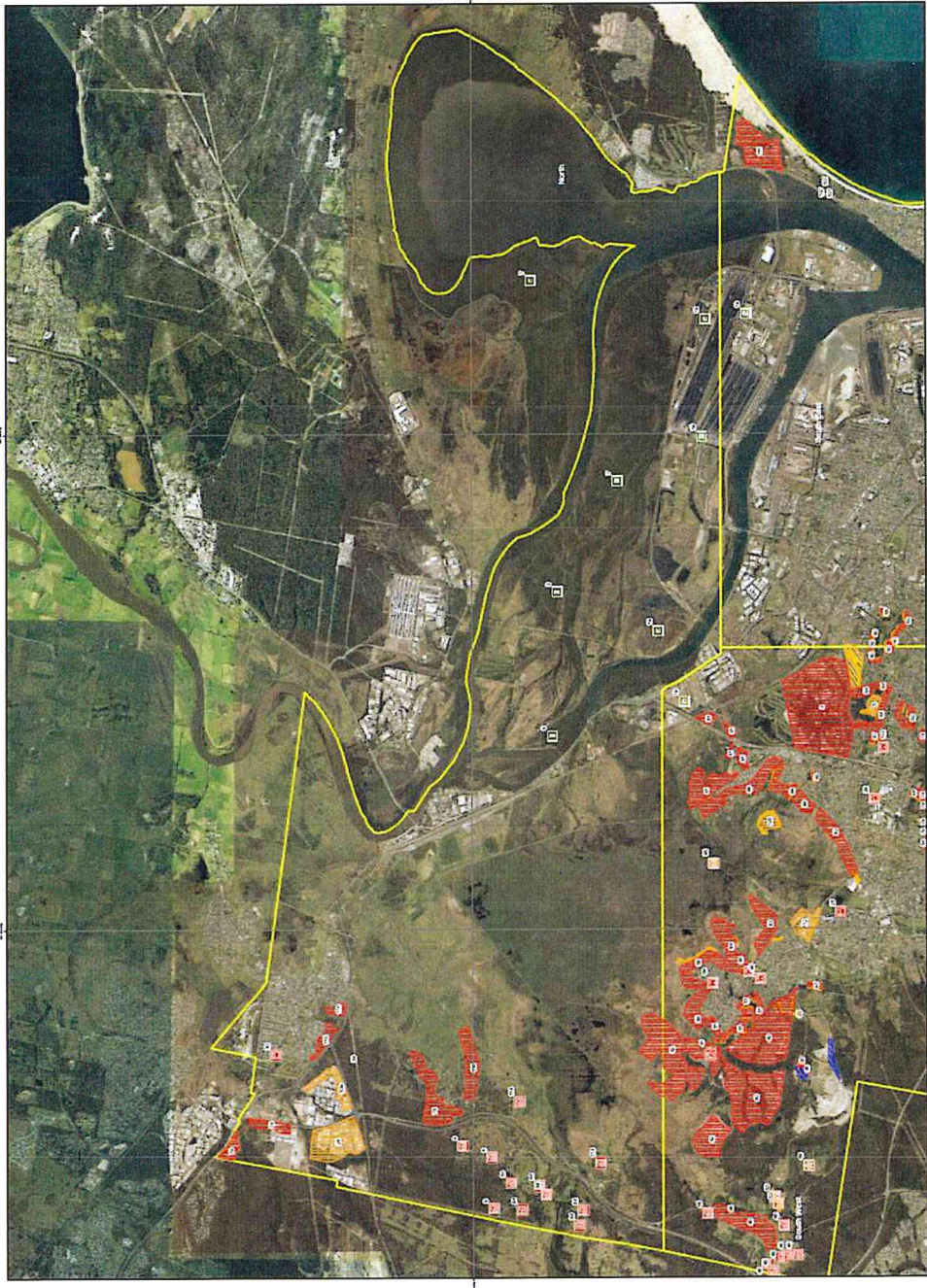
Notes: The Bush Fire Risk Management Plan (BFRMP) for the Bush Fire Management Unit (BFMU) is a strategic document that provides a framework for the management of bush fire risk in the BFMU. The BFRMP is developed in accordance with the Bush Fire Management Act 2002 and the Bush Fire Management Regulations 2003. The BFRMP is a living document that is reviewed and updated regularly to ensure it remains relevant and effective. The BFRMP is developed in consultation with the community and other stakeholders. The BFRMP is a key document in the Bush Fire Management Unit's risk management process. The BFRMP is developed in accordance with the Bush Fire Management Act 2002 and the Bush Fire Management Regulations 2003. The BFRMP is a living document that is reviewed and updated regularly to ensure it remains relevant and effective. The BFRMP is developed in consultation with the community and other stakeholders. The BFRMP is a key document in the Bush Fire Management Unit's risk management process.

Legend: The legend provides a key to the symbols and colors used on the map. It includes symbols for various types of areas, such as residential areas, commercial areas, and bush fire risk areas. The legend also includes a scale bar and a north arrow.

Area	Description	Color
Residential Area	Areas where residential buildings are located.	Light Blue
Commercial Area	Areas where commercial buildings are located.	Light Green
Bush Fire Risk Area	Areas where there is a high risk of bush fire.	Red
Water Body	Areas where water bodies are located.	Blue
Public Open Space	Areas where public open spaces are located.	Light Yellow
Other	Other areas not covered by the above categories.	White

Area	Description	Area	Description	Area	Description
1	Residential Area	1	Residential Area	1	Residential Area
2	Commercial Area	2	Commercial Area	2	Commercial Area
3	Bush Fire Risk Area	3	Bush Fire Risk Area	3	Bush Fire Risk Area
4	Water Body	4	Water Body	4	Water Body
5	Public Open Space	5	Public Open Space	5	Public Open Space
6	Other	6	Other	6	Other

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Area	Description	Color
1	Residential Area	Light Blue
2	Commercial Area	Light Green
3	Bush Fire Risk Area	Red
4	Water Body	Blue
5	Public Open Space	Light Yellow
6	Other	White

Newcastle BFMC Bush Fire Risk Management Plan 2019

South East - Map Display Area
Map 3 of 3

The Bush Fire Management Plan (BFMP) has been prepared by the Bushfire Management Committee (BMC) in accordance with the Bushfire Management Act 2002. The BMC is a statutory body established under the Act to manage the bushfire risk in the South East region of the City of Newcastle. The BMC is responsible for the development and implementation of the BFMP, which is a key component of the City's overall bushfire risk management strategy. The BFMP is a living document and will be reviewed and updated as necessary to ensure it remains current and effective. The BMC is committed to working closely with the community to reduce bushfire risk and improve bushfire preparedness.



The Bushfire Management Plan (BFMP) is a key component of the City's overall bushfire risk management strategy. It is a living document and will be reviewed and updated as necessary to ensure it remains current and effective. The BMC is committed to working closely with the community to reduce bushfire risk and improve bushfire preparedness.

The Bushfire Management Plan (BFMP) is a key component of the City's overall bushfire risk management strategy. It is a living document and will be reviewed and updated as necessary to ensure it remains current and effective. The BMC is committed to working closely with the community to reduce bushfire risk and improve bushfire preparedness.

The Bushfire Management Plan (BFMP) is a key component of the City's overall bushfire risk management strategy. It is a living document and will be reviewed and updated as necessary to ensure it remains current and effective. The BMC is committed to working closely with the community to reduce bushfire risk and improve bushfire preparedness.

The Bushfire Management Plan (BFMP) is a key component of the City's overall bushfire risk management strategy. It is a living document and will be reviewed and updated as necessary to ensure it remains current and effective. The BMC is committed to working closely with the community to reduce bushfire risk and improve bushfire preparedness.

The Bushfire Management Plan (BFMP) is a key component of the City's overall bushfire risk management strategy. It is a living document and will be reviewed and updated as necessary to ensure it remains current and effective. The BMC is committed to working closely with the community to reduce bushfire risk and improve bushfire preparedness.

The Bushfire Management Plan (BFMP) is a key component of the City's overall bushfire risk management strategy. It is a living document and will be reviewed and updated as necessary to ensure it remains current and effective. The BMC is committed to working closely with the community to reduce bushfire risk and improve bushfire preparedness.

Item No	Item Name	Item Description	Item Status	Item Priority	Item Budget	Item Date
1	1. Bushfire Management Plan (BFMP)	Develop and implement the Bushfire Management Plan (BFMP) for the South East region of the City of Newcastle.	Completed	High	\$1,000,000	2019-2020
2	2. Bushfire Risk Assessment (BRA)	Conduct a Bushfire Risk Assessment (BRA) for the South East region of the City of Newcastle.	In Progress	High	\$500,000	2020-2021
3	3. Bushfire Preparedness Plan (BPP)	Develop and implement a Bushfire Preparedness Plan (BPP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
4	4. Bushfire Response Plan (BRP)	Develop and implement a Bushfire Response Plan (BRP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
5	5. Bushfire Recovery Plan (BRV)	Develop and implement a Bushfire Recovery Plan (BRV) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
6	6. Bushfire Education Plan (BEP)	Develop and implement a Bushfire Education Plan (BEP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
7	7. Bushfire Research Plan (BRP)	Develop and implement a Bushfire Research Plan (BRP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
8	8. Bushfire Training Plan (BTP)	Develop and implement a Bushfire Training Plan (BTP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
9	9. Bushfire Audit Plan (BAP)	Develop and implement a Bushfire Audit Plan (BAP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
10	10. Bushfire Review Plan (BRV)	Develop and implement a Bushfire Review Plan (BRV) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022

Item No	Item Name	Item Description	Item Status	Item Priority	Item Budget	Item Date
11	11. Bushfire Management Plan (BFMP)	Develop and implement the Bushfire Management Plan (BFMP) for the South East region of the City of Newcastle.	Completed	High	\$1,000,000	2019-2020
12	12. Bushfire Risk Assessment (BRA)	Conduct a Bushfire Risk Assessment (BRA) for the South East region of the City of Newcastle.	In Progress	High	\$500,000	2020-2021
13	13. Bushfire Preparedness Plan (BPP)	Develop and implement a Bushfire Preparedness Plan (BPP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
14	14. Bushfire Response Plan (BRP)	Develop and implement a Bushfire Response Plan (BRP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
15	15. Bushfire Recovery Plan (BRV)	Develop and implement a Bushfire Recovery Plan (BRV) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
16	16. Bushfire Education Plan (BEP)	Develop and implement a Bushfire Education Plan (BEP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
17	17. Bushfire Research Plan (BRP)	Develop and implement a Bushfire Research Plan (BRP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
18	18. Bushfire Training Plan (BTP)	Develop and implement a Bushfire Training Plan (BTP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
19	19. Bushfire Audit Plan (BAP)	Develop and implement a Bushfire Audit Plan (BAP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
20	20. Bushfire Review Plan (BRV)	Develop and implement a Bushfire Review Plan (BRV) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022



Legend

- High Risk Bushfire Management Area (HBMBA)
- Medium Risk Bushfire Management Area (MBMA)
- Low Risk Bushfire Management Area (LBMA)
- Very Low Risk Bushfire Management Area (VLBMA)
- Unassessable Bushfire Management Area (UBMA)
- Other

Map Information

Scale: 1:50,000

North Arrow

Map Date: 2019-2020

Map Author: Bushfire Management Committee

Item No	Item Name	Item Description	Item Status	Item Priority	Item Budget	Item Date
1	1. Bushfire Management Plan (BFMP)	Develop and implement the Bushfire Management Plan (BFMP) for the South East region of the City of Newcastle.	Completed	High	\$1,000,000	2019-2020
2	2. Bushfire Risk Assessment (BRA)	Conduct a Bushfire Risk Assessment (BRA) for the South East region of the City of Newcastle.	In Progress	High	\$500,000	2020-2021
3	3. Bushfire Preparedness Plan (BPP)	Develop and implement a Bushfire Preparedness Plan (BPP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
4	4. Bushfire Response Plan (BRP)	Develop and implement a Bushfire Response Plan (BRP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
5	5. Bushfire Recovery Plan (BRV)	Develop and implement a Bushfire Recovery Plan (BRV) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
6	6. Bushfire Education Plan (BEP)	Develop and implement a Bushfire Education Plan (BEP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
7	7. Bushfire Research Plan (BRP)	Develop and implement a Bushfire Research Plan (BRP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
8	8. Bushfire Training Plan (BTP)	Develop and implement a Bushfire Training Plan (BTP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
9	9. Bushfire Audit Plan (BAP)	Develop and implement a Bushfire Audit Plan (BAP) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022
10	10. Bushfire Review Plan (BRV)	Develop and implement a Bushfire Review Plan (BRV) for the South East region of the City of Newcastle.	Not Started	Medium	\$200,000	2021-2022