



UNDERSTANDING BUSHFIRE RISK, WARNINGS AND RESPONSES: A STUDY OF THE 2018 REEDY SWAMP FIRE

Research for the NSW Rural Fire Service

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Cover: The bushfire threatens Tathra. Photo: Caleb Keeney, Timberline Helicopters.



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EXECUTIVE SUMMARY

BACKGROUND

On Sunday 18 March 2018 a bushfire impacted on the communities of Reedy Swamp and Tathra in the Bega Valley Shire on the NSW south coast. The fire, known as the Reedy Swamp Fire, destroyed 65 and damaged 48 homes. 35 caravans and cabins were also destroyed. The fire displaced approximately 700 residents on the day, as well as an unknown number of tourists and visitors to Tathra. Fortunately no human lives were lost.

RESEARCH SCOPE AND METHODS

The NSW Rural Fire Service (NSW RFS) commissioned the Bushfire and Natural Hazards Cooperative Research Centre to undertake research into community preparedness and responses to the Reedy Swamp Fire. The University of Wollongong and Macquarie University were engaged by the Bushfire and Natural Hazards Cooperative Research Centre to conduct this research. The NSW RFS Statement of Work identified the following themes for investigation:

Establishing the community context

- Understand the socio-demographic characteristics of the community
- Identify and document the history of previous bushfires in the area

Community planning (long term)

- Assess the community's perception of bushfire risk prior to the Reedy Swamp Fire
- Assess community awareness and attitudes toward bushfire risk reduction activities in the area over recent years such as: Hazard reduction burning; Fire trail management; Bushfire construction measures for dwellings; Mechanical works, such as establishment and maintenance of Asset Protection Zones (APZs); community engagement; and ignition management

Community preparation (short term)

- Identify what information and sources people used when planning and preparing for bushfire
- Identify what action people took to prepare for this fire season, including fire plans and preparedness measures
- Establish what the community's perception of the risk posed by the forecast fire danger rating and conditions leading into the bushfire, and their subsequent response



Community responses to the fire

- Establish how the community became aware of the bushfire and how they reacted to it
- Identify if people were able to implement their fire plan. Why they did/did not implement their plan
- Identify what information people sought about the fire and how they obtained it and what they did with it
- Establish how people/ businesses hosting non-residents responded to the fire;
- Establish the community's expectation of warnings and information, particularly in known mobile coverage black spots;
- Establish the effectiveness of warnings delivered to the community during the fire event, and the resulting actions taken as a result of these warnings
- Identify if the time of year (i.e., later in the bushfire season) influenced how people responded to the fire

Community responses after the fire

- Identify the experiences of the community in the aftermath of the bushfire, such as communication and information, evacuation centres, returning home etc.
- Establish how people intend to plan, prepare and respond to a bushfire in the future.

Investigation and analysis of firefighting responses and building impact assessments were outside the scope of this research.

The research involved 87 interviews with 120 people affected by the Reedy Swamp Fire. Interviews were audio recorded with each participant's consent and transcribed in full, generating over 1300 pages of interview transcript. Qualitative analysis of interview data was undertaken using the qualitative data analysis software *NVivo 11*. This process involved careful reading and rereading of each interview transcript and sorting (coding) information related to the issues and themes under investigation to derive summary findings (Thomas 2006).



KEY FINDINGS

1. Assess the community's perception of bushfire risk prior to the Reedy Swamp Fire

Key insight – Many residents within the town of Tathra were not aware of the bushfire risk.

- Residents with properties within or adjoining the forest tended to be more aware of the risk posed by bushfire and were more likely to have taken action to plan and prepare.
- Tathra residents often referred to the forest that adjoins the town's western edge as the prime source of bushfire risk.
- Many people within the town had not considered that a bushfire could impact on Tathra, or had not considered the potential for a bushfire to penetrate beyond the forest edge (e.g. via embers).

2. Assess community awareness and attitudes toward bushfire risk reduction activities

Key insight – Many people were aware of activities that had been undertaken to reduce bushfire risk, including hazard reduction, Asset Protection Zones (APZs) and RFS community engagement. These activities were viewed positively and were believed to have reduced bushfire risk in the area.

- Hazard reduction burns were the risk treatment most commonly discussed by residents. Most people viewed hazard reduction burns positively, believing they were effective in reducing the severity of the fire. Some people believed more hazard reduction was needed.
- Some interviewees were aware that APZs had been established in areas where houses adjoined bushland and were aware of recent works to maintain them. APZs were believed to have reduced the severity of the fire.
- The Tathra RFS brigade was seen to have reduced risks through community engagement activities, including encouraging people to make a bushfire survival plan and advising people to clear vegetation around houses.
- A small number of interviewees stated that more needed to be done to plan and prepare for evacuation of Tathra in the event of a bushfire.

3. Identify what information sources people used when planning and preparing

Key insight – People use a diverse range of information sources when planning and preparing for bushfire. Lessons from past fires can be influential in people's thinking and planning for bushfire.



- Residents who were aware of the risk posed by bushfire used a diverse range of information sources when planning and preparing. These included information and advice from NSW RFS members and the NSW RFS website.
- Images and information about past bushfires influenced some people's fire plans. For example, recollections of the 2009 Black Saturday bushfires influenced some people's plans to leave.

4. Identify what action people took to prepare, including fire plans and preparedness measures

Key insight – Many interviewees described preparation as something that is done when a fire is threatening, rather than actions taken in advance of a bushfire. Only a small number of households had dedicated firefighting resources and many planned for late evacuation.

- Some people within the town of Tathra were unaware of the bushfire risk and had done little or nothing to prepare for bushfire.
- Those who lived in streets adjoining or within the forest were more likely to have planned and prepared for bushfire, although levels of preparedness still varied considerably.
- Only a small number of households represented in the interview sample had dedicated firefighting resources such as water tanks, pumps, and firefighting hoses.
- Many interviewees described preparation as something that is done when a bushfire is threatening, rather than actions taken in advance of a fire starting.
- Some residents appeared to have planned and prepared for last-minute evacuation, describing measures such as getting cars out of garages and positioning them facing forward for a quick escape.

5. Establish the community's perception of the risk posed by the forecast fire danger rating and conditions leading into the bushfire, and their subsequent response

Key insight – While many people were aware of the forecast fire danger rating or hot and windy conditions, there was little evidence of preparatory activity in response to these forecasts.

- Some people were aware that Sunday 18 March was forecast to be a day of Severe Fire Danger. Others were unaware of the exact Fire Danger Rating but were aware that the day was forecast to be hot and windy.
- Aside from a heightened sense of awareness of bushfire risk, there was little evidence of preparatory activity in response to these forecasts.



6. Establish how the community became aware of the bushfire and how they reacted to it

Key insight – Most people became aware of the fire by seeing or smelling smoke or communication with relatives, friends or neighbours, but many did not believe it would impact on Tathra.

- Most people became aware of the Reedy Swamp Fire after seeing or smelling smoke, or via communication with relatives, friends or neighbours.
- For some residents, knowledge that there was a fire nearby caused concern and motivated preparatory or proactive action. Many other noted the presence of the fire but did not believe it was a threat and continued with what they were doing.

7. Identify if people were able to implement their fire plan

Key insight – Most of those who did have a plan were able to implement it. Nevertheless, many who intended to leave reflected that they left too late. There were also people who had not planned or prepared for bushfire who stayed to defend their own and neighbours' houses.

- Many people did not have a firm plan for what they would do in the event of a bushfire. Most of those who did have a plan were able to implement it.
- Most of those who intended to leave when threatened by fire were able to leave; however, some reflected on how they left too late.
- Some of those who intended to stay and defend decided to evacuate when they saw the fire, when they were advised to leave by authorities, or when attempts to defend their house and property failed.
- There were people who had not planned or prepared to stay and defend, including some who had not planned for bushfire at all, who stayed to defend their own and neighbours' houses against the fire.

8. Identify information sought about the bushfire, how it was obtained and used

Key insight – In the absence of adequate emergency information, many people sought information about the fire through direct observation of smoke, flames and the activities of neighbours and emergency services.

- The loss of electricity, mobile phone reception, and issues relating to the broadcast of emergency information into the local area impeded the communication of warnings, information and advice to people in Reedy Swamp and Tathra.
- Consequently, many people sought information about the fire through direct observation of smoke, flames, and the activities of neighbours and emergency services. Many travelled to places where they could observe



the fire for themselves, such as the Mogareeka carpark and Thompsons Drive.

- People sought information and advice from ABC Local Radio about whether and where to evacuate to. The limited emergency information broadcast on ABC Radio meant many people relied on advice from police and others within the fire affected area about where to evacuate to.

9. Establish how people/businesses hosting non-residents responded to the fire

Key insight – Mandated evacuation plans and emergency procedures assisted accommodation providers to evacuate guests; however, many of these evacuations were last-minute.

- A range of local businesses were hosting non-residents when Tathra came under threat from the bushfire. These businesses included caravan parks, hotels, motels, restaurants, cafes, and local clubs such as the bowling and golf clubs.
- All accommodation providers were able to alert their guests to the bushfire and instructed them to evacuate. Some evacuations occurred as the fire was impacting on Tathra. Mandated evacuation plans and emergency procedures assisted the evacuation process.

10. Establish the community's expectation of warnings and information, particularly in known mobile phone coverage black spots

Key insight – Most interviewees were aware of mobile phone black spots and many had considered that they might not receive a SMS warning. There was an expectation that ABC Local Radio would provide ongoing coverage of emergency warnings and information throughout the fire.

- Most interviewees were aware, prior to the fire, of the limited mobile phone coverage in the Tathra and Reedy Swamp areas. Some had considered that they might not receive a SMS warning in a bushfire or other emergency.
- Some people expected warnings and advice to be provided earlier, before power and communications infrastructure failed.
- There was an expectation that ABC Local Radio would provide ongoing ('rolling') coverage of emergency warnings and information throughout the fire.
- Some people expected that firefighters and police would issue warnings and advice directly to those at risk.
- Some interviewees were critical of others in the community who they believe waited for official warning and advice before taking action.



- Interviewees identified the need for improved mobile phone network coverage in the Tathra area. Some suggested that a siren or klaxon should be installed to alert people of an emergency in the event that telecommunications infrastructure fails.

11. Establish the effectiveness of warnings delivered to the community during the fire event, and the resulting actions taken

Key insight – Many people did not receive warnings, or received warnings late, due to power and mobile phone outages. The loss of power and mobile phone coverage and the limited emergency information broadcast on ABC Local Radio contributed to uncertainty and confusion about whether, when and where to evacuate to.

- Discussions related to the effectiveness of warnings focused on the role of the power and mobile telephone outages in impeding the delivery of messages.
- Some interviewees were aware that they did not receive landline telephone messages because they had cordless telephones, which require electricity to operate.
- Many people received SMS warnings late, once they were leaving or had already left, most likely because they had entered areas with mobile telephone network coverage.
- The loss of power and mobile phone coverage and the limited emergency information broadcast on ABC Local Radio contributed to uncertainty and confusion about whether, when and where to evacuate to.
- Some people who received warnings via landline telephone and SMS did find the warnings useful. Although they were already aware of the fire, receipt of an official warning confirmed the threat posed by the fire and the need to take action.
- Some of those who received a warning advising them to seek shelter were unsure what 'seek shelter' meant and therefore did not understand what the message was advising them to do.

12. Identify if the time of year influenced how people responded

Key insight – Those with prior awareness of local bushfire risk understood that the hot and windy conditions experienced on the day increased the risk of destructive bushfires, despite the time of year.

- Some interviewees had been aware that the 18 March was forecast to be a day of Severe Fire Danger, or were aware of the forecast hot and windy conditions. Nevertheless, some expressed surprise that such a destructive bushfire could occur in mid-March.
- A small number of interviewees discussed how their belief that the bushfire season was over influenced their preparedness and response.



For example, one resident who avoids travel during the bushfire season was away and was unable to defend his house as planned. Another had been using a dedicated bushfire pump to pump water at a dam.

13. Identify the experiences of the community in the aftermath of the bushfire

Key insight – The three issues that concerned people most in the immediate aftermath of the fire were: i) finding out that houses had been destroyed via media reports and images, rather than official communications; ii) the presence and conduct of media teams in the evacuation centre; and iii) insensitive and sensationalist media reporting, including attempts to apportion blame.

- In the aftermath of the fire, people experienced a range of common issues related to: evacuation centres; post-fire communication and information; the conduct of media and politicians; asbestos; and concerns about the local environment.
- While most people were impressed with the services being provided at the evacuation centre, some were uncomfortable with the media presence and many were frustrated by rumours that were circulating about the impact of the fire on Tathra.
- People were distressed to find out via media reports and images, rather than official communications, that their house had been destroyed.
- The conduct of media teams within the evacuation centre was questioned by some people. For example, it was alleged that a photographer knocked over a child while attempting to photograph a politician. People questioned whether media should be allowed into evacuation centres.
- Some interviewees were upset by what they saw as insensitive and sensationalist media reporting, and attempts to apportion blame. For example, an interviewee whose home had been destroyed resented a journalist's questions about an alleged feud between fire services, while another was upset by a newspaper story the day after the fire that questioned whether Tathra was 'cursed' after a series of recent tragedies.
- In the hours and days after the fire, many residents were able to pass through or circumvent road blocks to return to Tathra, in a period where access was intended to be restricted.
- A small number of interviewees were concerned that too many trees were being cleared in the aftermath of the fire, reducing habitat for native animals and degrading landscape amenity.



14. Establish how people intend to plan, prepare and respond to bushfire in the future

Key insight – Some of those who left expressed a reluctance to leave in future fires. Their intention to remain was based on a desire to avoid the inconvenience of being prevented from returning, rather than a desire to defend a house or property.

- Interviewees reflected on specific changes they would make to their properties such as removing mulch from garden beds around the house, removing trees, obtaining longer hoses, and installing sprinkler systems.
- Many of those who left at the last moment said they would leave earlier in a future bushfire and would be more prepared to gather animals and valuable items.
- Those who stayed to defend identified the need for better equipment and resources such as dedicated firefighting hoses, pumps and water supply, as well as personal protective equipment such as goggles, masks and appropriate clothing.
- A number of people who left or evacuated during the Reedy Swamp Fire said they would not leave in a future bushfire, or would be reluctant to leave. Interestingly, some intended to remain within the fire affected area not because they had a strong desire to defend their house and property, but because they wanted to avoid the inconvenience of being prevented from returning.

IMPLICATIONS AND OPPORTUNITIES

The findings presented in this report have numerous implications and present possible opportunities for NSW RFS communications and community engagement. These include:

- Opportunities to increase community awareness and preparedness for bushfire through clearer communication of the potential for embers to carry bushfire into urban or suburban settlements. A significant challenge is that many people in these environments may not see themselves as the 'target audience' for such messages.
- People in bushfire risk areas should be encouraged to develop or update their plans based on the most up-to-date information and advice available. Education materials and campaigns should emphasise that planning and preparation should occur before a bushfire threatens, ideally before each Bush Fire Danger Period begins.
- 'Iconic' fires, such as the Black Saturday and 2013 Linksvie Road fires, present valuable learning opportunities for people in bushfire risk areas. Indeed, the 2018 Reedy Swamp fire may present opportunities to increase awareness and understanding of the risks to coastal communities in NSW and elsewhere. Consideration should be given to including experiences and learnings from such fires in community engagement and education materials.



- Evidence that some residents planned or intended to evacuate at the last minute suggests a need for more education and advice about the dangers of late evacuation, including to nearby places.
- Education materials and campaigns should continue to emphasise the importance of taking action as soon as people learn about a fire; and not waiting until they are directly threatened.
- Communications should continue to emphasise the high degree of planning and preparation that is required to safely and successfully defend houses and property. The risks of 'impromptu' or ill-prepared defence should be explicitly stated.
- The research again confirms the tendency for people to observe the fire directly to ready themselves to defend, or confirm the need to leave. It strengthens the case for resources to be directed to field liaison personnel to engage with people on the ground at a time when they are seeking and receptive to information and advice. Again, known observation points, or locations designated by emergency services, should be identified.
- Further research is needed to understand and identify ways to address the challenges of bushfire planning, preparation and response for guests in unstaffed accommodation, such as holiday rental properties.
- Confusion about the meaning of 'seek shelter' suggests a need for greater dialogue and clarity of messages about safe sheltering practices. Education materials and campaigns are needed that encourage planning and preparation for *active* sheltering, but discourage planning for sheltering as a sole response. The tendency for people to gather at informally designated refuges or places of shelter reinforces the need for community dialogue about the suitability of local places of shelter.
- Research is needed to investigate the influence that longer bushfire seasons, or periods of bushfire danger, may have on risk perceptions and community preparedness.
- Experiences of the community in the aftermath of the fire highlight the need for media personnel to conduct themselves in a respectful and sensitive way. The presence and conduct of media personnel within the fire affected area should be carefully managed, particularly when residents are unable to return home.
- Widespread frustration with the time it took for people to be allowed back in to Tathra suggests a need for better communication about why their returning may be delayed. Ways to allow people to return more quickly should be explored.



1. INTRODUCTION

On Sunday 18 March 2018 a bushfire impacted on the communities of Reedy Swamp and Tathra in the Bega Valley Shire on the New South Wales South Coast. The fire, known as the Reedy Swamp Fire, destroyed 65 and damaged 48 homes. 35 caravans and cabins were also destroyed. The fire displaced approximately 700 residents on the day, as well as tourists and visitors to Tathra. Fortunately no human lives were lost.

The New South Wales Rural Fire Service (NSW RFS) engaged the Bushfire and Natural Hazards Cooperative Research Centre to conduct research into community preparedness, warnings and responses to the Reedy Swamp Fire. The NSW RFS identified five key themes for investigation including: 1) Establishing the community context; 2) Community planning (long term); 3) Community preparation (short term); 4) Community responses to the fire; and 5) Community responses after the fire. Detail of the key themes for investigation is provided in Section 3.

The research involved 87 semi-structured, in-depth interviews with 120 people affected by the Reedy Swamp Fire. Ethics approval for the research was obtained from the University of Wollongong's Human Research Ethics Committee (Ethics Number 2017/522).

This report presents findings from an analysis of these interviews and discusses their implications for bushfire management in New South Wales. Section 2 provides a background to the research, including an overview of the socio-demographic characteristics of the Reedy Swamp and Tathra communities, recent history of bushfires in the area, and detail of the 2018 Reedy Swamp Fire. Section 3 outlines the purpose and scope of the research, and details the methods that were used. Section 4 presents research findings for each theme, followed by a discussion of possible implications and opportunities for bushfire risk management in New South Wales.



2. BACKGROUND

This section provides an overview of the socio-demographic characteristics of the Reedy Swamp and Tathra communities, the history of bushfires in the area, and detail of the 2018 Reedy Swamp Fire.

2.1 THE REEDY SWAMP AND TATHRA COMMUNITIES

Reedy Swamp and Tathra are located in the Bega Valley Shire on the New South Wales South Coast, approximately 450 kilometers south of Sydney (see Figure 1). Table 1 outlines key social and demographic variables for the Reedy Swamp and Tathra 'State Suburbs' (an Australian Bureau of Statistics geographical classification).

Reedy Swamp

Reedy Swamp is located approximately 5-10km NW of Tathra, on the northern side of the Bega River. The area is mostly comprised of small acreages and rural residential blocks. Many properties are located within the forest and are accessible by long, unsealed roads that are flanked by vegetation.

At the 2016 Census, the population of the Reedy Swamp SSC was 81 (see Table 1). There were 31 private dwellings. The median age (45) was higher than for the State of NSW (38). The median weekly household income was lower than for NSW as a whole (\$1062 v. \$1486).

The Reedy Swamp area is in the sixth decile¹ in the Australian Bureau of Statistics 'Index of Relative Socio-Economic Advantage and Disadvantage' (IRSAD), meaning that in 2016 it was within the highest 40 percent of areas in terms of socio-economic advantage. However, the Jesuit Social Services (JSS) and Catholic Social Services Australia (CSSA) 'Dropping off the edge' report (Vinson and Rawsthorne 2015), which uses a broader range of indicators of socio-economic advantage and disadvantage, considers the Reedy Swamp SSC to be among the 'most disadvantaged' areas.

Tathra

Tathra is a seaside town that is mostly comprised of freestanding houses on residential blocks, with a smaller number of apartments and duplex houses. The town is a popular tourist destination due to its pristine beaches, fishing and surfing opportunities, and over 40 kilometers of mountain bike trails. There are numerous caravan parks, hotels and motels in the area to accommodate tourists, as well as cafes, restaurants and other attractions.

¹ Deciles divide a distribution into ten equal groups. In the case of SEIFA, the distribution of scores is divided into ten equal groups. The lowest scoring 10% of areas are given a decile number of 1, the second-lowest 10% of areas are given a decile number of 2 and so on, up to the highest 10% of areas which are given a decile number of 10.



At the 2016 Census, the population of the Tathra SSC was 1,675 (see Table 1). There were 981 private dwellings, which were mostly occupied (98%). The median age in Tathra was 52, which is significantly higher than the median age for NSW as a whole (38). Most residents were born in Australia (82%; compared to 66% for NSW) and spoke only English at home (89% v. 69%). The proportion of residents attaining a Bachelor Degree or above was equal to NSW as a whole (23%). The median weekly household income was lower than for NSW as a whole (\$1087 v. \$1486). Proportionally more residents owned their home outright in Tathra (43%) than in NSW as a whole (32%), and fewer owned their home with a mortgage (23% v. 32%).

The top five responses for industry of employment in the 2016 Census were: cheese and other dairy product manufacturing (n=41, 6%); hospitals (n=40, 6%); accommodation (n=32, 5%); primary education (n=30, 5%); and local government administration (n=25, 4%).

Tathra is in the seventh decile in the ABS 'Index of Relative Socio-Economic Advantage and Disadvantage' (IRSAD), meaning that in 2016 it was within the highest 30 percent of areas in terms of socio-economic advantage. However, the Jesuit Social Services (JSS) and Catholic Social Services Australia (CSSA) 'Dropping off the edge' report (Vinson and Rawsthorne 2015), which uses a broader range of indicators of socio-economic advantage and disadvantage, considers the Tathra SSC to be among the 'most disadvantaged' areas.



Figure 2: Map of the NSW south coast indicating location of Tathra.



	Reedy Swamp	Tathra	New South Wales
Population	81	1,675	7,480,228
Private dwellings	31	981	3,059,599
Unoccupied private dwellings (%)	NA	21	10
Median age	45	52	38
Male/female (%)	45/55	50/50	49/51
Couple family no children (%)	NA	54	37
Couple family with children (%)	NA	32	46
English-only language household (%)	NA	89	69
Bachelor degree level or above (%)	NA	23	23
Median weekly household income (\$)	1,062	1,087	1,486
Property owned outright (%)	NA	43	32
Property owned with mortgage (%)	NA	23	32
Property rented (%)	NA	30	32
Voluntary work (%)	NA	32	18
Internet not accessed from dwelling (%)	NA	17	15
ABS Index of Relative Socio-Economic Advantage and Disadvantage (decile)	6	7	NA
'Dropping of the edge' ranking	Most disadvantaged	Most disadvantaged	NA

Table 1: Demographic characteristics of ABS 'State Suburbs' affected by the bushfires (Australian Bureau of Statistics 2016)

2.2 HISTORY OF BUSHFIRES IN THE AREA

There have been a number of significant bushfires in the Bega Valley area since European arrival (see Table 2).

In January 1884 the *Weekly Times* newspaper reported that bushfires were 'raging' all over the Bega district. These fires burned for weeks and impacted on a number of properties, destroying pasture and fences. John Brown, from Nelson, immediately north of Tathra, successfully defended his house from the fire. The report noted that previous experience with bushfire had 'taught a lesson to settlers, who have been careful to clear all the timber from the vicinity of their dwellings' (*Weekly Times* 1884, p.7).



Just four years later, in November 1888, there were multiple bushfires in the Bega area. Thousands of acres of pasture were burnt and there was smoke 'all along the coast', which affected local shipping. The *Sydney Morning Herald* (1888, p. 11) reflected on the seriousness of the fires: 'Altogether it has been the worst day ever experienced'.

In January 1905 *The Shoalhaven Telegraph* (1905) reported that the Bega district had 'had a rough time from bush fires', with property and cattle destroyed at Wyndham, Nambugga, Bemoka, Wolumla and Cobargo. A settler and his child were killed by a bushfire at Wyndham, approximately 40km south-west of Tathra.

Tathra itself was impacted by bushfires in February 1940. Strong winds drove fires into the town, destroying six houses and a store. The *Advertiser* (1940, p. 22) reported that the houses were destroyed when the wind suddenly changed from west to south, 'before anything could be done to save them'. Nevertheless, volunteers fought the fires with water from household tanks. Many residents sought refuge from the fires by 'sitting in the sea', and some sought shelter under the Tathra wharf (*The Barrier Miner* 1940, p. 22).

January 1952 saw one of the largest and most destructive bushfires in the history of the Bega district. The fire originated from burning-off by graziers near the junction of the Back and Tuross Rivers, approximately 50 kilometers north-west of Bega (Duggin 1976). On January 25 an intense low pressure system to the south-west of Tasmania generated strong, hot and dry north to north-westerly winds over south-eastern Australia. The fire spread rapidly, travelling approximately 35 kilometers in one hour from Nubugga Walls, west of Bega, to the coastline south of Tathra (Duggin 1976). Four people died in the fire, including a man and two teenage sisters in Upper Brogo, approximately 20 kilometers north-west of Bega, and a man at Quaama, approximately 25 kilometers north of Bega. 85 houses were destroyed and pasture, fences and other agricultural assets were lost. *The Sunday Herald* (1952) reported that 'a day-long fight saved the town of Bega itself' and quoted Senior Constable R. Patterson of Bega, who recounted:

Our big difficulty in Bega was the failure of the water supply. The Fire Brigade could not use its hoses. Each time the fire came to the edge of the town it was held back only by people using beaters. Twice the hospital was menaced, but sheer hard work, and once a slight change of wind, saved it. The flames were just phenomenal. (quoted in: The Sunday Herald 1952, p. 1).

Alderman Holden, Captain of the Kiama Fire Brigade, was visiting his daughter's home in Bega at the time of the fire. He recounted the devastation wrought by the fire, which like the 2018 Reedy Swamp Fire, was carried by embers across the Bega River:

A hundred square miles around Bega are a desolate blackened wasteland dotted with the swollen carcasses of cattle killed in last week's fire... The first



indication was a cloud of smoke towards Brogo at 6.30 am. By 8.30 the town fire alarm was sounding and all but the elderly and invalids were out fighting the blaze. The hopelessness of the task can be realised by the fact that the flames leapt the Bega River – a distance of a hundred yards or more. In three hours the fire had burnt around Bega and half way towards Tathra. It could be seen burning up Brown's Mountain [from] a distance of 40 miles. The flames did not stop until they reached Bateman's Bay (quoted in: Kiama Independent 1952, p. 1).

Captain Holden noted that Bega was showered with embers, which played a key role in house ignition:

Whilst the fire was burning near Bega the township was showered with embers and ash which fell like black confetti. Air currents swirled it against house ventilators and it is thought that the houses in Bega caught fire in this way (quoted in: Kiama Independent 1952, p. 1).

There were relatively few major bushfire events around Bega and Tathra between 1952 and 2018. In 1986 the Tathra Rural Fire Brigade attended a large fire at Bemboka, which burnt 7000 acres, and in 2006 a bushfire threatened homes in Merimbula, approximately 20 kilometers south of Tathra.



Year	Bushfire	Source
January 1884	<p>'Numerous bush fires raging all over the [Bega] district... Some years ago the same thing occurred and taught a lesson to settlers, who have been careful to clear all the timber from the vicinity of their dwellings... At Nelson, fearful havoc has been played with the grass and fencing. The chief sufferers are William Ritchie and John Brown. The latter gentleman had a very hard struggle to save his residence. He got upon the roof, and continuously drenched it with water. At Tonja [sic – Tanja] the fire is burning fiercely, and all along to Tathra... These fires have been burning in some places for nearly a month, and this, with the heat, has caused the vegetation to wither up. The whole district is looking very badly, and should the heat and fires continue much longer, water will get short.'</p>	<p>'Serious fires in New South Wales'. In: <i>Weekly Times</i>, 12 January 1884. p. 7.</p>
November 1888	<p>'Bega, Friday. Bush fires have been burning during the week in many parts of the district. Thousands of acres of grass have been burnt. The town this morning was enveloped in smoke. Altogether it has been the worst day ever experienced. The steamer <i>Bega</i> missed Montague Island yesterday, and just managed to make Tathra. The <i>Oonah</i> had to lay off Eden for some hours on account of the dense smoke, which is all along the coast.'</p>	<p>'Bush fires in the country'. In: <i>Sydney Morning Herald</i>, 24 November 1888. p. 11.</p>
January 1905	<p>'Bega district had a rough time from bush fires. At Wyndham two lives were lost – a settler names Milliner and his child. Property and cattle were destroyed at Wyndham, Nambugga, Bemboka, Wolumla, and Cobargo. The loss is said to be very heavy.'</p>	<p>'Bega'. In: <i>The Shoalhaven Telegraph</i>. 11 January 1905. p. 9.</p>
February 1940	<p>'Driven by fierce winds, bushfires yesterday endangered townships, destroyed many houses and homesteads, killed thousands of stock, and did other extensive damage in southern New South Wales. Six houses and a store were burned to the ground when a bushfire swept though Tathra, a village on the south coast, 11 miles from Bega.' [1]</p> <p>'Six houses and a store were destroyed by a bushfire at Tathra, near Bega, on the south coast. The wind suddenly changed from west to south, and the houses were destroyed before anything could be done to save them. The occupants lost practically all their belongings'. [2]</p> <p>'Five cottages and a general store were burnt when bushfires swept through Tathra, a pleasure resort 11 miles from Bega. Many residents escaped the flames by sitting in the sea. Others stood under a wharf as the fire went through the town. A police car outside the store was destroyed. Flames were fought by volunteers with water from household tanks. At Cobargo people were called from the annual show to fight fires near their homes. Telephone lines between Bega and Sydney were burned, and calls had to go by way of Cooma.' [3]</p>	<p>[1] 'Bushfire threat. Townships in danger. Homes destroyed'. In: <i>Sydney Morning Herald</i>. 23 February 1940. p. 9.</p> <p>[2] 'Fierce bushfires in N.S.W. and Victoria. Homes destroyed, stock lost: couple burned'. In: <i>Advertiser</i>. 23 February 1940. p. 22.</p> <p>[3] 'People escape bushfire by sitting in sea'. In: <i>The Barrier Miner</i>. 24 February 1940. p. 3.</p>
25 January 1952	<p>'The death roll of Friday's bushfires have now risen to seven. In the Bega district on the South Coast, two sisters and a man were burnt to death and another man died after a day-long battle with the flames. These were in addition to three men burnt to death in the Riverina fire. Sydney received its first news yesterday of the deaths and widespread destruction in the Bega district, where direct communication was still cut off.' [1]</p> <p>'Reports filtering through from the South Coast yesterday gave this picture of the bushfire destruction:</p> <ul style="list-style-type: none"> • 85 homes were destroyed and more than two million acres of pasture burnt out in the Bega district alone. 	<p>[1] 'Bushfire death roll increases to seven'. In: <i>The Sunday Herald</i>. 27 January 1952, p. 1.</p> <p>[2] '85 homes lost; vast area of black earth'. In: <i>The Sunday Herald</i>. 27 January 1952. p. 1.</p> <p>[3] 'Bega now wasteland. Eye-witness</p>



<ul style="list-style-type: none"> • A man and his wife, their clothes burnt off, sheltered in a culvert where they took refuge. • A day-long fight saved the town of Bega itself. <p>A man who saw the result of the fires said: 'The whole countryside from the mountain range on the west of Bega to the coast, a distance of 30 miles, is almost one waste of blackened earth with no fences or pastures standing and very few farmhouses'...</p> <p>Those who died in the South Coast fires were: Marie Otton, 16, of Upper Brogo, 10 miles north of Bega; Jennifer Otton, 14; Rudolf Ogilvy, about 66, also of upper Brogo. John Taylor, 58, of Quaama, about 17 miles north of Bega, died after a day-long battle with the flames... An elderly Bega resident, Jim Preo, collapsed and died during the heat...</p> <p>Bega is in a desperate plight. Farmers, ruined by the fires, have sent messages to Sydney relatives appealing for help. Bega was licked by flames when Friday's fire was at its peak. Businessmen, farmers and women and children fought the flames on the edge of the town. Flames destroyed one house before firefighters could reach it.'...</p> <p>Senior Constable R. Patterson, of Bega, said... 'Our big difficulty in Bega was the failure of the water supply. The Fire Brigade could not use its hoses. Each time the fire came to the edge of the town it was held back only by people using beaters. Twice the hospital was menaced, but sheer hard work, and once a slight change of wind, saved it. The flames were just phenomenal.'</p> <p>Bega police have appealed for clothing for 75 destitute families. Many local farmers have asked friends in Sydney for help. Here are two typical messages: "We are safe but the home is gone. Will send wife and children up on Monday." "All well. Lost fodder and fences but saved buildings and stock. I have no food. Will you please do your best to obtain 1-2 tons of wheat." At least three-quarters of farmland in the Bega district has been burnt out.' [2]</p> <p>'A hundred square miles around Bega are a desolate blackened wasteland dotted with the swollen carcasses of cattle killed in last week's fire. According to the Captain of Kiama's Fire Brigade (Ald. W. R. Holden) who came through from Bega on Thursday it is difficult to appreciate the misery following in the wake of the fire without being there to see the black desert which lies where last week cattle grazed on pasture land.</p> <p>Ald. and Mrs. Holden were visiting their daughter's home in Bega when the fires started last Friday. Ald. Holden said that first indication was a cloud of smoke towards Brogo at 6.30 a.m. By 8.30 the town fire alarm was sounding and all but the elderly and invalids were out fighting the blaze.</p> <p>The hopelessness of the task can be realised by the fact that the flames leapt the Bega River - a distance of a hundred yards or more. In three hours the fire had burnt around Bega and half way towards Tathra. It could be seen burning up Brown's Mountain a distance of 40 miles. The flames did not stop until they reached Bateman's Bay.</p> <p>Whilst the fire was burning near Bega the township was showered with embers and ash which fell like black confetti. Air currents swirled it against house ventilators and it is thought that the houses in Bega caught fire in this way.</p> <p>Ald. Holden was impressed by the spirit of co-operation with which Bega folk fought the fire; and the spirit of help-one-another with which they are meeting the aftermath.</p> <p>The two radio stations at Bega and Cooma spent the day of the fire broadcasting messages. Someone in Bega would ask of Coomna "How's so-and-so?" and one of a team of riders there would go out and see so that the reply could be</p>	<p>account of fire. In: <i>Kiama Independent</i>. 2 February 1952. p. 1.</p>
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	<p>radioed back. This type of message was sent back and forth throughout the duration of the fire.</p> <p>Appeals were broadcast for clothing. Within five hours a further message said the hastily formed relief committee had enough for 73 families. An appeal for funds brought in £2,700. Farmers who were untouched by the fire rang through with offers of fodder and agistment.</p> <p>A committee has been formed for the erection of temporary homes. The Nimmatabel sawmill has offered to cut the timber. Others have banded together to dispose of cattle carcasses. They are being dozed into heaps by tractor and burnt. Others are driving surviving beasts to grazing land. The spirit of comradeship and charity was good to see, concluded Alderman Holden.</p> <p>Victims of the fire are in dire need of outside help in spite of their efforts for one another. The Kiama Red Cross has started an appeal for funds and clothing...' [3]</p>	
1984	Tathra Rural Fire Brigade volunteers attend fires at Bemboka. 7000 acres burnt.	www.tathrafirebrigade.org.au
2006	<p>Tathra Rural Fire Brigade volunteers attend bushfire at Merimbula. [1]</p> <p>'In Merimbula, a bushfire that caused 40 homes to be evacuated was under control last night. The fire broke through containment lines and threatened homes, but turned back on itself when the wind swung to the south' [2]</p>	<p>[1] www.tathrafirebrigade.org.au</p> <p>[2] 'Hundreds evacuate as firefighters fall back' https://www.theage.com.au/national/hundreds-evacuate-as-firefighters-fall-back-20060102-ge1ian.html</p>
18 March 2018	Reedy Swamp bushfire impacts on Reedy Swamp and Tathra areas. It destroys 65 and damages 48 homes. 35 caravans and cabins are also destroyed. 700 residents are displaced, as well as tourists and visitors to Tathra. No human lives lost.	

Table 2: Significant bushfires in the Bega Valley since European arrival



2.3 THE 2018 REEDY SWAMP FIRE

Sunday 18 March was a day of Total Fire Ban for the Far South Coast Fire Area. At 12:26 emergency services received a Triple Zero call reporting a bushfire at Reedy Swamp Road, Reedy Swamp. While the matter is subject to a coronial inquiry, a preliminary investigation by the NSW RFS later identified electrical infrastructure on Reedy Swamp Road as the likely cause of the fire (NSW RFS 2018).

By 12:30 the temperature at Bega had reached 36.9°C, relative humidity was 18% and the wind was north-westerly at 44 km/h with gusts to 72 km/h. By 12:31 the Deputy Officer had paged local brigades as the initial response, with the first unit arriving on the scene a short time later (12:43).

Between 13:09 and 13:22 Triple Zero calls were received reporting bushfires at Wydham Lane (Candelo), Wolumna Road (Toothdale), and Mirador Drive (Tura Beach), and a power pole alight on the Princes Highway, Frogs Hollow.

At 13:25 the Reedy Swamp Control reported that the Reedy Swamp Fire had jumped Reedy Swamp Road. Crews were directed to pull out to the staging area. Shortly after, at 13:30, a Triple Zero call was received reporting a bushfire impacting on houses at Kerrisons Lane, Bega.

At 14:00 the temperature at Bega was 38.4°C, relative humidity was 17% and the wind was west-north-westerly at 24km/h with gusts to 48km/h. At this time, the alert level for the Reedy Swamp Fire was lifted to 'Watch and Act'. Three more Triple Zero calls were received, this time reporting persons trapped at Vimy Ridge Road, Chinnock, and a grass fire at Coopers Gully Road, north-west of Bega.

At 14:20 a Major Fire Update was published for the Reedy Swamp Fire. It advised people in the area to monitor conditions and to check and follow their Bush Fire Survival Plan. Those who plan to leave, or who were not prepared for a bushfire, were advised to leave early.

Between 14:35 and 14:50 reports were received of embers impacting on Tathra and houses coming under threat. At 14:35 Incident Control directed firefighting resources into Tathra.

At 14:52 a Major Fire Update was published for the Reedy Swamp Fire. It included advice that 'People on the northern side of the Bega River, between the River and Reedy Swamp Lane, are unable to leave the area due to fire activity' and 'If the fire impacts on your property, protect yourself from the heat of the fire'.

By 14:57 Incident Control received intelligence that the Reedy Swamp Fire had 'jumped' to the south side of the Bega River and that houses were under threat in the area of Thompson Drive, Quarry Road, Panorama Drive, Wildlife Drive and Sanctuary Place. Multiple Triple Zero calls were received as fires started to threaten Tathra.

At 15:14 the State Operations Centre received advice that 'spots over the Bega River are taking hold'. Major Incident Coordination (MIC) South and Bega Incident Control discussed changing the alert level to 'Emergency warning'.



Two warning messages were identified: those in Thompson Drive to shelter in place; those in Tathra to move to the beach.

At 15:30 the temperature in Bega was 36.8°C, relative humidity was 18% and winds were west-north-westerly at 41 km/h with gusts to 59 km/h. The alert level was lifted to 'Emergency Warning' at 15:37. The VIC LAT (Large Air Tanker) was requested and tasked to assist to the west of Tathra.

The first Emergency Alert was issued at 15:48. A voice message to landline telephones advised the following:

New South Wales Rural Fire Service emergency bush fire warning. Bush Fire burning towards Thompson Drive Tathra area. You are in danger. Act immediately. Seek shelter now to protect you from the heat of the fire. Stay up to date. Check the RFS website at www.rfs.nsw.gov.au or contact the bush fire information line on 1800 679 737.

A SMS message advised:

NSW RFS EMERGENCY BUSH FIRE WARNING – Thompson Drive Tathra – Immediate danger. Seek shelter now. www.rfs.nsw.gov.au or 1800679737.

A Major Fire Update was also published, advising that the fire had crossed the Bega River and was impacting on properties around Thompson Drive, Tathra. The Update included the following advice:

If you are in the area of Thompson Drive at Tathra, seek shelter if the fire impacts on your property. It is too late to leave. Protect yourself from the heat of the fire.

If you are in the area of Sanctuary Place or Wildlife Drive and you plan to leave, leave now towards the east or beaches.

Ten minutes later, at 15:58, another Emergency Warning was issued and another Major Fire Update was published. The Emergency Warnings advised people in Tathra that they were in danger and to seek shelter. The Major Fire Update advised people in Tathra that it was now too late to leave:

*If you are in ****Tathra****, seek shelter if the fire impacts. It is too late to leave. Protect yourself from the heat of the fire.*

Another Emergency Warning was issued at 17:34, advising people in Tathra to seek shelter as the fire arrived. An Emergency Warning at 17:46 advised people who were north of the Bega River to leave if their path was clear to the north.

As is noted in Section 4.8 of this report, many interviewees sought emergency information from ABC Local Radio. People expressed frustration with the radio coverage of emergency information, with many noting that ABC Local Radio did not switch to its 'rolling' emergency broadcast as the fire situation was escalating and Tathra was coming under threat.² A subsequent investigation by the ABC found that two 'Watch and Act' warnings were not broadcast during the afternoon due to communication faults between ABC studios and the transmission centre (ABC Radio 2018). Further, an Emergency Warning that was

² A subsequent review by former Australian Federal Police Commissioner, Michael J. Keelty (2018, p.17) found that 'ABC Radio continued normal broadcasts on the day of the fires rather than broadcasting updates to the community which has been the practice in the past'.



received by the ABC at 15:37 was not broadcast until 16:01 '... due to staff wanting to verify the nature of the warning and to determine if an emergency siren needed to be sounded in the broadcast' (ABC Radio 2018).

Major Fire Updates continued to be published into the night, advising people that homes had been damaged and destroyed by the fire, and that a southerly wind change was moving through the area and could push the fire in a northerly direction. Those to the south of the Bega River were advised that it was too late to leave, as fire could block roads, and that they should seek shelter as the fire impacts. Those to the north of the river were advised to leave, if it was safe to do so, in the direction of Bermagui.

A Major Fire Update at 23:09 advised that a southerly change had affected the area and fire conditions had begun to ease. Nevertheless, those within the fire affected area were advised to continue to monitor conditions and be prepared to enact their bushfire survival plan should the fire threaten again. Residents were advised that there was no access to Tathra and that those affected should attend the evacuation centre that had been established at the Bega Showground.

The Reedy Swamp Fire destroyed 65 and damaged 48 homes. 35 caravans and cabins were also destroyed. The fire displaced approximately 700 residents on the day, as well as an unknown number of tourists and visitors to Tathra. Fortunately, no human lives were lost.

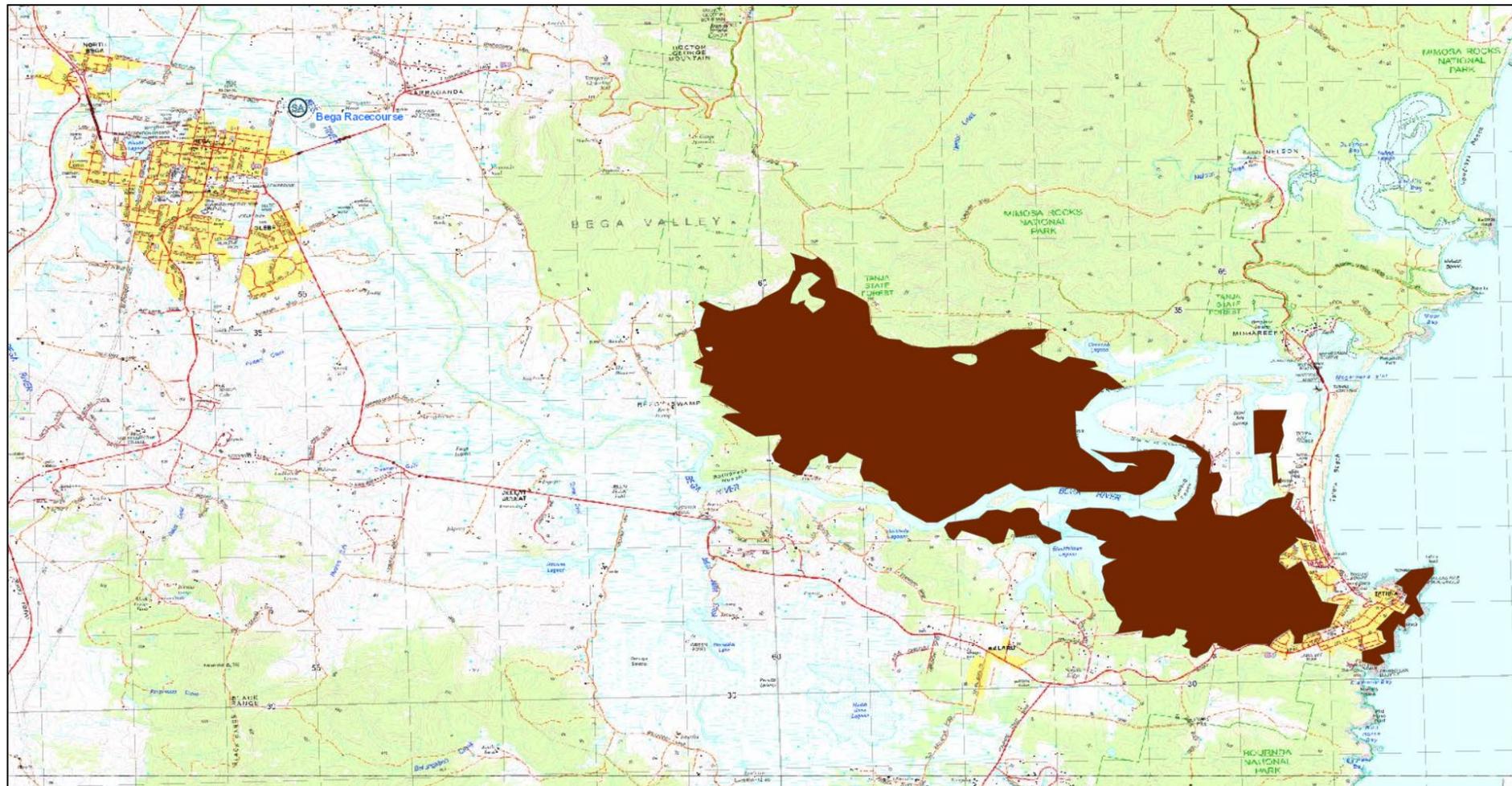


Figure 2: Area burned by the Reedy Swamp Fire



3. RESEARCH METHODS

3.1 SEMI-STRUCTURED INTERVIEWS

87 semi-structured, in-depth interviews were conducted in May and June 2018 with 120 people affected by the Reedy Swamp bushfire. Semi-structured interviews were undertaken to gather precise and codeable qualitative data related to the issues and themes under investigation (see Table 3). The interview guide comprised open-ended questions about: perceptions of risk; planning and preparation for bushfire; warnings; intended and actual responses to the fires; impacts of the fire on people and property; and experiences in the aftermath of the fire (see Appendix 1). Semi-structured interviewing allows interviewees to frame and structure their responses according to their own personal experiences and narrative. The advantage of this approach is that the interviewee's perspectives and experiences unfold as the participant views it, not as the interviewer views it (Marshall and Rossman 2011). This allows each interviewee's unique perspective to come through clearly and can help researchers to identify new issues and lines of questioning not previously considered.

The Reedy Swamp and Tathra areas were visited prior to fieldwork commencing. The lead author met with NSW RFS District Managers to provide information and gain local support for the research. Local NSW RFS people played a key role in promoting the research within their communities through, for example, communications via email lists and posts on local Facebook pages. In addition, letters and Participant Information Sheets (PIS; see Appendix 2) were dropped in letter boxes in fire affected areas to provide more detailed information about the research and notify residents and businesses of when interviewers would be in the area. While some interviews were arranged in advance, most were undertaken following door knocking of addresses where letters and PIS had previously been left.

Interviews were undertaken at participants' homes and, in a small number of cases, in other local places such as clubs and cafes. Participants were given time to read the PIS prior to the interview commencing and written consent was obtained. Interviews typically lasted for 45 minutes to one hour and were audio recorded subject to the participant's consent. Basic demographic data were collected from participants via an anonymous demographic sheet completed by the researcher at the end of the interview. Audio recordings were transcribed in full.

Characteristics of the interview sample

87 interviews were conducted with 120 participants. 53% were male and, reflecting the older population described earlier, the majority of participants (65%) were aged 55 or over (see Figure 3). 85% indicated that they lived in a house or unit on a residential block, and 14% lived in a house on a hobby farm or small acreage. 84% of residential properties were owned (with or without a mortgage) and the remainder were rented. One-third of participants had lived in the area for over 20 years (33%), one-quarter for five years or less (26%), one-quarter for between 11 and 20 years (25%) and 15% for between 6 and 10



years. In terms of household composition, more than half comprised a couple without children or other dependents (52%), one-fifth comprised a couple with children or other dependents (19%) and one-fifth were one person households (20%). At the time of the bushfire, 5% of participants were registered members of the NSW RFS. 13% were not registered but had been in the past, and the remainder (87%) had never been registered members.

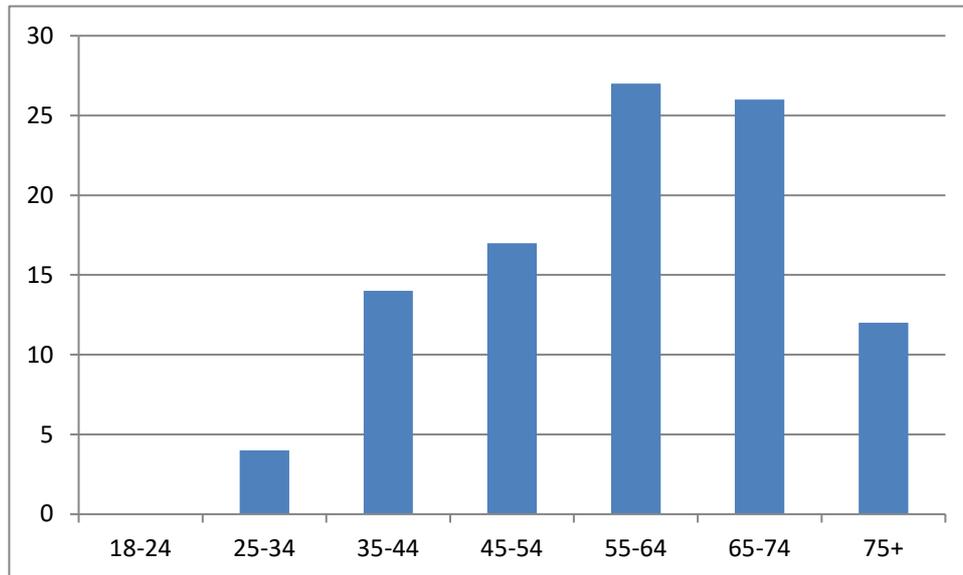


Figure 3: Age profile of the interview sample (%)

3.2 INTERVIEW DATA ANALYSIS

Interview data were analysed using a general inductive approach (Thomas 2006). A general inductive approach aims to (a) condense extensive and varied raw data into a brief, summary format, (b) establish clear links between research objectives and summary findings derived from the raw data, and (c) to develop a model or theory about the underlying experiences or processes which are evident in the raw data (Thomas 2006).

The Computer Assisted Qualitative Data Analysis Software NVivo 11 was used to analyse the interview transcripts. Categories into which segments of interview text could be grouped (known as 'nodes' in Nvivo) were derived from the issues and themes under investigation (see Table 3). The process of analysing interviews involved reading transcripts in full and selecting text to drag into relevant nodes ('coding'). This process enabled interview text to be grouped into relevant nodes to enable closer analysis. A number of sub-nodes were added to group like information (indicated with bullet points in Table 2).

Summary findings were derived from the data coded under each node. Findings for each issue and theme are presented in the following section, with illustrative quotes.



Community planning

- a. Perception of bushfire risk prior to Reedy Swamp Fire
- b. Awareness and attitude toward risk reduction activities
 - House construction
 - Hazard reduction
 - Asset Protection Zones
 - No awareness / criticism
 - Lack of community planning
 - Brigade engagement

Community preparation

- c. Information and sources for planning and preparation
- d. Fire plans and preparation
- e. Perception of risk posed by forecast fire danger rating and conditions

Community responses to the fire

- f. How people became aware of the fire, and their responses
 - Accounts of property defence
 - Accounts of leaving/evacuation
- g. Were people able to implement fire plans
- h. Information sought about the fire, how it was obtained and used
- i. How people and businesses hosting non-residents responded to the fire
- j. Expectations of warnings and information, particularly in known blackspot areas
- k. Effectiveness of warnings and resulting actions
- l. How time of year (late in fire season) influenced responses

Community responses after the fire

- m. Experiences of community
 - Experiences of evacuation centre
 - Communication and information
 - Uncertainty about home damage
 - Returning home (incl. road blocks, bus tour etc.)
 - Recovery issues
 - Media and politicians
 - Asbestos-related issues
 - Rebuilding and insurance issues
 - Concerns about environmental damage
- n. Future planning, preparation and responses

Table 3: Final coding framework for analysis of interview transcripts



It is important to note that the semi-structured nature of the interviews meant that interviewees were not asked a standard set of questions. Consequently, the analysis presented in this paper did not seek to quantify data gathered from the interviews. For example, it could be found that a certain percentage of people had a particular experience, but unless all interviewees were asked about this experience in a consistent way, it is unlikely that results would be accurate or meaningful. Nevertheless, we use 'verbal counts' to convey whether experiences, ideas and issues were common (i.e. occurring in more than 50% of the interviews) or not (less than 20%) using terms such as 'many', 'commonly' and 'few' (see Sandelowski 2001).³ Quantitative judgements about qualitative data are common in qualitative research – for example, in deciding whether an issue or theme is recurring – and should be acknowledged.

3.3 ETHICS AND FIELDWORK RISKS

Ethics approval for the research was obtained from the University of Wollongong's Human Research Ethics Committee (Ethics Number 2017/216). Measures were taken to ensure the safety and rights of participants and researchers, and to ensure participants' anonymity in any reports, papers, presentations or other publications arising from the research.

³ Sometimes verbal counts are made for subsets of the interview sample; for example, people who evacuated, or those who received a warning.



4. FINDINGS

4.1 ASSESS THE COMMUNITY'S PERCEPTION OF BUSHFIRE RISK PRIOR TO THE REEDY SWAMP FIRE

Most interviewees claimed to have been aware, prior to the Reedy Swamp Fire, of the potential for bushfires to impact on the Reedy Swamp and Tathra areas. However, interview data highlight differences in people's levels of awareness and concern about bushfire risk. All of the residents interviewed in the Reedy Swamp area were aware of the risk posed by bushfires. Their properties are located within the forest and are accessible by a long, unsealed road that is flanked by vegetation. These residents often provided examples of measures they had taken to plan and prepare for bushfire:

[Male]: Yep, absolutely. I think you're a fool to live in a place like this and not expect a fire to take it away, destroy it.

[Female]: It's a conversation we have every summer, and the neighbours have it as well. It's high in our consciousness that where we live is risky. (Interview 43, location withheld)

[Interviewer]: So, when you moved here, were you aware of the potential for bushfire?

[Interviewee]: Yeah I certainly was. We did quite a bit of clearing of the fuel load from around the top of the hill here. That [fire] got away from us once and we had the RFS out here to help us sort that. A year or two later, a neighbour was doing the same thing and it got away from him, and at that point I think I went and joined the RFS... (Interview 41, Reedy Swamp)

Tathra residents often referred to the forest that adjoins the town's western edge as a prime source of bushfire risk. Those who lived in the streets adjoining the forest, such as Sanctuary Place, Wildlife Drive and Ocean View Terrace, were particularly cognisant that their homes could be threatened by bushfire. One interviewee in particular discussed how they would not leave their property overnight during the fire season and continually monitored the conditions. Interestingly, they also noted that it was lucky they were not away when the fires occurred, as this time last year they had taken a vacation as it is outside of the designated fire season. Some interviewees discussed how their awareness of bushfire risk had been influenced by activities such as bush walking and mountain biking in the forest behind Tathra:

My house was a goner, I knew that... I always knew that... even when I bought the place, I know that living on the north western edge of Tathra in a timber house, although the back of the house was corrugated iron, but there was always that risk... I don't think you can live in Australia and not have that risk. And people that said to me: 'I thought it would never



happen'; I just think 'How can they think like that? It's always a possibility. If you're surrounded by bush, it's a possibility. (Interview 32, Tathra)

Oh, this time of the year, I often look to see where the closest fires are. That's something I do... I look in the summertime, all the time, plus the fact I have sort of self-imposed embargo on going away in from about December through until well usually March. But this was the 18th of March. A couple of years ago we would have been in Tasmania... (Interview 59, Tathra)

I think we were pretty reasonably aware that this is a small town bordered by bush. I mountain bike a lot, I'm up there a lot, we bush walk a lot in the bush there. Yeah, I don't think we were ignorant that it was risky. Yeah, definitely not. (Interview 35, Tathra)

I think everybody would, because of the beautiful bush that we've got out there. And I've walked those fire tracks with my dog. I have seen how dense it is. I've said to my husband a few times, 'God. If a fire got in there, it'd go right through'. (Interview 45, Tathra)

In contrast, there were some residents who had not considered that a bushfire could impact on Tathra, or had not considered the potential for a bushfire to penetrate beyond the forest edge.

I didn't really give it a thought because I didn't ever think that a damn fire would come through. (Interview 33, Tathra)

I never have really considered Tathra burning down like that. (Interview 34, Tathra)

Not really, yeah not really. We kind of realised how isolated we were compared to living in [place name removed] because we had a house fire start up when we first moved and it took like half an hour for the fire brigade to get there, by that time it had gone out itself. We were really lucky... You kind of realise that you're quite isolated and don't have the same support as other places I guess, but never really thought that a bushfire would actually come into the town. It never crossed my mind. (Interview 46, Tathra)

[Male interviewee]: Other towns, yeah, they're in a bushfire zone, and they're probably more mentally prepared for it. We were never prepared for bushfire like that. You never thought that'd ever happen...

[Female interviewee]: That's why we moved to safe little Tathra, from our big bush block out in the national park. We had 25 years of very safe, un-fire-y



experiences... We've run out of luck, let's move into Tathra. We move into Tathra and then bang. (Interview 70, Tathra)

Some interviewees appeared to be surprised that embers could carry fire so far into the town, ahead of the fire front:

And it just, like, one minute, the fire would be there. The next minute, it will be over here. The next minute ... It was just jumping everywhere, and there was just smoke everywhere. And it was shocking. (Interview 32, Tathra)

No, I didn't expect there to be so many [fires], and the way it travelled. One minute you could see tiny little flames flickering up there, the next thing the embers are landing on your shoulder... The whole of Esther Street was fine, and then it's gone over into the caravan park... [It destroyed] two caravans in that caravan park on the beach, but no others... The embers were flying around and wherever they happened to land and ignite, they burnt. I think for that reason, yes, definitely, I can understand why we had to evacuate when we did. (Interview 33, Tathra)

One interviewee had not considered that his beachside property might be at risk from bushfire. He explained that he had been more concerned about the risks posed by storms:

We though possibly a mini-type tornado thing or wild storm coming off the ocean might be the biggest threat... but never considered bushfire. And the lady in the house next door to us... she was renovating... When she'd gone to Council, Council basically said the bushfire risk is virtually nothing. (Interview 48, Tathra)

Therefore, the perceived risk of bushfires in Tathra varied amongst interviewees. Whilst some – particularly those on properties located near bushland – were very aware of the risk, others had not previously considered the possibility of being affected by bushfire.

4.2 ASSESS COMMUNITY AWARENESS AND ATTITUDES TOWARD BUSHFIRE RISK REDUCTION ACTIVITIES

Interviewees were asked if they were aware of any bushfire risk reduction activities that had been undertaken in the Reedy Swamp and Tathra areas in recent years. Hazard reduction burns and Asset Protection Zones (APZs) were the most commonly identified risk treatments, although some interviewees spoke about community engagement and education activities undertaken by the local RFS brigade.

Hazard reduction burns:

Hazard reduction burns were the risk treatment most commonly discussed by residents. Most interviewees who spoke about hazard reduction burns viewed them positively. Some believed burns had been effective in reducing the severity of the fire and a few residents noted that they wished there could be more frequent burns covering more land.

There were a number of factors that I think saved this street. The very first one was the hazard reduction that the fireys [firefighters] did... I was very impressed with the hazard reduction over there because they sort of left the bush intact but they thinned it out and they burn it out. There was a lot of fuel reduction that happened. (Interview 04, Tathra)

The RFS do burn-offs in the hills around here. So the hills where the mountain bike tracks are, I know they've one burn-offs through there. I'm sorry, hazard reduction burns. The reason I know this is because a couple of years ago I went to ride my bike on the mountain bike trails and they said, 'No, we're closed, we're doing hazard reduction burns, so you'll have to ride over the other side.' Okay. So that whole area that the fire roared through, Thompson's and then down to Ocean View Terrace and all of that, I mean that's mountain bike track territory. I know that's had hazard reductions through it. I know the fire trails really well around here, because I used to ride my bike on them. They're always kept clean. (Interview 28, Tathra)

[Interviewer]: You said that you were both aware of the hazard reduction activities that are taking place. Was that something that you were thinking about on the day when you were making a decision?

[Male interviewee]: Yes, because I knew, that's why I stayed. Because I knew that, with that hazard reduction, the fire would not come up even if it had a lot of build-up there, it would not be extremely hot coming up of Killarney, which is the western side. (Interview 24, Tathra)

In contrast, some interviewees were less certain about the risk reduction benefits provided by hazard reduction burns:



You know, there's been discussion about... 'There should have been more hazard reduction burns and blah, blah, blah' ... Personally, I don't think any hazard reduction burn would have helped that on that day, unless you're gonna take the entire canopy out. Once you've got fire storm behaviour, I don't care what you've got around you... You're gonna go. Look at a lot of those houses that burned... they were all ember attack and not even in the flame zone. (Interview 60, Tathra)

So we actually eventually got Koori burns. They do these burns half the size of this room. And they do these little burns which, to me, are frustrating but very safe. And we were going to have these little burns, but to be perfectly honest, there's no way a hazard-reduction burn's going to stop a canopy fire that comes through. Yeah, so it would've made no difference any way, shape, or form. (Interview 86, Tathra)

Further, some interviewees appeared concerned about the environmental impact of hazard reduction burns, despite their role in reducing fuel for bushfires:

And there wasn't a lot of fuel down there either. I often used to curse the burn-offs... because I love the wildlife down there... There was a very hot burn about ten years ago... Quite a large number of the trees died and fell over. (Interview 24, Tathra)

Asset Protection Zones:

A number of interviewees were also aware that Asset Protection Zones (APZs) had been established in areas where houses adjoined bushland. Some of these residents were aware that work had been undertaken to maintain the APZs in the weeks before the Reedy Swamp bushfire.

Fortunately, a week before, the council came and they just cleaned up the grass at the backend. The bush was about so high. They cleaned that right back 50 meters. A couple of years back, they cleaned all the trees back and left a few intermittent ones back to 50 meters. Now they should go back another 50. It's quite funny ... Well not funny, ironic really. All the houses backing on the bush weren't touched. On the other side, they are the ones that got hammered. Unbelievable... [The APZs] would have stopped a lot of the grass catching fire, I suppose. (Interview 33, Tathra)

We weren't overly [concerned], because a couple of days before the fire, we'd gone for a walk up to the bush, and they'd cleared a lot of the low scrub down low, right to ground level, still left the trees... The trees are fairly far apart, so it would have been quite safe from a slow-moving ground fire. We thought: 'This is good, they've done all this work'. [It was] Probably 50

meters wide, the clearing. So we were fairly confident that there wasn't a high danger. (Interview 30, Tathra)

The initial impact of the fire, though, wasn't flames touching houses. You can see, in front of these two houses... If you look, [they are] hardly touched. The backside's got some scorch on it. The trees down here, they're still green... There might have been two or three [houses] that had flame front. I knew there was APZs the other side of all that... (Interview 39, Tathra)

Therefore, there were varying perceptions of hazard reduction burns and APZs. Some residents recognised these bushfire risk reduction activities as a factor that helped prevent further property damage, while others were less certain of their efficacy.

RFS brigade engagement:

A smaller number of interviewees commented on the role of the Tathra RFS brigade in raising awareness about bushfires and encouraging residents to plan and prepare. This included encouragement to make a bushfire survival plan, as well as advice to clear vegetation and other fuel from around houses. A few residents also discussed advice and encouragement from neighbours and friends to prepare their property, reduce risks and organise a fire plan:

I always see the RFS doing stuff. Once a week you drive past the fire shed and they're doing drills, or there's lots of cars there and they've got the hoses out. So they're very active in the community, the RFS. (Interview 28, Tathra)

A year and a bit ago, the local fire people did a thing down on Thompson Drive, where you could go down and meet the fireys [firefighters]. I wanted to go, but we didn't get around to it, something else happened. (Interview 35, Tathra)

There's a guy I play golf with, he's in the local fire brigade, and he was continually talkative, saying: 'Make sure you guys have a fire plan and all that sort of thing.' And you're like: 'Yeah, yeah, yeah.' But you really don't ... well, I didn't take it too seriously. (Interview 52, Tathra)

A few years ago we had the fire brigade standing on this balcony and saying: 'You better get rid of all this undergrowth under here', because they were doing something next door. And, I said, 'But, that's what we like, and that's why we're here.' I think that people have got to understand that you've only got to drive down the street now, and see the devastation about the amount of stuff that's being removed now. (Interview 18, Tathra)



We had a really big garden, and we had started clearing it out because it was getting overgrown and all that sort of thing... And we had this big pile of dried rubbish up there, and they were doing a bit of clean-up, the fire brigade, before anything happened. And they said: 'You've got a lot of stuff that'll burn over there'. And I said, 'Would you like to take it with you?' And he did... So they got rid of it all for us... (Interview 20, Tathra)

I went and joined the RFS and I was in the RFS for about five years until work made me go back to [the city]. But during that five years with the RFS, that was very informative about how this stuff works... The next time we tried to reduce the fuel load around here, I got the RFS to come and help me do it. (Interview 41, Reedy Swamp)

These comments are illustrative of the effectiveness of community engagement work by the RFS, and of how the connections between RFS volunteers and the community support awareness of bushfires and preparedness measures.

No or inadequate risk reduction:

While most interviewees talked about bushfire risk reduction activities in the community positively, a small number appeared unaware or were critical of measures taken to reduce bushfire risk. One interviewee reflected on what he saw as a lack of local planning for evacuation and, in particular, the absence of a designated Neighbourhood Safer Place (NSP) in Tathra (there are NSPs at the Sapphire Coast Turf Club in Wallagoot, approximately 7km from Tathra and at the Bega Showgrounds, approximately 15km from Tathra):

Something I do want to say about the community preparedness is that there wasn't any. I can't remember if we were told ... I don't know why we went to the surf club...that's kind of the town hub.... But I was really surprised that there was nobody there in an official capacity and that [there was] no official notification or phone call... to tell people what to do. It was really community helping community. There was no official person except for the coppers who were driving around town like mad men. And it was really just local people making what they thought at the time was sensible decisions. So to me that's something as a community we really need to work on. Every community should have a go to place, what are they called? [Interviewer: A Neighbourhood Safer Place] Yes, yes. But that place needs to be set up as that. So there needs to be the procedures... And I think as a town, a community, we really need to do that, because it was really chaotic and people were frightened because there was nobody directing them. And then when the phone stopped and it was kind of like, "Shit. We're on our own now. We don't have any contact with anybody outside this little smoky area and the police who instilled no confidence." So it was really... People were just on their own. (Interview 34, Tathra)



Another interviewee also felt that planning and preparation for evacuation was inadequate:

Well we talked about it all the time, but we didn't know what to do or where to go. This was an eye-opener when it happened... There was nothing, no preparedness anywhere. They just give you a pamphlet: 'Oh yeah, this is what to do in case of a fire'. (Interview 33, Tathra)

A number of interviewees commented on a perceived lack of vegetation management on council reserves. One resident had been lobbying for eight years to have vegetation cleared from the reserve adjoining her property. Another believed that the financial costs and the need to preserve the amenity of mountain bike trails had prevented appropriate clearing:

Oh, look, I've always been a bit anxious about this reserve. As much as I love the bush, I've lived in the bush most of my life. I really love that reserve. But for the eight years that I've been living here, I've been trying to get the council to come and clean it up... And it didn't matter what I said about the reserve, but yeah, there's an eight year history of emails and communication about having something done about that. It might get done now. (Interview 29, Tathra)

[Female interviewee]: They did some clearing, but probably not nearly as much as they should have. So whether that's, like a Council money [issue] or what it is, I don't know.

[Male interviewee]: There's a big infrastructure of bike tracks. The problem with the bike tracks is that people want them to stay the same as it is.

[Female interviewee]: Nice and bushy... The residents don't. (Interview 56, Tathra)

I know with the bush here, I think it was burned 20 years ago. And for several years I've been on to the local guys in Bega about having it burned. And they actually tried to burn it a couple years ago. It wasn't a particularly successful burn. But the constraints of various political views on conservation and so forth, I do believe that there should be more attention paid to real preventive burning in the off-season. (Interview 59, Tathra)

These comments reveal the somewhat contentious nature of bushfire management and bushfire risk reduction activities, and the divergent recollections of what risk reduction measures had been carried out.



4.3 IDENTIFY WHAT INFORMATION SOURCES PEOPLE USED WHEN PLANNING AND PREPARING

Interviewees identified a range of information sources that helped them to plan and prepare for bushfire. In addition to information and advice provided by members of the Tathra RFS brigade, interviewees referred to information about planning and preparation sources from NSW RFS 'booklets', 'pamphlets', the website and television advertising campaigns:

[Female interviewee]: In the past, we had a friend that was in the volunteer fire brigade... And we used to talk to him about things. And we had that booklet he gave us.

[Interviewer]: So you probably got a few ideas out of that?

[Male interviewee]: Well you get ideas off all these sorts of things. You've got to be aware of those pamphlets that come out, and have a plan how to survive. (Interview 16, Tathra)

I've always had a list in my head ever since I moved out of the city, probably ever since I lived in the Blue Mountains, because my grandparents had been through a big fire in the '70s. And I guess I always was very aware and kept, and I read the information that the Rural Fire Service put out. I had that booklet at home. I knew the things that I had to do, and I had my mental list in my head of what I would get. And every year, I would revise that list. (Interview 32, Tathra)

One couple showed researchers a folder of information on planning and preparing for bushfire that they had collected over a number of years, including information on bush-fire related legislation and a checklist for preparatory actions (see Figure 4). Although most of this information was quite dated, they found it useful to help stay focused on last minute preparations once the fire was threatening:

[Male interviewee]: Been collecting over the years, things what to do, preparation for bushfires. That was very [useful], referring back to those sheets.

[Female interviewee]: It was very good to have it, to keep you on track. So that whenever I sort of started to panic a bit, I'd just go back and reading what you have to do, so it sort of grounded you again, and got you back on track as to what you should do... I followed that the whole time. (Interview 30, Tathra)

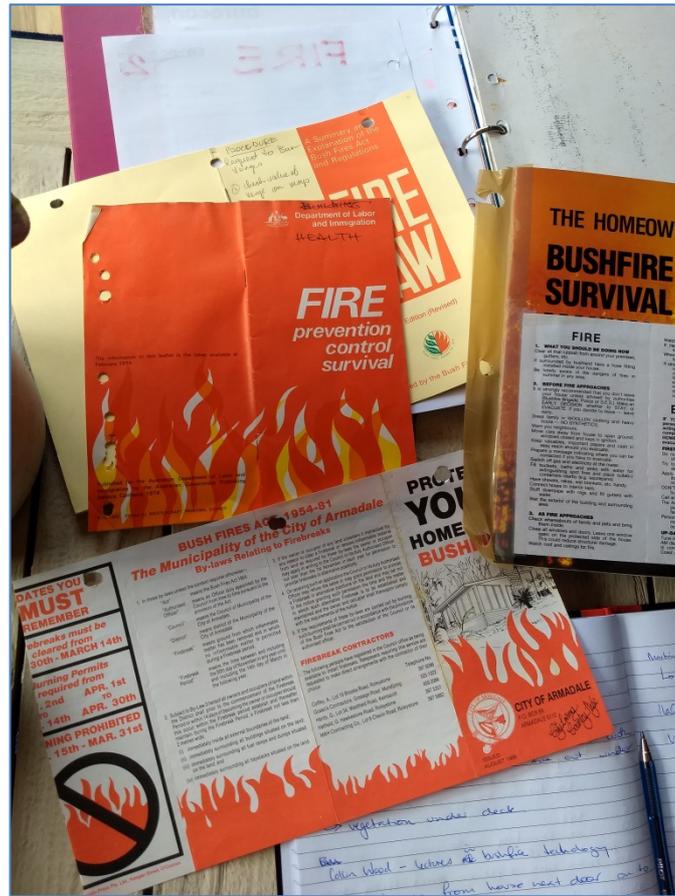


Figure 4: Information about bushfire planning and preparation collected by participants

Another couple explained how they had read about bushfire protection for houses as part of their research into buying a home in Tathra. This research led them to read a CSIRO report into the Wye River bushfires in Victoria, from which they learned about the importance of creating defensible space around the house:

[Female interviewee]: I think, because you had been doing all the reading about bushfire stuff with properties and stuff like that, it did prompt us to tidy up some stuff that was laying in the yard.

[Male interviewee]: Yeah, that was good, that probably saved the house... Just reading about the building standards and all that sort of stuff. And then also, I think because we've both done research at university, then wanting to go beyond that, so I tracked down the guy at CSIRO who does a lot of their research. So then read the research paper from the recent Victorian fire...

[Female interviewee]: Wye River... So that's what helped us realise that most fire are actually something near your house that catches fire then burns your house down. So that's what prompted that [clearing fuels from around the house]... Yeah, reading that is probably a big part of what helped us. (Interview 59, Tathra)



One couple who owned a home and business had detailed plans for both properties, and noted that the development application (DA) processes and RFS materials were influential in developing their plans. This couple had identified, and revised, triggers for actions in their plans over time:

Interviewer: What were the drivers to that? What was the drivers for you to have had an emergency plan which had those triggers in it?

Male: Well, the bushfire evac plan was part of our development consent,

Female: But we've had a bushfire survival plan at home consistently for ... Since we've lived here.

Male: Since we've lived here, yeah. Good old RFS advertising on the telly. We've always had-

Female: It has slightly evolved. I think, our original trigger was a severe day, you get out. And then we spent a whole ... This is at home, this is before we built this place, we spent a really horrible day in Bega, in the stinking heat with a dog who couldn't go anywhere. We're just sitting at the river going, "Why are we here?" So we revised it and said-

Male: Oh, sorry, so that was before the fire happened? There was no fire.

Female: That was before the fire happened. Yeah, there was no fire. There was no fire. Our trigger was a severe day. (Interview 60, Tathra)

Other interviewees also talked about how images and information about past bushfires had influenced their planning and preparation. Observations of what happened in the 2009 Victorian Black Saturday bushfires, which killed 173 people and destroyed more than 2000 houses, in some cases influenced people's intentions to leave when threatened by bushfire:

And Black Saturday changed it all because ... That was 2009, up till then the plan was always stay and fight. Should be, right? A bit naïve, but that was the plan. After Black Saturday I came back up here and went, "That's off." If it's conditions like that you just go. There's no staying to fight. (Interview 43, location withheld)

The other thing that I recall from the Black Saturday fires was a figure about the intensity of the heat, which was 75 kilowatts per meter, is a figure I can remember seeing. I don't know if that's accurate or if it's true but it would surprise me if it was wildly inaccurate. Talking about that with the family, I said, "Okay, just imagine a one bar radiator, that's one kilowatt, 75 of them stacked one on top of the other, every meter. That's how hot it is. So you just don't ... You can't go near it. (Interview 41, Reedy Swamp)

In contrast, an interviewee who stayed to defend his home against the bushfire explained how he never felt threatened by the fire. He compared the intensity of the Reedy Swamp Fire to the Black Saturday fire, which burned under Severe



and Catastrophic fire danger conditions, respectively, noting that he would have been able to seek shelter from the fire, if necessary:

I could have easily sought shelter, even if the houses went up, it was never going to be a risk to me. I'd just walk into the open. It becomes a house fire so it's not... As I said, it's not a catastrophic condition. My brother, he's a forensic dentist and did some of the Black Saturday fires and they would just not survive at all. People were melted in that fire, they were just vacuumed. So the heat from that, and again, if this was from on the mountains, western ridge, you just don't stay because that's going to kill you. This was a coastal burn, there's never going to be that sort of intensity. (Interview 24, Tathra)

In sum, interviewees who had bushfire plans obtained information from a range of sources, including RFS documents and community engagement activities, observing news footage of bushfires in other communities, reports, and local building and planning controls.

4.4 IDENTIFY ACTIONS PEOPLE TOOK TO PREPARE, INCLUDING FIRE PLANS AND PREPAREDNESS MEASURES

Actions taken by residents and businesses people to plan and prepare for bushfire varied considerably. As noted above, some people living in Tathra had not considered that a bushfire could impact on Tathra, or had not considered the potential for a bushfire to penetrate beyond the forest edge. As such, some people within the town appeared to have engaged in little or no planning or preparation for bushfire. Those who lived in streets adjoining or within the forest were more likely to have undertaken planning and preparation for bushfire, although levels of preparedness still varied considerably.

It was also coming to a new place and as soon as I moved in and I saw the bush there, I thought, "This is on the cards." I thought it was on the cards from when I first moved into the place 20 months ago... I thought it was dreadfully high-risk... so I took those extra precautions of having buckets and all that kind of stuff, and hoses, and thinking through what happens, what will I do if something like this happens? (Interview 26, Tathra)

Analysis of the interviews suggests a number of potential findings related to planning and preparedness. Firstly, only a small number of households represented in the interview sample had dedicated firefighting resources including water tanks, pumps, and firefighting hoses. For one interviewee, their high level of preparedness and awareness came from a family history of being impacted by bushfires, and awareness of Tathra's risk from bushfire. This led them to put in a tank, and pump, and importantly, even though they had not used the pump for 16 years, they check it is in working order regularly. They also



continually monitor for fires during the fires season and keep their land well cleared. This level of preparedness is unique within the interview sample.

I've got four hoses, and when I first came here, I put in a tank and pump, and I always check to see the pump's going, and haven't used it for 16 years, and this was the time that it saved the house in effect because ... well, the firemen and luck also played a big part in it, but in the initial stage that was the case. And having a history in the family of dealing with fires, I've always been most cautious... So fires have always been uppermost in my mind and continually clearing out and clearing it all out and getting rid of leaves, which here is a pretty hard thing to do. And even with all of that preparation, I thought we were gone. But with being prepared and luck and the help of the firemen, we're still here this morning.... And I've never used the tank here for anything else except for the fact that it might be needed for a fire one day. (Interview 59, Tathra)

And we have a 12,000 litre concrete tank full of water in the ground and a fire hose on the side of the garage and a pump on a trolley that was in the cubby that was burned. (Interview 10, Tathra)

The other thing we did first thing in the morning, was for me to go and give her a quick tutorial on how to use the water pump. She knew how to do it because she'd been bushfire trained, etc. etc., but it had been a long time, so we went through that again and, yes that was about it. (Interview 13, Tathra)

Secondly, many interviewees described preparedness as what you do on the day once you are aware of a bushfire, rather than actions taken in advance of a bushfire starting.

Interviewer: Did you have a plan for what would happen if there was a bushfire? Or what you would do?

Interviewee 1: My plan was to get out of here. We didn't really have a plan, we just went!

Interviewee 2: When it hits all of a sudden like that, you don't have time to plan anything. (Interview 66, Tathra)

Indeed, as is discussed in Section 4.7, for some residents, having a set of overalls and a hose were considered enough equipment to successfully defend their home. In the majority of cases where people undertook these actions, they were successful. This is largely related to the nature of the fire being ember attack and not a full fire front. In addition, residents were lucky not to lose water pressure, as has occurred in many other fires. As noted above only a minority of residents had a back-up water supply.



Similarly, some residents described planning and preparing for last minute evacuation, or deliberately waiting until the 'last minute' to decide whether to stay or go. These interviewees described measures such as getting cars out of garages and positioning them facing forward for a quick escape:

Yes. We had a plan that was basically ... well, my son lives here. He's got a car. We've got two cars. And we worked out that my wife would go with my first car. The cage for the cat was always ready. And my son would take it. And we would take little photographs, some of the basic things, and a few clothes. We had all of that sort of ... well, that was organised in the time ... we partially organised but we threw all of that together and had it in the car. And when the full time siren went to get out, we were on our way. And that's sort of how it all comes together... Defend as long as we could and then giddy up. And that's how it worked out. (Interview 59, Tathra)

[The plan was to] Assess it on the day, but probably leave. One of the things that I'd done, for example, was to get the car out of the garage fairly, relatively early on. Probably half an hour before we were told to evacuate, I'd already got the car out of the garage and moved it behind the house, because the fire front was going to come from the front. So I thought I'd better get the car out of the street because it's going to burn the car up before it hits the house. So I put the car at the back because I thought that'll give me a few seconds more to get out. (Interview 38, Tathra)

One of the first things we did, which you know in hindsight was probably the best thing we did, and [household member] thought of it, he just took both cars straight out of the garage, had them pointing downhill with keys in the car... We've got a really steep driveway... I didn't realise how thick the smoke would be, so there's a good chance if you're going backwards down the driveway, you'd go over the edge... (Interview 30, Tathra)

We were always leaning towards leaving. The only way I thought we would stay would be if it was a fire that was approaching slowly, and if the RFS was here... and we'd had warning and time to go around and do all the things that you should do... So the default plan is we leave. If there's reasonable evidence to say it's worthwhile staying, then yeah, okay. Normally the leaving plan would involve half an hour's packing up, let's grab the things that we want and so on. But I didn't even think that was reasonable then. (Interview 41, Reedy Swamp)

Some residents based their decision to leave on an assessment of the likelihood that their house could not be defended as it was too close to the bushland interface. Others noted limitations due to a lack of firefighting resources, such



as a lack of standing water on their property and a fear of losing mains water pressure:

I think maybe... I did not deem this house defensible. It's not defensible... We moved in here and I was like, "Wow, that's got a wooden deck, five metres from trees, the back of the bush. That's not defensible." So... I did not contemplate staying at this house. And it's got a water tank, but the water tank's lower than your back, so you can't get pressure off. It wasn't ... Yeah, I didn't think of staying. (Interview 35, Tathra)

In addition, to a lack of preparation to stay and defend as discussed above and in Section 4.7, many residents who planned to evacuate had also not made a prior plan or preparations to do so. They discussed a last minute dash around their house while they tried to collect items they considered important to take. Interviewees discussed how in the panic they forgot critical medications, papers and items of sentimental value. Many noted that in future they would keep important documents together and would have a list of what they planned to take.

She said, "What did you pack?" And I said, "There was a basket of washing that's just been done. So I grabbed that because well that's clothes... that we're wearing," and I threw in some jocks and socks, and bras and that for her. She said "Well that was good, and what else?" And I said, "The last thing I put in was me football supporters t-shirt, and a six pack of beer." She said, "You idiot!" I said "Well I still didn't think I'd be gone for that long, so I thought I'd probably just sit around and have a beer or two, and be back." She said "You didn't think of the passports or anything?" I said, "No no, I had the important things, I grabbed the beer and me football t-shirt so." And interestingly when I unpacked some time later, I threw in a pair of shoes, and they were both left feet and a different pair of shoes. They were both great shoes, but obviously the head wasn't quite ... you know. (Interview 52, Tathra)

And you were saying about having a plan, well, we didn't. And when [name removed] said, 'You'd better get into the house and get out what you want', well we came in here, and I said to [name removed], 'well, what do we take?' Where do you bloody start? Because we've got 50 years of photos downstairs in boxes, you can't, you know, grab all them. So, first thing [name removed] did is she grabbed the jewellery, which was a clever girl, and our pills. She got her pills, and so I said, I better get me pills, so I can stay alive. And then we knew the wedding was coming up, so she grabbed the wedding dress, and she said, get your suit, so we had just bought a new suit and a new dress. Nevermind any underpants or anything like that! Throw all that in the car. A few blankets, I think, I don't know. And she put some clothes in. I didn't put any clothes in apart from the suit, so, you know, you can laugh about it now, but I don't know what we'd have done if the house



had of gone because all I had was a bloody suit! (Interview 50, Tathra)

Lastly, a small number of interviewees did not have insurance, and many were underinsured. One interviewee discussed how knowing they were underinsured that had motivated their decision to stay and defend.

First question someone asked me, did you stay because you weren't insured? I said, no that's not the reason I stayed. I just wanted to have a house to come back to.... I've got insurance, but with insurance you don't ... people say, oh people are underinsured but how do you know... You've got replacement value from when we built this to what it is now, it's a vastly different thing. (Interview 57, Tathra)

I think that the community has felt pretty well supported, all in all from what I've heard, but it has brought up a number of issues about people's lack of insurance, whether it be my business interruption. If this place had gone down, I would have been so underinsured. (Local business)

[Interviewer]: So you rent this property, did you have contents insurance?

[Male interviewee]: Yeah, probably not enough, we opted off for that.

[Female interviewee]: Yeah, if we'd lost everything it wouldn't have covered everything.

[Male interviewee]: But, that was sort of because we hadn't bought a lot of this stuff, so a lot of it's given, so then you don't think about the value. It was more about trying to insure ... We'd previously more been insured for theft, because we used to live [elsewhere] and we got broken into a couple times. So it was more just trying to get your bikes and your TVs and your computers covered... (Interview 35, Tathra)

I've got insurance, but with insurance you don't ... People say: 'Oh people are underinsured', but how you know what you should be insured for? You got replacement value from when we built this to what it is now. It's a vastly different thing. (Interview 57, Tathra)

In sum, the actions taken by residents differed greatly, often reflecting their awareness of and preparedness for bushfire risk. Many interviewees described 'last minute' planning and preparations for an evacuation, or an improvised property defense.

4.5 ESTABLISH THE COMMUNITY'S PERCEPTIONS OF THE RISK POSED BY THE FORECAST FIRE DANGER RATING AND CONDITIONS LEADING INTO THE BUSHFIRE, AND THEIR SUBSEQUENT RESPONSE

A considerable number of interviewees said they were aware that Sunday 18 March was forecast to be a day of Severe Fire Danger. Some others were unaware of the exact Fire Danger Rating, but were aware that the day had been forecast to be hot and windy. These forecasts influenced people's perceptions of the risk and in some cases encouraged prompted residents and business owners to begin preparing to respond to the threat of bushfire.

So I was at home, [name removed] was at work, and we'd kind of seen the warnings of the high fire risk leading up to it for the day, that it was crazy windy, crazy hot... So you could kind of expect that something was going to happen. (Interview 46, Tathra)

So we were aware that it was going to be really bad weather conditions so I alerted the neighbours around saying: 'Look, Severe weather forecast for today, just keep an eye on things and wet things if you think there's any problem... (Interview 54, Tathra)

[Interviewee]: As soon as I woke up, I could tell it was going to be a nasty day. It was a nasty, hot wind. And about 11 o'clock in the morning, I saw smoke not too far away. It was obviously the very start of the Reedy Swamp Fire... It was the sort of the day where if you knew anything about fires, you were just nervous. You were just hoping you wouldn't see smoke on the horizon anywhere. And unfortunately, I saw the smoke. It appeared, the wind and everything was blowing absolutely straight to my front deck, and I just felt like that fire was heading for us...

[Interviewer]: Even though it was mid-March, you knew that it was going to be a bad fire day?

[Interviewee]: Yes, the day was predicted as well.

[Interviewer]: Where did you hear that prediction?

[Interviewee]: Oh, just the weather reports: that it was going to be hot and windy. That's all you need for fire conditions. (Interview 38, Tathra)

[Male interviewee]: At the end of the day, we'd got a verbal warning from [RFS member]... She had just walked along to tell all her neighbours: 'Tomorrow's gonna be a really bad day.' And [name removed] has it on her Internet, the weather...

[Female interviewee]: Yeah, it gives me an alert. It's called 'Weather Life' and the closest station to us is Chinnock... It told me that it was gonna be Severe, the day before, and it listed all the areas, which is basically everything around here... I said, 'This isn't good...'



[Male interviewee]: But before we saw the fire, the Reedy Swamp Fire, because we had the severe fire warning the day before, I said to [female interviewee] 'Well I'm going to put some documents together, the most important documents, whatever money was in the house and other bits and pieces... so she could just pick them up and run with them if she had to (Interview 08, Tathra)

Other interviewees were not aware of the Severe Fire Danger Rating or forecast weather conditions, but knew that the day posed an elevated risk of bushfire due to the hot and windy weather they were experiencing:

[Interviewer]: And on the day, were you aware of the forecast fire danger rating or forecast extreme weather conditions or anything?

[Interviewee]: No, just extreme winds. I'd heard that a couple of times, and I'd felt it and seen it, if you know what I mean. Nothing we'd heard on the radio or anything like that, no. (Interview 11, Tathra)

[Interviewer]: Were you aware of the fire danger rating of the day? Or a weather forecast?

[Interviewee]: No. Just being outside, knowing that it was a typical day that fires happen.

[Interviewee]: I guess that, just the heat and the strength of the wind. You know, we do get those north-westerlies once or twice a year and I guess you're always, you're always on guard a little bit when that happens. But we knew it was very dry, and I don't know, it's something, you add a little bit of smoke to that and the atmosphere really changes, the light changes. Yeah.

[Interviewer]: Were you aware of what the fire danger ratings was?

[Interviewee]: I think I have a sense, you have a sense of that anyway to a certain extent, yeah. (Interview 78, Kalaru)

[Interviewer]: Were you aware of the Fire Danger Rating or the forecast weather on the day?

[Interviewee]: Not particularly. I just know it was extreme fire weather just by my own experience. I didn't look at or hear anything – just made up my own mind what was going on. (Interview 03, Tathra)

[Interviewer]: Were you aware of the Fire Danger Rating on the day? Or a weather forecast?

[Interviewee]: No. Just being outside, knowing that it was a typical day that fires happen. It just felt weird that day, because it was hot very early. We went down to the beach. We'd only been back from the beach for about half an hour, three-quarters of an hour... When we were coming back it just kept getting hotter, and the wind got stronger and stronger, and we just sort



*of said "Ooh, we don't like this sort of weather. This is real fire weather".
(Interview 30, Tathra)*

These comments illustrate that, while some people were not aware of the specific forecasts or Fire Danger Rating, many were aware of the risks posed by the conditions they were experiencing.

4.6 ESTABLISH HOW THE COMMUNITY BECAME AWARE OF THE BUSHFIRE AND HOW THEY REACTED TO IT

There were two main ways people became aware of the Reedy Swamp Fire. Around half saw or smelled the smoke for themselves, and half were alerted to the presence of the fire by another family member, friend or neighbour. One interviewee also discussed how the conditions on the day, the heat and wind, raised their awareness for the potential of a fire and they then checked their app to discover that there was a fire nearby. For some residents, knowledge that there was a fire nearby caused concern and motivated preparatory or protective action, including alerting other people; others simply noted the presence of the fire and continued with what they were doing.

- Seeing or smelling smoke:

We were at the Tathra pub having lunch... We were in the restaurant at the pub. We saw quite a lot of smoke billowing over the mountains, watched it for a while and then I decided in the middle of lunch to go home and shut all the windows because I didn't want the house to get smoky from the smell. So I went back to the pub. (Interview 34, Tathra)

Because it was a hot day, we were actually swimming at Nelson Lagoon, which is over the hill. The really hot wind came in at about 12:30 or so, and so it wasn't any fun to be there anymore, so we came back. Not long after being back we actually saw smoke. Just noted it at first, and then [family member] went outside 15 minutes later and also smelled smoke and came back in and said, 'Can you smell smoke?' And I went, 'Yeah, I thought I could.' And then, not long after the second time, I think, we went, 'No, there's actually really smoke, and we're downwind.' (Interview 35, Tathra)

I was aware on the day of the fire. I knew there was a Total Fire Ban... I tend to look at Fires Near Me pretty regularly... I checked Fires Near Me. Yes, there's a fire. Didn't hear anything on the radio, on ABC. I've got some property to the east of us, so I went and checked that, and then coming back to Tathra after I had done some preparations out there, I went up to Thompson's Drive and looked to the northwest, and saw the smoke, and went, "Mm-hmm [affirmative], that could be interesting." (Interview 39, Tathra)



I just saw the smoke and kind of didn't think too much of it because you can't see the ridge on mountain from where we are, so it's the smoke and you kind of have known, I'm very naive I guess. I was very naive about what could happen, and you kind of expect that you get lots of warnings that something's close by, and that kind of thing. (Interview 46, Tathra)

- Alerted by family, friends or neighbours

Many of those who were alerted to the fire by other people were inside at the time, often seeking refuge from the heat and wind. Others were away from their properties and were alerted via a phone call.

So around midday or a little earlier, I went inside for a drink and a snack. Made tea for [name removed] and myself... We were watching news about the Victorian fires. Both of us were sitting in for a midday snooze. [Family member] came in... and asked if we had a fire going? I answered no. Then he said: 'I think I can smell smoke.' I went outside with him, I could also smell some smoke. The distinctive smell of burning eucalyptus: bushfire smell. (Interview 41, Reedy Swamp)

How it unfolded for us was that we were in Merimbula... and I noticed a voice mail message, it was about an hour old, and I accessed it and it was our neighbours... They were saying, "You've got to get out, there's a fast-moving fire at Reedy Swamp." (Interview 42, Reedy Swamp)

We were told by the lady across the road... Just before one o'clock she'd gone out, looked up at the sky and seen some wispy smoke. Then she rang an ex-colleague from the Rural Fire Service, and he advised her to start preparing and pack stuff. So she came and knocked on our door, and we were quite surprised because usually you could smell... we're used to smelling smoke. So we raced outside, and looked up, and sure enough there was wispy smoke... Then we door-knocked a few neighbours... (Interview 30, Tathra)

I think I first became aware because my neighbour in front of me here came up our driveway, oh, It would have been around 1:00PM, and told us that there was a fire at Reedy Swamp that was out of control. And that was the first and only alert that we had about the fire... Because of where we're situated here underneath this ridge, we can't actually see what's happening, but when we drove to the tip, we could see that there was a fire. And so, we were on alert in the sense that we knew there was a fire in the region. (Interview 32, Tathra)

The chap next door actually told me. No, I didn't get anything from anyone



else. He said, 'There's just this fire coming, it's on its way, by the look of it', and you could see it. I said, 'Oh, yeah, okay.' He said, 'Be prepared, get your valuables and everything ready,' and so I went and had a look out the back, and it would soon be going that way, so I didn't worry. I gave it five minutes and went out. I had a look at the thermometer on the back veranda, it was 40 degrees. I came around here and checked the one on the front and that was 38, and the smoke, it seemed to wisp over this way, and it was coming straight for us. I was, "Okay, let's go." (Interview 33, Tathra)

I was in Merimbula, south of here, about 40 minutes south visiting a friend... I was about to come home anyway, cause it was extreme and really hot, and then I got a phone call from my son, who was coming home from Bega, and he just got to the fire. He rang me and said, 'You know there's a fire started here at the power lines' there where a mate of his lives. His mate observed the fire starting there at the power lines and my son had got there about ten minutes after it had started, and so I raced home from Merimbula... I just ran around setting up sprinklers, pumps, wet towels on doors, closed all the windows, pulled everything away from the house, grabbed a few things that [name removed] wanted from the house and left with the dog to go to Mogareeka... where you can actually see back into this area. You can actually see the house from there. (Interview 43, location withheld)

Therefore, few residents were notified of the fire from a formal warning (e.g., website/App, text message, radio, TV, or phone call), and many became aware simply through observing the conditions on the day. Notably, many interviewees recounted alerting family, friends, and neighbours to the bushfire risk, and the close-knit nature of the community was doubtless important to ensuring that all residents were made aware of the fire and that elderly residents or those needing extra support were safely evacuated.

4.7 IDENTIFY IF PEOPLE WERE ABLE TO IMPLEMENT THEIR FIRE PLAN

As noted in Section 4.4, many people did not have a formal or detailed fire plan. Analysis suggests that most of those who did have a plan were able to implement it, and that many who had a stated intention (e.g., to leave or to stay, rather than a detailed plan) were able to implement this. Of those who had planned to leave when threatened by fire, most did evacuate. Some, particularly those who evacuated comparatively early, also took time to prepare their property and belongings prior to evacuating:

Interviewee: Well, basically, when the power went out round bout 12:30, I think, maybe twelve to one, and finally realised that I'd been smelling smoke for probably about an hour, hour and a half. That kind of finally tweaked that... On a day which was very, very windy and hot that nobody



would be back burning or should have been doing anything with any sort of fire, and that really made me tweak to it. Plus, at that stage, too, when I came outside, you could already see a fairly large cloud of smoke over yonder. Pretty much at that stage that I started to think that should I definitely activate my escape plan and get out of here. Called one of my colleagues who was down a little bit closer to the beach, and they'd already heard from some of the people that they knew that the situation didn't look very good, and so yeah. The next couple of hours, just got everything as ready as I could, and got out as quickly as possible. (Interview 07, Tathra)

Interviewee: We waited for a few hours and the smoke ... and I was convinced it was on the other side of the river. And when the helicopters started getting a bit closer it was like, "Ooh". So at that point I put sprinklers on me roof and out the back and started getting organised, putting stuff out in the road. [Partner] packed the cat, the dog, passports, wedding photos, and that. And when it came over the hill that was like, yeah, time to get out.

Interviewer: did you always plan to leave if there was a bushfire or... ?

Interviewee: Yeah, yeah, that was always part of our plan yeah. If there was bushfire we were to leave. I mean, I looked at it for a moment and then just went, "Nah". (Interview 71, Tathra)

Others who had planned to leave noted that although they had successfully evacuated, in future they would prefer to leave earlier. One interviewee, for example, was worried that he had left his evacuation too late on the day:

Up until that point when I left, there was no emergency personnel. There was no one around. There was that helicopter, but he wasn't... dumping water on me. There was nobody. So I actually got to the end of my driveway, and as you can see, I can turn left down Dilkeria [Road], or right up the hill. I did debate for a while. I thought, 'I don't know about the conditions of the roads, and I don't know where the fire is.' My plan was always to go to the surf club, so I'll go down to the surf club, so I did. And of course, if I'd gone up the top, that's where the fire was, at the top of the road. So I drove past the bowling club, and there was a tree down across the road. I just thought I'd left it too late. I mean, it was okay, but you know, you just think, "Oh my god. I thought I was organised, and I was organised. I thought I was prepared, and I was. But I think I've left it too late.'" (Interview 26, Tathra)

Another interviewee when reflecting on her evacuation with family and neighbours, explained that although all intended to evacuate, there were differing opinions within the family groups about when to leave. She notes that in future she would prefer to leave earlier than they did during this event:

Interviewee: I would probably insist to leave earlier. A little bit...

Interviewer: Any thought of what earlier might be?

Interviewee: Look. When we were at our neighbour's house, the men were like, 'Nah, it'll never get here.'... [Next time] I would put my foot on the ground. Say, 'I'd rather leave now and come back', than have to leave in a hurry. We can go turn the sprinkler on now if you want to. But, yeah, so don't... [wait] until the last minute. I think it's more like a ... should go with your gut feeling. (Interview 75, Tathra)

Some interviewees explained that they wanted, or had planned, to stay and defend their properties, but did not do so out of concern for other family members, or because other family members insisted that they leave:

Yeah. I was going to stay. I would have stayed. I worked for National Parks for 25 years, got a National Fire Medal last year. I know a fair bit about fires. If I'd have been here by myself I would have stayed, but I had the dog and [name removed] had never been through a fire. (Interview 03, Tathra)

Well, [wife] had come down, 'round to the property and grabbed me. I said, "No, I'm not going. I'm staying. I'm going to go fight." So I had the soaker hose going. I was setting up hose connections and everything. And we're just about ready to have a big blue [argument] and she started yelling at me and I said, "I want to stay and fight, I'm not going." I looked at this poor old 90 year old lady [neighbour] sitting in the car and I thought, "Oh Lord, what do I do here? If I have a blue [argument] with [my wife], just don't know what's going on here. She might have a heart attack. Everything else will go up. I just got to give up and go." I had to think of the lady in the car. In retrospect, it was probably the best idea to go. (Interview 70, Tathra)

These findings are indicative of the influence the presence of family members, neighbours and pets had on decision making during this fire event, and show that many people made choices about evacuation based on staying together as a family or neighbourly unit.

In contrast, some interviewees were resolute in implementing their plans, despite pressure from others to change at the last minute. One interviewee explained how her husband wanted to return to their house, despite their plan to leave, while another resisted the advice of police to evacuate:

We drove down in front of the Beach House Apartments and the pizza place and parked in the area there, and just sort of sat there for five minutes or so. And then my husband kind of decided he wanted to go



back to the house. So we had a little argument there. 'Banshee Me' came out and said: 'You're not bloody going back. We're staying here and we're going to find the boys', because the phones were working at that point but I don't know how quickly they were working. We couldn't ring them, they weren't answering. So we didn't really know what was going on. Anyway, by the time we walked over to the surf club and found them we then decided we were going to go to Bega. (Interview 34, Tathra)

[Male interviewee]: When the police came up the street: 'Evacuate. Evacuate'. I chuckled and [said], 'No fucking way.' Here's my chance. I've got to stay here...

[Female interviewee]: And that was our plan. We were never going to leave, one way or the other. (Interview 39, Tathra)

Among those who planned to defend, many were able to follow their plan. As well as being relatively well prepared (including with equipment), many of these interviewees had also considered what their own trigger would be to leave, and whether it was possible to leave if property defence was unsuccessful:

Interviewer: So it sounds like your plan was always to stay and defend, is that correct?

Female: Mm-hmm (affirmative).

Male: Yeah.

Interviewer: Yeah, but you had the kind of plan as well, is if it gets too hot, get out?

Female: Get out.

Male: Yeah.

Interviewer: And did you ever feel at any point that you were seriously thinking, we're going to get out, we're going to leave at any point? Or was it still-

Male: No. Because I felt ... We were right under there, the house could catch on fire, and we got plenty of warning. And if it's too bad we can just get out. So just ... We're under there, in the wet. And blankets under the car. Everything like that I knew that we were all right. I had the car hosed and everything... Well I didn't think of leaving at that stage because I didn't figure it was ... I felt we were all right, and we were. I think you sort of know. As I said, if the house was alright, and I couldn't put it out and we still had time to get out of there, I would have. (Interview 16, Tathra)

For those who had specialist firefighting equipment, some were able to use this effectively throughout and faced only minor issues, while others were not able to use the equipment at the time of the fire. For example, this couple



recounted reviewing how to use their water pump the morning of the fire, but faced challenges using it:

By this time the smoke, it was so thick and quite acrid, I had a bandanna around my face so that I could breathe, I had glasses on fortunately, only the distance glasses these ones here. I couldn't see, my eyes were stinging, they were all tearing and everything, came to the pump, and I thought, oh crikey, I can't see the bloody ... I can't see where the dials and everything, and you've got to push it, you turn the ignition on, and do the choke and all the rest of it. I couldn't even see the knob. I need my reading glasses, I'm saying to myself, I haven't got time to get reading glasses on, bugger the bloody pump, I've got a hose in my hand, we've got hoses everywhere around the house. So I went round from one hose to another and fortunately I was there because the [inaudible] had flame going up it, so I thought right, well good, I put that out. The pity of it is that the next door house is already so engulfed it's fallen in on itself. (Interview 13, Tathra)

Another interviewee also noted that their council-required water tank only had specialist hose fittings for firefighters to use, but nothing that they were able to use. They had anticipated that the water tank would be of use during a fire, but found it useless "because there was no fireman here, it was only us" (Interview 17, Tathra).

Notably, some of those who had planned to stay and defend decided to evacuate once they saw the fire, or when attempts to defend their house and property failed. For some, this was a careful weighing of concerns for property and safety on the day; for others, it was an instinctive response to a quickly escalating situation:

I'd always felt that we could probably have a fair chance of fighting a fire here, and if we decided it was not good, not working, then we could go down our track to the river where it's very safe, the river's shallow and wide, and at worst we could just get into the river... But feeling the wind on the day, seeing how close the fire was, then even that didn't seem like a very good idea, staying here to the end. There's nowhere up here to hide from a fire once you're here. If you're here defending the house, you're actually defending your life because there's nowhere... If you lose the house there's nowhere to go. That's it. You're in the middle of a fire with a strong wind behind it. So yeah. It just didn't make sense. There would have been enough water here. There's a huge water tank over there. But without three or four or more able-bodied people properly equipped, then it would be a really silly idea. Even if the fire hadn't got here, if we had stayed for much longer the wind could easily have put trees down across the road and even without the fire we would have been stuck here, and the fire would have caught us in the end. (Interview 41, Reedy Swamp)



We had to make the decision to not try to save my house. We had to let go. I had to let go. It was my home. [Name removed] made the call. I mean, he told me to get out. I had to trust him. My sense is that I don't think my house stood a chance. I mean, look at what's around. That was a fully brick house. The house behind was cement and brick. They're gone. My house was a timber pole house straight up from the gully. It was probably one of the first houses in Tathra to go. I know that the people in the house up here stayed and fought, and they saved their house and they're still living in it. And there's a little part of me that thinks, "Could I have?" But I don't think so. They had all the ... They had a pool in their backyard and between the house and the fire, and then they had all their fire rescue gear and... Anyway, I mean, you make the decision that you make, and you have to live with it. (Interview 32, Tathra)

[My wife] left in the car, I said I would stay behind and I was putting out embers out the back and then the fire ... I could see it going along the ridge out the back. And I thought "Ah, you beaut, it's going past." And while putting the embers out I heard this almighty roar and I came back inside and went into the far bedroom and kept an eye on things. And the garage next door out the back, he had his 60's Vauxhall in it which had fuel in it and his fuel tank for his boat plus the fuel for his mower. That all exploded and the roof of the shed ended up on his back on the top on the lawn. And I thought "Well, it's time to leave." (Interview 72, Tathra)

Therefore, while many people were able to implement their fire plans, or to follow their intended response to this bushfire, others reassessed and changed their plans during the event according to fire conditions, the welfare of their family and neighbours, and the information available to them. As one interviewee noted:

I had this mantra of, "Okay, plan, act, and then reassess. Plan, act, reassess." So sure, you've got a plan. But you've actually got to do something. And then, even while you're doing it, reassess what's happening next, and then do something again. I just think that in terms of telling people what to do, it's more than just a plan, because as soon as something happens, your plan is almost out the window. It's a guideline only. You've got to come up with plan B or what you're going to do next... You can help people prepare, but in the end, it's up to each person to figure out what happens next. (Interview 26, Tathra)

Impromptu property defence

Whilst some interviewees who stayed to defend property were following their plan, some interviewees primarily in the township of Tathra carried out an impromptu defence – improvising with the garden hoses or sprinklers they found



on the day. These interviewees discussed not having a plan at all, but simply deciding to defend on the day when they were confronted with the fire:

So I was pretty much completely unprepared, out of my depth and I just sort of sat there and watched the smoke. And when I could actually see the glow of the fire underneath the smoke I was like "right, okay." I'm sitting there in a T-shirt and pair of shorts and I was like "Alright, it's time to sort of put something a bit more substantial on cause this is going to get really serious." So I put some overalls on and hat and boots, readied the two hoses that I had. I've got a tap at the back and another tap at the front. (Interview 49, Tathra)

Interviewee: We wheeled in here and there was, of course, smoke and everything had already arrived, and we put the car in the garage... grabbed a hose each... turned the hoses on and got out the front there, it came in through that gap there opposite, virtually opposite here. And it was 100 foot high and the house immediately across the road there virtually blew up straight away. So, it was ... It was on from then, so ... literally a hail of fire... all the embers coming down. We had bare feet or [partner] had sandals on. We both had shorts and shirts on. I had no time to put anything on. And it just sort of rained down embers everywhere... there was no air to breath, that was the thing I found difficult. Because I only got one and a half lungs, so, I tested them out.

Interviewer: Had you planned ... Had you thought about this situation before you actually were confronted with the bushfire?

Interviewee: No-

Interviewer: So you didn't have a plan to stay, then?

Interviewee: We never planned it, no, and I always felt that, you know, it would never ... And even if it did get to the top of the ridge, the road would protect us... But, I never dreamt that this place, here, would go (Interview 50, Tathra)

Among these interviewees, some explained that they chose to stay based on the fire conditions and risks that they observed on that particular day, rather than because defending was a part of their fire plan. For example:

Interviewer: Did you always intend to stay, and defend the property, if there was a fire?

Interviewee: Oh, that's odd, I think, on the basis of that. It depends, when I saw the flames, in that place, there, that's when I decided, this is serious, this is serious. Then shortly after, that hill right there, immediately behind those houses, was not visible. No flames, but dense, ground hugging smoke. My first things are, should I go, or should I stay? Can't do much with the garden. Alright, so what's my options? I got the creek there, so if things get bad, I

could go in there. A wide black road, designing one large tree, that overhangs the road, then my next option, is to drive down there. The beach is at the end of the road. To get the car over the sand dunes, and onto the beach. I had my options mapped out on where I was going. (Interview 64, Tathra)

This interviewee further reflected on the “sheer damn luck” of finding a long garden hose in the neighbouring property, that large trees near his property did not catch alight, and that the fire(s) at and around his property were manageable with a garden hose.

Others described staying and defending their properties as a somewhat instinctive response. For instance, one couple recounted arriving home when the fire had already reached other properties on their street, grabbing hoses and defending their home. When asked if they had considered evacuation, they explained:

The thought never came to leave because you were too busy. You know, there was too much going on, and too much to do at the one time to even think about going away and leaving. (Interview 50, Tathra)

These stories are illustrative of residents who improvised the defence of their properties on the day, rather than defending their properties as a planned bushfire response. Notably, this approach to defence was most feasible where properties were affected by ember attack, rather than the fire front, and was dependent on such factors as water pressure, fighting spot fires only, and being able to find hoses – put differently, “sheer luck.”

Water supply

The mains water supply and, crucially, water pressure in town was of particular significance for interviewees who improvised their defence and did not have an alternative water supply, pumps and generators for firefighting. Many noted their good fortune that the mains pressure was sufficient during the fire:

Interviewee 1: The amazing thing, the water pressure here remained terrific.

Interviewer: Oh, it did?

Interviewee 1: Yeah, I was rapt.

Interviewee 2: Well, the reservoir at the bottom nearly went to empty.

Interviewee 1: Did it?

Interviewee 2: Yeah.

Interviewer: Do you have a tank?



Interviewee 2: No. (Interview 11, Tathra)

And we had good water pressure all the way through it which was lucky 'cause, if we had no water pressure, [the business] would have burnt. (Interview 79, Tathra)

This suggests that the effectiveness and success of those who defended property was made possible through having good water pressure throughout. A few commented, though, that the reason that they had good water pressure was because so many others had evacuated:

So that [sprinklers] was stayed on for about four or five hours through the whole thing. I was lucky, 'cause no one else was here and I had full water pressure. Otherwise, I would've had to turn one or two banks off of. (Interview 16, Tathra)

Interviewee: I thought if a lot more people stay back, they would've saved more houses. But when I thought about it, we wouldn't have saved any. Why? Why won't we save any? Say all the people stay around and they are fighting their spot fires, why wouldn't we save any? It's common sense. Think about it.

Interviewer: You tell me the answer. I think I've got an answer.

Interviewee: You know, if everybody had stayed behind, we wouldn't have had any water pressure. So all the houses would have burned. This is what I've come up with at the end. You know, it makes sense when you think if everyone had stayed back home, they would have saved their houses but if they would have stayed there, the water would have been trickling and how would you save your house? (Interview 76, Tathra)

However, some interviewees reported experiencing issues with water pressure that hindered their efforts to defend their properties:

We were sort of shuffling between houses and the house next door caught on fire. The gutters and the deck was on fire, and I was able to be there and put some water on it. Which we didn't have very much water pressure here. (Interview 57, Tathra)

Interviewee: Yes, I think that it would be really, really good for residents to be able to plug in some sort of a hose to the mains, water, so that we do have some sort of firefighting capacity. Because out of our normal hoses, there's no hope.

Interviewer: So in terms of the water pressure, you mean?



Interviewee: Yeah, and the volume of water. There's just not enough your normal house supply. If we had some way of being able to attach firefighting hose to the mains, which just runs along the side of the road there, that would give all of us some sort of protection at least. To wet things in a hurry, and even to fight little spot fires. Because our hoses just wouldn't cut it. (Interview 21, Tathra)

For others, the prospect of losing water pressure motivated them to evacuate, as it makes property defense untenable:

I realised if I stayed here we were going to lose water pressure. I would say we had nice fire pressure on the hose at the time when we left, but very shortly, as soon as the big concrete tank up on the hill empties then it's a dribble. So we decided to go out... I'm getting too old for that fire brigade. (Interview 56, Tathra)

Therefore, while some were fortunate to have good water pressure that enabled them to improvise their property defense using garden hoses, others found that low water pressure meant they were less able to carry out their bushfire plan.

Decisions about whether, when and where to evacuate to

It is notable that most interviewees appeared to be aware of the Reedy Swamp Fire by early afternoon, yet most of those who left did so only as Tathra came under direct threat. Many believed that the fire would 'miss' or was not a threat to the town itself. Interviewees' accounts of the period immediately before and when Tathra was impacted illustrate the late and potentially dangerous nature of many evacuations. Furthermore, the loss of power and mobile phone coverage and issues with ABC Local Radio's emergency coverage contributed to uncertainty and confusion about whether, when and where to evacuate to.

Late evacuations:

There were numerous reasons why people evacuated immediately before and as Tathra was being impacted by the fire. As is noted throughout the report, some people did not perceive that Tathra was at risk from bushfire, and others did not believe the Reedy Swamp bushfire would impact on the town itself. For example, one interviewee recalled advising a friend who lived in a house surrounded by forest to come into town, which she believed was safe from the fire:

We saw, early in the morning, the smoke coming from Bega and went down and had a bit of a look around... Friends of mine live out there and



they rang to say, "What are you doing? We've packed up stuff. We're going to get out." Because they were standing at a high vantage point and they could see where the fire was coming from. And they felt that they were threatened and I said, "Well, don't just stand there. Come and see us. Come into town. Come be with us, we'll be safe here." So we had absolutely no idea that it was coming. It wasn't until the helicopters came over the back way to us that we realised that we were in trouble. And it was only because the wind was so ferocious. If the wind hadn't been so ferocious, we would have had heaps of time. It was just within a matter of half an hour, it was 'We're fine... No, let's get out of here'. (Interview 70, Tathra)

Common triggers for leaving included: seeing the activities of or receiving advice from neighbours or emergency services; perceiving a threat to personal safety due to the presence of fire, smoke or embers; and being unable or unwilling to remain to defend a house or property. As the following interview excerpts indicate, many residents evacuated as the fire was impacting on their property or street:

Interviewer: And what made you decide to leave, I guess at that point then?

Interviewee: The sheer threat of a fireball heading in my... it appears it was heading for me - coming from over there. The smoke, the billowing smoke, the crashing of the trees as they fell. The embers that were starting to fly through the air... (Interview 23, Tathra)

It was just this mad panic, and really this overwhelming sense of horror. And this pain in my chest, which I knew wasn't a heart attack, because it was on the right hand side, and gasping for air. How hot was it? ... The wind and the fire, which was coming closer... I got phone calls from the family at home: "Get in the car. Just get Mum out of there." So I was, "Do we stay? Do we go?" Pretty much we decided to go. I was talking to the guys across the road. I'm like, "Where should we go?" "Well, go up the road, not down the road." Do you know what I mean? Because I don't know what was going on down there. But I also spoke to the neighbour. I was hosing my house, trying to wet it down, because you've seen it on the movies and whatnot. I said to the neighbour who was doing the same thing two houses up... "Where's the fire brigade?" He's like, "I don't know." He goes, "Really, what could they do?" because it was just overwhelming really... (Interview 22, Tathra)

You could tell it was really getting close then, and I felt the heat like, it was almost like you know, you open up a sauna door, and a wave of heat. That's when I went, "Shit, this is not good." I was facing away from it, still hosing down the roof and that, and I just got showered with all ash, and sort of burning leaves and embers and that. That's when I turned around and... you could see the flames were in the tree tops there, and that's where I



really went, "Shit, GO," you know? I just dropped the hose and bolted down the side to the car, and then I got in the car and the smoke was that thick and there were all sparks and embers flying around. I was criticising myself, I was saying, "You idiot, you idiot. You should have left earlier." So I was even struggling to even see the road, to get out of here. (Interview 52, Tathra)

As noted earlier, some residents appeared to have planned for late evacuation, or deliberately waited until the last minute to leave (see Section 4.4). Some stayed at their house or property for as long as possible to undertake actions such as watering the house. Others did not seem to feel threatened by the fire. For example, one interviewee in Tathra had been watching the smoke and helicopters fighting the fire, but only realised that it was necessary to leave when she saw a neighbour packing her car to leave:

It was interesting, because when we were all out there, watching the helicopters and the sun going red... the woman at the caravan park... she came out and was putting stuff in her car... and I said, "Are you going? Are you evacuating?", and she goes, "I am. Definitely." I went, "Hmm. Geez, they must think it's pretty bad." I just had no idea, and then it really happened quite quickly. (Interview 45, Tathra)

A couple interviewed in Tathra discussed how they were aware of the fire and had begun getting ready to leave, but only did so when it was clear that the fire was going to impact. They began preparing to leave around 3pm, but waited until about 4pm when their child came inside and told them the fire was close.

[Male interviewee]: Once we saw all the helicopters dropping water, that's when we really started to plan to go. When we could see the water being released it was like, "That's obviously close." That's when we really started getting ready to go, and then when we saw fire we left.

[Female interviewee]: Yeah, so it was probably around 3:00 when we were definitely thinking about going to Bega, starting to worrying about if the roads were okay and things like that. It was probably about just before 4:00 when the kids came in and said they can see the fire out the back, and so that's when we decided to leave. (Interview 35, Tathra)

Some interviewees described an incident where a boat full of people was towed toward Bermagui as Tathra was being impacted by the fire. As the vehicle towed the boat along the steep and winding road toward Tanja, it was realised that the tow ball and trailer were not compatible, meaning that the trailer was not properly connected to the vehicle:

[Female interviewee]: We drove to Tanja, and we were going to wait there, only there was a whole load of people that had come from the caravan park that walked all the way along [the beach from Tathra]. I don't know whether you heard, they told the people to get out of the caravan park, evacuate the caravan park. They walked all along the beach, and then up over the bridge to the other side, and they were exhausted. Then they were trying to get them into people's cars. By that stage, there weren't many people going that way, they were all going back into Bega. So they had a boat, somebody had a boat... and got somebody to tow it with people in it. There were about 18 people in the boat, plus a Prada full of people... Apart from the fact [that it was] very dangerous, from here to Tanja is quite hilly and very, very windy.

[Male interviewee]: More chance of dying in a car accident than smoke. Crazy.

[Female interviewee]: Anyway, they got to Tanja, and the tow ball fitting had stuffed up, so they couldn't take the boat any further, so they were trying to stop the last few cars coming in, saying you need to put as many people as you can into your car. So we just put stacks of people into the [car] and into the Troopie, and went onto Bermagui. ((Interview 30, Tathra)

I don't know if you've heard this story of the boat...? So that was our mate. Our mate has... a big four wheel drive car with a tow ball. Some man, I'm not sure who it was, had taken his boat down there to get it away from his house to keep safe. So somebody came up with the idea of attaching the boat to the car to take people to Tanja, which is just up over the hills. I don't know how many people were in the back of that boat, but it was full of people. He got them to the intersection where Dr George Mountain goes up that way, or you go around the back to Tanja, and pulled up and went out and checked, and it turns out the tow bar thing on the boat was bigger than his tow ball and it was actually just sitting there going like that the whole ... And they hadn't actually tied it on. You've driven that drove up Mogareeka Hill, winding that road? Any number of dire consequence could have happened there with all those people in that boat but it didn't, thank goodness. So he's then gone, "I'm not taking this boat any further. Everybody has to get out." And I don't know really what happened to the people then. I'm assuming other people came along and picked them up. (Interview 34, Tathra)

We saw a procession of cars come out across the bridge. So clearly something had happened in Tathra, it was sort of sporadic people coming out, and then this procession of cars came across. And I looked up and there was particularly one vehicle struck me, it was towing a boat. I think it was a big four wheel drive. And there was so many people in it, they were all sort of sardines against the windows, like it was packed with 12 people or something. There was people sitting on each other's laps. And I went, "Fuck." And the boat, it was a big sort of fishing boat, which actually belongs to a friend of mine, I didn't recognise it at the time, and it had, I don't know, 10,



15 people in the back of it standing there. And there were little kids. And I remember thinking the idiotic thing," Oh, just because there's an emergency, you shouldn't be putting your kids at risk in a boat like that," an open trailer basically on a road. And I had thought, and then I went, "Oh, shit. Whatever's back there was bad enough that they were prepared to take this risk," of putting their kids in the back of the boat and having it towed... There was a second, smaller boat apparently, also being towed. And that story has a beginning and an end which I've heard through other people and the beginning is that decisions were made by people around the Surf Lifesaving Club to hitch that boat up to evacuate all those people. The boat minder wasn't there at the time, so somebody else hitched it up. And when that person got to Tanja, which is once they got through all the windy forest... they got to Tanja and they said "I don't want to do this anymore, it's too dangerous". And they unhitched the boat and they left the people in Tanja, which was pretty safe, because that's the start of the pasture land. And it was only later they realised that that boat has a big, industrial, tow and the car only had a domestic tow. So that tow ball was just rocking around like that and apparently wasn't chained to the car, and there was a huge shock through everyone who realised the risk that that came. If it had come unhitched on those windy roads, it would've been a major disaster. But it didn't. There's only miracles in these stories. (Interview 43, location withheld)

The fact that no one was harmed in this episode was seen as a lucky near-miss.

Uncertainty about whether to evacuate:

Many of the people who evacuated as the fire was impacting on Tathra went to the Surf Lifesaving Club, the beach, the Mogareeka carpark (on the north side of the Bega River) and other places that were perceived to be safe. As noted in Section 2.3, Major Incident Coordination South and Bega Incident Control had identified the beach as a place for people in Tathra to relocate to, because evacuation to Bega was no longer considered a safe option. This was reflected in the Major Fire Update published at 15:48, which advised people in Thompson Drive to seek shelter and those in the area of Sanctuary Place or Wildlife Drive to '... leave now towards the east or beaches'. The Emergency Warning issued ten minutes later advised all people in Tathra to seek shelter if the fire impacts, and that it was too late to leave.

Numerous interviewees who went to the beach or buildings near the beach described the sense of safety they felt at these places. Many appeared to be aware that last-minute evacuation can be extremely dangerous, which had influenced their decision to remain in Tathra. Consequently, some interviewees were reluctant to follow, or resisted, police advice to evacuate to Bega or Bermagui.



Interviewer: Did you feel unsafe at that point?

Interviewee: I felt safe at the beach, but then when we were told to go back to Bega, that's when I didn't feel [safe]... There was a lot of people saying to each other, "Should we listen to them or should we stay?" because we're being told to head back in towards the fire. You know that people like in Victoria got trapped in their cars. That's what was in my mind: that we were going to get trapped in our cars trying to get away. (Interview 54, Tathra)

We drove back across the bridge and parked over there. We thought, we'll get along well, we can see what's going on and I said, "We should be safe here." I sorta expected it to go around and we were looking up towards Thompsons, and you could see the houses at Thompsons... So, we sat there for a while then the police come along and said... they'd sorta evacuated Tathra. While we were sitting there all these cars were going bumper to bumper across the bridge at snail pace saying, "We gotta go to Bermagui." And I'm thinking, "Geez, that doesn't sound a good idea." Because, you look at what happened in Melbourne, all those cars bumper to bumper and it burnt the bloody lot of them. (Interview 66, Tathra)

The police were trying to tell us to evacuate. Well, I said "I won't, that's just silly". I'll come back here. There's no point in me running down through the fire zones, clogging up the road. I was just going to come back here and keep monitoring the position. (Interview 24, Tathra)

We headed down towards the beach, and we wanted to head north because the fire was coming south and we weren't allowed to go north. The police had blocked the road off at the bottom of Panamoona Road, Francis Hollis, and weren't letting any other cars go north. I don't know why. We were caught in a traffic jam at the bottom of our street. And we were like the last few cars coming out, and there was just emergency cars racing in. There was a queue of cars heading all the way through Tathra. I don't know where the beginning of that queue was, and I just thought, "What the hell are they doing sitting in their cars with a fire that's heading southeast when there's bush on both sides of that road and they could be trapped in their cars?"... And [we] had the same thought even though we were in different cars: "There's no way I'm sitting in my car and getting caught in the fire". So, we made the decision to stay down here on the beach, and we parked in that little bit of grass area just behind the beach. And there was probably half a dozen cars there of people who felt the same way. And we then checked in with the other people who were there, and the police ... All I remember, the only warning I remember hearing was a police car racing up the road with a megaphone, shouting, "Evacuate, evacuate, everybody evacuate." And by this stage, the road north was blocked. The only way out was south, and it was a traffic jam. And we were like, "We're not going anywhere. We're going to take our chances here on the beach." (Interview 32, Tathra)



[Interviewee]: Shortly after that the police came around, who until that point had been saying, "No, you can't go to Bega, it's not safe because there's fire at Kalaru." We hadn't quite realised that it was the same fire. But then the police came and just through the loud hailer said, "You have to evacuate now, you have to go to Bega." That was quite confusing for everybody. In fact, I walked up to them and said, "Please tell me that again, I don't understand." And they said, "Yes you have to go now, go to Bega." That would have been about four o'clock, I think.

[Interviewer]: Did you not understand that because it was conflicting with what they'd been saying previously?

[Interviewee]: Yeah. It was different from what we'd heard previously... Also, it didn't look to us like we were in imminent danger. We were still... we were on the beach at Tathra. It wasn't comfortable and we could see there was a serious fire, but it was hard to believe that it was going to affect us directly, that we would be in danger of our lives there. But certainly [I] wasn't going to argue with the police. I think a few people wanted to. (Interview 41, Reedy Swamp)

I just stayed there and then thankfully [name removed] rang and said, "There's a policeman running around, saying you've got to go to Bega." I thought, "No way are we going to Bega," because I thought we'd be going straight back into the fire. At that point, I thought, "Well, the authorities must have lost control of the whole situation because why is this happening?" (Interview 04, Tathra)

All the people from the retirement village had come to the surf [lifesaving] club. So there were a lot of elderly, infirm people. So we hung about the surf club until we kind of knew that everybody had somebody looking after them, and then we decided that we would go. When we got to the intersection to get back onto Andy Poole Drive to go up the hill to Bega the police let the car in front of us go left up the hill and stopped us and said, "No, you have to go Bermagui." And we kind of said, "But no, but they've said we've got to go to Bega." He said, "No, it's too late to go to Bega. It's all up there... you've got to go to Bermagui." So we actually drove down to Mogareeka parked at the carpark and kind of just sat there for a bit thinking: "This is ridiculous. There's hundreds and hundreds of cars on the road. Surely we're safer staying here at the beach than being anywhere else." (Interview 34, Tathra)

We'd sat in the car and said 'What do you think?' And we'd assessed the situation, we'd listed all the things that were risks, and we'd decided it was quite safe because of the distance of the water, there was only a golf course on the other side, no forest. We had a big, concrete structure in the bridge. We had a big carpark with no vegetation. We had a toilet block, and we had fresh water, and we had access... to the beach, [and] access

up the river to the west. So we thought: 'This is a good spot to be, because it's got options'. So I thought I didn't want to be hemmed in, that was the big ... and we could see... (Interview 43, location withheld)

Then we just talked about where to go because from where my house is, the fire was coming from the Bega side and so, we didn't want to go anywhere near that and didn't want to go the other way because there's more bush and narrow dangerous roads that way. We went to the water bed, to the surf club. Lots of other people started to come down there and then the police kind of dipped in and out. I think they were happy that we were all there and not in houses, so they didn't have to worry about us. But they kept trying to encourage people to leave town, to go to Bega, but I didn't. I just didn't want to put my family in the car because that was still coming from that direction then. Then they closed that road and said, "Well now you have to go to Bermagui," and I said, "Well that's even worse." It's only with hindsight now [that the road to Bermagui was safe]. We were at the Surf [Lifesaving] club and all we could see, it's like a "V", all we could see was smoke and fire. I had no sense that, outside of that, was actually clear air and green bush, still. We just felt like the whole world was on fire. (Interview 27, Tathra)

Some interviewees commented on the way police communicated information and advice, and how they responded to it. For some, communications from police were seen as authoritative and prompted them to leave Tathra and go to Bega or Bermagui.

I don't think I would do anything differently. I think I wanted to stay, fight the fires. But the police were adamant that it was too dangerous and I took their word for it. I think I'll leave it in the hands of the fireys [firefighters] and the police to manage the outcome. (Interview 04, Tathra)

At that stage, the police were on the job and evacuating everybody and I followed their instructions and drove my car to Bega. (Interview 23, Tathra)

[Interviewee]: I went up to the river mouth, and he'd got there, and he'd had a look at where he could get down onto the water if the fire jumped the river. Then the police came along and they said, "You've got to go." We were saying, "No, no, we're just going to stay here." "No, you've got to go." So it was a bit of a battle of wits, because [name removed] wanted to, as soon as thing had died down, come back in. As soon as the fire was away from here, and sort of put out spot fires and stuff like that. But yeah, we ended up going to Bermagui.

[Interviewer]: And that was on the advice of the police?

[Interviewee]: Well not just the advice, it was like almost an order. (Interview

30, Tathra)

[Interviewer]: It seems like you responded quite quickly.

[Interviewee]: This might sound pretty simple, but when police say "It's time to get out now". To me now means "now". It doesn't mean let's stop and take some photos. It means you get out now... (Interview 28, Tathra)

I guess for me it's just, by nature, if a policeman tells me something, I trust them: "Okay, you're telling me to go that way?" I'm going to go that way. I probably didn't really even give it a thought: "Is this safe? Are they directing me into a fire? ... I was like you tell me to go down that road to get out of town, I'm going down that road to get out of town". (Interview 85, Tathra)

Others did not perceive the delivery of the police communications to be authoritative, and therefore questioned the information and advice that was provided:

We were in [the Surf Lifesaving Club]... and somebody opens the patrol room door and said "There's a copper in the car park yelling out that we all have to evacuate. So a few of us were in there going, "Surely there'd be something a bit more official than that." There was hundreds and hundreds of people there. Surely if they tell us to leave here it will be a bit more official. Somebody will come in and get on the loudspeaker or something." Anyway, it turns out, no. That was the way the police were advising people to leave town because it was unsafe, it was coming this way... (Interviewee, Tathra)

And then the police started arriving... we were sort of startled, but there's a sense of relief: "Well the authorities are here, let's see what they've got to say." Because at that point we hadn't had any direction [advice] where we were... [The police officer] started yelling at people to get in your cars and leave now. And he meant get in your cars and drive north to Bermagui. And it was very aggressive the way he was doing this, and I thought, "You look like you're panicking to me." And I was very resistant to doing anything according to his instruction, because I didn't trust him, because of the way he was behaving. (Interviewee, Tathra)

Between 4:30 and 5:00, a [police officer] came... and started screaming at people to evacuate to Bega... People were trying to say to [the police officer], "Isn't the road to Bega closed?", because people had heard that the road to Bega had been closed when they'd evacuated everybody down to the beach. And [the police officer] was just screaming at people, "Get out. Your lives are in danger." And then I tried to talk to [the police officer] and said, "Wouldn't people be safer staying here?" ... [The police

officer] was just screaming... telling people to evacuate and go to Bega. (Interviewee, Tathra)

The police came through, yelling at everyone to evacuate... The lady next door had been down to the surf [lifesaving] club, and that was quite chaotic, from what she said. She was heading to Bega or Merimbula, and so she was out in the street in the car, shouting at her husband to leave. They were being told to leave, and that he should leave too, and not stay. Probably that's when, with me, I got more of that sense of panic, around what was, obviously, happening over there and elsewhere, and responses, and emergency services, and stuff, that things were starting to really get full on. (Interviewee, Tathra)

In summary, people's inability to access information contributed to uncertainty and confusion about whether, when and where to evacuate to. Many people left their homes and went to locations such as the beach, the Surf Lifesaving Club and the Mogareeka carpark, where they felt and believed they would be safe. Emergency Warnings and Major Fire Updates around this time were advising people to leave towards the east or beaches, or that it was too late to leave. However, power and mobile phone outages meant that many people did not receive this information. In the absence of adequate information, and with public safety in mind, police advised people to evacuate to Bega and Bermagui. Many people were reluctant to follow or resisted this advice, believing that it was safer to remain in Tathra than to undertake a late evacuation.

4.8 IDENTIFY INFORMATION SOUGHT ABOUT THE BUSHFIRE, HOW IT WAS OBTAINED AND USED

As noted in section 4.6, most people became aware of the fire after seeing or smelling smoke, or after being alerted by relatives, friends or neighbours. While some people immediately began searching for information on the location of the fire, others did not believe they were threatened and continued with what they were doing.

Direct observation of fire:

The loss of electricity, mobile phone reception, and issues relating to the broadcast of emergency information into the local area impeded the communication of warnings, information and advice to people in Reedy Swamp and Tathra. As a result, many people sought information about the location of the fire and its likely impact through environmental cues, including direct observation of smoke, flames and the activities of neighbours and emergency services. Many travelled to places where they could observe the fire for themselves, such as the Mogareeka carpark, which provided a view up the Bega Valley toward the fire, and Thompson Drive, which provided a view across the Bega River toward Reedy Swamp. The inability to receive information



from fire and emergency services appears to have directly influenced people's decisions to observe the fire for themselves:

I wanted desperately to go back down to Mogareeka, because from there I knew I could see everything from Tathra, the golf course, Thompson's, the river, the smoke, the neighbour's, and our place. So I felt like from there I had ... I think it was about having a sense of control and the information had not come. There had been nothing on the phone. We kept dialling the ABC. There was nothing on the radio. So I had a sense that we need to just know by knowing what we can see. (Interview 46, Reedy Swamp)

I went out to Thompson's and observed the smoke. I knew it was heading in this general direction. I didn't know if it was going to hit Tathra or not... Then [I looked at] Fires Near Me. (Interview 39, Tathra)

We were down at the caravan park. The kids were playing on the water slides and the power went out, and then we could see smoke over the back of the trees. So, then we came home and my partner was here on the veranda and he could see smoke as well. So, we actually went for a drive to the river mouth and saw it coming this way. (Interview 01, Tathra)

My husband... was going back and forth, and so was my son, to the river down here, down at Tathra, where the bridge is. Going out into Mogareeka, just looking, because he could see that was the direction where the smoke was coming from. Seeing, just watching it, watching it develop during the day... (Interview 45, Tathra)

ABC Radio:

Many people sought information from ABC Local Radio during the fire. People described their attempts to obtain information via radio once the electricity and mobile phone reception went down. Most commonly, they were searching for information and advice about whether and where to evacuate to. Some interviewees were expressed frustration that ABC radio did not switch its rolling emergency broadcast as the fire situation was escalating and Tathra was coming under threat:

I tried to find on the radio any news about fires and it was the ABC local and there was the footy playing... [There were] little breaks where they had a bit of news and there was mention of a fire, I think, and then it went back to the footy. And then we cast across a few other radio stations, couldn't find anything useful. (Interview 43, location withheld)

Reception was pretty poor, which is why I have to have a landline. But I had



no messages, no warning on my phone. You know, that [phone] wasn't working, and I just said to mum at one point, "We'll just put the radio on," because I have a battery operated, "And we'll listen to our emergency broadcaster, ABC". And, as has been relayed by lots of people, there was the football in Sydney. There was no anything, so we had no communication with what was happening out there. Nothing. (Interview 29, Tathra)

The other one I was going to mention was the ABC. I was bitterly disappointed because the ABC is still ... still has on their website that they have the emergency coordination, notification point, yada, yada, and that they will put notifications out. Well, that afternoon, all you were getting on ABC in Tathra was the sports in Sydney. (Interview 38, Tathra)

[Female interviewee]: [Name removed] had the radio on with the battery and they were listening to the local ABC...

[Male interviewee]: Football.

[Female interviewee]: So nothing came through on the local ABC. So, I was with a group of neighbours, we're all looking at our phones and [thinking] 'What do we do? What do we do? What's happening?' (Interview 24, Tathra)

Because there was no communications, nobody knew. We're flicking on the radios and on every channel they are playing a football game... And we weren't getting any updates or anything... Because nobody had service, we couldn't ring anybody. We couldn't hear anything on the radio. We couldn't find out what was going on. So we were like, "Oh, maybe everybody's okay. If it was bad, we'd be hearing about it." (Interview 70, Tathra)

We have virtually no mobile reception there at any time, and so we didn't have landlines either, 'cause our phone system depends on power. So we rely on the radio all the time, whether it's a bushfire or you get that occasional East Coast Lows that come in and dump 100 mil of rain in a day and cause problems on roads and stuff. We rely on the radio. (Interview 48, Tathra)

The lack of emergency information and advice in Reedy Swamp and Tathra contributed to uncertainty and confusion about whether and where to evacuate to. This issue is discussed in Section 4.7.



Information obtained from people outside the fire area:

Power and mobile phone outages prevented many residents from obtaining information about the fire themselves. However, some were able to communicate via landline telephones with people outside the fire area, who obtained and relayed information about the fire. One interviewee reflected on his decision to keep his landline telephone which, unlike a cordless telephone, continues to operate during power outages:

It was a good decision to keep the landline phone. An analogue landline phone, not a cordless phone, because like I said the 4G signal went out when the towers got damaged and the 3G signal was still there, but it got jammed. It got jammed very quickly so data was very difficult to come by. The power out, the router for the Internet wouldn't work, so I didn't have any Wi-Fi to look things up. I was actually calling my parents in Canberra to look at the app for me. That was one way that I was getting the earliest information. (Interview 07, Tathra)

There was nothing on the radio... There was no communication. We couldn't get on the [mobile] phone; there was no Facebook or anything. So again, we were getting more warnings from my daughter in Melbourne that was monitoring it, because our Internet had crashed by then. (Interview 24, Tathra)

Not long after that, the power went out, which we had thought was because of the wind. So then we started messaging my uncle, he's in Bega, asking if he could look up the fire warning stuff, because we couldn't. (Interview 35, Tathra)

Information shared and obtained from people within the fire area:

The lack of accessible information meant that people talked with each other and shared the information they did have. Many interviewees described conversations they had with neighbours about the fire and what they should do. Some of these discussions focused on whether it was necessary to evacuate and, if it was, where people should evacuate to.

There's people panicking around, neighbours coming from down in that road... [coming] up our side path and really wanting to see if anybody's telephones work, because that was the thing that started to worry people. The power went out, therefore the telephones went out so all communications were cut. So mobile phones didn't seem to work, so everyone had to talk to one another. (Interview 13, Tathra)

I was just talking to the lady next door, the guy who lives just across the

road... It was just communication amongst ourselves. But it was frustrating. We could see what was happening, because it was getting darker and darker and the choppers and the noise was just horrendous as well, the choppers and everything else. Yeah, it was frustrating we didn't know what was going on other than 'We're in trouble here'... (Interview 11, Tathra)

[Female interviewee]: The power went out, so up until then, I was just looking at the Fires Near Me website. We put on the ABC local radio but there was nothing, it was just their regular programming. Then the power went out, so we didn't ... Then what did we do?

[Male interviewee]: Just [talking to] neighbours, keeping an eye on it. I don't think we got any warnings on the phone... We thought, "This doesn't look good" and we sent the old people next door down to the headland, and the lady here with the child, and we got ourselves ready. It was mainly just [communication] between neighbours. (Interview 04, Tathra)

All I knew is the phone didn't work, the power was out, so that's it, we're talking to people... (Interview 13, Tathra)

Information sought by those once outside the fire affected area

Once people relocated or evacuated to nearby towns such as Bega, Bermagui and Merimbula they were again able to use mobile phones and the Internet. With their own safety assured, their concerns turned to the safety of those who stayed behind and the fate of their houses. Most notably, people used maps to ascertain whether their own and others' houses had been impacted and used social media to keep abreast of what was happening and make contact with other Reedy Swamp and Tathra residents.

[Fires Near Me] was actually really helpful. One of the things that our kids found difficult is Fires Near Me, it's a rough line of where the fire is. We're looking at it going, okay, it looks like there's a fire front literally on the road. Looks like the only thing between the fire and our house is the road. I'm saying to the kids, okay just look, if you look at this, it also looks like the fire's out at sea. We know the fire can't be out at sea, so this is just a rough guide. So we don't really know for sure where the fire is, but we know there's one near our house. We know it's not on our house, well so far as we can tell it's not, our house is okay, but the fire is very near our house. So we'll wait and see what happens. (Interview 28, Tathra)

We were looking at the bushfire website, which was showing fire maps and stuff like that. Which, I think proved to be sort of inaccurate up to a certain point. I mean, they were certainly accurate above us at the top of the street here, where the devastation really happened. But later when the south change came in, this whole street was blacked out, and so we



assumed that we'd lost it, you know. (Interview 18, Tathra)

There was a lot of watching the Fires Near Me app, and a lot of time on social media, and a lot of texting friends. "Have you heard from such-and-such, have you heard from such-and-such?" One of the things that I was really pleasantly surprised about was people were texting me all the time saying, "Do you know about [name removed] house? Have you heard how [name removed] are? Have you heard from such-and-such?" (Interview 28, Tathra)

It was like "Yes, we're okay, we're through it..." A guy had put it on Facebook: that we'd escaped, that we're all together and safe in Bega... The kids have got the social media thing down and, of course, people were in touch with the ones that were back here [in Tathra]. So we were pretty much on top of what was going on, bits and pieces, but most of it proved to be false. But it never stopped. It was unrelenting, totally, all the way through the whole night as someone heard about that, someone knew about this person... Because we're a small town and we pretty much know each other. (Interview 22, Tathra)

The issue of rumours and misinformation in the immediate aftermath of the fire is discussed in greater depth in section 4.13.

4.9 ESTABLISH HOW PEOPLE AND BUSINESSES HOSTING NON-RESIDENTS RESPONDED TO THE FIRE

Because the Reedy Swamp Fire occurred on a Sunday, many local businesses were hosting non-residents when Tathra came under threat. These businesses included caravan parks, hotels, motels, restaurants, cafes, and local clubs such as the bowling and golf clubs.

Accommodation providers:

Interviewees representing caravan parks, motels and other accommodation providers all described the actions they took to evacuate their guests. Like local residents, they received little official warning and information about the fire due to the power outage and limited mobile phone coverage. Nevertheless, all accommodation providers were able to alert their guests to the existence of the bushfire and instructed them to evacuate. Some guests saw the smoke for themselves and self-evacuated. Interviewees described how mandated evacuation plans and emergency procedures helped them to evacuate their guests. One accommodation provider had recently undergone a safety audit and had updated their emergency procedures after a fire-related incident. The interviewee explained how updating the emergency procedures had assisted them when evacuating guests during the Reedy Swamp Fire:

[Interviewee]: We had safety inspectors come in and assess the situation and then kind of go "Look, you need to update your fire safety protocols". And so, yeah, we just kind of did all that probably towards the end of last year.

[Interviewer]: So, was that helpful having gone through that quite recently?

[Interviewee]: Definitely... After the whole audit, we ended up having evacuation plans put into all the cabins. We have instructions on our safety evacuation points and stuff, but at that stage most people we just asked to completely leave. That there wasn't much point in hanging around... (Interview 47, Tathra)

[Interviewer]: With evacuating your guests, do you have evacuation plans?

[Interviewee]: Yeah, we do. If there's a fire in the premises, we do. We have two evacuation points, and there's information in the unit, but it's up to us, as managers, to get them out, and make sure that they're gone. When they check in, they have to register, so we know how many people are in each unit. Yeah. I knew, fortunately, I knew them all, and I knew who was going, where they were going. All their cars were gone, and they were gone, in their cars. We left after them, and made sure they were gone. (Interview 45, Tathra)

[Interviewer]: So how was it in terms of getting the guests to evacuate?

[Interviewee]: Well... I just went around on the golf buggy and stopped everywhere and everybody was fine and prepared. There were a lot of people who had self-evacuated, they had gone, and there was a half dozen people to get out of the park.

[Interviewer]: Did you manage to get everybody out on the day?

[Interviewee]: Yeah, yeah, yeah. (Interview 80, Tathra)

While evacuation plans and emergency procedures assisted accommodation providers to evacuate their guests, some were unsure whether it was necessary to leave and waited until the last minute to do so. For example, one accommodation provider alerted guests to the fire and assembled them in the carpark. They decided to leave when it became clear that the fire was close:

Interviewer: Did everyone agree that it was time to leave?

Interviewee: Oh yeah. Yeah. Once we saw those flames, 'cause we've got that balcony that goes up here. Once we got up there, and we could see them two streets away... just behind those houses at the top of that hill, that was it for us. "We're out of here." (Interview 45, Tathra)



Another accommodation provider stated that they were waiting for an official evacuation order, and only evacuated “When I had a fireman out in the driveway asking why I wasn’t evacuated yet” (Interview 80, Tathra).

The process of evacuating guests was straightforward for most accommodation providers, with most guests recognising the threat to their personal safety and understanding the need to evacuate. However, one accommodation provider experienced difficulty encouraging a small number of guests who leased sites for their own caravans to leave. They were reluctant to leave their caravans exposed to the fire and some, after following advice to evacuate, snuck back in to defend them:

[Interviewer]: In terms of the getting the visitors or guests out of the place, was that straight forward?

[Interviewee]: No. There was a lot of hesitation with people not wanting to leave. They had a look at the website themselves. Went, yeah, no, “I don’t think it’s gonna come this way”, because there was a lot of rumours going around at the time saying it probably wasn’t gonna hit that far. So, people weren’t overly concerned. And so, there was obviously a lot of difficulty trying to get people to leave. I mean, some people did leave willingly, but there were others that were just gonna stick around and wait and see what happened. Once we did evacuate everyone, we still had a couple of people sneak back into the park and hang back, which we didn’t find out about until a few days later. They posted stuff on Facebook and were in the park at the time when it was on fire, which was very alarming.

[Interviewer]: And do you know why they didn’t want to leave?

[Interviewee]: Well, most of the ones that didn’t want to leave were the people that we classify as ‘weekenders’. Now, with our weekenders, they have semi-permanent type vans on site. So, they’ve got their own personal vans. So, mainly the people that didn’t wanna leave were the people that had their own vans there, and they wanted to stay back and if the fire did come they wanted to be able to stay there and fight it themselves sort of thing, and not lose everything. (Interview 47, Tathra)

Another accommodation provider also had guests who refused to leave and remained behind to protect property:

[Interviewer]: So you had some people from here that couldn’t evacuate quickly and that just went to the beach?

[Interviewee]: We did have some. There were some that refused to leave. We had about eight that were aware of that actually stayed that wouldn’t leave. And they actually saved our park a fair bit of damage. They see a lot of spot fires and put them all out. They also were texting us to let us know that some of our cabins were on fire and that they were gone. We couldn’t save them. But that was nothing in the scale of anything. So they actually



saved a lot. It could have been a lot worse. (Interview 84, Tathra)

Other businesses hosting visitors:

Other local businesses such as the Tathra Hotel, cafes, the bowling and golf clubs were hosting residents and non-residents immediately before and during the bushfire. Most of these people were patronising local businesses before they became aware of the fire, although it is clear from interviews with residents that some people had previously planned to relocate to local places such as the Tathra Hotel and the golf club in the event of a fire.⁴ Clearly, many people were unaware of the fire or did not perceive an immediate risk to their personal safety. A number of interviewees described late evacuation from these places:

[Interviewee 1]: We started to get a few people from Kalaru just floating in, and then again, we became aware there was a lot of action at the surf club. You could see lots of cars going in there... The young guy that was working, told him to go home at 3:30 and, by that stage, his family home had nearly burnt down, unfortunately. Then we closed fairly rapidly... Our Head chef ran in and said they were firebombing Dilker Road, which is this road right here, so it was pretty much we turned the gas off, we raced around, got all money that we could access... threw it all in the safe, and we ran out of here by then. By that stage, you could actually hardly see the surf club for the amount of smoke that was around...

[Interviewee 2]: Yeah. We knew the fire event was significant one minute, and then the next minute, when the fire engines started screaming down the hill and past here, all of a sudden, it was like hold on, this is something pretty significant that's happened. Whether that's a change of wind or whatever, but it just went pffff, and literally at that point, we knew that we were the only ones basically left in the club. (Interview 85, Tathra)

We had bowlers out on the green up until half an hour before we shut the club, but they were playing in so much smoke and so oblivious to what was going on, I personally was gobsmacked they were still out there. Everyone's got a different idea of what's an emergency and how to react, and maybe they just had total faith that all the services would take care of anything that was going to happen, but it was a bizarre sight I'd have to say, to see them still out there bowling. Then basically just wander in and go, "We'll just have a drink now," and we're like, "the power's been off for two hours, there's very little we can offer you to drink, and actually, it'd be really good if you went home." (Interview 85, Tathra)

⁴ Many people also congregated at The Tathra Surf Life Saving Club during the fire (see Sections 4.7 and 4.9)



Another local business operator explained how numerous residents and non-residents were assembled at his local business during the fire. He described differing levels of stress and concern among the patrons:

There were distressed ladies, right? So guys, husbands, and ... who had stayed in town. Half a dozen ladies, individual ladies, I'd say most of them, I hadn't seen before, were very distressed thinking their husbands are in there, and they're here, and they were feeling a bit ... I definitely recall at least half a dozen ladies like that, and my daughter was great ... she was going from one to one giving them a cold one and saying, "Everything will be all right," and things like that. I reckon half the people still didn't ... weren't taking it seriously... Some people still didn't really believe the severity of it just was the thought I had about it all. (Interview 83, Tathra)

Amid uncertainty and confusion about whether it was too late to evacuate, he questioned whether people might be safer sheltering inside the building. However, police advised people to evacuate, which they did.

4.10 ESTABLISH THE COMMUNITY'S EXPECTATION OF WARNINGS AND INFORMATION, PARTICULARLY IN KNOWN MOBILE COVERAGE BLACK SPOTS

Most interviewees were aware, prior to the fire, of the limited mobile phone coverage in the Tathra and Reedy Swamp areas. Consequently, many had previously considered that they might not receive a SMS warning of a bushfire or other emergency. Nevertheless, analysis of interview data revealed a diversity of expectations related to warnings and information. These included:

- that warnings and advice would be provided earlier, before power and communications infrastructure failed;
- that ABC Local Radio would broadcast emergency warnings and provide 'rolling' coverage of emergency information;
- that firefighters and police would issue warnings and advice directly;
- that other community members would communicate and relay warnings and information.

Some interviewees were critical of others in the community who they believed waited for official warning and advice before taking action. Some were critical of the poor mobile phone coverage and argued for greater investment in the region's telecommunications infrastructure. Some also believed that sirens or klaxons should be installed to alert people in the event that telecommunications infrastructure fails.

Those who did expect to receive an official warning:

As noted above, some interviewees expected to receive an official warning alerting them to the presence of the fire and providing advice about what to do. While most of these people were aware that the mobile phone network tower had been destroyed, some were critical that official warnings were not received. Fortunately, most people received warning or notification of the fire from another source – often relatives, neighbours or friends – or saw smoke or fire in time to respond safely.

Well look, if human systems are set-up to do a certain thing, you would expect [a warning]... That's the worst of it: [my family members] could have been killed. It's only random luck that they weren't. I would think, if you're going to have some kind of a warning system... well that's just not good enough. As I understand it, there is some kind of a warning system. It didn't work, it didn't happen... That's just not good enough. (Interview 42, Reedy Swamp)

[Interviewee 1]: It would have been good if we could have got a phone message, you know, because they contact you by text message or whatever, with just a stay alert. Like, fire at Swampy Creek, like what do they call it? Alert and watch, stay alert and on watch. It would have been good to have some kind of just being alert.

[Interviewee 2]: Because, we would have been oblivious to it if it hadn't been for [our neighbour]. (Interview 15, Tathra)

We had no warning, none whatsoever from anyone, from anywhere. We had no firefighters, we had no one telling us to evacuate. It was absolutely disgusting, and if I had been an old frail lady here by myself, I would've been custard. I would've fallen over from the shock of it... I just thought it was pathetic how we never got warned. Lack of communication. There was no communications, because all the towers were down there was no phone, so there was no nothing... (Interview 06, Tathra)

While some interviewees attributed the lack of official warning to the failure of communications infrastructure, others believed that fire and emergency services should have provided earlier warning and advice to people in Tathra. For example, one interviewee believed that as soon as the fire had started there was a high likelihood – due to wind strength and direction – that the fire would impact on Tathra:

Where do I start? I'm getting into the things that I feel could have, should have happened. And I don't understand why they didn't happen... Once that fire had broken out in Reedy Swamp, the likelihood of it impacting Tathra, I thought, was extremely high, extremely high and predictable, just because of the wind direction. And because the Rural Fire Service said



afterwards they couldn't get in to fight the fire because it was in rugged terrain... Honestly, if I'd been in charge, I reckon by 12 o'clock, I would've had some sort of services driving around Tathra or putting a warning out saying residents should be prepared, that unless there's a change in conditions, there is a high risk of the area being impacted. And there was none of that. Certainly, by two o'clock, I honestly believed it was inevitable that the fire was going to hit Tathra. (Interview 38, Tathra)

[Female interviewee]: We've always been told that we would [receive a SMS warning]. But I thought it would be sooner than what we actually got.

[Male interviewee]: I think a lot more could just go on the media, like all channels in... Like the local ones, you know... they should stop everything and just dedicate to that I think. That probably would have helped. (Interview 16, Tathra)

With the power out and the mobile phone tower down, some people expected that fire and emergency services would provide information and advice directly to those who remained within the fire threatened area. In the interview excerpts below, it is interesting to note that the interviewees appeared to be aware of the threat posed by the fire but were waiting for advice or direction on when to leave. References to 'tidying up' around the yard and spending more time 'watering' suggest an intent to leave at the latest possible moment so as to maximise time spent preparing or defending the house.

We just kept looking. What were we going to do? ... I think what I was waiting for, was... because we knew the RFS would be in the field, I think what we were waiting for is, the town fire brigade to come to our street. I guess I was just waiting for that to happen, before we evacuated, because I thought it was common sense that our street was probably the most vulnerable. I had no idea it was going to do what it did. I just thought it's going to come to us first. Logically, the fire brigade will be here and that's when we'll go. We had the car parked, we filled the bath with water. I don't know, we did some things like that. Just tidied up around the yard a bit. (Interview 04, Tathra)

There was a fire brigade up at the intersection when I left at quarter to six, but I hadn't seen anybody giving us the heads-up, or advising us to... We expected someone to come along and say, "Everyone get out, get out." But no one came and told us to get out, which was good in a way, because we were able to spend more time watering and things like that. (Interview 30, Tathra)

Similarly, a local business operator was surprised that fire and emergency services did not personally communicate the threat posed by the fire and the need to cease operating:

I'd have to say, I was a little surprised, and I'm not one for lots of criticism after the event, but I was a little surprised that we didn't have some kind of, and I don't even know what it should be, some kind of someone dropping, someone saying, "Okay, it's serious. You need to close." (Interview 85, Tathra)

Those who did not expect to receive an official warning:

A number of interviewees noted that they did not expect to receive an official warning, or were not relying on receipt of an official warning to respond. People often referred to Tathra's poor mobile phone coverage, which impeded communication long before the fire. Those who were not relying on an emergency warning tended to be highly attentive and responsive to environmental cues such as visible smoke and flames:

[Interviewer]: You mentioned before that this is an area of limited mobile coverage? Were you expecting to receive an SMS warning or a landline warning about the fire?

[Interviewee]: I wasn't expecting that, no. But they did come after we'd left, anyway. Yeah. People are angry about that, too, but we didn't have any coverage. And in Tathra, that's not unusual. There are pockets where you can never get anything. I didn't expect to. (Interview 21, Tathra)

[Interviewer]: Prior to the fire were you aware that RFS sends out SMS?

[Male Interviewee]: Yeah, because we had been [location removed] when there was a flood, so we got some emergency messaging that way. But, I don't know.

[Female interviewee]: It definitely wasn't something I was thinking about like, "You need to wait for a message or anything like that."

[Male interviewee]: Yeah, and I wasn't expecting it. We knew you don't get good reception here, so I wasn't basing our decisions on the phone, if that makes sense. (Interview 35, Tathra)

We'd had no power since midday, so I had no Internet access, and my mobile phone reception is dodgy at the best of times. So, my two sort of sources of communication and information were sort of both gone. It meant that I didn't have a landline either because of my phone is electric. So, we just kept an eye on the situation. (Interview 32, Tathra)

I hadn't given [receiving a warning] any thought, to be quite honest. I mean, I knew that they did that, but I hadn't given it any real thought. And I was just, "We're here, we're gone," that's it. I didn't even worry about the



phone so much. (Interview 20, Tathra)

Some interviewees expressed surprise at criticism of the lack of official warning. They believed people were too reliant on technology and that they should have been more attentive to what was happening in their environment:

I thought it was interesting that people were upset that the warning came so late, when if you even opened your eyes and looked at the sky, that's where the warning came from. We have a love/hate relationship with technology here and I just think you're crazy to rely on technology in a time of natural disaster... Obviously if there is a warning, hit it, absolutely. But you can't then say, "Why didn't you tell us?"... I just can't understand people's anger at... no, that's not true, I can understand their anger. But I also just want to say, "Well, you have to trust your own judgment and that sky... There's nothing about that sky that tells you you're safe to stay in Tathra. Even from before 4.30. From 2 o'clock, 2.30, 3 o'clock: westerly wind; the fire coming from Reedy Swamp; we all knew that by that stage. I found that a little bit funny that people were angry that the message came through too late. As if they were sitting at home going, "Well, I can't go until I've got the message." No, I wasn't [expecting a warning]. I knew the phone didn't work, mobile phones didn't work. So, I wasn't expecting calls. I think you should make your own judgment about that. Look around and if it looks dangerous and you want to save your life, get out... I think people rely more and more and more on people helping them out nowadays. They expect to get mobile phone warnings, don't they? (Interview 67, Tathra)

No [I wasn't expecting a warning]. Because there was no mobile phone coverage or Internet. Everything was down because of the blackout. The mobile phone tower burnt down on the hill, so no-one's phone worked. There was no way of communicating. All you got was messages from police or fire brigade driving past. It was pretty obvious the place was going to burn when you saw the smoke coming over the hill. (Interview 79, Tathra)

I think people are too dependent on hoping they'll get some official advice, which is what they've had in the past. On why there was no warning or whatever: you should have your own plan and make your own decisions, really. You've got to take direction, obviously, from the police and those sort of things, but you can't just sit there... in an emergency situation. (Interview 39, Tathra)

As I said to a few people, even if we had got some warnings, by the time we got them, things would've changed so much they would've been the wrong warnings. Sometimes it's better not to get anything and for people to make up their own minds. Because, like, "Duh", you can see something's going on, rather than being told, "Oh no, it's okay to stay" or "We have to do this." Sometimes it is actually better for people to figure out what they need



to do themselves. And that's what happened, because none of us got any warnings. (Interview 26, Tathra)

4.11 ESTABLISH THE EFFECTIVENESS OF WARNINGS DELIVERED TO THE COMMUNITY DURING THE FIRE EVENT, AND THE RESULTING ACTIONS TAKEN

As has already been noted, most people in Reedy Swamp and Tathra became aware of the fire after seeing or smelling smoke or flames or after receiving notification from relatives, neighbours or friends. While some people did expect to receive a warning – either by SMS, landline telephone or direct communication – others knew that they might not receive, and needed to act independently of, a warning. Discussions related to the effectiveness of warnings focused on the role of the power and mobile telephone outages in impeding the delivery of messages. Some interviewees were aware that they did not receive landline telephone messages because they had cordless phones, which require electricity to operate. Some noted that they received SMS warnings late, once they were leaving or had already evacuated, most likely because they had entered areas with mobile telephone network coverage.

No, no we never left. Because, well, it was about 1 o'clock before we could, sort of, even stop to think. We finally got uptown about 11 o'clock, and we got in touch with the kids because we had no power and no phones. And that was the other thing, you know, they're saying about not getting warnings. If you have no phone, you don't get a warning, right? And the power was gone at 1 o'clock. (Interview 50, Tathra)

Half way to Bermagui is when I got the text message from whoever it comes from to say to evacuate Thompsons [Drive]... We were half way to Bermagui by then anyway. That was the only evacuation alert message that we got... We didn't get phone service 'til we were nearly at Bermagui, and then we got a couple of messages come through just from family who lived in Bega saying, "What's going on? We're hearing on the news that something is happening." (Interview 34, Tathra)

We didn't realise... that Dilkeria [Road] was actually burning at that stage, I didn't know that. So the drive out was fine, and that about the end, that's when we started getting all the text messages, when we were leaving town. (Interview 35, Tathra)

Some interviewees recalled receiving a warning via SMS or landline telephone shortly before 4pm but felt that it came too late:

I was at the headland and got those evacuation messages at 3.45. I've still got them on my phone... By then, the police were already telling people to evacuate, before we even got notified by text message. When we heard that on the media, that people were taken by surprise because they didn't get text and all of that, we thought, "Well, some people, yes but that didn't apply to us." I felt like that text could have come through an hour before, to really give people a chance to defend their homes, the ones that lost their homes. (Interview 04, Tathra)

And at 3:48 I think we got our first text, and it was aimed at Thompson's [Drive] Tathra. And it said, "Go now." Like it was the final warning you get, take cover. Do you remember which one it was? They've got the record anyway. And I remember looking at my phone and going, "Oh, fuck off." Because this thing had clearly been coming for two hours, two and a half? I'd been watching it. We'd seen it on our phones on Fires Near Me, and that was the first information we'd had from the authority at 3:48. So I was really dismissive of it and annoyed. (Interview 43, location withheld)

It was at 3:49, because I've still got the message on my phone, I received an automated warning which said, "New South Wales ... Well, NSWRSF, emergency bushfire warning, Thompson Drive, Tathra, immediate danger. Seek shelter now." That was the only warning I received. Now, Thompson Road is a little ways away from us, not far. But I still... Even that, I find extraordinary because certainly, Thompsons was in immediate danger. I'd say by the time that text came through they would already have just about been on fire. So to not mention Tathra in that was extraordinary to me, few hundred meters across the forest. It's nothing. It's diddly-squat in terms of fire and the warning didn't even mention Tathra, well, 'Thompson Drive, Tathra' but that's all ... And that's at 3:49. (Interview 38, Tathra)

However, a number of interviewees who received warnings via landline telephone and SMS did find the warnings useful. Although these people were already aware of the fire, receipt of an official warning confirmed the threat posed by the bushfire and the need for them to take action to ensure their safety.

[Interviewer]: And you received the message on the phone, did you?

[Interviewee]: Yeah. No problems at all. I do believe if people were with another service provider, I'm with Telstra, that they may not have got their messages. I wouldn't ever have Optus in an area like this to begin with.

[Interviewer]: And that message was what prompted you to leave? Or were you already planning to leave?

[Interviewer]: No, it prompted me to leave. Unless you get something from authorities you know, you're not certainly prompted to leave. The lady who was staying with me, she was very panicky. (Interview 81, Tathra)



Now, at three o'clock, and at ten past three, my landline phone rang and an unannounced male voice said in the first case "Thompson's River is in danger and Tathra might be next, get prepared to do something about it...", in effect. And at ten past the same voice came on and said "Tathra is in danger, you are advised to evacuate." So, I took a look out there and to the northwest I saw this smoke, billowing smoke. And I heard the crackling and I heard the sound of falling trees and I knew it was serious. And I thought this is no time to be noble, I'm getting out. (Interview 23, Tathra)

[Interviewee]: I jumped in the car and, before that happened, the phone rang. Not my mobile, the landline rang, with that Telstra warning: "Evacuate now. Evacuate now." That was the sign for me to, "Yep. We're going."

[Interviewer]: Was that helpful?

[Interviewee]: Yeah. It brought it home to me. It was so quick, and trying to make that decision, and ultimately it was to only go to the water, to the beach. (Interview 45, Tathra)

[Interviewer]: So did you receive a warning or any information about the fire from the Rural Fire Service?

[Interviewee]: I think yeah we got a couple warnings on the phone, on the landline phone, yep.

[Interviewer]: And were they helpful?

[Interviewee]: We sort of knew that there was a fire on the way, you could see the smoke approaching. So look I guess they were. I mean it was very repetitive, I don't know how many times that phone warning rang, but a lot yeah. (Interview 48, Tathra)

At 15:48 the NSW RFS issued an Emergency Warning advising people that it was too late to leave and that they should seek shelter (this advice was repeated a number of times – see Section 2.3). A number of interviewees noted that they were unsure what 'seek shelter' meant and therefore did not understand what the message was advising them to do.

You kind of see the text message saying, "Just seek cover, if you haven't left now just seek cover." It's like, "Where do you go? Like what?" I hated that. I was like, "I don't know, because the houses randomly we're going up. It's like there's nowhere safe, it was: "I don't know what to do". (Interview 46, Tathra)

[Interviewee]: We hadn't had any advice yet on the evacuation. That was twenty past three or something like that. The text message came through at four o'clock to seek shelter. In between 20 past 3 and four o'clock, I was on

the headland somewhere.

[Interviewer]: Was that expectation of receiving a message about what that next step was?

[Interviewee]: Yeah, I mean, the message says "seek shelter", it doesn't even say evacuate. What does seek shelter mean? I didn't even know what that meant really. When it comes down to it, it doesn't say get out of town, it says seek shelter, type of thing. I did assume that yes, I would be told to go. (Interview 80, Tathra)

One thing I thought was interesting, obviously straight afterwards, everyone's got an opinion about everything and there was lots of stuff in the paper about the late warning that came through... It came through at about 4:30 on my phone, the Rural Fire Service warning, saying: "Immediate danger, find shelter." I had to laugh when I saw it. I was like, "Well if I was relying on that for... That is too late. What does 'find shelter' mean? Not even evacuate, just like dig a hole and get in it." That's what it looked like to me. (Interview 27, Tathra)

Another interviewee recalled receiving a message advising him to leave immediately, or else he would have to stay. Being aware of the mobile phone coverage issues that often prevent timely receipt of SMS messages, he was unsure how up-to-date the message was and was therefore uncertain about whether it was still safe to leave:

[Interviewee]: One of things that was confusing was that one of the messages was saying like, "If you don't leave now then stay or something." And that was a bit confusing, because it was like we knew there was delays in getting messages, so it's like, "Does it mean we shouldn't leave now or what?" We just went off the police officer who said, "Leave now."

[Interviewer]: That's a mobile phone reception issue?

[Interviewee]: Yeah, messages can take days getting in and out of here. (Interview 35, Tathra)

Most interviewees seemed to understand that power and mobile phone coverage can fail in a bushfire and that it may not be possible to receive official warnings. Some believed that improvements to mobile phone network infrastructure could increase the likelihood that warnings are received in an emergency:

One of the worst things here... is the lack of telephone, mobile phone service. That's what a lot of, lot of people were complaining about afterwards... Everyone said they didn't get any notice at all. No mobile phones. They couldn't phone out to find out what was happening. And we've been promised for years they'd put a tower in so that we'd have



mobile reception. It looks as if it might be done next year, I think it's going to be done, if it's done at all. (Interview 67, Tathra)

One of the main concerns that was going around with everyone in Tathra itself was obviously the lack of reception... Obviously, then we would have been notified a lot quicker. But, at the end of the day, look, everybody got out of Tathra, everyone was safe. So, I don't really think that was a huge concern because everyone was notified eventually. We were all evacuated safely. So, from my perspective, there's not really too much of a drama there, but obviously if we did have phone reception it would just mean for a quicker response... They might have taken a little bit more seriously ... getting a text message or a phone call saying "Please evacuate" versus just a little old lady saying there's a fire coming please leave sort of thing. (Interview 47, Tathra)

I just wish that we could get a bit of coverage here. I think that is really important, because you need to have that communication. We don't have it here in Tathra. So, Internet, mobile phone coverage, needs to get better. (Interview 45, Tathra)

Some people believed that the installation of sirens or klaxons in the town – such as at the RFS brigade shed or the Surf Lifesaving Club – would enhance fire and emergency services' capability to warn in the event of power and telecommunications outages.

We didn't know anything. I was thinking, "There's got to be something if an emergency like that happens where the whole town knows. Maybe a siren or something, three quick blasts, then you'll know and evacuate or a short one and a long one, whatever, for different reasons." There could be a damn earthquake or there could be a tsunami. Do it that way, but not only small towns, it could happen in the big cities too. Just to warn people, let them know, get that ingrained into their head and maybe they will know from then on what to do. They've also got to know where to go. That's the other thing. (Interview 33, Tathra)

I think it would be great, if they haven't got one, to get a big klaxon for the fire brigade up there, or for the surf club. Because down the surf club, when they have music in the caravan park, it just comes straight up here. So if they had a big siren down there, everyone in the area, the whole path would be alert there's something happening. There's people were asleep, and they were woken up by having... This was a hot summers day, and people were knocking on the doors, "There's a fire coming", "What? What?" So yeah, if you had a big siren going, gives them a little bit of help. Doesn't cost much money to do. (Interview 30, Tathra)



I was stunned. I was amazed that no one had been in town that I'd seen. I hadn't seen any authorities, no warnings, no siren, no mobile alert. Mind you, I didn't even know that we would get mobile alerts until I got one. I didn't know that that system was even in place. But of course, you see, a mobile alert doesn't work in Tathra because a lot of people don't have mobile coverage. The coverage is so poor in Tathra, so it wouldn't have worked on the day, which is why an old fashion siren is so important. And there are people in Tathra still who don't have mobile phones. I know a couple of people who are old school and only have a landline. (Interview 38, Tathra)

4.12 IDENTIFY IF THE TIME OF YEAR INFLUENCED HOW PEOPLE RESPONDED

As noted in Section 4.5, some interviewees had been aware that Sunday 18 March was forecast to be a day of Severe Fire Danger, or were aware of the forecast hot and windy conditions. Nevertheless, some interviewees expressed surprise that such a destructive bushfire could occur in mid-March.

[Interviewer]: In the morning... did you think a fire might happen that day?

[Interviewee]: No, not at all. Not for March... Any thoughts [about bushfire] I've had are more over the summer period with hot nor westers. On a day similar to that, but in summer itself (Interview 05, Tathra)

The whole time we were here, I was aware of how risky the situation was, simply because we're steep on three sides... The wind often blows from the west moderately strongly, and through the summer quite a hot wind. Although, towards the middle and end of March I'm not really expecting this sort of thing to happen... (Interview 41, Reedy Swamp)

[Interviewer]: Did you think in the morning that it could be a bushfire day?

[Interviewee]: No, not really... Because the days before were quite cool, and it was the start of autumn, I suppose, a few weeks into autumn. Even at the end of February, it was coolish. It was in the 20s and it wasn't extremely hot. We just didn't worry about it... Then next thing we see [a fire] out of the blue. We've had, before, hotter than that actually, 42, 44 [degrees]. I didn't really worry till I saw this smoke coming... (Interview 33, Tathra)

[Interviewer]: You weren't particularly surprised that there was a fire in mid-March?

[Interviewee]: Yes, I was surprised at the timing. My word, yeah. This late in the season. We should be hazard reducing. We should be lighting fires now, not preventing them. (Interview 39, Tathra)



[Interviewee]: About three weeks before... it rained all day and we thought, "Well that's enough rain now. At the end of summer, beginning of autumn, we should be right." (Interview 16, Tathra)

[Interviewer]: And what about on the day, I mean, this fire obviously occurred in mid-March, so it's out of what we would traditionally consider fire season...

[Interviewee]: Yeah, I think it was definitely not that we were going, "Aw, this is gonna be bushfire weather." But, there was definitely a feeling like this is bad weather. And then once we started smelling the smoke it was kind of like, "Oh, well, that's not surprising"... So I think we were kind of, it wasn't like we were expecting it, obviously, or that we were really, even once we sort of smelled the smoke, realising how dangerous it was gonna be. But, it kind of also wasn't surprising that it was coming, I guess. It wasn't like, "Oh, I can smell smoke." The first thing you think is a bushfire, not like, "Oh, that was smell from something else because it's March so it couldn't be a bushfire sort of thing." (Interview 35, Tathra)

A few people discussed how their belief that the bushfire season was over influenced their preparedness and responses. One interviewee explained how, as part of his fire plan, he does not go on vacation during summer. Expecting that the fire season was over, he went away and was therefore unable to enact his plan to defend the house. Furthermore, he left the window shutters, which were purposefully installed to protect against bushfire, up because he was concerned about the house appearing unoccupied and the risk of burglary. Another interviewee explained how he had become a bit complacent because he thought the bushfire season was over. A pump he would normally have near the house was being used to pump water at the dam:

I had a bushfire pump connected to the tank at the side of the house, I'd also had another one connected to another tank that would have covered that area plus the caravans that we lost, but it was late in season and we got a bit complacent I suppose. We just thought it was over, and I had needed to pump some water down from the dam, so the second bushfire pump was up at the dam. I didn't have time to hook it up. (Interview 42, Reedy Swamp)

One interviewee explained how he has sprinklers on stands that he usually puts out during the bushfire season. He had been 'complacent this year' and had not put them out, having thought the fire season was over. He insisted that 'We're not going to be complacent again'.



4.13 IDENTIFY THE EXPERIENCES OF THE COMMUNITY IN THE AFTERMATH OF THE BUSHFIRE

People who were affected by the Reedy Swamp bushfire experienced a range of issues in the aftermath of the fire. Common issues related to: evacuation centres; post-fire communication and information; the conduct of media and politicians; asbestos-related issues; and concerns about the local environment.

Evacuation centres:

Many of those who left the Reedy Swamp and Tathra areas during the bushfire went to the evacuation centre that had been set up at the Bega Showground. Most people were impressed with the speed with which the centre was set up and the support services that were being provided. However, while some people felt comfortable to remain at the evacuation centre, others registered and then found somewhere else to go. There were a number of reasons people did not want to be at the evacuation centre. Most commonly, they had somewhere else to go, such as a relative or friend's house. Others left because they found the atmosphere within the centre to be stressful. Rumours about what had been destroyed in Tathra had started to circulate and the presence of the media and politicians made some people uncomfortable.

I registered with them, and the welfare agencies looked after me very well. The first question was "Have you got somewhere to sleep?" I said "I think so, I've got friends in [location removed]" ... Meals were coming round, they gave me a toiletries bag and they said there will be an announcement at 6:30. I listened to the announcement then I went to my friends and spent the night with them. The next morning I went to the evacuation centre and they said there'll be an announcement at 10:30. So I waited for that announcement. And then I took myself away from the evacuation centre down to the Bega River reserve, where there's a little parkland along the river. And instead of panicking people, I had kookaburras for company. I found that to be a lot more acceptable. (Interview 23, Tathra)

I just got so annoyed. I was trying to find out information, and the media were there, the breakfast shows and the different channels, and everybody's there. They're talk, talk, talk, talk, talk. We're just trying to find out information, that's what the evacuation centre should have been for. The media should not have been allowed inside that building. There were a lot of upset people, and a lot of elderly people who had lost homes, and weren't in a real good way. To walk in on the Monday morning and be confronted by TV cameras, and people sort of wanting ... This one Red Cross woman came along to one of the ABC crews and said, "Do you mind interviewing people outside the building?" She said, "If people come up to you, talk to them, but don't go and ask people if you can interview them." Because she said, "There's too many people here that are really suffering, and it's an impingement on their privacy." (Interview 30, Tathra)



We got to Bega and everyone went to the Showground. I couldn't go into the Showground. It was just... I don't know, it was just the misery and the rumours were already starting about who's house had gone and who's house hadn't. I'm just like, "I'm not going to buy into that. The pool next door, they'd closed for the day but then they opened again, when they knew what had happened and ... We just went and swam for an hour and it was the best thing we could have done... There was probably only five families there. One family had lost their house... They were there and we just swam. We could almost convince ourselves it was just a normal summer afternoon. We ended up at the pool every day after that. I could just pop into the Showground, get what I needed and pop away again. But there was just so much gossip: "The school's completely gone" and "This is gone and that's gone". I knew that it wasn't going to be great but none of us had been in there, no-one had been in there. We hadn't had any official reports and so, I just didn't want to listen to that. (Interview 27, Tathra)

Post-fire communication and information:

Discussions about post-fire communication and information focused on the rumours that circulated about the impact of the fire on Tathra and how people found out if their house had survived or not. As noted above, many interviewees were frustrated by rumours that were circulating, particularly at the evacuation centre. Some noted that it was days before they learned whether their house survived or not. Others were upset and angry that they learned the fate of their house via media images, before any official communication.

When we were at the evacuation centre, very quickly we started hearing rumours about all the places that had been lost. Straightaway we were hearing, "Oh, the school's gone"... The school was gone, the hotel was gone. The IGA was gone. What else? Well the café turned out to be gone, that one on the headland. But everything else was not true. The bowling club, they said, was gone. Within about the first couple of hours there, everyone was talking and everyone was thinking, "Oh well, if that's all gone then this Street's gone," and we had no idea for ages. (Interview 04, Tathra)

The people in Bega were just phenomenal... You know, "Cuppa tea, please, sandwich..." It was just tremendous... What was frustrating, so many people were so keen to tell things that weren't true. "Oh, the school's gone." "The hall's gone" all these sort of things. And I said, "I've got to get out of here. I can't deal with it." There so many people want to come and say, "Oh, your place is burnt." But they didn't know. They just wanted to pass on faulty or guess-y information, if that's such a word. We had friends in Tura Beach who'd rung us up and said, "Come and stay with us." So we got out of there. The best thing we did, we just out of that bad environment. Not because of the people involved here or anything. That was fantastic. It was just all the people so excited and so pumped up about the whole thing. They just

wanted to pass on all this information, that you didn't know what was right, what was wrong. We had no information at all as to what was happening, and that was frustrating. But what can you do? So that was that. (Interview 70, Tathra)

For those three and half days that we were in the evacuation centre, there was a complete absence of any information, any meaningful information. We got a lot of reports about how the RFS were going about fighting the fire, what the SES were doing, how the police were involved, how Telstra had put up [a mobile phone tower]... A lot of information about firefighting and preparation, but nobody could find out what happened. Everybody's interested in their own circumstances. Nobody could find out anything about their own circumstances. (Interview 23, Tathra)

[Female interviewee]: One thing that we found was very frustrating was trying to find out information. Because we ended up, we had to sleep, we hadn't slept for a couple of days, we went back to our son's place... o we could at least get a bit of quiet. When we got back in on the Tuesday to the evacuation centre, I think we were back in there by about eight o'clock in the morning, they said they had a meeting last night, and they had a list of all the houses that had been destroyed. Then all the other ones that had got damaged. We said, "Well where's the list?" Oh, nobody had the list. Nobody knew where it was. It wasn't posted up. So nothing was actually ... The information like that wasn't posted up, so unless you were there for the meeting...

[Male interviewee]: We found out via London, rather than Bega, that our house was here... Unbelievable! That shouldn't happen. (Interview 30, Tathra)

Conduct of media and politicians

Numerous interviewees discussed their disappointment and frustration that the media was able to enter Tathra before residents. Some noted the distress caused by finding out via media reports that their house had been destroyed, rather than through official communications.

I've got colleagues who found out that their house was burnt by that first image on the TV. It was absolutely disgusting, what happened with that. That upset so many people. They banded on about "Oh, it's a big asbestos risk, blah blah blah," and meanwhile, they're [the media] swanning around in amongst peoples burning houses with no protection. It was just rubbish. (Interview 21, Tathra)

I find it really frustrating that the TV crews were allowed in there and were walking all over places and you're watching it on telly. One of my other

friends ... so four of my girlfriends lost their homes as well, totally destroyed. One of them found out on the Channel 7 news on the Monday morning. She saw it, saw her home. So that's been a real struggle for her. She's not coping very well at all. (Interview 34, Tathra)

It's very upsetting seeing 'Sunrise' [breakfast television program] standing on someone's land with the house all burnt down on the Monday morning, when you yourself can't get back in. I don't think that's a good look. Not the day after. But saying that, where you saw, you're trying to look at any coverage they were showing. You were trying to have a look of if you could see your house... I mentioned a guy was in the command centre at Bega, a police officer, I said, "Why didn't you get the Sunrise to do an aerial of town and show people, just so we can all see?" He said, "Well, we do that," but he said, "but we did it for us, not for [the community]"... He said, "Just imagine, you're that person that sees your house gone from a helicopter up there... We don't want you to see it that way," and then I said, "Well, what about Sunrise standing in [name removed] house?" He said, "Well, yeah. We're not real happy about that." From my part, you just wanted to know whether your house was all right as quickly as possible. (Interview 83, Tathra)

This was the most frustrating thing, because you're watching the thing on the news, with news reporters romping around the place. This was driving me insane, and we were not allowed in, but yet ... "Oh, it's asbestos and ..." and all that. And here they are laughing and joking, carrying around and having fun with the fireys. And we're watching our houses just on TV. And, "Oh well, that's our house being burnt down, they're making a bit of a joke about it. I thought that was really cruel, that they were just letting the press just romp around the town as if their little playground... It's pretty horrible to see your building burning every morning or every ... I stopped watching the TV, 'cause I couldn't stand it. That's your 20 years of hard work just going up in smoke there, and that's just like an advertisement for them to make money. That's how I was viewing it. This is horrible. They're using my destruction as a promotional for their show. How shabby is this? (Interview 70, Tathra)

Interviewees also commented on the presence of the media and politicians in the evacuation centre. Some believed that journalists should not have been allowed inside the building in order to protect people at a time when they may have been vulnerable and traumatised. The motivations of State and Federal politicians were also questioned. In comparison, the local politicians and local government were perceived to have genuinely listened to and engaged with those who were affected.

The media should not have been allowed inside that building. There were a lot of upset people, and a lot of elderly people who had lost homes, who weren't in a real good way. To walk in on the Monday morning and be



confronted by TV cameras... and then of course all the politicians wanted to come up. There seemed to be more emphasis given on them having centre stage... It just ended up in a shemozzle... So much of the media, then the politicians... Especially on the recovery side, okay, they need the media, but it should not have been done in the middle of where everybody was trying to find out information. It was like: "You've got to be quiet now, because the Premier's going to speak", or "This person's going to speak". I'm thinking "Go away. Please". They all wanted their moment of glory in front of the television cameras. (Interview 30, Tathra)

The evacuation centre at Bega suffered because... nobody was actually managing the whole event: who got to come in, and who didn't. And the media were able to walk in because no one was taking responsibility... It should've been managed better for the protection of the people who were traumatised and possibly upset... That included politicians being able to walk through and do that stuff... (Interview 43, location withheld)

You just go, firstly whatever side of politics you're on, if the politicians are there to help, great. If they're there to get their head on the camera, looking like they're helping, that's not so good. Hats off to our local members at a state and federal level, because they came and they talked to people and they listened, and they genuinely engaged. The local government's been fantastic, the Mayor's done an amazing job. (Interview 28, Tathra)

The general conduct of the media teams within the evacuation center was also questioned, with one respondent recounting how a photographer's desperation to capture the 'perfect shot' of a politician had led to a child being knocked over. Respondents also felt that the commercial media were more interested in sensationalist reporting, stirring up uninformed opinion and spreading rumors, which caused further distress for those who were already suffering. For example, some interviewees were critical of journalists who questioned residents in the evacuation centre about alleged infighting between fire services. Some of these residents had lost their homes and made it clear that they were not interested in allocating blame or contributing to sensationalist media stories.

The first question they asked us was what we thought about ... I can't remember his exact words but basically along the lines of the Rural Fire Service and the townies not responding correctly because of political infighting, or some ridiculous thing like that, which we found really offensive... We knew by that stage how hard they'd all worked and were still working, still at that time on the Monday.... The first thing they asked was, "Was your house destroyed?" And then when you say yes actually it was, "Oh, well, what do you think about the fighting between the agencies?" And you go, "No, come on. Now is not the time and we don't have any



thoughts about it anyway." (Interview 34, Tathra)

Another angle taken by one mainstream print media organization was to suggest that Tathra was "cursed" due to a number of separate unfortunate events occurring over recent years. This caused significant additional distress for some residents.

But something that got my nose way out of joint was The Daily Telegraph wrote a piece about how Tathra's a cursed town... Yes, someone was killed by a shark here. And yes, a father and two sons drowned at the wharf. They're linking all of these things. "It's Australia's most cursed town". That came across my Facebook feed, and I reported the post and I requested it be taken down, because it contains some inaccuracies. Also it sort of implied that the father that drowned fell in after his two sons. He's a guy I played footy with. He actually was posthumously awarded a bravery award for diving in to save his kids. So for this event to be linked to that event, and for that event to be inaccurately reported in a way that diminished the memory of this guy, I've just gone 'That's not on'. (Interview 28, Tathra)⁵

The important role played by the media in terms of raising awareness and generating national support to assist those in Tathra was noted with gratitude. However, it was felt overall that their access to Tathra, and their coverage, should have been more professionally managed. It was felt that there were too many different media teams covering the immediate aftermath, and that instead of a free-for-all, their initial footage of destroyed homes should have been controlled through a formal process until all homeowners had been officially informed. It was questioned whether the training given to media teams who cover disasters was sufficient, and that in addition to safety factors, compassion and appropriate conduct should also be paramount. It was generally considered that the local media were more compassionate and respectful in their approach.

Returning home

While many residents returned home in the days after, some attempted to return immediately after the fire. Some were frustrated that roadblocks had been set up, preventing them from returning to defend their homes. Others

⁵ Similar articles appeared in *The Daily Telegraph* ('Tiny town's torrent of torment' 20/03/2018, p.4) and *The Canberra Times* ('Sunday's inferno the latest blow for seaside town touched by tragedy' 20/03/2019, p.3). While neither referred directly to a 'curse', references were made to a number of unrelated occurrences in Tathra including: the drownings of a father and his two young children in 2008 (DT and CT); the drowning of a 19 year old man in 2013 (DT); a fatal shark attack in 2014 (DT and CT); and the abduction, rape and murder of two teenage girls in 1997 (DT). With respect to our interviewees' assertion that the article implied the father of the boys fell into the water, *The Daily Telegraph* piece stated that the father jumped in to save his children, while *The Canberra Times* piece referred to the children falling into the water 'with their father behind them'.



discussed how they managed to get around road blocks by taking back roads and tracks into Tathra.

But our experience was that was extremely poorly managed, and very frustrating. I honestly think a lot of houses were lost because they wouldn't allow people to come back after the initial massive radiation heat. They didn't allow people to come back and put out spot fires. This house survived for hours and hours after the initial fire front went through - ... it could have been saved with one person. (Interview 30, Tathra)

Then the next day, so that would be the Monday morning, very early I went, because I know the trails around here, I met up with a neighbour and we came in in the back way... There's still a little bit of fire burning there, but when we got back up the top here there was nothing left, it was certainly all completely gone and burnt... The danger then is not the fire itself but the number of burning trees that you're walking past. (Interview 41, Reedy Swamp)

I did leave to go to Bega, but we kind of snuck back in that night. Which I was kind of glad I did... Came back in the Sunday night... And when we were driving in, like you could even still see the fires, just not raging fires, but fires quite close to the road. But yeah, we ended up coming back down the beach here and around here. We went out the back and it was like, there was that many little fires everywhere, it was like carols by candlelight when they've all got their little candles up, so weird. (Interview 01, Tathra)

Then towards the end of the day I thought, "Well, I'll try and get home," because I didn't want to stay again in Bermie [Bermagui]. I was pretty restless. I wasn't sure if I'd get in here. I drove to the edge of Tanja where Dr George Mountain that comes around the back, or the Tathra road that comes to here, and there was a roadblock on the Tathra road and they wouldn't let me through there, which was fair enough. I got that, so I thought, "Well, I'll go round Dr George," because there's a million tracks in through the bush. But I was a little bit wary, because coming in through the bush you're up on the hill, and it's quite high and dry up there, so I thought ... And there could be trees down, so I was like, "This is a little bit of a dangerous plan," but I was keen to get back in here and help with just keeping everything okay. (Interview 43, location withheld)

On the day of the fire, and in the days following, some interviewees recounted that road blocks were strictly enforced on threat of fines, preventing them from collecting medical supplies or other essential items that had been left behind during rushed evacuations:

We came in on the Monday to see if, we wanted to get home to get a



wheelchair and things like that, and they wouldn't let us in out along the road there, they didn't give us any information, they said, "No one's going in or out." That was that. ... Well, we said, "What about if we drive through it?" And they said, "If you do you'll be up for so many hundreds of dollars fine, so please yourself." So they virtually had it blocked off. (Interview 63, Tathra)

Interviewee: And my husband is a transplant patient, for a heart, and he left all his medication here.

Interviewer: Oh wow.

Interviewee: And that wasn't until that night that we realised we didn't have it with us.... And we came back in the next morning, early, to see if we could just come in and get the medication. And I said to the fellows that were guarding the bottom of Evans Hill there, "You know you can come in with us, we just want to pick up the medication." And, "No way. Can't do it. Go back into the hospital." (Interview 20, Tathra)

In the days following the fire, some people managed to persuade officials at checkpoints to let them through. Interviewees described an inconsistent policy and while some were met with strict resistance, others found those running the road blocks to be more flexible. Those who were not given access to return expressed frustration that the media were allowed in and that other residents were allowed to stay or had managed to return 'illegally'. Residents discussed how they were unable to get off the bus that toured Tathra, yet they passed many residents, members of the media and government officials all walking around freely, despite the apparent asbestos risk.

Well, the roadblock on the main road, they definitely wouldn't let us through. But we were two fairly determined women and we went round a back way to try and get past that roadblock. And there was another roadblock on the main road further up, but the guy there initially wouldn't let us through. But when we said, "Look, we live next door to [name removed], and he says it's safe," and he said, "Okay. I'll let you through." (Interview 38, Tathra)

When we came on the bus trip, there's all these news cameramen with no protective gear... Even in this street here, a couple of the residents stayed, they're working around their yard tidying up, no protective gear, and yet we weren't even allowed off the bus to just go in. All I wanted to do was go and turn my taps off, because I left the taps connected with water running down. I would have loved to have come in, had half an hour just to clear the stuff out the fridge, so the fridge could be ... It was destroyed. So there's thousands of dollars' worth of fridges replaced for no reason. We could have been brought in and just done that half an hours work to the house to get it okay. But they give us this funny excuse about asbestos, which was a fallacy. (Interview 30, Tathra)



The management of access back into the area after the fire was pretty poor... And then as soon as you get back in there, there were people walking dogs and riding bikes around, people who'd stayed and hadn't evacuated. It just seemed a joke, the management of that side of it was very poor. (Interview 48, Tathra)

When Tathra was opened to residents, those who wanted to return and pass through the road blocks were made to prove their identity and collect a stamped certificate at the local racecourse. Interviewees discussed that this had been a frustrating and poorly managed process, because on the following day residents were able to come and go as they pleased. Some interviewees returned went through this time consuming process only to discover that the roads were no longer blocked.

So the procedure was, before you could get back in, you had to have a stamp, and that was in the control of the police, and there was only two stamps issued for this incident. One stamp was at the racecourse at the south, and one stamp was for people coming in from the north. So we went out and there was a great queue up of people. So the process was about five police checking that you were the person on the license. But you couldn't then go, you had to go to this last person, last police person, who then put this stamp on. So there's queues and queues, the queue was kilometres long.... Next morning you could come and go as you liked. It was just a complete waste of resources. (Interview 30, Tathra)

The only thing that really just got pretty close to getting very upset with one of the police officers, was the whole getting back into town stuff. I cannot, to this day, see why we had to get paperwork from one place, to then go to the showground to wait in the line to have some volunteers check your paperwork, to then go around the corner to get the police to stamp your paperwork, to then come down here to get another police officer to check that you've got a stamp on a piece of paper... I don't get the whole four steps sort of thing, I don't see what that accomplished other than making people really annoyed. So that was just pretty annoying. (Interview 35, Tathra)

The impact on residents whose homes had been destroyed and were refused entry when they wanted to return is well exemplified by those who discuss how important it is to the recovery process to visit your destroyed property in order to grieve and begin the healing process.

I think it might have been the Thursday that we were allowed to come back, and that was when I first actually, physically stepped on my land and it wasn't just from the street on the bus. And that was when the process of



salvaging what we could ... It was really helpful... It's a bit like ... The things that you find that are quite remarkable... Even broken and twisted metal, they were links back to our life. And it actually ... It helped to ground us. It helped to kind of connect us to what our life had been to what our life now was to what we could potentially make of our lives in the future. And it felt really, really important. It felt a really important part of the healing and the transformation from one state to another. And it was just there in the ground, just sifting through, sifting through. (Interview 32, Tathra)

Interviewees who went on the bus trip discussed both the positive aspects of seeing their homes and the experience.

He actually came on one of the buses from the evacuation centre. He wished he hadn't because it was awful. Most people had lost their homes. (Interview 10, Tathra)

I found out on the Monday night from the Rural Fire Service when they had finally done the assessments of all the properties. And we were told at 6:00 that night, the status of our home. And that was when I was told that home had been destroyed, which I sort of knew anyway, and it still wasn't until I saw it from the bus that I believed it. It wasn't until we came over the hill up here on Wildlife Crescent, and I looked up over to here... that was when I knew it was gone... That was just absolutely devastating. That was gut-wrenching. Every single person on that bus had to go through the same experience. The only people out on the bus were people whose houses were destroyed, and it was like this little life raft of people going back to witness the devastation. (Interview 32, Tathra)

Yeah, we did the bus trip. It was difficult in some ways because there were obviously people on the bus whose houses were gone, and they were very distressed. But it was necessary for me, because my boys said that I wasn't to listen to anybody and not to tell them anything more until I knew it was here, which I did on Tuesday. (Interview 14, Tathra)

Asbestos issues:

Some interviewees discussed their experiences of asbestos assessments at their house or property after the fire. Most people understood the need for asbestos to be identified and, if present, removed. However, some interviewees noted that asbestos assessments had delayed their returning home.

Well, we fully expected it would only be one or two nights at the most. Instead of that, it was much longer. We didn't get back in here for nearly two weeks. Just off two weeks. The front of our house had one of those



orange plastic fences across the front, no entry, because they had to investigate asbestos. There were people giving information down at the Council Chambers, first of all they were at the showground and then they moved to Council Chambers, and the fellow there that was giving us information about asbestos said that he would have it investigated. He organised having it investigated, and he found that everything was fine. (Interview 55, Tathra)

We were told we could go home. We went out to the racecourse and went through that process out there for a couple of hours to get ticked off and then come back. When we actually arrived here it had all been sectioned off for asbestos... We knew there wasn't actually asbestos. It was just a precaution. It looks a bit like it could have been potentially asbestos. We sort of knew that it wasn't. [The house was] built after they stopped using asbestos. The girls were pretty upset... I think we went two or three days... We thought we were coming home, but then they saw that. (Interview 54, Tathra)

While I was at the evacuation centre I was lectured uphill and down all about asbestos. I was advised to read leaflets, multi-page leaflets, [there were] signs all around my property about asbestos and warning people not to come in... He said "I'm here about the asbestos." I said "Are you here to remove it?" He said "No." I said "Well, why are you here?" He said "I'm here to tell you that there isn't any." I said "Do you mean to tell me after having me read all this information, having me attend all these lectures... After putting barriers around my house that stopped everybody coming in, including me, after putting notices around, that there's no asbestos?" He said "That's right"... The reason for the confusion is that the tool shed was clad in post 1970 cladding which is fibre cement. Which looked at the time, like asbestos... He said "I'll take the signs down while I'm here," he said "there'll be somebody here tomorrow to take the orange fencing down." And sure enough, nobody showed up until about the middle of next week and then they took it away. (Interview 23, Tathra)

One interviewee at Reedy Swamp experienced difficulty finding out whether there was asbestos at the site of his destroyed home. He contacted the local council to find out if an assessment had been undertaken:

It took me a long time before the council would tell me that there was none here. It took them a long time to get out here. They'd done Tathra about three times over before somebody actually said, "[name removed], we have to get to Vimy Ridge Road and have a look as well". Perhaps they'd been out but they said that ... Anybody I talked to said wouldn't know. "Oh, we don't know. You're not on the list." I said, "What does that mean?" They said, "Well it means they haven't found asbestos at your place." "Have they had a look?" "I don't know." (Interview 41, Tathra)



An interviewee who lost a home in Tathra explained the 'bureaucratic roundabout' that began when a small amount of asbestos from the house next door was found on the property. The site was then classified as contaminated, which prevented the family from accessing the property and delayed the process of clearing the site.

By that stage they'd actually told us that we were infected with asbestos. So that's when we started on the bureaucratic roundabout of people not listening and making decisions on our behalf. And that's been the most difficult thing for me to cope with... Our home is less than seven years old. So there's no asbestos in our house because it's all new. The neighbour had done some renovations and the builder had just covered the eaves up. So when the fire came through and took her house as well the fence burnt down and her eave fell across our boundary line. So our infected property would have been less than the size of this table. And so nobody would listen to what we were saying. So by the time we got there on the Wednesday the whole place was sprayed pink with gum, whatever it is, the rubber plastic stuff, glue, whatever it is. And then my husband is going, "This is ridiculous. It's not asbestos." It was a cement fibre product, a boarding. Anyway, of course then once we were pink we had to stay pink and nobody would listen to our story of our house and that it was seven years old. So we then had to basically wait for them to do whatever they wanted to do to our place. (Interview 34, Tathra)

Concerns about the local environment:

A small number of interviewees raised concerns about the local environment in the aftermath of the fire. In particular, there were concerns that too many trees were being cleared, reducing habitat for native animals and degrading landscape amenity.

I got the shits a couple of days later and caused a bit of a kerfuffle over the excessive tree clearing... I'm going down the road, and there's a D7 dozer, a pretty decent sized dozer... There was people out in the road, and talking, chatting, that sort of thing, and I wandered down to the guy who was supervising the dozer. It was down in the gully, scrunching up a wattle. "What are you up to, mate?" "Moving dangerous trees." I said, "That's not a dangerous tree"... Down through the gully here, I could see a couple of trees knocked over... needlessly knocked over, and I was terrified he was going to go along the back here and knock over all these mature trees.... You can see what's happened as you come into Tathra on the left hand side. That's just extreme. Looks like a logging coupe... (Interview 39, Tathra)

Sometimes I can't handle it. I just have to leave. That's why I left today, because the guys came and were chopping down trees. I'm like, "Why? It's

already been damaged so much." Then a bulldozer came and knocked down even more trees after the fire came through, and destroyed the whole hillside, and now you're coming again and chopping down things again? Just leave it alone. Just go away. I didn't say that... Whenever I raise that with the people, with council or whatever, they're like, "Oh yeah, we're fixing things." I'm like, "No, you're destroying things." Destroying is not fixing. It's not the same thing. (Interview 26, Tathra)

One interviewee noted that it can be difficult to raise concerns about environmental issues in the aftermath of a disaster, particularly when people have lost their homes. Nevertheless, she felt it was important that the issue of excessive tree clearing was raised at a public meeting:

That's another thing. The other thing is it's really hard to raise the environment when people have lost houses. So you've got the emotional part: the fire has come in and taken their houses away. So it was really hard at that meeting, even though we're a couple of months in, to raise those sorts of issues, when it's so emotive around "I've lost everything, and so I should be able to get rid of all the trees." Well, no, you really shouldn't. There's a whole other reason around amenity and whatever else that those trees are there as a benefit, either on peoples' properties or... You're very conscious that you didn't lose anything. (Interview 39, Tathra)

4.14 ESTABLISH HOW PEOPLE INTEND TO PLAN, PREPARE AND RESPOND TO BUSHFIRE IN THE FUTURE

Interviewees were asked to reflect on their experience of the 2018 Reedy Swamp Fire and consider how they might plan, prepare and respond to bushfire in the future. Many reflected on specific changes they would make to their properties such as removing mulch from garden beds around the house, removing trees, obtaining longer hoses, installing sprinkler systems and so on. Some also reflected on how they responded to the fire and whether they would take the same action in a future fire. A number of themes emerged from analysis of interviewees future intentions: modifications to houses and gardens; being better prepared to leave; being better prepared to defend; reluctance to leave again; and increasing insurance cover.

Modifications to houses and gardens:

A number of interviewees commented on modifications they were intending to make to their houses to protect against bushfire. People commonly identified the installation of sprinklers as a simple way to protect against bushfire, while discussed options for retrofitting their houses and landscaping their gardens:

We've got rid of the steps out the front, because that provided a wooden

tracking system from ground level up to the top. So we've got rid of those. We changed the deck there. We got rid of a timber fence connected to the house. The idea is to get away any connectivity between timber and the house and sort of exterior fences or retaining walls... We're very conscious of the landscaping, we're changing that. We're going to box in the eaves, so we don't have exposed jack rafters. We're going to get bushfire shutters for the windows at the back... (Interview 30, Tathra)

A number of people noted that they intended to prepare their house to survive a bushfire, but that their plan was to leave. In particular, some envisaged installing sprinkler systems on or around the house to increase its chances of survival.

I've always intended in putting a sprinklers system here... on and around the house. So that then, as far as a fire plan, it would be easier for somebody that was here just to start a pump and turn a tap and walk away. (Interview 43, location withheld)

[Interviewee:] People, not property, is the important thing. And I'm certainly no hero and my husband is not as young as what he thinks he is. So I can't imagine how some of those ladies coped with their husbands in Tathra that night... It was so lucky that nobody died or got injured.

[Interviewer:] So with the sprinklers and things like that, the idea would be just to turn them on...

[Interviewee:] Turn them on and go. Definitely. (Interview 34, Tathra)

There's sort of two options when we build. One is to build something that complies with the bushfire stuff, but then it's not actually a dream home. And then I think you just over-insure it. That would be how. And then there's another slight plan, which I don't think will happen, which is to build the house you want, and we'd probably build it to survive itself, but not be there to defend it. So I had some interest in: can you have a little back-up pump and then brass sprinklers and that's it, like just walk away, turn it on, walk away? (Interview 35, Tathra)

Better prepared to leave:

Many interviewees reflected on their experience of leaving or evacuating during the Reedy Swamp Fire. Some considered that they had left too late, which meant they had little time to gather animals or valuable items. In some cases, people were exposed to the dangers of late evacuation such as smoke, embers, flames and heavy traffic. Consequently, interviewees discussed how they would leave earlier and how they would be more prepared to gather animals and valuable items in the event of a bushfire.



[Interviewer:] If there was a fire again, is there anything you'd do differently next time?

[Interviewee]: I'd just take off very quickly. I wouldn't wait. No. I'd take off very quick. And if it [the house] burns, it burns. 'Cause you just don't know where it's going to go, you know. Your life's the main thing. (Interview 74, Tathra)

I've got a cage now for these guys [the chooks], so I'd take them with me... My attitude toward staying around wouldn't change. I think I'm safer for myself and safer for any of the rescue services not being around... Even though I do have confidence in the house, a house is a house. You can rebuild or repair, but certainly I'd do exactly the same thing again. (Interview 07, Tathra)

I'd probably not be so blasé about "No, no, no, it's fine"... We could have packed the trailer, the two cars, and so much stuff safely away with us, but we didn't because I'm just saying "Huh, that's fine! It's blowing away from us. We'll be alright." I would pack as soon as I could and just be prepared, even if we didn't need to leave. (Interview 21, Tathra)

[We will] work harder, at our bush block, to be prepared... I still wouldn't stay and defend... I'm going to get a fire box, as in a fire proof box for documents in the house and just store stuff in there. I'm going to have a list, a packing list probably in that fire box, so if we have to get out quickly, everything's on the list. (Interview 27, Tathra)

One of my jobs is to get together a 'grab-it-and-go' kind of evac pack that we keep with some basics in it. So that when it's time, if we need to evacuate, that's what we'll do, just have something to grab. (Interview 28, Tathra)

But I know now what I'd take. It was a really interesting exercise coming into your own home and going, "15 Minutes, what do you want. Whatever will fit in the car, go." (Interview 43, location withheld)

Better prepared to defend:

Some interviewees reflected on their experience of staying to defend against the Reedy Swamp Fire and identified the need for more or better equipment, such as dedicated firefighting hoses, pumps, and water supply, as well as personal protective equipment such as goggles, masks and appropriate clothing. A strong commitment to staying to defend houses is evident in the following interview excerpts:

[Interviewee]: I would just try and just be better more prepared I reckon. In case maybe get some better quality hoses, and more equipment. If anything, because I suffered from smoke inhalations for ages, so maybe if I could get a respiratory mask or make sure I got something there on hand if it was ever to happen again or maybe make up a fire pack for people near if they're gonna decide to stay, make sure they got gloves and goggles and a proper good mask so they don't suffer some damage for their own safety if they're gonna end up inside to stay.

[Interviewer]: And you would decide to stay?

[Interviewee]: Yeah, definitely I would stay. Definitely would stay. (Interview 02, Tathra)

I would buy a backpack with a metal water tank and a spray, and I would buy some sort of a gas mask, and I would stay around my own home, and do my best to save my own home. Now, that's not what the authorities want to hear. They want you to evacuate, because if you evacuate, there's no chance of you losing your life, and that's their paramount concern, that there should be no loss of life. Loss of property comes way down the line in the view of all these authorities. As it turned out, there was no loss of life in Tathra, and that's to the credit of the people involved. (Interview 23, Tathra)

Would not leave again:

A number of interviewees who left or evacuated during the Reedy Swamp Fire said that they would not leave again, or would be reluctant to leave, preferring instead to stay with their house or property. Reasons for remaining varied, including to defend the house and property and to look after animals that could not be relocated. For example, one interviewee who had planned to stay and defend ended up escorting neighbours to safety:

I would want to stay here next time, but the reason that I went at the time, I would have stayed happily and just kept on hosing and hosing, and then just as the whole front came in, I just probably would have snuck inside and closed the door and went downstairs in the far corner of the house until it passed, and then I would have come out. That's what I would have done and I always had it in my mind that it would be like that, but there are these other people. So I felt a responsibility to, to make sure they were going in the right direction, I couldn't just ignore them, you can't do that. They're in a panic, so that's one of the reasons why I went. (Interview 13, Tathra)

Another interviewee explained his plan for a future bushfire, which involved leaving the house and property during the main period of fire threat and then returning to defend it later:

I know now, I'd be quite confident that I would go and take shelter until the



front went through and then I'd come back to the house. I would definitely come back and in this area. I'm sure I wouldn't do it if I were in high risk areas in the Blue Mountains or in Victoria, but in this area here now, I feel quite confident that our home could be protected. But as I said, I would go away take shelter and then return. I'm not quite sure why so many people were discouraged from remaining. (Interview 24, Tathra)

Importantly, in describing their intentions to remain at their house or property during a future bushfire, a number of interviewees referred to the inconvenience of being prevented from returning in the days after the Reedy Swamp Fire.

[Interviewee]: I'm not sure. I don't know. It's really stupid to lose your life to save a house, isn't it? But at the same time, if you're my age it doesn't matter very much anyways... I just don't want to spend another three nights sleeping in the car or depending on a friend to give me a bed for a couple of nights. (Interview 67, Tathra)

In hindsight, I think we both agree we wouldn't go now because of what we experienced the following day, and that is we weren't allowed back in. We've got [animals] here, and they get fed every day and they need to be fed every day... Once they had the road blocked, even though we weren't impacted in terms of directly, we had to ... we couldn't get in, we weren't allowed in. So we did a few naughty things and came in an alternate way. (Interview 60, Tathra)

Now I think I've got the reverse attitude coming out of the fires that, maybe I wouldn't go because I hated being away from home for three days and maybe I think the risks are less now, just because so much bush has burnt out. Also, I think the authorities would have learnt so much from what happened, that I doubt that would ever happen again. I doubt that many houses here would be lost again. (Interview 04, Tathra)

Some interviewees also noted that factors such as the age of their children, their neighbours, or their own health status would affect future plans around staying or leaving. For example, when discussing a plan to stay and defend in future, one interviewee reflected:

I suppose, if you're in my head, our youngest would be older by then and better able to cope, you know. Like, we wouldn't have to be worrying about him... (Interview 60, Tathra)

Increasing insurance cover:

Since the fire, some people had reassessed their insurance cover. They spoke of people who had lost their homes in Reedy Swamp and Tathra who had discovered they were underinsured. In particular, interviewees discussed the increased costs of rebuilding due to design and construction requirements for developments on bushfire prone land. While some thought it was unlikely that they would again be impacted on by fire, they had increased their level of insurance cover since the fire:

I didn't know what BAL-40 and flame zone and all that meant. And I found out that if we were to rebuild our house - I've got it insured for 300 thousand - we're in, and we always were in, flame zone. And we possibly could get that back to BAL-40, but whatever the case, the rebuilding cost would be over 50% more. Our house really would cost 450, 500 thousand to rebuild because we have to build it to today's new specifications, which are great laws...

A mate of mine in Sydney lives against the bush and he heard about it. He's updated his insurance years ago. He's really on the pulse, this mate of mine. But yeah, I think there's a lot of people are going to be getting a shock in Tathra when they realise that their house is going to cost a lot more to build now. I think that's a really, really messy one. So I've upped my insurance now to 550 thousand to cover for it. Yeah, I'm not mucking around with that one. That's a really big lesson. (Interview 36, Tathra)

A lot of people think it's going to cost 'so' much to build a house on a nice clean plot of land, but you got to get to that clean block of land. Which is a fair bit of money, and also they haven't factored in once you've been through a fire, the area might be upgraded in the BAL rating, so it might cost another 50 or \$100,000. So people were under-insured for that aspect. So it'd be interesting to be able to have some information about insurance, how much should we insure for? Because we've just upped our insurance, we were under-insured too, but luckily it wasn't a complete loss. But the insurance company, or our one, and most of them I believe, have been fantastic. They went out of their way to make it good. (Interview 30, Tathra)

We're looking at our insurance policy and thinking, "Ah, should we up it?" Then I was saying, "What are the chances of that happening again in the next five years? Pretty slim." Now I think I've got the reverse attitude coming out of the fires that, maybe I wouldn't go because I hated being away from home for three days and maybe I think the risks are less now, just because so much bush has burnt out. Also, I think the authorities would have learnt so much from what happened, that I doubt that would ever happen again. I doubt that many houses here would be lost again. (Interview 04, Tathra)

No one wants to pay [insurance premiums], and they think it's not gonna happen to them, so anyway. I'm not really sure if what I'm now paying is



even enough. But I have to tell you right now, I severely doubt that lightning is gonna strike in the same place twice. So really, I've upped it \$100,000, that's enough. (Interview 22, Tathra)



5. DISCUSSION AND CONCLUSIONS

This report has examined issues of community planning, preparedness and responses to the 2018 Reedy Swamp Fire. Through semi-structured interviews with people affected by the fire, the research provides insights into a range of community bushfire safety issues. These include issues related to: people's perceptions of bushfire risk; community planning and preparation; perceptions of fire danger and conditions on the day of the Reedy Swamp fire; how people responded to warnings and the fire; people's experiences in the aftermath of the fire; and how people intend to plan, prepare and respond to bushfires in the future.

This section summarises key findings from the research and discusses their implications for bushfire risk management and research.

Community perceptions of bushfire risk

The research found that many residents within the town of Tathra were not aware of the bushfire risk. Residents with properties within or adjoining the forest tended to be more aware of the risk posed by bushfire and were more likely to have taken action to plan and prepare. Tathra residents often referred to the forest that adjoins the town's western edge as the prime source of bushfire risk, and many had not considered that a bushfire could impact beyond this edge. It is particularly apparent that some people did not understand that embers can carry fire into urban settlements, ahead of the fire front.

Research has consistently found that there are a considerable proportion of people in bushfire risk areas who are unaware of the risk (see McLennan et al. 2015). Indeed, research following the 2009 Black Saturday bushfires in Victoria found that people in recognisably 'suburban' locations had not previously considered that they were at risk (Whittaker et al. 2013). Results presented in this report suggest that misconceptions about bushfire behaviour – in particular a lack of appreciation of the role of embers in fire spread – may be influencing risk perceptions.

Community attitudes to bushfire risk reduction

Many people were aware of activities that had been undertaken to reduce bushfire risk, including hazard reduction, APZs and RFS community engagement. Hazard reduction and APZs were viewed positively and were believed to have reduced the severity of the fire. The Tathra RFS brigade was also seen to have reduced risks through community engagement activities such as encouraging people to make a bushfire survival plan and advising people to clear vegetation around houses. Local fire brigades play a key role in encouraging community planning and preparedness because they are part of the communities they serve and are trusted (Whittaker and Taylor 2018).



Information sources for planning and preparation

People who were previously aware of the risk posed by bushfire used a diverse range of information sources when planning and preparing. These included information and advice from NSW RFS members and the NSW RFS website. Analysis of interview data suggests that people may not seek to keep up-to-date with the latest guidance relating to planning and preparation, instead relying on old information or 'common sense' (see Whittaker and Taylor 2018). However, studies of community preparedness and responses to bushfires have found repeatedly that preparedness is often partial, and that 'weak links' in people's plans and preparation can compromise their ability to enact their bushfire plan (e.g. Whittaker et al. 2009; Handmer et al. 2010; Wilkinson and Eriksen 2015). This demonstrates that adequate planning and preparation requires more than 'common sense'. People need to understand that knowledge, information and advice can change. They should be encouraged to develop or update their bushfire plans based on the most up-to date information and advice available.

Results also highlight the influence of images and information about past bushfire on people's fire plans and responses. For example, numerous interviewees referred to bushfires in Victoria such as the 1983 Ash Wednesday and 2009 Black Saturday fire, where many people were killed while evacuating (Haynes et al. 2010), to explain why they remained in Tathra during the Reedy Swamp fire. 'Iconic' fires, such as the Black Saturday and 2013 Linksvie Road fires, present valuable learning opportunities for people in bushfire risk areas. Indeed, the 2018 Reedy Swamp fire may present opportunities to increase awareness and understanding of the risks to coastal communities in NSW and elsewhere. Consideration should be given to including experiences and learnings from such fires in community engagement and education campaigns and materials.

Actions to prepare, including plans and preparedness measures

As noted throughout the report, some people within the town of Tathra were unaware of the bushfire risk and had done little or nothing to prepare. Those who lived in streets adjoining or within the forest were more likely to be aware of the risk and to have taken action to plan and prepare, although levels of preparedness still varied considerably. It is notable that only a small number of households represented in the interview sample had dedicated firefighting resources such as water tanks, pumps and firefighting hoses.

A key finding in relation to preparedness is that many people described preparation as what you do once a fire is threatening, rather than actions taken in advance of a bushfire (see also Wilkinson et al. 2016). The NSW RFS clearly communicates the need to plan and prepare before a bushfire occurs through its education materials and campaigns (such as 'Get Ready Weekend'); however, the results of this research suggest that this message is not getting through to everybody.

Results highlight that some residents intended to leave at the last-minute. Some interviewees described measures such as getting cars out of garages and



positioning them facing forward for a quick escape. Reasons for leaving at the last-minute included a desire to undertake final preparations or defensive actions, such as wetting down the house, and waiting to see if the fire would impact and whether it was actually necessary to leave. Some intended to leave temporarily and return once the threat posed by the fire had eased. These findings are similar to those of previous studies, which highlight the tendency for people to 'wait-and-see' before deciding to stay or go (see McLennan et al. 2015 for a review). However, results from the Reedy Swamp study suggest more deliberate intentions and planning for late evacuation. The close proximity of the beach and foreshore, which many people believed would provide safe refuge from the fire, likely influenced people's intentions to leave at the last-minute.

Perceptions of risk posed by fire danger ratings and conditions

The research found that while many people were aware of the forecast fire danger ratings or understood the risk posed by hot and windy conditions, there was relatively little preparatory activity in response to these forecasts. Many residents only began preparing once the fire was threatening.

How people became aware of the fire and their responses

Analysis of the interview transcripts revealed that most people became aware of the Reedy Swamp Fire by seeing or smelling smoke or flames, or via communication with relatives, friends or neighbours. This finding is consistent with previous research. For example, Horsey and Penman's (2014) study of people affected by the October 2013 NSW bushfires found that 46% of people found out about the fire by smelling smoke and 34% found out via contact with friends, neighbours or family. Similarly, a study of community preparedness and responses to the 2009 Black Saturday fires found that environmental cues such as seeing flames and smoke were important in alerting people to the fires. It found that while most people (62%) did not receive an 'official' warning from emergency services, many (63%) received an 'unofficial' warning from family, friends or neighbours.

These findings underscore the importance of environmental cues and communications via familial and social networks in alerting people to the presence of bushfires. However, as was seen in Reedy Swamp and Tathra, knowledge that there was a fire nearby does not always motivate people to take action. Increasing community preparedness and readiness to respond to bushfires before people are directly threatened is a perennial challenge for fire services.

Were people able to implement their fire plans?

As has been noted throughout the report, many people who were threatened by the Reedy Swamp Fire did not have a plan for what they would do in the event of a bushfire. Nevertheless, most of those who planned or intended to



leave were able to do so, but many reflected that they left too late. The tendency for people to leave at the last-minute – when they are more likely to encounter dangers associated with flames, embers, smoke and traffic – has been highlighted in many studies (e.g. Haynes et al. 2010; Whittaker et al. 2013).

This research also found that there were people who had not planned or prepared to stay and defend, including some who had not planned for bushfire at all, who stayed to defend their own and neighbours' houses against the fire. These responses appear to have been somewhat instinctive or reactive. These residents were fortunate that the mains water supply and pressure was maintained as most did not have back up water supplies, generators or pumps for firefighting. Research highlights the importance of such resources for property defence (Wilkinson and Eriksen 2015).

Information sought about the fire and how it was used

The loss of electricity, mobile phone reception and issues with ABC Local Radio's broadcast of emergency information impeded the communication of warnings, information and advice to people in Reedy Swamp and Tathra. In the absence of adequate information, many people sought information about the fire through direct observation of smoke, the fire itself and the activities of neighbours or emergency services. This confirms previous findings about the tendency for people to want to observe fire for themselves (Whittaker and Taylor 2018) but highlights the role of information accessibility in such behaviour. Where information is limited or inaccessible, people may be more likely to seek confirmation of the threat via direct observation, which may require travel through hazardous environments.

The lack of adequate information also meant that people relied more heavily on advice from police and others within the fire affected area about where to evacuate to.

How people and businesses hosting non-residents responded

There is relatively little research on how businesses such as tourism and accommodation providers plan, prepare and respond to bushfire. One exception is Downing *et al.*'s (2003) study of accommodation providers' and tourists' perceptions and preparedness for bushfire risk in Halls Gap in Western Victoria. The study found that tourists trusted and would rely on advice from accommodation providers about what to do in a bushfire, but a significant number of tourist accommodation providers would not feel confident providing advice to guests.

This research found that many local businesses were hosting non-residents when Tathra came under threat from the Reedy Swamp Fire. These included caravan parks, hotels, motels, restaurants, cafes and local clubs such as the bowling and golf clubs. Accommodation providers benefited from mandated evacuation plans and emergency procedures, which assisted them to alert their guests to the bushfire and instruct them to evacuate. Nevertheless, two accommodation providers encountered guests who were reluctant or refused to leave, including



some who stayed to defend their cabins and caravans. As was the case with residents, many non-residents evacuated at the last-minute.

Downing et al. (2003) raise the important issue of holiday rental houses with 'absentee landlords'. In contrast to accommodations such as hotels, motels and caravan parks, holiday rental properties usually do not have evacuation plans or emergency procedures. Furthermore, the fact that staff are not on-site means that guests may need to respond with little or no assistance. Non-residents are also less likely to receive 'unofficial' warnings and information about bushfires through familial and social networks. The growing number of holiday or short-term rental properties available through websites such as 'Airbnb' and 'Stayz' suggests that the provision of information and advice to non-residents in bushfire risk areas may be an increasingly significant issue.

Expectations of warnings and information

Most interviewees were aware, prior to the Reedy Swamp Fire, of the limited mobile phone coverage in the Tathra and Reedy Swamp areas. Some had considered that they might not receive a SMS warning in a bushfire or other emergency. There were, however, people who believed that warnings and advice, in particular advice to evacuate, should have been provided earlier in the day, before power and communications infrastructure failed. There was also an expectation that ABC Local Radio would provide ongoing coverage of emergency warnings and information. As noted in Section 4.8 of this report, some interviewees expressed frustration that this did not happen earlier.

These results findings are similar to those of research into the 2017 NSW bushfires. Residents affected by the Sir Ivan Fire were aware of limited mobile phone coverage prior to the fire, and thus many did not expect to receive an official warning (Whittaker and Taylor 2018). Like those affected by the Sir Ivan Fire, interviewees who were affected by the Reedy Swamp Fire identified the need for improved mobile phone network coverage in their local area. And like those affected by the Taliesen Road, Carwoola Fire, some suggested that a siren or klaxon was needed to alert people of an emergency in the event that telecommunications infrastructure failed (Whittaker and Taylor 2018).

Effectiveness of warnings

Discussions related to the effectiveness of warnings focused on the role of the power and mobile phone telephone outages in impeding the delivery of messages. Many of those who did receive SMS warnings received them late, often once they were leaving or had already left, most likely because they had entered areas with mobile phone network coverage. Some people were aware that they had not received warnings via landline telephone because they had cordless phones, which require electricity to operate.

While many people did not receive warnings, or did not receive warnings in a timely manner, there were people who received warnings via landline telephone or SMS and found them useful. Although these people were already aware of the fire, receipt of an official warning confirmed the threat posed by



the fire and the need to take action. The loss of power and mobile phone coverage, combined with issues relating to the broadcast of emergency information into the local area, meant that many people did not receive warnings or advice and there was considerable uncertainty and confusion about whether, when and where to evacuate to.

An important finding from this research is that some of those who received a warning advising them to seek shelter were unsure what this meant and therefore did not understand what the message was advising them to do. Research into community preparedness and responses to bushfire has tended focus on the actions required for people to safely leave, or to defend houses and property. However, recent studies have begun to provide insights into factors influencing the safety of those who shelter during bushfires (e.g. Whittaker et al. 2017; Blanchi et al. 2018). A study of resident sheltering practices during the 2009 Black Saturday bushfires drew a distinction between 'active' and 'inactive' sheltering, which are characterised, respectively, by the presence or absence of attempts to regularly monitor conditions inside and outside the place of shelter, as well as actions to protect the shelter and its occupants. The authors argued that education materials and campaigns are needed to encourage planning and preparation for *active sheltering*, regardless of whether people intend to leave or stay and defend. These initiatives should underline the importance of regular monitoring and actions required to protect the shelter and its occupants, including timely egress. The tendency for people to shelter at informally designated refuges or places of shelter, such as the Surf Lifesaving Club and the Mogareeka carpark during the Reedy Swamp Fire, reinforces the need for community dialogue about the suitability of local places of shelter. Importantly, materials and campaigns to encourage planning and preparation should emphasise that active sheltering should be planned for as a back-up or last-resort, not as a sole response (Whittaker et al. 2017).

Did the time of year influence how people responded?

Findings related to perceptions of bushfire risk based on the time of year (i.e. late or even outside of the 'traditional' bushfire season) are qualified by the fact that many residents were unaware of the bushfire risk in Tathra. Nevertheless, some interviewees had been aware that 18 March was forecast to be a day of Severe Fire Danger, or were aware of the forecast hot and windy conditions. Nevertheless, as discussed in Section 4.5, there was relatively little preparatory activity in response to these forecasts and many residents only began to take action once the fire was threatening.

Nevertheless, some interviewees expressed surprise that such a destructive bushfire could occur in mid-March. A small number of interviewees discussed how their belief that the bushfire season was over influenced their preparedness and responses. For example, one resident who normally avoided travel during the bushfire season was away at the time of the fire and was therefore unable to defend his house. Another interviewee had been using a dedicated bushfire pump to pump water at a dam.



The Reedy Swamp Fire was the first of a number of significant bushfires to occur late or outside of the 'traditional' bushfire season in NSW in 2018. Subsequent fires included the Holsworthy Fire that threatened hundreds of homes on Sydney's south-western fringe in mid-April (Illawarra Mercury 2018) and the Yankees Gap Fire that destroyed four homes and burnt over 20,000 ha of land near Bemboka, in the Bega Valley, in August and September (Bega District News 2018). These fires generated considerable public interest and discussion about the influence of climate change on bushfire risk and the potential for longer fire seasons (e.g. Hannam 2018; Cox 2018). Despite this, climate change was only mentioned by a few interviewees.⁶ Nevertheless, the prospect of a longer bushfire season presents a significant challenge to community engagement and preparedness. Research demonstrates the significant proportion of people who are unaware of bushfire risk and the difficulty of encouraging community members to plan and prepare for bushfire.

Experiences of the community after the bushfire

In the aftermath of the fire, people experienced a range of common issues related to: evacuation centres; post-fire communication and information; the conduct of media and politicians; asbestos; and concerns about the local environment.

While most people were impressed with the services being provided at the evacuation centre, some were uncomfortable with the media presence and were frustrated by rumours that were circulating about the impact of the fire on Tathra. In particular, people were distressed to find out via media reports and images, rather than official communications, that their house had been destroyed. The conduct of the media teams within the evacuation centre was questioned by some local people. For example, it was alleged that a photographer accidentally knocked over a child while attempting to photograph a politician. While some interviewees saw a role for the media in raising awareness of the Reedy Swamp and Tathra area's plight, others questioned whether media personnel should have been allowed in the evacuation centre.

A number of interviewees were upset by what they saw as insensitive and sensationalist media reporting, and attempts to apportion blame. For example, an interviewee whose home had been destroyed resented a journalist's questions about an alleged feud between fire services, while another was upset by a newspaper story the day after the fire that questioned whether Tathra was 'cursed' after a series of recent tragedies (Daily Telegraph 2018).

Many residents were also frustrated by the time it took for them to be allowed back in to Tathra. Those who were not able to return expressed frustration that media personnel were allowed in and that other residents were allowed to stay or had managed to return due to inconsistencies in the way road blocks were enforced. Residents who took the opportunity to tour Tathra by bus were angered that they were unable to get off, despite passing other residents,

⁶ Interviewees were not asked explicitly about climate change.



media personnel and government officials who were all walking around freely, despite the apparent asbestos risk. These events contributed to a perception that people were being unnecessarily prevented or delayed from returning.

A small number of interviewees were concerned that too many trees were being cleared in the aftermath of the fire, reducing habitat for native animals and degrading landscape amenity. It was noted that it was difficult to raise concerns after a disaster where people had lost so much, but insisted that environmental values were important and the disaster should not be used to clear vegetation unnecessarily.

Future plans, preparations and responses

When asked to reflect on their experiences of the Reedy Swamp Fire, many people identified specific changes they would make around their properties, such as removing mulch from garden beds around the house, removing trees, obtaining longer hoses, and installing sprinkler systems. Those who stayed to defend often reflected on their need for more and better equipment, such as dedicated firefighting hoses, pumps and water supply, as well as personal protective equipment such as goggles, masks and appropriate clothing.

As noted above, while most of those who planned or intended to leave were able to do so, many reflected that they left too late. Interviewees often said they would leave earlier in a future bushfire and would be better prepared to quickly gather animals and valuable items.

A number of people who left or evacuated during the Reedy Swamp Fire said they would not leave in a future bushfire, or would be reluctant to leave. Some of these people expressed an intention to remain within the fire area because they wanted to avoid the inconvenience of being prevented from returning, rather than because they had a strong desire or intention to defend their house or property. Given the considerable degree of planning and preparation that is required to safely and successfully defend houses and property (Penman *et al.* 2013), it is concerning that there are people who intend to remain at home with little or no preparation.

Implications and opportunities

The findings presented in this report have numerous implications and present possible opportunities for NSW RFS communications and community engagement. These include:

- There are opportunities to increase community awareness and preparedness for bushfire through clearer communication of the potential for embers to carry bushfire into urban or suburban settlements. Such messages could be incorporated into community education and engagement resources, as well as emergency warnings and information. A significant challenge is that many people in these environments may not see themselves as the 'target audience' for such messages.



- People in bushfire risk areas should be encouraged to develop or update their plans based on the most up-to-date information and advice available. Education materials and campaigns should emphasise that planning and preparation should occur before a bushfire threatens, ideally before each Bush Fire Danger Period begins.
- 'Iconic' fires, such as the Black Saturday and 2013 Linksvie Road fires, present valuable learning opportunities for people in bushfire risk areas. Indeed, the 2018 Reedy Swamp fire may present opportunities to increase awareness and understanding of the risks to coastal communities in NSW and elsewhere. Consideration should be given to including experiences and learnings from such fires in community engagement and education materials.
- Evidence that some residents planned or intended to evacuate at the last minute suggests a need for more education and advice about the dangers of late evacuation, including to nearby places.
- Education materials and campaigns should emphasise the importance of taking action as soon as people learn about a fire; and not waiting until they are directly threatened.
- Communications should continue to emphasise the high degree of planning and preparation that is required to safely and successfully defend houses and property. The risks of 'impromptu' or ill-prepared defence should be explicitly stated.
- The research again confirms the tendency for people to observe the fire directly to ready themselves to defend, or confirm the need to leave. It strengthens the case for resources to be directed to field liaison personnel to provide information and advice to people at a time when they are seeking and receptive to information and advice. Again, known observation points, or locations designated by emergency services, should be identified (see Whittaker et al. 2020).
- Further research is needed to understand and identify ways to address the challenges of bushfire planning, preparation and response for guests in unstaffed accommodation, such as holiday rental properties.
- Confusion about the meaning of 'seek shelter' suggests a need for greater dialogue and clarity of messages about safe sheltering practices. Education materials and campaigns are needed that encourage planning and preparation for *active* sheltering, but discourage planning for sheltering as a sole response. The tendency for people to gather at informally designated refuges or places of shelter reinforces the need for community dialogue about the suitability of local places of shelter.
- Research is needed to investigate the influence that longer bushfire seasons, or periods of bushfire danger, may have on risk perceptions and community preparedness.
- Experiences of the community in the aftermath of the fire highlight the need for media personnel to conduct themselves in a respectful and sensitive way. The presence and conduct of media personnel within the



fire affected area should be carefully managed, particularly when residents are unable to return home.

- Widespread frustration with the time it took for people to be allowed back in to Tathra suggests a need for better communication about why their returning is being delayed. Ways to allow people to return more quickly, while still ensuring their health and safety, should be explored.

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APPENDIX 1: INTERVIEW GUIDE

Note: Participants are likely to answer many of these questions in a non-chronological order without being prompted. It IS NOT necessary to ask all of these questions.

Opening Question:

- When and how did you first become aware of the fire?

WARNINGS:

- How long did you have between first warning and actual impact?
- What did you do once you became aware of the fire / received warning?
- Are you in an area of limited mobile phone coverage? Were you expecting to receive a SMS warning?

PREPAREDNESS

- Did you have a fire plan (written or unwritten)?
- How did you and others in your household intend to respond (e.g. stay, leave etc.)
- Had you done anything to prepare for bushfire?
- What information did you use to help plan and prepare?

PERCEPTIONS OF RISK

- Prior to the bushfire, did you think it was likely that a bushfire could impact on Tathra?
- On the day, did you think it was likely that a bushfire could occur?
- Were you aware of the fire danger rating? (or forecast weather conditions?)

COMMUNITY PLANNING

- Are you aware of any bush fire risk reduction activities in the area over recent years?

RESPONSE

- How did you and other members of your household respond?
- How were you getting information during the fire?

If left:

- When did you leave?
- What was your trigger to leave?
- Where did you go?



- How long before you returned, and why?

If stayed:

- Why did you stay?
- How many people were present?
- Did you have any dependants or animals to care for?
- What did you do?
- What equipment did you use?
- Were you able to defend at all time or did you seek shelter? Where?
- What was the biggest threat to the property? (embers, radiant heat, flame contact)
- Did you get any help? Did you help anyone?
- Were fire service present at any time? If so, did they defend your property?
- What did you do after the fire front passed?
- Did your plan and preparation work? Why/why not?

AFTER THE FIRE

- What damage did the bushfire cause to your property?
- *(if relevant)* Do you think you will rebuild/replace? (why/why not?)
- Do you have insurance to assist you in recovery?
- Is there anything you would do differently in future bushfires?

APPENDIX 2: PARTICIPANT INFORMATION SHEET



UNIVERSITY
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AUSTRALIA

Participant Information Sheet

Community Preparedness, Warnings and Responses to the 2018 Reedy Swamp/Tathra Bushfire

This is an invitation to participate in an interview conducted by the Centre for Environmental Risk Management of Bushfires at the University of Wollongong. The interview is part of a research project that is examining community preparedness, warnings and responses to the recent bushfire in the Reedy Swamp and Tathra areas. You have been invited to participate in an interview because of your experience of the bushfire.

Methods and Demands on Participants

If you choose to participate in a semi-structured interview (more like a focused conversation), an interview will be scheduled at a time, date and location that is convenient to you. The interview will take approximately one hour and, with your permission, will be audio recorded. Handwritten notes can be taken if you would prefer not to be audio recorded. The interview will focus on community preparedness, warnings and responses to the 2018 Reedy Swamp bushfire. Examples of possible interview questions include: 'How did you first find out about the fire?', 'What did you do during the fire?' and 'How did the fire affect you and your family or household?'

Possible Risks, Inconveniences and Discomforts

Approximately one hour of your time will be required for the interview. Reliving a bushfire experience can be emotionally distressing. You will not be pressured for details you feel uncomfortable talking about. Your involvement in the study is voluntary and you may withdraw your participation from the study at any time and withdraw any data you have provided. Withdrawal from the research or refusal to participate will not be shared with anyone outside the research team and will not affect your relationship with the University of Wollongong or the NSW Rural Fire Service. Please notify the researcher listed at the end of the Participant Information Sheet in writing if you would like to withdraw from the study.

The privacy of interview participants is ensured (personal details such as names and addresses will never be disclosed in any published material). While discussion of sensitive topics is not anticipated, recollecting aspects of an emergency can be emotionally distressing. Should you require emotional support, Lifeline Australia provides 24 hours a day telephone crisis support during and after natural disasters: call 13 11 14 or see <https://www.lifeline.org.au/Get-Help/Facts---Information/Recovering-after-a-natural-disaster/>

Funding and Benefits of the Research

This study is funded by the Bushfire & Natural Hazards Cooperative Research Centre (www.bnhcrc.com.au) and the NSW Rural Fire Service. Findings will be used to inform strategies to improve community preparedness, warnings and responses to bushfires. Findings from the study will be communicated to the NSW Rural Fire Service via presentations and a written report and will be published in scholarly publications (e.g. journals, conference



proceedings). *The confidentiality of interview participants is ensured* (personal details, such as names and addresses, will not be disclosed).

Ethics Review and Complaints

This study has been approved by the UOW Human Research Ethics Committee (ref. 2017/522). Ongoing monitoring of the research is the responsibility of the researcher listed below, and annual reports are submitted by the researcher to the UOW Research Ethics Unit. If you have any concerns or complaints regarding the way this research is or has been conducted, you may contact the UOW Ethics Officer on +61 (02) 4221 3386 or via e-mail: rso-ethics@uow.edu.au

Thank you for your interest in this study. **Please contact Dr Josh Whittaker using the details below if you would like to arrange an interview for a particular day and time, or if you have any further questions.**

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