

COMMUNITY PROTECTION PLANNING

GUIDELINE

MAY 2019

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DEFINITIONS

Asset Protection Zone (APZ) - A fuel reduced area surrounding a built asset or structure. (NSW RFS)

Special Fire Protection Purpose – developments that are identified as Special Fire Protection Purpose under Section 100B of the *Rural Fires Act* 1997

'Be Aware' Area - For the purposes of this Guide the 'Be Aware' area is the remaining area of the community that may be subject to ember attack during a bush fire event.

Bush Fire Risk Management Plan (BFRMP) – A document prepared by a Bush Fire Management Committee in accordance with Section 52 of the *Rural Fires Act* 1997.

Community - For the purposes of this Guide a community is defined by geographic location.

Effective Slope - The gradient of the land beneath the bush fire hazard that will most significantly influence bush fire behaviour for the asset

Ember Impact Area – For the purposes of this Guide the Ember Impact Area is the area within a community that will be impacted by low levels of radiant heat (<10kW/m²) and embers. This area extends 350 metres from the bushland interface.

Fire Danger Rating (FDR) - A relative class denoting the potential rates of spread, or suppression difficulty for specific combinations of temperature, relative humidity, drought effects and wind speed, indicating the relative evaluation of fire danger. (AFAC 2012)

Flame Impact Area – For the purposes of this Guide the Flame Impact Area is the area within a community that will be impacted by flame, radiant heat levels of greater than 29kW/m² and embers. This is the area where the bush fire risk to life and property is greatest.

Hazardous Material - Anything that, when produced, stored, moved, used or otherwise dealt with without adequate safeguards to prevent it from escaping may cause injury or death or damage to property. (SEMC 2005)

Hazardous Material Facility – A premises that stores large quantities of a hazardous material.

Neighbourhood Safer Place – Place of Last Resort – A Neighbourhood Safer Place is a location where people facing an immediate threat to their personal safety or property can gather and seek shelter from the impact of a bush fire. It is a *place of last resort*. (NSW RFS 2012)

Other Safer Locations – A location that individuals have personally assessed and decided is a safer option relative to their situation. (NSW RFS 2012)

Radiant Heat Impact Area – For the purposes of this Guide the Radiant Heat Impact Area is the area within a community that will be impacted by radiant heat levels of 10kW/m² - <29kW/m² and significant ember attack.

Radiant Heat Flux - The radiant heat transferred from a fire onto an object through the air. The amount of heat flowing through a given area in a given time, usually expressed as

kilowatts per square metre. The radiant heat produced by a 1 bar electric heater is the equivalent to 1kW/m2. (NSW RFS 2012)

Resident / Occupant Preparation Zone – Areas within a community where residents and / or occupants are responsible for carrying out a range of bush fire preparation activities to protect their home and property.

Strategic Fire Advantage Zone (SFAZ) – Areas which are planned to be fuel reduced 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. (BFCC 2008)

Abbreviations

APZ	Asset Protection Zone
BFCC	Bush Fire Coordinating Committee
BFEAC (Code)	Bush Fire Environmental Assessment Code
BFMC	Bush Fire Management Committee
BFRMP	Bush Fire Risk Management Plan
CL	Crown Lands
СРР	Community Protection Plan
D/T/Z	NSW RFS District, Team or Zone
FDR	Fire Danger Rating
FEZ	Fire Exclusion Zone
FRNSW	Fire And Rescue New South Wales
FAFT	Fire Access And Fire Trail Plan
FCO	Fire Control Officer
HR	Hazard Reduction
LALC	Local Aboriginal Land Council
LEMC	Local Emergency Management Committee
LGA	Local Government Area
LMZ	Land Management Zone
NPWS	National Parks And Wildlife Service
NSP	Neighbourhood Safer Place
NSW RFS	New South Wales Rural Fire Service
ОСР	Operations Coordination Plan
PES (C)	NSW RFS Planning and Environment Services Team (or Centre).
PBP	Planning For Bush Fire Protection
SFAZ	Strategic Fire Advantage Zone
The Act	Rural Fires Act 1997

1 Community Protection Planning Overview

1.1 Introduction

Within NSW, there are a number of operational and planning documents produced by the various land management and fire agencies that address specific aspects of bush fire risk management. These plans are generally strategic planning documents that set out the particular bush fire management arrangements for a broad area. A Community Protection Plan (CPP) is a more detailed tactical bush fire planning document prepared at a community level.

CPPs provide the public, fire services and land management agencies with easy to understand information that is specific to a community. A CPP consists of three maps with supporting documentation. It presents an overview of the bush fire threat for the area, the protection options available to the community as well as the current and proposed risk treatment works. The CPP also captures any locally important information, including the location of Special Fire Protection Purpose (SFPP) assets, which can be used by local brigades and emergency services during pre-incident planning exercises and fire fighting operations.

This Guide is based on best available information at the time of development, and may be subject to change over time.

1.2 Purpose

The purpose of this document is to guide the preparation of CPPs throughout NSW. It provides a standard process that can be adapted to suit the circumstances of the area covered by a CPP.

1.3 Aim and Objectives of a CPP

The overall aim of a CPP is to improve the community and fire fighter capacity to prepare for and survive bush fires.

The objectives of a CPP are to:

- 1. Empower communities to make decisions and take responsibility for their safety by increasing their understanding of bush fire threats and providing information that will assist in the preparation of personal Bush Fire Survival Plans.
- 2. Identify, assess and depict contingency options available to a community during a bush fire
- 3. Identify, assess and describe the range and timing of treatments applied to a community that are designed to reduce the bush fire risk.
- 4. Identify and assess SFPP facilities within a given community.
- 5. Gather and depict key information that will increase the preparedness of fire fighters for bush fire.

1.4 Why a CPP

Since the introduction of the bush fire risk management planning framework, a range of different community level planning documents have been developed throughout NSW (e.g. Village Protection Plans) for high risk areas. Generally, these documents have a similar purpose; however, they vary in content and layout. As such, there is a need to integrate and standardise the format and content of community level plans and provide tools and resources to facilitate a consistent approach.

The Royal Commission Inquiry into the 2009 Victorian 'Black Saturday' Bush Fires delivered a number of recommendations that reiterated the importance of educating the community on the most appropriate actions to take prior to and during a bush fire. Recommendations 1-5 of the final report, which relate to bush fire safety policy, provided the direction for the creation of the CPP framework.

In response to recommendations from the Victorian Royal Commission, the NSW Government has committed to developing local planning strategies for communities at risk of bush fire. With regard to Recommendation 3, a commitment was made for the integration of Neighbourhood Safer Places, evacuation and CPPs.

1.5 CPPs Linkages

The development and implementation of a CPP may be required as an asset specific treatment for a very high to extreme risk human settlement asset in a Bush Fire Risk Management Plan (BFRMP).

Alternatively, a CPP may also be developed by the NSW Rural Fire Service (RFS) in consultation with stakeholders independent of the BFRMP. In these circumstances, the information generated through the CPP process can inform updates to the BFRMP.

It should also be noted that in some BFRMPs, a Village Protection Strategy or similar plan has been identified as an asset specific treatment. The preparation and implementation of the CPP is deemed to satisfy the requirements of these existing treatments (see *BFCC Policy 1/2008 – Bush Fire Risk Management*).

A CPP will act as a replacement for a Village Protection Strategy or similar plan that may already be identified as a treatment in the BFRMP

A CPP will also be relevant to:

- Personal Bush Fire Survival Plans for residents of the community
- Local brigade operations and pre-incident planning
- Evacuation planning undertaken by managers of SFPP facilities and Local Emergency Management Committees (LEMCs)
- Land manager / owner Plans of Management / Fire Management Strategies

The CPP linkages with existing planning activities identified above is illustrated by Figure 1 below.

Figure 1 - CPP Linkages



1.6 The CPP Development Process

The CPP development process is outlined in Figure 2 below. The figure identifies responsibilities for each step of the process. A key element of developing a CPP is consultation with local land managers, fire services, residents and other interested parties.

Hold initial discussions with BFMC on commencement and preparation of CPP (NSW RFS PESC and D/T/Z) Seek initial input from local land managers, fire See Section 2 of CPP services, residents and other interest parties. Guidelines (NSW RFS PESC and D/T/Z) Undertake social analysis, prepare a Communication Strategy and define boundaries of CPP in consultation with BFMC. (NSW RFS PESC and D/T/Z) Carry out desktop analysis of existing data with information sought from local land managers See Section 3 of CPP and fire services Guidelines (NSW RFS PESC and D/T/Z) Undertake field investigations to validate data and information collected during desktop assessments (NSW RFS PESC and D/T/Z) See Section 4 of CPP Undertake field investigations to collect new data as required. (NSW RFS PESC and D/T/Z) Investigate existing emergency management arrangements, fuel management provisions and other risk treatments for the community See Section 5 of CPP with fire services, relevant land managers and Guidelines BFMC. (NSW RFS PESC and D/T/Z) Based on investigations and discussions prepare draft CPP maps to be used for See Section 6 of CPP community consultation. Guidelines (NSW RFS PESC and D/T/Z) Seek comment on Draft CPP maps from BFMC and LEMC prior to community consultation. (NSW RFS PESC and D/T/Z) Guidelines Carry out extensive community consultation (NSW RFS PESC and D/T/Z) Prepare final draft version of CPP (NSW RFS PESC and D/T/Z) Review and endorsement of final draft CPP See Section 8 of CPP and submission to BFMC (Manager, NSW RFS PESC) Guidelines Consideration and approval of CPP Maps (BFMC)

Figure 2 - Process for Preparing a CPP

Note: In Fire District Areas, Fire and Rescue NSW will be requested to act as the RFS D/T/Z in the above CPP process.

Where possible, information collected for a CPP should be sourced from previous work undertaken by Bush Fire Management Committees (BFMCs), Local Emergency Management Committees (LEMCs), land managers and other emergency service organisations. This will minimise duplication of effort, avoid potential conflicts and create strong links with the BFRMP and other existing planning documents.

1.7 The CPP Maps

The CPP will consist of the following three maps:

- Bush Fire Survival Map includes information on the potential bush fire threat, the safety of access / egress provisions, early relocation options and contingency shelter options. This map provides information that can be used by members of the community when developing their personal Bush Fire Survival Plan or Emergency Management and Evacuation Plan.
- Bush Fire Preparation Map provides information for land managers, fire agencies and community members on details of the existing and proposed bush fire risk treatment works for the community. The map will also provide information that will prompt home owners / occupiers to take action to reduce their bush fire risk.
- Operations Map provides brigades and other emergency services with important data relevant to the community to be used for operational purposes only.

Further details regarding each of the CPP maps are outlined in Appendix 1.

Where practical, the extent of the three CPP maps should be the same. However, the purpose of the map needs to be considered so that the scale and coverage is suitable for the target audience. As such, there may be a need to vary the extent of each of the maps to ensure that it has the desired impact.

Guidance on the preparation of the CPP maps will be provided in the subsequent sections of this document as well as in the *Community Protection Plan Mapping Guide*.

1.8 Hints and Tips for Preparing CPPs

Throughout this Guide there will be important items and tasks that need to be addressed and these will be highlighted in the following manner:

- Action Identifies essential actions that must be taken as part of the CPP process.
- ♦ Consideration Identifies matters that should be considered as part of the process.
- ☐ Information Outlines important aspects that need to be taken into account during the preparation of the CPP.

1.9 Review of CPP Guide

This Guide will be reviewed by the NSW RFS within 5 years of operation and amended where required. Consultation will occur with Bush Fire Coordinating Committee (BFCC) members where any proposed amendments to this document are considered significant.

2 Initial Consultation with Key Stakeholders

As shown in Figure 2, consultation with stakeholders is to occur throughout the CPP process. This will be vital to the development of a CPP that is relevant, practical and addresses locally specific issues within the community. However, it is particularly important that initial consultation with stakeholders occurs at the commencement of the CPP. Key stakeholders for a CPP will include:

- NSW RFS District/Team/Zone staff
- NSW RFS Planning and Environment Service Centre (PESC) staff
- Local NSW RFS brigade members
- Fire and Rescue NSW staff
- Land Management Agencies (e.g. Local Government, Office and Environment and Heritage, Department of Primary Industries, Forest Corporation NSW etc.)
- Bush Fire Management Committees (BFMCs)
- Local Emergency Management Committee (LEMC)
- Residents of the community

In the first instance, discussions must occur with the BFMC regarding the commencement and preparation of the proposed CPP. It is important that the Committee members support the development of a CPP within their area, particularly where the plan is developed outside the BFRMP framework.

Additional stakeholders for a local area (e.g. community associations) should be identified through discussions with the above groups and documented in the Communication Strategy. The overall success of the CPP can be influenced by the level of involvement of local community groups and their members in the development phase.

The purpose of initial consultation with key stakeholders is to ensure that:

- They are aware that a CPP is being prepared in their area and have an opportunity to have preliminary input and provide comment.
- They are engaged and involved from the beginning of the CPP process.
- All parties understand their roles and responsibilities throughout the development of the CPP.
- Local knowledge of the community, the surrounding landscape, key issues and other relevant information can be captured and considered throughout the process.
- A positive working relationship is established.
- Aspects of the CPP do not conflict with existing or proposed programs for the community.
- Consistent messages are conveyed to members of the community.

Consultation with key stakeholders must occur at the commencement of the CPP.

A key part of consultation that can be often overlooked is follow up sessions with stakeholder groups. These follow up sessions are an opportunity to provide feedback on the comments submitted by the group and ensure that the stakeholders are kept well informed on the development of the CPP. Follow up sessions should be accounted for in the Communication Strategy and will be a necessary part of the CPP process.

Remember that follow up sessions are an important part of the consultation process.

2.1 Preparing the Communication Strategy

A Communication Strategy must be prepared by the PESC to ensure that communications with key stakeholders are targeted and effective. This strategy must address the various communications that will need to occur throughout the CPP, including consultation with the community, subsequent follow up sessions and the active promotion of the Bush Fire Survival Map. The strategy will need to identify:

- All of the relevant stakeholders:
- The most appropriate methods of communication / consultation for that group;
- Any resources required (e.g. presentations, props and maps);
- Who is responsible and the timing for undertaking consultation.

As part of the preparation of the Communication Strategy, research into the demographic profile of the subject community should be undertaken. This will assist in gaining a better appreciation for the type of people that live within the area. Aspects of the population dynamics which might increase the risks of bush fires to certain communities (e.g. mobility, linguistics, tourism, absentee landholders etc) need to be investigated and understood. This information will assist in identifying target audiences and developing appropriate communication methods.

Understanding the demographics of a community will be vital in developing an effective Communication Strategy.

Information on the population within an area and the location of different groups and communities can be obtained from a range of different sources including local knowledge, Census data, Social Vulnerably Index, and local government websites and reports.

Information on how to prepare a Communication Strategy that addresses both consultations throughout the CPP development and the active promotion of the Bush Fire Survival Map is provided in Appendix 2. An example of a Community Participation Plan that can be used as a template is also provided in Appendix 2.

Prepare a Communication Strategy that is tailored to the area and guides the initial consultation as well as the promotion of the Bush Fire Survival Map.

2.2 Defining the Community

There are several different ways to define a community, however, for the purpose of CPPs, a community will be defined by geographic location. The landscape and development patterns will influence the area that will be subject to the CPP. It is important that the boundaries of the CPP are determined as part of the initial communications as this will influence desktop and field investigations as well as community consultation activities and the CPP maps.

There is no set extent, size or scale at which a CPP is to be undertaken. However, a key determining factor when identifying the extent of a community to be captured by a CPP will be the scale of the maps. The issue of scale and the presentation of the final maps must be considered when defining the boundaries of the community. For example, it is important that individuals can clearly identify their own property on the Bush Fire Survival Map and personalise the information provided. If the scale is too broad, then the map may not have the desired impact on members of the community.

lt is important that scale and final presentation of the CPP maps is considered when defining the boundaries of a community.

2.3 Community Surveys

Where appropriate, a survey of the residents and occupants within the community may be undertaken as part of the preparation and implementation of the CPP. While the content of the survey should stay consistent, the method should be tailored to suit the circumstances of each individual community. Survey methods should attempt to maximise the number of residents involved and ensure that the information captured is reflective of the entire community.

A multi-phased approach can be used when undertaking a community survey. The potential phases that could be applied when considering a community survey are outlined below.

- An initial survey should be carried out during the preparation of the CPP. This survey should seek to establish base line information on the level of bush fire awareness and preparedness of residents.
- A secondary survey may be undertaken following a CPP community engagement event to identify any changes in the baseline information as a result of the activity.
- A follow up survey can be undertaken 6 12 months following the preparation of the CPP or after a bush fire event and aim to capture any changes in awareness, preparedness and behaviour that may have been generated through the CPP.

© Consider undertaking a survey of the community to assist in capturing information on bush fire awareness, preparedness and behavioural change.

3 Information Collection and Desktop Analysis

The collection of relevant information for the community and desktop assessment of key elements will assist in establishing context for the CPP and. It will also highlight some key issues that need to be considered for the area. This preliminary analysis will ensure that field investigations are efficient and target relevant aspects of the community. The areas to be assessed are outlined below. Information collected through this step of the CPP process will need to be validated through field investigations within the community.

Undertake a comprehensive desktop analysis of the community.

3.1 Risk and Treatment Information

Collate information from BFRMP that is relevant to the CPP. The BFRMP will contain information on assets, bush fire risk and treatment options that have been identified and approved by the BFMC for the area. Where relevant, other bush fire planning documents (e.g. Plans of Management and Fire Management Strategies) should also be sourced and considered. Risk and treatment information will be important in carrying out subsequent steps of the CPP process.

3.1 Map the Bushland Interface

Review the Bush Fire Prone Land Map data along with the most recent aerial imagery for the area and identify the bushland interface in accordance with the *Community Protection Plan Mapping Guide*. The bushland interface will be important when creating the Bush Fire Impact Areas.

3.2 Classify Vegetation

Using the NSW Vegetation data, determine the classification of the vegetation classes surrounding the community. Classification of vegetation will be based on *Ocean Shores to Desert Dunes* (Keith D 2004). Identifying the different vegetation types surrounding a community will assist in gaining a better understanding of likely bush fire behaviour for the area and assist in determining potential risk treatment options.

3.3 Assess the Effective Slope

From the contour information or a digital elevation model, determine the effective slope for the various sections of the bushland interface for the community.

The effective slope should be calculated where there is a notable change in either slope (i.e. >5 degrees) or vegetation formation. This slope information will be used in determining the Bush Fire Impact Areas which are displayed on the Bush Fire Survival Map. A site specific assessment of slope may be required when assessing the fuel management provisions in place for a community.

3.4 Human Settlement and Economic Assets

The range of Human Settlement (residential and Special Fire Protection) and Economic assets that exist within the community should be identified using available spatial data sets and aerial photography. Once these assets have been identified, the separation distance from the bushland interface needs to be determined and noted for validation during field investigations.

3.5 Environmental and Cultural Assets

Information regarding environmental (i.e. endangered species, populations and ecological communities) and cultural assets (i.e. Indigenous and non indigenous heritage sites) must be gathered as part of the desktop analysis stage of the CPP. The BFRMP should contain a list of environmental and cultural assets that are relevant to the area. Additional information should also be sort from BFMC members.

3.6 Fire History, Past and Planned Hazard Reduction Works

Using available GIS data, review the fire history (both wildfire and hazard reduction burns) as well as other past and planned hazard reduction works for the community. In addition, discussions should occur with the BFMC to determine any additional hazard reduction proposals for the area. The BFRMP, Plans of Management and Fire Management Strategies may also provide relevant information.

3.7 Neighbourhood Safer Places

Review the currently designated Neighbourhood Safer Place (NSP) locations for the community and note potential new areas that could satisfy the requirements detailed in the Neighbourhood Safer Places - Places of Last Resort Guidelines.

3.8 Access / Egress Roads

The primary access / egress roads for the community should be identified as part of the desktop analysis. Note any sections of these main roads that directly adjoin vegetation and may be impacted by flame and deadly levels of radiant heat during a bush fire. These areas are particularly problematic from an access / egress perspective.

3.9 Land Tenure

Using the available GIS data sets, identify the land tenure within and surrounding the subject community. Discussions should also occur with members of the BFMC to confirm the current land tenure for the area.

3.10 Operational Data

Source the various GIS data sets that are proposed for inclusion in the Operations Map (e.g. fire trails and water supply). Key operational information to be identified on this map is outlined in Appendix 1.

3.11 Design Community Survey

Where it has been determined that a community survey is to be undertaken as part of the CPP, the survey methods shall be developed as part of the desktop analysis. Details of the community survey, such as content and timing, should be discussed with BFMC member agencies to ensure that the proposed arrangements are suitable.

4 Field Investigations

In order to validate information collected during desktop analysis, field investigations within and around the community need to be carried out. It is recommended that local fire agency members or land management agencies are involved as their knowledge of the area is likely to assist with these investigations.

The CPP Assessment Form must be completed as part of the field investigations. This form records the relevant site specific information to be used in the preparation of the CPP maps and will support decision making in the subsequent phases of the process. Details regarding site investigations for the development of a CPP are outlined below.

Undertake field investigations to verify information generated during desktop analysis and complete the CPP Assessment Form for the community.

4.1 Verify the Bushland Interface

The bushland interface line that was identified during the desktop analysis stage needs to be verified through site inspections. This may involve detailed ground validation of the entire interface of the community. Tools such as a GPS or paper / electronic maps should be used with amendments made to the bushland interface line as required.

During the validation of the bushland interface, inaccuracies in the Bush Fire Prone Land data may be identified. For these instances information depicting the anomalies should be forwarded to Senior Planning Officer – Planning and Predictive Services (NSW RFS HQ). These inaccuracies must be noted in the final CPP report to the BFMC.

4.2 Validate Vegetation Classification

The vegetation surrounding the community must be classified in accordance with *Ocean Shores to Desert Dunes* (Keith D 2004). Field investigations should validate the vegetation classification that was identified as part of the desktop analysis. A number of photos of the surrounding vegetation should be taken, particularly where different classes exist.

Where field investigations reveal that the vegetation data is inaccurate, information depicting the anomalies should be forwarded to Senior Planning Officer – Planning and Predictive Services (NSW RFS HQ).

4.3 Validate Assessment of Effective Slope

Effective slope calculations generated through the desktop analysis may need to be validated through field slope measurements using a clinometer and range finder. Field measurements should ensure that slope calculations are accurate and cover the range of slopes across the bushland interface.

4.4 Human Settlement and Economic Assets

The location of Human Settlement and Economic assets need to be validated through field investigations along with the separation distances from the bushland interface. The separation distances, vegetation classification and slope measurements will be important when assessing fuel management provisions for a community and preparing the Bush Fire Impact Areas.

4.5 Environmental and Cultural Assets

Field investigations will involve familiarisation of the environmental and cultural asset locations that were gathered through the BFMC and the desktop analysis. The location of environmental and cultural assets will need to be considered when reviewing fuel management provisions as part of the CPP process.

4.6 Assessment of Neighbourhood Safer Places (NSP)

Where an NSP has been identified within the community, the site will need to be assessed for compliance with the setback / radiant heat requirements of the *Neighbourhood Safer Places - Places of Last Resort Guidelines*. This document is available on the Community Resilience page of the NSW RFS Intranet.

Where setback distances / radiant heat loads do not comply, these issues should be discussed with relevant land managers / owners. Where non-compliance issues are unable to be resolved, the matter is to be raised with the Senior Planning Officer – Neighbourhood Safer Places (NSW RFS HQ) to determine the most appropriate action. Details regarding the assessment of non-compliance issues and resolution of these issues are to be recorded on the CPP Assessment Form.

In addition, potential NSPs that were flagged in the desktop analysis should be subject to a site specific assessment to determine compliance with the NSP Guideline. Where a new NSP site can be identified, an assessment is to be completed and forwarded to the Senior Planning Officer – Neighbourhood Safer Places (NSW RFS HQ) for designation. Consultation should occur with D/T/Z staff, relevant land managers / owners, the BFMC and LEMC when nominating new NSP sites. The identification of new NSPs within a community should be noted in the relevant section of the CPP Assessment Form.

4.7 Inspection of Access / Egress Roads

Areas that were noted as problematic from a bush fire perspective during desktop analysis are to be inspected during field validation exercises. Furthermore, any other potential access / egress issues that may impact on the ability of fire fighters to access an area whilst residents are evacuating should be noted in the CPP Assessment Form and supported with photographs. Other issues that have potential to impact on the access / egress for a community that should be considered when inspecting local roads include:

- Trafficable road widths
- Carrying capacity of bridges
- Parking arrangements
- Access to water supplies

4.8 Asset Protection Zones (APZs) and Strategic Fire Advantage Zones (SFAZs)

Existing APZs and SFAZs that have been mapped or described in the BFRMP for the community need to be inspected to confirm that the applicable fuel load requirements are being satisfied. APZs should meet the standards detailed in the RFS document Bush Fire Protection for Existing Development and SFAZs should meet the standards set out in the BFCC Policy on Bush Fire Risk Management (1/2008)

Where site inspections reveal that current APZs and SFAZs are not being maintained as required, the matter should be noted in the CPP Assessment Form and raised with the relevant land manager. It is important to note the width of the existing APZs as this information will be considered when assessing the fuel management works.

In addition, site inspections may highlight existing APZs that have not yet been mapped in the BFRMP. Under these circumstances, the Zones shall be mapped as an APZ when preparing the draft CPP maps and displayed on the Bush Fire Preparation Map. The BFMC should incorporate this spatial information into the next version of the BFRMP.

Ensure that consultation occurs with the relevant land owner / manager when mapping APZs.

The inspection of fuel management provisions within a community should extend onto private land and should include residential properties located on the bushland interface. During field investigations, areas where the fuel management regime is deemed to be inadequate should be identified for follow up inspections and consultation when implementing the CPP. Details of these properties should be recorded on the CPP Assessment Form. Where possible, residents of poorly maintained properties should be engaged on bush fire preparedness as part of field investigations.

4.9 Inspect Fire Trails

Strategic and Tactical fire trails and access ways are to be identified and inspected as part of the field investigations. Inspections should involve local fire authorities and be restricted to those fire trails / access ways that traverse bushland immediately adjacent the community. The focus of the inspection is to assess the condition of fire trails and access ways against the BFCC Policy 1/2017 (and associated RFS Fire Trail Standards).

Sections of the fire trail network that require additional work to meet the RFS Fire Trail Standards should be noted with appropriate action taken in the next step of the CPP development process. Existing fire trails and access ways that could be included in the BFMCs Fire Access and Fire Trail Plan should also be identified during field investigations along with areas where new fire trails may be necessary.

4.10 Water Supply Provisions

During field investigations the nature of the water supply provisions (i.e. reticulated or non-reticulated) within the community needs to be investigated and recorded on the CPP Assessment Form. Additional water sources within the community that could be used for operational purposes should also be captured in consultation with D/T/Z, local brigade members and where relevant. Fire and Rescue NSW.

4.11 SFPP Facilities

The SFPP facilities that exist within the community are to be inspected as part of the field investigations. The focus of these inspections will be to assess the bush fire threat to the facility.

An individual assessment of each SFPP within an area must be recorded in the applicable section of the CPP Assessment Form. Field investigations of SFPP facilities will require an assessment of the fuel management regime within the boundaries of the property and the condition of buildings with regard to maintenance and construction standard. Where any of

these elements of bush fire preparedness is lacking, the details should be noted on the CPP Assessment Form for follow up inspections and consultation.

If possible, documentation relating to the bush fire emergency planning arrangements for the facility should also be sought during field investigations.

Information gathered during inspections of the SFPP facilities will be important when undertaking the review as per Section 5 of this Guide.

4.12 Hazardous Material Facilities

The location of hazardous material facilities gathered during the desktop analysis should be confirmed as part of field investigations with additional sites noted for inclusion on the Operations Map. The management of fuel within the facility also needs to be assessed. Poorly maintained hazardous material facilities should be noted in the CPP Assessment Form for follow up inspections.

4.13 Validation of Operational Data

The validation of the relevant operational data for the community will be a critical part of field investigations. Accurate operational data will be important to the preparation of an Operations Map that is used by local brigades prior to and during bush fire fighting operations. The data sets that are proposed for inclusion on this map need to be verified during field investigations.

Field investigations may reveal that existing data sets are either incomplete or inaccurate. Where investigations highlight that the current data sets have missing or inaccurate information, the data will need to be rectified using one of the following methods:

- Complete a Spatial Data Change Request form and forward to the NSW RFS GIS section at gis@rfs.nsw.gov.au.
- Edit or notify changes to the topographic map data through the NSW RFS page of the Land and Property Notification Edit Service at https://maps.six.nsw.gov.au/nes/rfs/

The proposals to create new data sets identified through the CPP process should also be sent through to the NSW RFS GIS section at gis@rfs.nsw.gov.au.

5 Review of Existing Bush Fire Risk Treatments

Following field investigations, a review of the existing bush fire risk treatments for the community will be undertaken. The review will focus on emergency management provisions, fuel management and other asset specific treatment strategies provided for in the BFRMP. This step of the CPP process will highlight areas where the bush fire protection for the community can be improved and will seek to employ a suite of measures to reduce the bush fire risk. Where this review results in a change to the risk treatment strategies currently contained in the BFRMP for the community, amendments to the BFRMP may be required.

* Amendments to the BFRMP may be required as a result of the CPP review of existing bush fire risk treatments.

In many cases, a single facet approach to bush fire protection may not provide adequate levels of safety, particularly if essential elements are lacking. As such, it will be necessary to adopt an integrated approach that utilises a range of risk treatments to minimise the bush fire risk to the community.

A vital aspect of this step in the CPP process is consultation with the community, land management agencies and fire authorities. Relevant agencies and stakeholders must be engaged and involved in designing and implementing appropriate protection measures for the community.

Extensive consultation with land management agencies and fire services must be undertaken when designing and implementing appropriate protection measures for the community.

5.1 Review Emergency Management Provisions

Reviewing the emergency management provisions for a community will involve assessing the safety of existing access / egress arrangements as well as shelter options. The assessment of each of these components is outlined below.

5.1.1 Access / Egress Provisions

The ability to safely leave an area may be crucial for many communities particularly where the opportunity to increase the level of protection or provide suitable shelter options is limited. In addition, it is also important that the local road network can support safe and efficient fire fighting operations. Therefore, an examination of the suitability of access / egress arrangements is essential. This examination will need to consider information collected as part of the field investigations and may involve consultation with traffic experts from local government to identify any localised issues.

When evaluating the suitability of access / egress provisions the following aspects need to be considered:

- The ability of fire fighters to access the area whilst residents are evacuating
- The potential for main access / egress roads for the community to be directly impacted by flame and deadly levels of radiant heat during a bush fire.

In some cases, there may be an opportunity to implement works to improve access and egress provisions. It will be necessary to work with the relevant road authorities for this to occur and approvals may be required. Where enhancements to the access and egress provisions is

impractical, more attention should be paid to establishing shelter options (see Section 5.1.2). The flow chart provided in Appendix 3 outlines the process for assessing the access / egress for a community.

Using the information collected during desktop and field investigations along with the flow chart provided in Appendix 3 assess the access / egress provisions for the community.

5.1.2 Formal Shelter Options

Where access / egress provisions for a community are considered appropriate following the review undertaken in Section 5.1.1, an assessment of the formal shelter options is not required. However, where an NSP already exists within the community, it will be important to ensure that these sites currently satisfy the setback / radiant heat requirements contained in the *Neighbourhood Safer Places - Places of Last Resort Guidelines*, which was undertaken as part of the field investigations.

Where access / egress provisions for a community or part of the community present an issue from a bush fire perspective, the assessment of formal shelter options will be necessary. This assessment will need to consider information gathered during field investigations, particularly the identification of an NSP or additional NSPs within the community.

The flow chart provided in Appendix 3 outlines the process for assessing shelter options for a community.

Using the information collected during desktop and field investigations along with the flow chart provided in Appendix 3, where required, assess the suitability of shelter options for the community.

There may be circumstances where access / egress arrangements for a community are considered problematic and there is limited capacity to improve the road network or identify an adequate NSP. The limitations in access / egress provisions and formal shelter options need to be clearly communicated to members of the community with an emphasis placed on leaving early and identifying other safer locations in their Bush Fire Survival Plan.

Unitations in access / egress and shelter provisions need to be clearly communicated with members of the community during the CPP process.

Communities where access / egress arrangements and shelter options are poor should also be raised with local fire authorities and the BFMC so that these areas are prioritised accordingly for future treatment. In addition, such limitations should also be communicated to the LEMC to ensure that they are considered during operations. Where pre-incident planning exercises are not already in place, it may be appropriate to instigate these types of activities as an additional treatment for the area.

5.2 Review of Fuel Management Provisions

The fuel management practices in place for the community will be subject to a review as part of the CPP process. Generally, fuel management works for an area will be guided by the relevant BFRMP. Hazard reduction Treatments detailed in the BFRMP plan will be examined. Environmental, financial and amenity impacts must be considered when undertaking this review along with the need to share limited resources and provide bush fire protection to other communities in the area.

The focus of this review is to ensure that interface areas are being treated through a suite of Bush Fire Management Zones. The Bush Fire Management Zoning system in NSW is identified in the BFRMP and includes:

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

Bush Fire Management Zones are designed to identify the fire management intent for a specific area. Opportunities to implement additional APZs and SFAZs within and surrounding the community will be assessed in the review of fuel management provisions along with the management regime for the existing Zones. For more information on Bush Fire Management Zones see BFCC Policy 1/2008.

5.2.1 APZs

A review of APZs within and surrounding a community will involve an assessment of the area against the NSW RFS document *Bush Fire Protection for Existing Development*. This Guide provides a standard process to assist in determining the bush fire protection requirements for existing residential, SFPPs and major buildings.

During field investigations Human Settlement and Economic assets on the bushland interface were identified and site specific details were recorded (slope, vegetation, separation distance). SFPPs and hazardous material facilities were also inspected. Based on this information, the opportunity to implement additional APZs within and surrounding the community needs to be investigated.

* Assess identified areas against *Bush Fire Protection for Existing Development* and investigate opportunities to implement additional APZs.

Where the assessment indicates that additional APZ works are required, contact is to be made with the relevant land owner / manager to discuss the necessary works. Discussions should also address any issues with the maintenance of existing APZs that have been noted during field investigations.

As per *Bush Fire Protection for Existing Development,* where the landscape prohibits the implementation of additional APZs, other treatment options need to be applied. The process of assessing APZs and the outcomes of investigations are to be recorded and reported back to the BFMC.

Where the landscape prohibits the implementation of additional APZ works other treatments options need to be applied.

Land that is already identified as an APZ in the BFRMP or is being managed primarily for asset protection purpose and meet the applicable standards should be mapped and displayed as an 'Existing APZ' on the Bush Fire Preparation Map. Areas where vegetation clearing is to be implemented to provide for an additional or new APZ should be mapped and displayed as a 'Proposed APZ'. Proposed and existing APZs should not overlap with the Resident / Occupant Preparation Area.

Treatments for existing and proposed APZs will need to be incorporated into the works program on the Bush Fire Preparation Map. Where required, any amendments to the risk treatment strategies identified for the community are reflected in the BFRMP.

It is important to note that the current processes in place for the implementation of hazard reduction works, including environmental approvals, still applies for APZ works identified through the CPP.

A CPP may not assess/calculate the APZ requirements for every dwelling. The desktop analysis and site inspections will have identified areas of concern and these will be the primary focus for APZ calculation. However, all private landowners in the Resident Preparation Zone will be encouraged to assess their APZ requirements during the development of their Bush Fire Survival Plan. The CPP Officer and D/T/Z will assist them with this process.

5.2.2 Management of Private Properties

The effectiveness of implementing hazard reduction and other risk treatment measures within and surrounding the community can be significantly compromised by poor maintenance of near-asset fuels. During field investigations, residential properties, SFPPs and hazardous material facilities within the community that require additional fuel reduction works were identified with details recorded on the CPP Assessment Form.

For those properties identified, consultation should occur with the relevant owner / manager in order to facilitate hazard reduction works as part of the implementation phase of the CPP. In addition, where the opportunity arises, personalized information on how to retrofit buildings to improve protection against bush fire attack should also be passed on to members of the community.

Where required, management of near asset fuels within private properties should be facilitated through the implementation phase of the CPP.

5.2.3 Other Hazard Reduction Activities

The implementation of other hazard reduction activities to reduce fuel loads in bushland areas adjoining the community needs to be investigated. Investigations should focus on implementing hazard reduction burns that complement the APZs on the bushland interface within existing SFAZs, LMZs and fire breaks.

When considering other hazard reduction activities for a community, priority should be given to implementing hazard reduction burning on the bushland interface to complement APZs.

Input from the relevant land owner / manager will be important when exploring the opportunity to implement hazard reduction burns around a community. In deciding if hazard reduction burning is an appropriate treatment consideration should be given to the following:

- Fire history,
- Vegetation type and biodiversity thresholds (see *Bush Fire Environmental Assessment Code*).
- Location of fire sensitive Environmental and Cultural assets,
- Location of existing SFAZs and their current fuel state,
- Any hazard reduction activities already proposed for the area.

The process of assessing the need for additional hazard reduction burning and the outcomes of investigations / negotiations are to be recorded and reported back to the BFMC.

Where possible, proposed hazard reduction works identified for the community should be mapped as 'Proposed Hazard Reduction' on the Bush Fire Preparation Map in accordance with the *Community Protection Plan Mapping Guide*. This information will also need to be incorporated into the works program.

♦ Where possible, map proposed hazard reduction activities on the Bush Fire Preparation Map.

5.2.4 **SFAZs**

Following the review of APZ provisions and hazard reduction burning activities for a community, consideration is to be given to the identification of additional SFAZs and fire breaks. Ideally, for areas that face a significant bush fire risk, SFAZs should be located immediately adjoining the APZ on the bushland interface. The identification of additional SFAZs should be investigated in areas around the community that are a considered a priority for hazard reduction burning.

Investigate the identification of new SFAZs in areas surrounding the community that are considered a priority for hazard reduction burning.

The need for additional SFAZs surrounding the community and the associated boundaries should be discussed with land managers / owners and the BFMC. Where it is determined that additional SFAZs are required, they should be identified on the Bush Fire Preparation Map as 'Proposed SFAZ' in the first instance. These areas will remain as a 'Proposed SFAZ' until they have been formally adopted into the BFRMP. Once the 'Proposed SFAZs' have been identified in the BFRMP, they can be remapped as an 'Existing SFAZ' and the relevant provisions of the Bush Fire Environmental Assessment Code (2006) can be applied in these areas.

SFAZs already identified in the BFRMP are to be mapped as 'Existing SFAZ' on the Bush Fire Preparation Map. Works associated with existing and proposed SFAZs will need to be detailed in the works program.

5.3 Review of Other Risk Treatment Measures

Following the review of the emergency management arrangements and current fuel management provisions for the community, the opportunity to employ other risk treatments are to be assessed. This will include an assessment of the ignition management strategies, preparedness, property planning and community engagement activities. As with the review of fuel management, environmental, financial and amenity impacts must be considered.

* Investigate the potential for the implementation of other risk management strategies for the community.

5.3.1 Ignition Management

Ignition management strategies should aim to reduce the risk of bush fire ignitions within the bushland surrounding the community. Ignition management strategies may be implemented through the BFRMP framework or the BFMC's Ignition Prevention Plan.

Where ignition management strategies are already in place, opportunities to improve these strategies should be investigated. Where no ignition management practices are currently in

place for the community, discussions regarding the implementation of some appropriate strategies should occur with the BFMC. In determining whether ignition management strategies may be required for an area, fire history and ignition causes should be considered. Any additional ignition management strategies implemented for the community should be included in the works program of the Bush Fire Preparation Map.

5.3.2 Preparedness

The two aspects of bush fire preparedness that will be addressed as part of the CPP review of bush fire risk treatments is water supply and fire trail condition.

The ability of fire-fighters to access bushland areas surrounding a community will influence their overall bush fire preparedness. As part of the field investigations, Strategic and Tactical fire trails were inspected to ensure they are being maintained appropriately. Any additional works required to improve the condition of existing fire trails should be raised with the relevant land managers and the BFMC.

Furthermore, the need for new fire trails in bushland areas adjoining the community should be evaluated. The construction of new fire trails will be subject to discussion with the local brigade and BFMC.

Where fire trail works are to be undertaken, these works should be included in the Fire Trails Treatment Plan and where appropriate, the Bush Fire Preparation Map. Any Strategic or Tactical fire trails inspected during field investigations that have been omitted from Fire Access and Fire Trail Plan should be raised with the BFMC. Where appropriate, these features should be mapped by the BFMC in the Plan.

During major bush fire events, the water supply provisions for a community can impact on the effectiveness of fire-fighting operations. Additional water sources within the community were captured as part of the field investigations and consideration should be given to displaying them on the Operations Map. These supplementary sources of water should also be identified as a static water supply.

Where it is considered that the availability of water remains a risk that may affect fire fighting efforts within a community, enhancements should be investigated as part of the implementation phase of the CPP.

5.3.3 Community Engagement

An important aspect of reducing the risk of bush fire is the implementation of effective community engagement and education activities. Generally, community engagement activities in an area will be guided by the applicable BFRMP.

Existing community engagement strategies already in place as a treatment in the BFRMP, should be reviewed with opportunities to improve these strategies identified through the CPP. If there are no community engagement treatments currently included in the BFRMP for the area, negotiations should occur with the BFMC in order to implement some suitable activities. The Communication Strategy developed as part of the CPP process may assist in designing more effective engagement activities for the area. Engagement strategies for the community should be included in the works program of the Bush Fire Preparation Map.

5.3.4 Property Planning

The CPP will focus on reviewing property planning treatments in place for SFPP and hazardous material facilities.

For SFPPs, it is critical that the emergency management provisions that are in place for the property are appropriate. As such, a review of the Emergency Management and Evacuation Plan that was obtained in the earlier stages of the CPP process is to be undertaken. Where site inspections reveal that there are no plans in place, the preparation of such a document should be facilitated through the CPP. The review of existing plans and the establishment of new ones are to be undertaken as part of the implementation of the CPP.

* Emergency management arrangements for all SFPPs need to be reviewed with appropriate action taken during the implementation phase of the CPP.

Use the NSW RFS *Guidelines to Developing a Bush Fire Evacuation Plan* and the associated template when reviewing the suitability of existing plans and developing a new plan. Where a new plan is to be developed, this will be the responsibility of the management body for the facility. The NSW RFS and BFMC members should provide advice that assists in the preparation of the plan. Consultation should also occur with the LEMC when reviewing or developing an Emergency Management and Evacuation Plan for an SFPP facility.

For a hazardous material facility, property planning treatments should focus on the development of pre-incident plans by the local fire authority. This will assist in increasing the preparedness of fire fighters and aid in fire suppression within the facility. Pre-incident plans should be prepared as part of the implementation phase of the CPP.

Property planning treatments identified for the community should be included in the works program of the Bush Fire Preparation Map.

6 Prepare Draft CPP Maps

Following the review of bush fire risk treatments in place and identification of additional works / treatments, the draft CPP maps will be developed. This will involve the preparation of the following three maps:

- 1. Bush Fire Survival Map
- 2. Bush Fire Preparation Map
- 3. Operations Map

A summary of the each of the above maps are provided in Appendix 1. The *Community Protection Plan Mapping Guide* has been developed to assist in the development of each of the CPP maps. Please refer to this Guide when setting up the map documents and working through the map preparation process. Standard GIS layer files and templates have been prepared that will assist in maintaining consistency for the three CPP maps across the State.

6.1 Bush Fire Survival Map

The Bush Fire Survival Map will depict the following:

- a. Bush Fire Impact Areas
- b. Neighbourhood Safer Places
- c. Leave Early Options
- d. Access / Egress Roads

In addition to the above, standardised key messages for the community will be placed in the title block of the Bush Fire Survival Map. These messages will be linked to the Bush Fire Impact Areas and provide information to assist individuals in preparing a practical and realistic Bush Fire Survival Plan.

To increase the public's awareness of the ways in which information on bush fires can be accessed, details of key contacts for the community shall be provided on the Bush Fire Survival Map. This information will need to be amended for each CPP so that it is specific to the subject community.

Update the contact information for the community on the Bush Fire Survival Map.

Leave early options will be displayed as labels on the Bush Fire Survival Map and will simply provide suitable locations for people to go to should they decide to relocate well in advance of a bush fire (e.g. large townships). The Neighbourhood Safer Place locations and road information obtained in previous steps of the CPP process are to be displayed on the Bush Fire Survival Map.

Use map labels to show the leave early options for a community on the Bush Fire Survival Map. Neighbourhood Safer Place locations and road information are also to be identified on this map.

6.1.1 Bush Fire Impact Areas

The intention behind including Bush Fire Impact Areas on the Bush Fire Survival Map is to improve community understanding of the bush fire threat they face, the nature of fire and their ability to defend their home and property during a bush fire event.

Bush Fire Impact Areas will consist of polygons that extend from the bushland interface into the built up areas of the community. There are four categories:

- Flame Impact Captures all areas of the community that may be subject to flame attack, deadly levels of radiant heat and embers.
- Radiant Heat Impact Extends from the outer edge of the Flame Impact Area and includes areas of the community that may be subject to deadly levels of radiant heat and ember attack.
- Ember Impact Extends from the outer edge of the Radiant Heat Impact Area and captures areas of the community that may be subject to low levels of radiant heat and direct ember attack. This area extends 350m from the bushland interface where approximately 99% of house losses occur.
- Be Aware Captures the remaining areas of the community that may still be subject to some mechanisms of bush fire attack (e.g. smoke and embers).

The distances at which each of the above areas extends into the built up areas of the community will be influenced by the surrounding vegetation and the effective slope. This information was collected and validated during desktop analysis and field investigations. The applicable Forest Fire Danger Index (FFDI) for different areas of the State that should be used in the calculations are provided in Appendix 4. The equivalent Grass Fire Danger Indices (GFDI) are outlined in Table 1 below and should be used when assessing grassland areas.

FFDI	Equivalent GFDI
50	70
80	110
100	130
120	180

Table 1: Equivalent GFDIs

Fuel loads for the different vegetation classes are identified in *Bush Fire Protection for Existing Development*.

Based on the above information, use the recognised bush fire attack modelling tools to determine the width of the Bush Fire Impact Areas as per Table 2.

Category	Radiant Heat Threshold
Flame Impact	> or = 29 kW/m ² or point of flame contact
Radiant Heat Impact	<29 kW/m ² or point of flame contact - 10 kW/m ²
Ember Impact	<10 kW/m ² - 350m
Be Aware	The remaining area of the community

Table 2: Buffer Distances for Bush Fire Impact Areas

Using the recognised bush fire attack modelling tools, determine the width of the Bush Fire Impact Areas as per Table 2.

For grassland vegetation, Table 2 will still apply; however, the following criteria will be used to determine the Ember Impact Area:

• Ember Impact - <10 kW/m² - 100m

6.2 Bush Fire Preparation Map

The Bush Fire Preparation Map will depict the following:

- a. APZs (existing and proposed)
- b. SFAZs (existing and proposed)
- c. Tactical and Strategic Fire Trails
- d. Planned Hazard Reduction (optional)
- e. Resident / Occupant Preparation Area
- f. Works Program

Spatial data for existing APZs, SFAZs and fire breaks can be obtained from the approved BFRMPs for the area. It should be noted that in some cases these Zones, particularly APZs, may have only been described and not mapped within the BFRMP. In these circumstances, APZs and SFAZs should be mapped as polygons as part of the CPP process. Furthermore, proposed APZs and SFAZs that were determined as part of the review undertaken in Section 5.2 will be included on the Bush Fire Preparation Map in accordance with the *Community Protection Plan Mapping Guide*.

* APZs and SFAZs that have been described and not spatially referenced in the BFRMP should be mapped as polygons as part of the CPP process.

The built up areas within a community will be mapped as the Resident / Occupant Preparation Area in accordance with the *Community Protection Plan Mapping Guide*. This feature has been created specifically for the purposes of a CPP and does not constitute a Bush Fire Management Zone under BFCC Policy 1/2008. It has been designed to promote the concept of *shared responsibility* for bush fire management through the CPP process. Key messages linked to Resident / Occupant Preparation Area will be provided in the title block and are intended to prompt members of the community to take action and carry out a range of maintenance works within their property. This will also provide an opportunity to reinforce the need for residents to prepare a Bush Fire Survival Plan.

Map the built up areas of the community as the Resident / Occupant Preparation Area.

Tactical and Strategic fire trails and planned hazard reduction burns will also be included on the Bush Fire Preparation Map. Where relevant, additional hazard reduction burns determined as part of review undertaken in Section 5.2.3 are to be included on the Bush Fire Preparation Map in accordance with the *Community Protection Plan Mapping Guide*.

Display Tactical and Strategic fire trails and planned hazard reduction burns on the Bush Fire Preparation Map.

6.2.1 Preparing the Works Program

In the title block on the right hand side of the Bush Fire Preparation Map will be a table that provides details on risk treatments for the community. Where space permits, all risk treatment works are to be displayed in the works program. However, where space is limited, the works program should focus on hazard reduction works being undertaken within and surrounding the community.

The works program should be prepared in Excel and once completed, saved as an image and inserted into the map template as per the *Community Protection Plan Mapping Guide*. A map reference number specific to the Bush Fire Preparation Map will need to be provided within both the works program and on the map display area, so that treatments has can be spatially referenced.

Prepare an image of the works program and insert into the Bush Fire Preparation Map template.

6. 3 Operations Map

Once the operational data to be shown on the Operations Map has been validated, the final map can be prepared. Information on the Operations Map should include, but is not limited to the following:

- a. NSPs
- b. Brigade Stations
- c. Hazardous Materials
- d. Community Fire Units
- e. Communication Towers
- f. Helipads
- g. Hydrants
- h. Static Water Supplies
- i. Fire Trails
- j. SFPP Facilities
- k. Community Assets (optional)
- I. Fire History
- m. Details of SFPP Facilities (non spatial)
- n. Details of Hazardous Materials (non-spatial)

As a minimum, hazard reduction burns and bush fires that have occurred in close proximity to the community in the past five years should be included as fire history on the Operations Map.

Fire history beyond the five year time frame can be included depending on the circumstances of the area.

Any other relevant information collected as part of the field investigations that is considered to be important from an operational perspective can also be included on the Operations Map.

Add the field verified data sets into the Operations Map template.

6.3.1 Preparing the SFPP Table

Information regarding SFPP facilities within the area is to be included in the title block of the Operations Map. This information will be presented as an easy to read table that is linked with the spatial data and provides details for each of the SFPP facilities.

6.3.2 Preparing the Hazardous Material Table

A table that provides information on the nature of properties, structures and facilities within the community which store hazardous materials will also be provided in the title block of the Operations Map. Such materials will require special fire fighting techniques to manage or extinguish should they ignite. Information provided in the hazardous material table will be linked to the spatial layer collected as part of the field investigations step of the CPP process.

Prepare SFPP and hazardous materials tables and incorporate into the Operations Map.

6.3.3 Preparing the Community Assets Table

There may be other assets that are considered important for the community by local fire fighters that do not constitute a SFPP or hazardous material facility. These assets can be included on the Operations Map as Community Assets in a separate table within the title block. Assets identified in the table need to be linked to the spatial information provided on the map.

©Consider including an additional table for Community Assets in the Operations Map.

7 Community Consultation

Prior to community consultation, the draft CPP maps are to be provided to members of the BFMC and LEMC for comment. Where appropriate, any comments or concerns raised by the BFMC and LEMC should be accounted for before consultations occur with the community. Comments from the BFMC and LEMC as well as subsequent actions taken should be recorded on the Issues Spreadsheet (see Appendix 5).

The CPP maps are to be to be provided to members of the BFMC and LEMC for comment prior to community consultation.

Following BFMC and LEMC review, consultation should occur with the broader community. The community consultation process will be guided by the CPP Communication Strategy. Community consultation is often resource intensive and adequate time will need to be allocated in order to be successful. The CPP must be relevant to the community and the best way to gauge relevance is to carry out effective consultation with those impacted by the plan.

Consultation with community members on CPPs should focus on building relationships, gaining an understanding of community values and engaging in open discussion on their perception of the bush fire risk. Information regarding the level of bush fire awareness and preparedness within the community should also be sought. A survey could be used to capture this type of information. Consultations should provide an opportunity for residents to voice their concerns and openly discuss what they perceive as the main bush fire issues for their area.

Community members need to be informed on the purpose of the CPP, emphasising the development of a Bush Fire Survival Map, and the processes involved. To assist in communicating the CPP concept, a copy of the draft Bush Fire Survival Map and draft Bush Fire Preparation Map should be discussed at the consultation sessions. Additional maps containing other important information for the community, such as environmental and cultural assets, may also be prepared to assist with the consultation process.

The draft Bush Fire Survival Map and draft Bush Fire Preparation Map should be discussed with members of the community during consultations.

Thoughts, ideas and comments from community members during these consultations should be sought and recorded on the Issues Spreadsheet. Actions and responses to the matters raised by the community should also be recorded on the Issues Spreadsheet. Where appropriate, follow up sessions should be held with community groups to ensure they have sound understanding of the CPP and are kept well informed on its development.

Communications with community members also provide an opportunity to find out what individuals plan to do in the event of a bush fire and if they have prepared a Bush Fire Survival Plan. Where individuals have not prepared a plan, copies of the Bush Fire Survival Plan should be at hand and passed on.

Furthermore, community consultation should also seek out the most suitable way in which the approved CPP should be promoted and made available to members of the public. This will assist in refining the Communication Strategy for the promotion of the CPP. It is important that details regarding the community consultations are documented, which would include recording one-on-one discussions and maintaining the Issues Spreadsheet.

Details regarding the consultations with the community must be documented on the Issues Spreadsheet.

Once the community consultation phase for the CPP is complete, consultations should be communicated with BFMC and LEMC members.	the	outcomes	of

8 Preparation, Submission and Approval of the CPP

Once the draft CPP has been developed and the community consultation process is complete, a final draft version of the CPP shall be prepared for submission to the relevant PESC Manager for endorsement. The endorsed final draft CPP will then be submitted to the BFMC for approval. Details regarding the approval process for CPPs are outlined below.

🤭 Final draft versions of the CPP are to be endorsed by the PESC Manager and approved by the BFMC.

8.1 Preparation of the Final Draft CPP

The final draft CPP is to be prepared using the standard GIS layer files and map templates and should contain the information listed in Appendix 1 and Section 6. The Community Protection Plan Mapping Guide will also assist in the preparation of the final draft CPP maps.

Supporting documentation will need to be prepared and submitted with the final draft CPP maps to the PESC Manager. This will include a report to the BFMC which will outline some of the key activities that took place during plan preparation and recommendations that have resulted from the development of the CPP. Both the responsible PESC and D/T/Z officers will be required to provide support for the CPP prior to submission to the PESC Manager. Support for the CPP will be formalised through a memorandum to the PESC Manager.

8.2 Endorsement by PESC Manager

The next step is to submit the maps and supporting documentation to the PESC Manager for endorsement. The endorsement provided by the PESC Manager will certify that the CPP has been prepared in accordance with this Guide and BFCC Policy 1/2008. It will also assist in maintaining consistency across the State.

8.3 Approval by BFMC

The BFMC is to consider the final draft version of the CPP submitted by the PESC Manager and decide to approve it or not. The decision to approve the final draft CPP should be based on the criteria provided in Section 12 of Annex B BFCC Policy 1/2008. Once the CPP has been approved, the BFMC should also consider the preferred approach to incorporating the CPP into the BFRMP.

♦ Following approval of the CPP the BFMC should consider the preferred approach for incorporating the CPP into the BFRMP.

The approved CPP and associated data are to be provided to NSW RFS HQ so that they can be posted on the public website and added to the corporate system. Evidence regarding the approval of the CPP by the BFMC needs to be documented and should be recorded in the meeting minutes. The date of BFMC approval is to be noted on each of the CPP maps.

Provide the approved CPP and associated data to NSW RFS HQ.

9 Promoting and Implementing the CPP

The promotion and implementation of the CPP will be the most important factor that will influence the overall success of the plan. This will involve engagement of the community using the Bush Fire Survival Map, implementing works identified in the Bush Fire Preparation Map and utilising the Operations Map for pre-incident planning and fire fighting operations. The responsibility for promoting and implementing the CPP will rest with the BFMC.

9.1 Promoting the Bush Fire Survival Map

The promotion of the Bush Fire Survival Map within the community will be guided by the CPP Communication Strategy and learnings gained through consultation with the community. Whilst it will be important to have the Bush Fire Survival Map on display in strategic locations (e.g. Post Office, Tourist Information Centres, Council Office, relevant web pages etc.), the active promotion of the Map also needs to be considered. Active promotion should attempt to engage as many community members as possible and community groups / leaders involved in the CPP process may be able to assist.

Throughout the promotion and consultation with the community on the approved CPP, it is important that members of the public understand the purpose of the Bush Fire Survival Map. It needs to be clearly communicated that this map provides essential information for them to make informed decisions in the event of a bush fire. Furthermore, it is also imperative to emphasis the link between the Bush Fire Survival Map and the Bush Fire Survival Plan.

9.2 Implementing the Bush Fire Preparation Map

The implementation of treatment works within and around the community should occur in accordance with the Bush Fire Preparation Map and associated works program. A cooperative approach between land managers, fire services and the community is to be adopted in the implementation of required works and enhancing the bush fire protection for the area. Where practical, opportunities to enhance ecological processes (e.g. weed management) following the implementation of hazard reduction works should be explored by BFMC members.

With regard to private allotments that require fuel management works, all attempts should be made to engage the community on bush fire preparedness and empower residents to undertake hazard reduction within their property. The CPP process aims to achieve this outcome as such an approach is more likely to result in a long term benefit rather than a one-off exercise that often results when issuing a Bush Fire Hazard Reduction Notice.

However, in all cases, where sufficient time has been provided for the implementation of works and no action has been taken by the land owner / manager, the NSW RFS must consider issuing Hazard Reduction Certificates and Notices in accordance with Policy P6.1.4 *Bush Fire Hazard Complaints and Notices*. If required, certificates and notices are to be issued as part of the implementation phase of the CPP.

9.3 The Operations Map

Following BFMC endorsement of the CPP, the Operations Map should be provided to the captain of the local brigade, the D/T/Z office, the local Fire and Rescue NSW office and any other relevant emergency service agencies for the area. This map is to be used to assist with pre-incident planning exercises and made available to out of area brigades and other emergency services during fire fighting operations.

10 Monitor and Review

A CPP forms a key element of community safety and it will be necessary that it remains current and reflects local circumstances. The currency of the CPP is to be monitored by the BFMC and should be reviewed in accordance with Appendix 1. An extensive review of the CPP, including stakeholder consultation, should be undertaken every 5 years. This review could occur in conjunction with the preparation of an updated BFRMP for the BFMC area.

Appendix 1. Overview of the CPP Maps

The details associated with each of these maps are outlined in the Table 3 below.

Title	CPP Objective	Purpose	Key Information	Review Requirements
Bush Fire Survival Map	1 and 2	This map will be actively promoted and readily available to the community. The Bush Fire Survival Map will include information on the potential bush fire threat, the safety of access / egress provisions, early relocation options and contingency shelter options. This information can then be used by members of the community when preparing their personal Bush Fire Survival Plan.	The Bush Fire Survival Map will show; - Bush Fire Impact areas - Leave Early Options - Access / egress - Neighbourhood Safer Places	The Bush Fire Preparation Map must be reviewed and updated every 5 years. A review may also be triggered by: - A major bush fire event or; - Changes to the bush fire risk - Review of the BFRMP
Bush Fire Preparation Map	3	This map will provide information for land managers, fire agencies and community members on details of the existing and proposed bush fire risk treatment works for the area. The map will also provide information that will prompt residents / occupants to take action to reduce their bush fire risk.	The Bush Fire Preparation Map will show; - APZs - SFAZs - Fire Trails - Planned Hazard Reduction (Optional) - Resident / Occupant Preparation Area - Works Program The works program will provide details on the implementation of risk treatments (i.e. community engagement, ignition management etc.) within the community.	The Bush Fire Preparation Map must be reviewed and updated annually (prior to the start of the bush fire season). A review may also be triggered by: - A major bush fire event or; - Changes to the bush fire risk - Review of the BFRMP.

Title	CPP Objective	Purpose	Key Information	Review Requirements
Operations Map	4 and 5	This provides brigades and other fire fighting agencies with important data relevant to the community to be used for operational purposes only. It will include sensitive information on the location and nature of SFPP and hazardous material facilities.	The Operations Map will show a range of pre- incident data that is relevant to the community. This will include, but not limited to the following; - Hydrants - Static Water Supplies - SFPPs - Brigade Stations, - Community Fire Units - Communication Towers - Helipads - Fire Trails - Neighbourhood Safer Places - Hazardous Material Storage - Community Assets (Optional) - Fire History Tables will be included on the map that provides details of SFPP and hazardous material facilities within the community.	The Operations Map must be reviewed and updated annually (prior to the start of the bush fire season). A review may also be triggered by; - A major bush fire event or; - Changes to the bush fire risk - Review of the BFRMP.

Table 3 - The CPP Maps

Appendix 2. Communication Strategy

A Communication Strategy involves developing and implementing a process to identify and address the needs, issues and concerns of stakeholders through the preparation of a CPP.

The purpose of a Communication Strategy is to:

- ensure that specific and targeted communication occurs with the community;
- ensure that the community's concerns and perceptions of bush fire risk are identified, understood, documented and addressed;
- improve community confidence in understanding potential bush fire risks and the different treatment strategies that can be employed to manage these risks;
- provide the community with a sense of ownership of the CPP;
- educate the community regarding their responsibilities in bush fire risk management, so they can contribute to risk reduction.

Consultation with the local community is an essential part of preparing a CPP and should be undertaken throughout the development process and during the implementation stage. A CPP is designed to provide information to all members of the community and ongoing communication as part of the process will ensure its success and relevance. The community will more likely support and make use of the CPP where they have been involved in the preparation and implementation of the plan.

Effective communication and consultation requires time and the exchange of information should be two-way, rather than a one-way flow of information from government to the community. This will include the delivery of follow up session to ensure that stakeholders have sound understanding of the CPP and are kept well informed on its development.

Who develops the Communication Strategy?

As per Figure 2, the CPP Communication Strategy is to be prepared by the NSW RFS in consultation with the BFMC. Input from local practitioners and brigade members on communication methods that have and haven't been successful in the past will be critical in developing an effective Communication Strategy.

What does a Communication Strategy involve?

There is no set standard for a Communication Strategy and its content will be largely dependent on the demography of the local community as well as time frames and resources available. Figure 3 outlines steps to assist in developing an effective, area specific Communication Strategy. Information on what to do at each step is provided in more detail below.

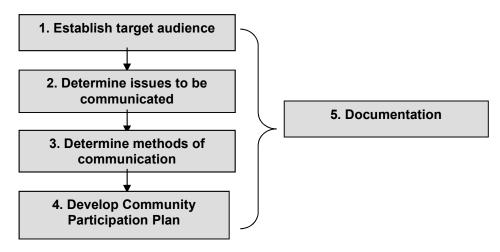


Figure 3 Steps to Developing a Communication strategy

Establish a Target Audience

All persons within the identified community will have a direct stake in the CPP and should have the opportunity for input into its development and implementation.

Table 4 provides examples of groups that may be targeted when preparing a CPP. These examples are not exclusive, and area specific investigation may identify groups that have not been listed but should be included.

Target Audience	Description		
Community	People who live or have assets within the area		
Community groups	Formal and informal networks operating within the community such as:		
Local government networks	Local government/community interactions and formal and		
	informal networks		
Community Fireguard Groups and Community Fire Units	Formal volunteer groups with an active interest in fire management.		

Table 4 - Example of Target Audiences for a CPP

Determine Issues to be Communicated

The stage of the CPP process will influence the nature of the consultation and issues to be communicated with members of the public. The key messages to be communicated during the development stage and the promotion of the CPP are identified in this Guide. Effective consultation with community groups and LEMCs as well as collaboration with BFMC members and the local brigade will be vital to the overall success of the CPP.

Determine Appropriate Methods of Communication

Different consultation methods using different medium may be required to address various audiences within the community. Most importantly the methods of communication that are utilised should have regard to the needs of the audience being targeted. Information should be presented in a simple, non technical, clear and unambiguous form and consider the cultural and language differences of the community.

When determining the method for targeting members of the public, consider the needs and interests of the community and the likelihood of them participating. It can be very difficult to engage the community if they are not particularly interested or aware of what is involved (i.e. if there have been no recent fires then the awareness and interest of the community in regards to bush fire risk may be low). It is important that the past experiences of local practitioners and brigade members are also considered in determining the most appropriate communication methods. Table 5 provides some examples of communication methods that can be used to engage community members.

Communication method	Description
Community meetings	Initiating community meetings, facilitating open forums, semi structured discussion. Community Map should be made available
Community Kiosks	An informal workshop with displays and small group discussions.
Community Displays	A display set up in a public place such as a shopping mall or fete. A large, clear copy of a map for the local area may attract attention
Pre-planned meetings	Providing speakers to present at pre- organised conferences / meetings (e.g. Landcare, Rotary or Brigade meetings.
Panels and focus groups	Establish community panels or focus groups that meet regularly to discuss issues throughout the development process.
Media	Use the local press and radio to relay announcements, distribute information and promote community meetings

	Provide information and advertise community meetings via letterbox drops, posters on community notice boards.
Mail-outs	Letters to capture community members who may not have accessed the information in other ways.
Information phone line	Set up a contact number for public inquiries and comments. This allows for participation from community members that may not attend meetings.
Information email address	Set up an email address for public enquiries and comments. Allows for participation from community members that may not attend community meetings.

Table 5: Example of Communication Methods

Development of Community Participation Plan

A Community Participation Plan should be prepared as part of the Communication Strategy. As a minimum, the participation plan should outline the timing of key consultation activities, the target audience, methods of communication, key messages and resources required. An example of a Community Participation Plan is provided below.

Documentation

Documentation is important in demonstrating how the consultation process was undertaken in developing the CPP. It will assist in providing an accountability mechanism and an auditable trail for the delivery of key communication activities.

In addition to the Community Participation Plan, an issues spreadsheet (see Appendix 5) should also be created and maintained for recording public comments and subsequent actions taken as a result.

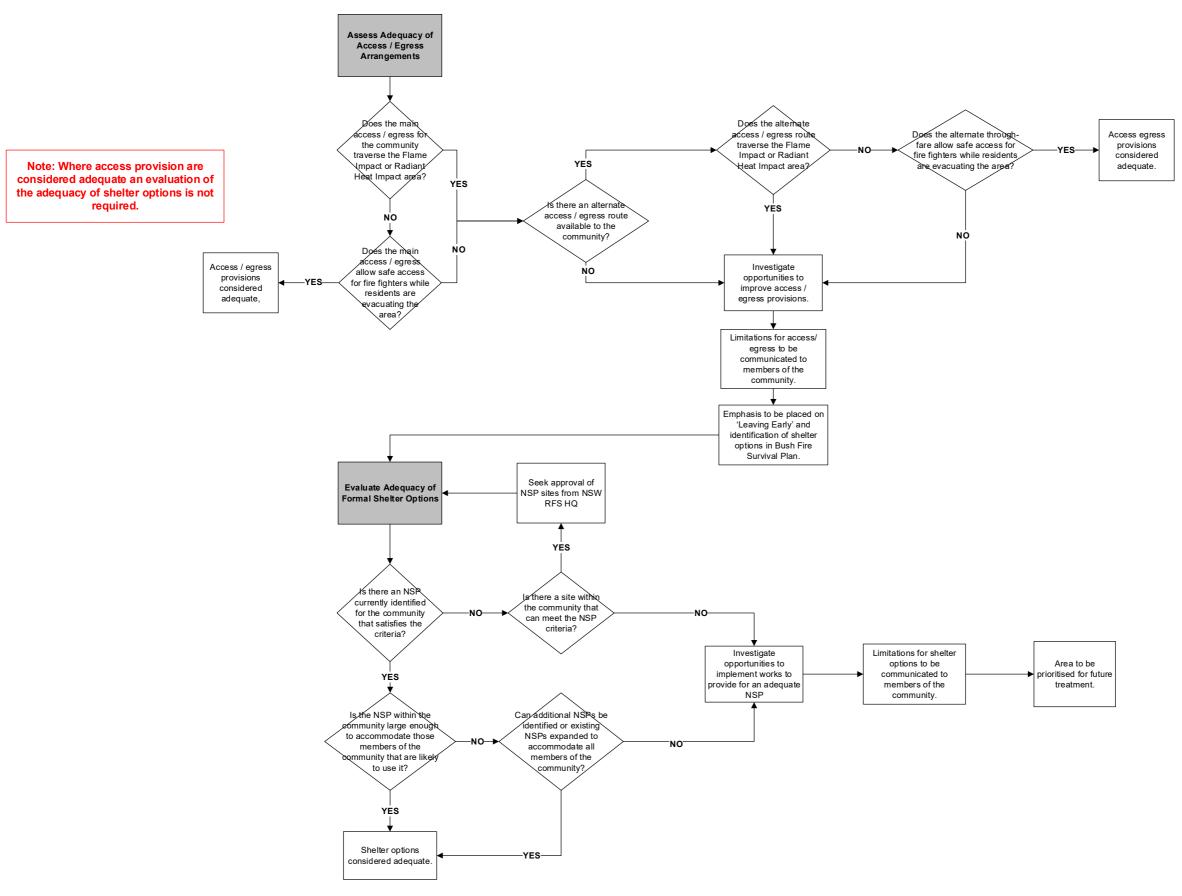
Example of a Community Participation Plan

Date	Target Audience	Method of communication	Method of notification	Key messages/ purpose	Resources required
10.10.19	NSW RFS	Meeting between PESC and D/T/Z.	NSW RFS correspondence, phone calls	introduce CPP process and Guide discuss roles and responsibilities set ground rules for the development CPP develop partnership for preparation of CPP	powerpoint presentation presenter maps
15.10.19	NSW RFS Brigade Captains	Presentation at Captains meeting	NSW RFS correspondence, phone calls	introduce CPP concept discuss importance of brigade involvement discuss how brigade can be contribute	powerpoint presentationpresentermaps
18.10.19	BFMC	BFMC meeting	Letter to BFMC Executive Officer	 introduce CPP process and Guide discuss how CPPs fit in to the broader bush fire risk planning framework and BFCC Policy. discuss how agencies can contribute to the development of the CPP develop partnerships for preparation of CPP discuss further progression of the CPP 	 powerpoint presentation presenter maps
20.10.19	LEMC	LEMC meeting	Letter to LEMC Executive Officer	 introduce CPP process and Guide discuss how CPPs fit in to the broader bush fire risk planning framework and BFCC Policy. discuss involvement of the LEMC in the CPP process discuss further progression of the CPP 	powerpoint presentationpresentermaps

Date	Target Audience	Method of communication	Method of notification	Key messages/ purpose	Resources required
24.11.19	Community Association	Workshop / Information Session	Phone Calls and Emails to Community Association	introduce CPPs present draft CPP maps canvass issues and perceived risks from members of the association discuss treatment options potential implications for the community association community association responsibilities discuss options for promotion of final CPP maps	powerpoint presentation presenter maps handouts
25.11.19	Retirement Village – Body Corporate	Workshop / Information Session	Phone Calls and Emails to Body Corporate	introduce CPPs present draft CPP maps canvass issues and perceived risks for the village discuss treatment options potential implications for the retirement village responsibilities of the body corporate discuss options for promotion of final CPP maps	powerpoint presentation presenter maps handouts
25.11.19	Vulnerable Resident Service Providers	Workshop / Information Session	Correspondence with key contacts for vulnerable resident service providers.	introduce CPPs present draft CPP maps canvass issues and perceived risks from the providers discuss treatment options potential implications for the service providers responsibilities of the service providers discuss options for promotion of final CPP maps	powerpoint presentation presenter maps handouts

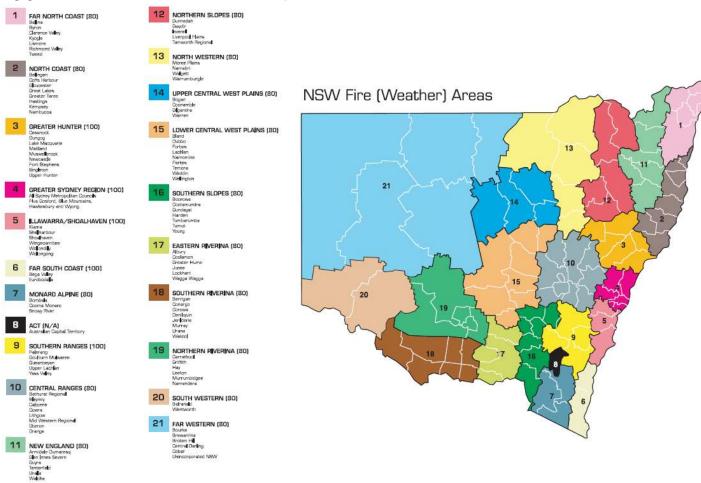
Date	Target Audience	Method of communication	Method of notification	Key messages/ purpose	Resources required
26.11.19	General public	Community Meeting	Article in local newspapers Notice on the public notice board	introduce CPPs present draft CPP maps canvass community issues canvas perceived risks discuss treatment options community responsibilities discuss options for promotion of final CPP maps	 media article venue facilitator/s powerpoint presentation presenter maps handouts
16.12.19	General public	Attend School Fair	Set up display at the local school fair.	Promote Bush Fire Survival Map and associated key messages	 AO version of Bush Fire Survival Maps NSW RFS representatives Community Engagement Trailer
20.01.19	General public	Attend Flower Festival	Set up display at the annual flower festival.	Promote Bush Fire Survival Map and associated key messages	 AO version of Bush Fire Survival Maps NSW RFS representatives Community Engagement Trailer
Ongoing	General public	Posting of Maps within Community	Post copy of Bush Fire Survival Map at Tourist Information Centre, Post Office and on NSW RFS public website	Advertising and promoting the final Bush Fire Survival Map	 AO version of Bush Fire Survival Maps PDFs for NSW RFS website. Advertising space at Tourist Information Centre and Post Office

Appendix 3. Access / Shelter Assessment Flow Chart



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Appendix 4. Forest Fire Danger Indices for NSW



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Appendix 5. Issues Spreadsheet

Issues Spreadsheet for the Community Protection Plan

Date Received	Name and Address of Person/Organisation	Submission Details	Consideration	Recommended Action