

# EVALUATION OF SURVIVE AND THRIVE

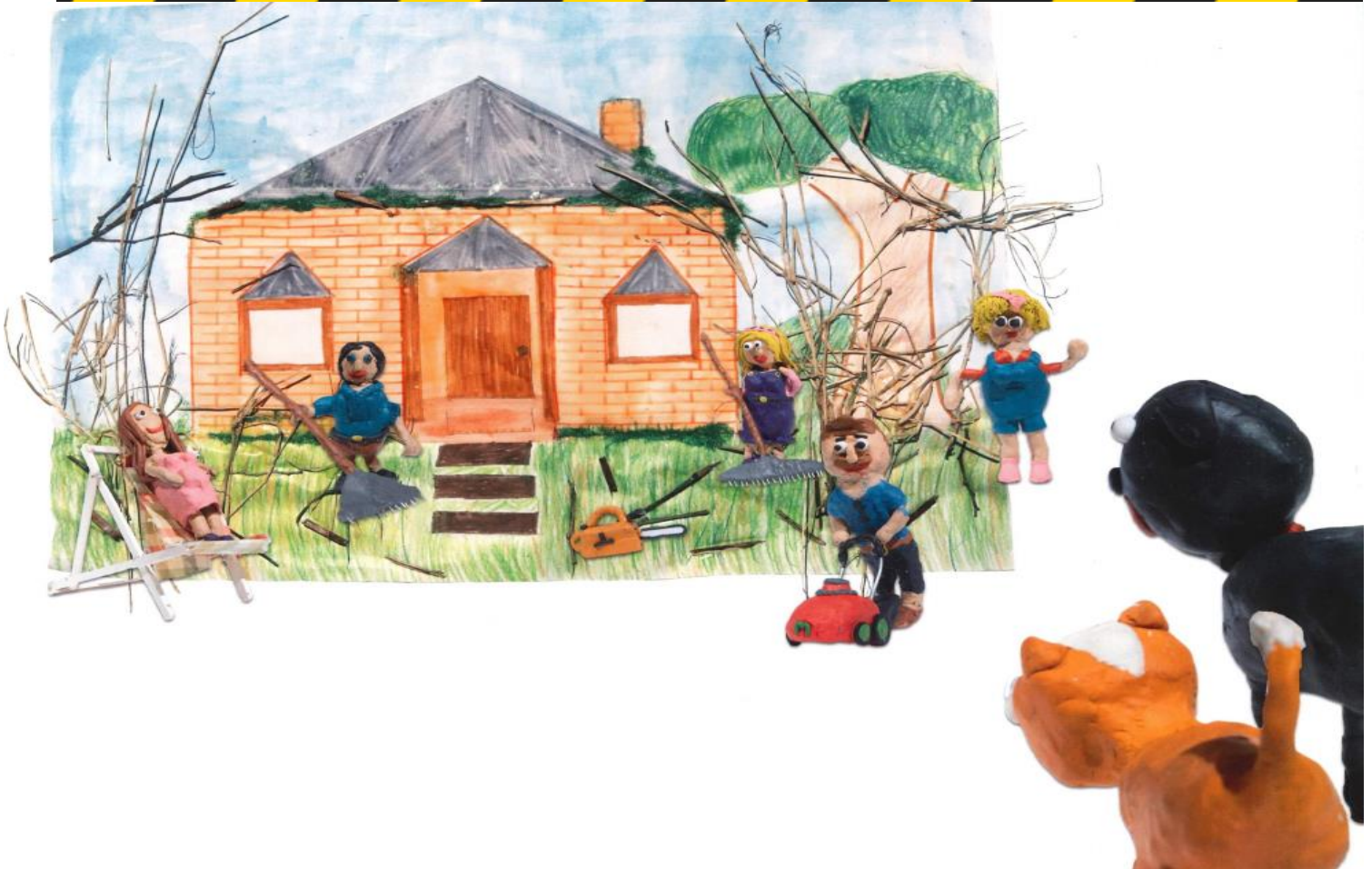
Final report to the Country Fire Authority

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## EXECUTIVE SUMMARY

The Survive and Thrive pilot program is an intensive two year bushfire education program for primary school students in Grade 5/6. It is delivered through a community-based partnership between local CFA brigades and local primary schools. To date, the program has been delivered in the localities of Anglesea and Strathewen. In Anglesea, the partnership between Anglesea CFA and Anglesea Primary School was established in 2013 and the program has been running for four years. In Strathewen, the partnership between Strathewen Primary School and Arthurs Creek Fire Brigade was established in 2016 and the program has been running for 18 months.

The purpose of this evaluation was to examine the short-term and intermediate-term outcomes of the program in both Anglesea and Strathewen and to identify the key mechanisms and processes that contributed to those outcomes. By identifying the mechanisms and processes that contributed to program outcomes, the evaluation also seeks to identify what aspects of the program generated the most valuable outcomes for the resources invested. An additional aim of the evaluation was to examine key factors influencing the ongoing sustainability of the program in Anglesea and Strathewen and to identify a possible pathway toward scaled implementation.

The evaluation employed a mixed-methods design involving both quantitative and qualitative methods. The qualitative measures, which included semi-structured interviews and focus group interviews were the main focus; however, these were supplemented by a quantitative survey that was administered to both children and parents.

The evaluation found that the Survive and Thrive program is meeting its objectives in both Anglesea and Strathewen and has achieved a range of valuable outcomes at the child, household and community level:

- Child-level outcomes:
  - Increased knowledge and awareness.
  - Increased confidence and empowerment.
  - Reduced worry and fear.
- Household-level outcomes:
  - Increased knowledge and awareness within households.
  - Increased child participation in household bushfire planning and preparedness.
  - Enhanced bushfire planning and preparedness within households.
  - Enhanced household capacity for bushfire emergency response.
- Community-level outcomes:
  - Strengthened brigades
  - Increased capacity for effective community engagement
  - Strengthened relationships between agencies and schools
  - Strengthened relationships between agencies



The evaluation has also identified three key mechanisms and processes that contributed to these outcomes:

- Established partnerships between local brigades and schools and the coordinated involvement of other local emergency management agencies.
- Adoption of place-based experiential and student-led inquiry-based learning approaches and a two year period of program delivery for each student cohort.
- Student presentation workshops as a form of legitimate community engagement and authentic student assessment.

With respect to the sustainability of the program in Anglesea and Strathewen, four factors are identified as being particularly important:

- The community-based partnership between the school and local brigade.
- The specialist expertise of the Program Lead.
- The support of agency staff and volunteers.
- The support of teachers.

In light of the wide-ranging positive outcomes in both Strathewen and Anglesea, consideration should be given to how the program might be scaled up to other bushfire prone communities without compromising the valuable outcomes that have been observed in the pilot communities. A scale-by-expansion approach is identified as being most appropriate. Through this approach, program implementers can refine the program and implement it in a small number of new communities while engaging in learning for effectiveness, efficiency and expansion. Such an approach has the potential to support the development of a model of implementation that can be sustainably delivered at scale.

To support any future efforts towards scaling up, it is recommended that the program activities be documented in sufficient detail to enable the replication of the program in new locations. While the evaluation has identified particular activities that have contributed to the observed outcomes, it would be beneficial for these activities to be documented in the form of practice guidelines or training materials to help ensure the preservation of highly valuable institutional knowledge that has been generated through the implementation of the pilot program in Anglesea and Strathewen.



## INTRODUCTION

### BUSHFIRE EDUCATION IN VICTORIAN SCHOOLS

In the immediate aftermath of the 2009 Black Saturday bushfires, the Victorian Government announced the establishment of the Victorian Bushfires Royal Commission, which was tasked with conducting a full and detailed inquiry of the disaster (Teague et al., 2010). Over the course of this inquiry, the Commission heard ample evidence of communities who did not think they would be affected by bushfire and of people whose lack of bushfire knowledge and preparedness had left them highly vulnerable to the impacts of the disaster (Teague et al., 2010). In its final report, the Commission explicitly identified bushfire education for children as the most effective means by which to rectify this fundamental lack of knowledge and preparedness in the community:

The Commission is of the view that educating children about the history of fire in Australia and about safety in the event of a bushfire will probably influence not only the children but also their parents, siblings and extended family and community. A concerted education program remains the most effective approach to instilling the necessary knowledge in Australian families (Teague et al., 2010, p.55).

Moreover, the Commission made an official recommendation that bushfire education be incorporated into the formal school curriculum:

Recommendation 6: Victoria [should] lead an initiative of the Ministerial Council for Education, Early Childhood Development and Youth Affairs to ensure that the national curriculum incorporates the history of bushfire in Australia and that existing curriculum areas, such as geography, science and environmental studies include elements of bushfire education (Teague et al., 2010, p.2).

In making this recommendation, the Commission lamented that it had been made in various bushfire commissions and inquiries dating back to 1939, but had never been fully implemented (see Table 1.1). Nevertheless, by formally adopting Recommendation 6 of the Victorian Bushfires Royal Commission, the Victorian Government has made a solid commitment to delivering bushfire education in the state school system:

To guard against the risk of growing complacency as memories of the 2009 fires fade, the State is committed to introducing bushfire history and safety into the school curriculum (Victorian Government, 2010, p.6).

As a direct result of Recommendation 6, both the Australian Curriculum for Grade 5 Geography and the Victorian Curriculum for Grade 5/6 Geography now include a content description pertaining to the *“impacts of bushfires or floods on environments and communities, and how people can respond”*.



Table 1: Previous recommendations for bushfire education in Australian schools

Report/Inquiry	Recommendation
Report of the Royal Commission (Stretton 1939).	"Probably the best means of prevention and protection is that of education, both of adults and children....It is suggested that in every school (the education of city children is as important as that of country children), fire prevention be made a real part of the curriculum and that the lessons in that behalf be given at the commencement of the summer season" (p.25).
Report of the Bushfire Review Committee (Miller, Carter & Stephens, 1984).	"More emphasis should be placed on programs in schools, particularly because these carry long-term dividends; special briefings should be given to school students prior to the fire season"(p.66).
National Inquiry on Bushfire Mitigation and Management (Ellis, Kanowski & Whelan, 2004).	"State and territory governments and the Australian Government [should] jointly develop and implement national and regionally relevant education programs about bushfire, to be delivered to all Australian children as a basic life skill" (p.xxi).

This inclusion of bushfire in the geography curriculum represents a significant step forward for school-based bushfire education in Victoria. However, research on how to best deliver that curriculum is scarce. Internationally, there are no published peer-reviewed studies of school-based bushfire education programs for children. With the exception of one study on Australian children's knowledge of bushfire emergency response (Towers, 2015) and one study involving a bushfire education program for out-of-school adolescents (Webb & Ronan, 2014), the existing research literature on children and bushfires is focused entirely on children's psychological reactions to major bushfire events (e.g. Yelland *et al.*, 2010; McDermott *et al.*, 2005; McFarlane, 1987). While Australian fire agencies and education authorities have launched a range of bushfire education programs and resources in recent years - including L'il Larrikins (AFAC, 2016), Bushfire Patrol (DFES, 2016), and the Bushfire Education website (Victorian Curriculum and Assessment Authority, 2016) – systematic evaluations of these programs have not been forthcoming<sup>1</sup>. Thus, there is currently no evidence-base for what constitutes good practice in school-based bushfire education.

Whilst there is a dearth of literature on children's bushfire education, the last decade has seen a substantial increase in studies on school-based education programs for other kinds of natural hazards, such as earthquake and tsunami. In a recent systematic review of 35 studies, Johnson and colleagues (2014) found that while the majority of studies report that programs are effective, they also suffer from significant methodological limitations. These authors found that most

<sup>1</sup> At the time of writing, a Bushfire and Natural Hazards CRC evaluation of the DFES 'Bushfire Patrol' program was nearing completion.



studies have relied solely on quantitative measures of children's hazard risk perceptions and knowledge of protective actions, while very few studies have incorporated qualitative methods to understand program effectiveness from the perspectives of children, teachers and families. They also found that the majority of studies have relied on child reports of household planning and preparedness without triangulating data from other key sources, such as parents and teachers. Moreover, there has been an almost exclusive emphasis on program outcomes, while the processes involved in program implementation have been largely overlooked. In light of these limitations, Johnson *et al.* concluded that there is still very limited empirical evidence of the effectiveness of hazard education programs or how these programs facilitate change at the individual or household level.

Given the lack of research on school-based bushfire education for children and a lack of methodologically rigorous research on children's hazard education programs more generally, there is a distinct need for greater emphasis to be placed on the evaluation of outcomes and the mechanisms and processes that support program effectiveness. This evaluation of the Survive and Thrive program aims to address some of these gaps in the existing research. As one of the first empirical evaluations of a school-based bushfire education program for children, the evaluation will provide important evidence for the design and delivery of quality education in this domain. It will also provide Australian fire agencies with some key insights on how they can best leverage the opportunities afforded by the new geography curriculum. Most importantly, the evaluation will provide the CFA with an empirical assessment that can be used to inform future planning and decision-making concerning the Survive and Thrive program.

## THE SURVIVE AND THRIVE PROGRAM

The Survive and Thrive program is an intensive two year bushfire education program for primary school students in Grade 5/6. The program is delivered through a community-based partnership between a local CFA brigade and a local primary school. While the partnership between the brigade and the school forms the foundation of the program, other emergency management agencies, academic institutions and local government bodies are incorporated into the program where required.

Upon commencing the program at the beginning of Grade 5, students participate in a series of experiential, place-based learning activities referred to as '*Bushfire Behaviour and Resilience Sessions*'. These sessions are aimed at providing children with essential foundational knowledge of bushfire behavior, local bushfire hazards, and bushfire safety. Having developed their foundational knowledge, students then embark on a student-led inquiry-based learning process whereby they develop presentations on a bushfire-related topic that interests them. This first year of the program culminates in a '*Student Presentation Workshop*' at which the students deliver their presentations to their families. In Grade 6, students continue to participate in Bushfire Behaviour and Resilience Sessions and further refine and improve their presentations. At this point, they also start delivering their presentations to a wider range of audiences, including students at other schools and members of the broader community at CFA events.





Throughout the program, student learning is supported and facilitated by CFA staff and volunteers, as well as technical experts and experienced practitioners from a range of other emergency management and environmental agencies, academic institutions, and local government.

To date, the program has been delivered in the localities of Anglesea and Strathewen. In Anglesea, the partnership between Anglesea CFA and Anglesea Primary School was established in 2013. In Strathewen, the partnership between Strathewen Primary School and Arthurs Creek Fire Brigade was established in 2016. At the time of the evaluation the program had been running in Anglesea and Strathewen for four years and 18 months, respectively.

While the community-based, participatory, student-led nature of Survive and Thrive means that the specific objectives and outcomes will be determined by the specific needs and priorities of particular localities and student cohorts, the program has six core objectives that can be articulated as follows:

1. To support students' understanding of the risks associated with bushfire and reduce the fear associated with them.
2. To provide students with an opportunity to take an active role in bushfire awareness and planning.
3. To support students' abilities to positively influence their families and community to understand the local environment, bushfire behavior and make informed decisions about their safety.
4. To empower local people to solve local problems, instilling this approach from a young age by engaging children through a child-led participatory approach.
5. To assist in the continued development of strong mutually beneficial relationships.
6. To provide an opportunity for students to be innovative and creative.

Through meeting these objectives, the program seeks to achieve four key outcomes:

1. Students understand and rationalize fire information and knowledge and are confidently able to communicate this knowledge to their families and communities.
2. Students develop skills such as confidence and leadership that are transferable to other aspects of their lives.
3. Students will feel a sense of ownership in their learning experience.
4. Relationships throughout the community will be increased and enhanced.



## **PURPOSE AND SCOPE OF THE EVALUATION**

The purpose of this evaluation was to examine the short-term and intermediate-term outcomes of the program (both intended and unintended) and to identify the mechanisms and processes that contributed to those outcomes. By identifying the mechanisms and processes that contributed to program outcomes, the evaluation also sought to identify what aspects of the program generated the most valuable outcomes for the resources invested. In addition, the evaluation examines the sustainability of the program in Strathewen and Anglesea and explores potential approaches to scaling up program delivery to other bushfire prone communities in Victoria.



## METHODOLOGY

### EVALUATION DESIGN

The evaluation employed a mixed-methods design involving both quantitative and qualitative methods. Given the evaluation was commissioned in September 2016 when the current cohort of Grade 6 students were almost half way through the program, it was not possible to apply a longitudinal design. Hence, all evaluation data was collected at a single time point during the period of May-June 2017.

### PARTICIPANTS

The evaluation included Survive and Thrive program stakeholders in both Anglesea and Strathewen. These stakeholders included current Grade 6 students<sup>2</sup>, ex-students who are now members of the Anglesea Junior Brigade, parents of current and ex-students, teachers, CFA staff and volunteers, staff from other emergency management agencies (including Parks Victoria and the Department of Environment Land Water and Planning), local government staff, and volunteers from local community groups. A breakdown of the participants in both Anglesea and Strathewen is presented in Table 2 below.

Also participating in the evaluation were key informants from a range of organisations and institutions, including an academic from the University of Melbourne, a community development specialist from the Department of Environment Land Water and Planning, a bushfire risk management specialist from Emergency Management Victoria and a child-centred emergency management specialist from Save the Children Australia.

Table 2: Anglesea and Strathewen evaluation participants

	Current students	Ex-Students	Parents	Teachers	CFA staff	CFA Volunteers	Other EM agency staff	Local Govt. staff	Local community groups
<b>Anglesea</b>	11	7	10	2	2	2	3	1	-
<b>Strathewen</b>	5	0	2	1	-	3	-	-	1

### METHODS AND DATA COLLECTION

Data collection for the evaluation employed a range of quantitative and qualitative methods, including surveys, semi-structured interviews and focus group interviews.

Parents completed a quantitative survey assessing general levels of bushfire risk awareness and basic levels of household planning and preparedness (see Appendix 1). They also participated in a semi-structured interview about their perspectives on the Survive and Thrive program and its influence on their child and their household (Appendix 2).

<sup>2</sup> The sample size of current Grade 6 students was necessary small due the small class sizes in both Anglesea and Strathewen. At the time of the evaluation, the Grade 6 class at Anglesea was comprised of 13 students and the Grade 6 class at Strathewen was comprised of 5 students.



Current and ex-students completed a quantitative survey assessing general levels of bushfire risk awareness and basic levels of household planning and preparedness (see Appendix 3). They also participated in semi-structured focus groups about their experiences of the program and its influence on their knowledge, attitudes and behaviours. To support the children to share their perspectives and experiences, the focus group interviews drew on a range of child-centred methods including 'H-assessment' and 'Body Mapping' (see Appendix 4).

Teachers, CFA staff and volunteers, staff from other emergency management agencies, local government staff, members of local community groups and key informants participated in a semi-structured interview about their experiences of the program and their perspectives on program implementation and outcomes (see Appendix 5).

All data was collected between May and August 2017.

Ethical approval for the evaluation was obtained from the RMIT Science, Engineering and Technology College Human Ethics Advisory Network. Approval to conduct the evaluation in Victorian Government Schools was obtained from the Victorian Department of Education and Training.

## **DATA ANALYSIS**

All interviews were audio recorded and transcribed verbatim. For each participant group, qualitative interview data was coded in NVIVO and a thematic analysis (Gibbs, 2007) was undertaken to identify major themes relating to both program outcomes and program implementation. Major themes from each participant group and frequency data from the student and parent surveys were then compared and combined to develop a comprehensive multi-stakeholder account of program outcomes and the mechanisms and processes that contributed to those outcomes.

## RESULTS

### PROGRAM OUTCOMES

The evaluation found that the Survive and Thrive program has achieved a range of outcomes at multiple levels, including the child-level, the household level and the community-level.

Child-level outcomes include:

- Increased knowledge and awareness
- Increased confidence and empowerment
- Reduced worry and fear

Household-level outcomes include:

- Increased knowledge and awareness within households
- Increased child participation in household bushfire planning and preparedness
- Enhanced bushfire planning and preparedness within households
- Enhanced household capacity for bushfire emergency response

Community-level outcomes include:

- Strengthened brigades
- Increased capacity for effective community engagement
- Strengthened relationships between agencies and schools
- Strengthened relationships between agencies

These outcomes and the mechanisms and process that supported these outcomes are discussed in detail in the sections that follow.

### Child-level outcomes

#### ***Increased knowledge and awareness***

At both schools, all of the students were aware that a bushfire could impact on their local their area. In the student surveys, nine (50%) of Anglesea students responded that it was very likely that a bushfire could impact on their local area and nine students (50%) responded that it was somewhat likely. In Strathewen, all of the students (100%) responded that it was somewhat likely that a bushfire could impact on their local area.

In Anglesea, eight students (44%) responded that it was very likely that a bushfire could impact on their own property, 7 students (8%) responded that it was somewhat likely, and only two students (11%) responded that it was not likely at all. In Strathewen, two students (40%) responded that it was very likely that a bushfire could impact on their own property and three students (60%) responded that it was somewhat likely.



In the focus group interviews, students in both locations attributed the likelihood of bushfire in their area to the densely vegetated landscapes that characterise the local environment.

S1: Because there's a lot of bush.

S2: It's a very bushy area.

S1: There's thick bush around us.

S2: And there's lots of undergrowth

Interviewer: What do you mean by undergrowth?

S2: Like leaves and bushes on the ground and lots of fallen over trees.

-Strathewen students

S1: Well, it's got the National Park like really nearby and that's all bush.

Anglesea's just a pretty bushy area generally – so, pretty a high chance.

S2: Yeah, there are lot of gum trees around and gum trees, they kind of burn very easily and we've got quite a lot, so yeah I agree with [C1].

-Anglesea students

The students in Strathewen explained that they had always been aware of the potential for a bushfire event to occur in their local area, and this level of awareness would be expected given that the township was heavily impacted by the Kilmore East fire on Black Saturday. However, several students in Anglesea reported that their perceptions of likelihood had shifted as a result of the program. Some of those students suggested that they had been previously unaware of the possibility for a bushfire to occur in their area:

I never thought it could actually happen, but now I know it could.

-Anglesea student

I never really thought that one would really come.

-Anglesea student

Well, I thought maybe it could happen. But maybe like not in my time and that it wouldn't get here.

-Anglesea student

Others had been aware of the potential for bushfire, but felt that their awareness had been sharpened as a result of the program:

S1: I wasn't really worried, but I kind of knew that we did live in a bush area and that there could be a bushfire, I was aware of that.

Interviewer: How about now? Has that changed because of the program?

S1: Yeah, I'm more aware.

-Anglesea student

All of the students reported that their knowledge of bushfire behavior had increased as a result of the program. When reflecting on what they had learnt, children discussed the kinds of weather conditions that contribute to dangerous bushfires (i.e. hot, dry and windy), as well as the various factors that influence



the spread of bushfires through the landscape, including topography and wind direction:

S1: The steeper the slope, the faster it goes.

S2: Yeah, it goes faster up hills.

S3: Because it heats up the other stuff on the hill as it goes up the hill. It heats up all the fuels as it goes up. There's all fuel in front of it and the fire takes all the moisture out of it. And that's why it goes slower downhill because all the heat rises up and it can't heat up the fuels as fast.

- Strathewen students

S1: When it's more windy, the fire spreads more.

S2: Yeah, when it's windy and really hot. And the grass - on a hot windy day it can cause grass fires and they can get hard to control.

- Strathewen students

And the wind will change the direction of the fire very easily. So like if a fire is going north and the wind changes from coming from the south to coming from the north, it will go down to the south instead.

-Anglesea student

Students also described how embers can facilitate fire spread over long distances by starting spot fires ahead of the main fire front.

Interviewer: Did you learn anything about how bushfires spread?

S1: Yes, with like stringy bark and paper bark.

S2: Yeah, the paper bark glides through the air and stringy bark - it falls off and it starts grassfires but paper-bark glides through the air and makes spot fires far away from the actual fire.

- Strathewen students

S1: We looked at different types of bark and how they would burn, like stringy bark and ribbon bark.

S2: And which one will spot further.

S1: I think it was the stringy bark wasn't it? Stringy bark is easier to burn?

S2: Yeah, but ribbon bark will glide more. The stringy bark might catch more on fire and leave little ones close by, but with the ribbon bark it would fall off and float and glide through the wind and then it will land much further away than stringy bark.

Interviewer: And does that influence how the fire spreads?

S1: Yeah, like spot fires, like the bark could catch onto like a piece of bark from like a wood pile and that could like set it off and it could catch onto like some dry shrubs or something

S2: Yeah, and there might be like water in front of your house and you think like, 'Oh don't worry it won't get wrecked' but then a piece of bark might fly over and land like in your wood pile and then it just goes back up again and that's how sometimes fires get across roads.

S1: Yeah because they spot across the road.

S2: Yeah, they all just start spotting across it.



S1: Or they'll like spot across the river as well.  
S2: Yeah, the fire will eventually make it across.

-Anglesea students

When reflecting on what they had learnt about bushfire behaviour, the students also discussed fire danger ratings and the variables that are used to calculate them. Furthermore, they explained how they had learnt to calculate fire danger ratings themselves using a McArthur Metre:

Yeah, we learnt how to figure out what the fire danger rating would be...So there's a thing called a McArthur Metre and you have to put in like the wind speed, the air temperature, the humidity, and all that and then it comes to the fire danger rating.

-Anglesea student

S1: The McArthur Metre is a tool that they use to calculate how high fire danger is  
S2: We calculate what the thing on the rating on the will be, like severe or...  
S1: You use the thing and you turn the number to say you haven't had rain for three days or if you had three mill on that day, and then...  
S3: You do the humidity.  
S2: Yeah and the humidity.  
S1: And the wind speed and then the air temperature.  
S2: And then it will tell you how high the day will be.

-Strathewen students

In their discussions of fire danger ratings, children demonstrated varied understandings of what these ratings are used to indicate. Some children correctly understood the fire danger rating to be an indicator of how damaging a fire would be if a fire did start:

Interviewer: And so what do these ratings mean? What does it mean if it's on low moderate?  
S1: That if the fire were to come, it wouldn't be very severe, but if it was Code Red then if there was a fire it would be really damaging and bad for the community.

-Anglesea student

Other children had related, but incorrect, understandings of fire danger ratings – based on their own processing of the relevant information. Some of these children understood the fire danger rating to be an indicator of how difficult it would be to put out a fire, if a fire did start:

Interviewer: And if it's a very high reading on the McArthur Metre, what does that mean?  
S1: It's a really hot day.  
S2: Well if it was extreme, it means that if a fire came it would be extreme casualties.





S1: It would be a very extreme fire and very hard to put out and a low moderate would be super easy to put it out.

-Strathewen students

Some children understood the fire danger rating to be an indicator of the likelihood that a fire would start:

S1: And then a high is still not a very high danger rating and very high there is a chance.

S2: It wouldn't be very likely for a fire to happen and if it did it would be quite easy to put a fire out. Severe would be hard to put out a fire and it's more likely for a fire to happen.

-Strathewen students

Interviewer: If it's a Code Red, what does that mean?

S1: Very bad. It would be like certain bad fire.

S2: It will be certain that a fire will happen and everything will be all hectic

S1: It will be like super hot, super windy, yeah it would be a very bad day.

-Anglesea students

One child understood the fire danger rating as an indicator of a fire having already started.

S1: Code Red pretty much means there's a fire. And like most of the time it's probably too late by Code Red.

Interviewer: Too late for what?

S1: To leave. Like the fire is already there, pretty much.

-Anglesea students

When discussing how to respond to the various fire danger ratings, most children suggested that leaving early on a Code Red day would be the safest option, even in the absence of an actual fire.

Interviewer: What about Code Red? What does Code Red mean to you?

S1: You have to like evacuate. Even if there's not a fire.

- Anglesea students

Interviewer: And what would you do if it was Code Red?

S1: Already left! Like straight away.

S2: Yeah, like straight away. Already left!

Interviewer: So if it was Code Red, you would leave?

S1: Yes!

S2: Yeah, as fast as you can.

-Anglesea students

Interviewer: What would you do if it was on Code Red?

S1: Leave.

S2: Probably leave town.

S3: I would probably tell my parents because I always wake up before them and then we get everything ready and then leave.



S2: Yeah, we would leave.

-Strathewen students

Students also recognised the need to take action when the fire danger rating was extreme or severe. Some students, particularly those in Strathewen, said that they would leave on extreme or severe days. Others said that on an extreme or severe day, they would pack up and be ready to leave just in case a fire started.

Interviewer: What if it was on Extreme or Severe?

S1: We would leave.

S2: We would probably get ready and leave straight away.

S3: It gets pretty windy in some parts and at my house it's pretty much always windy, so yeah we would probably leave.

S4: We would leave.

S5: Leave.

-Strathewen students

Interviewer: If it was a Severe day...what would you do?

S1: I'd be like getting ready.

S2: Packing and maybe going up to Melbourne with my family.

S1: Pack things like photos that like if they got burnt you couldn't replace.

S2: Hard drive - you'd save all your information from computer onto hard drive and then you put them all in a bag and put them all the front door like all your clothes and everything, put it all at the front door and then if a fire does happen then you just put it in the car and leave.

Interviewer: What about Extreme?

S1: I'd probably do the same, but like, earlier

S2: Yeah same thing but I wouldn't wait for a fire to happen, we would probably already have left.

- Anglesea students

Interviewer: What if it was on Severe?

S1: Probably be ready to leave.

Interviewer: What about if it's on Extreme?

S1: Most likely leave.

-Anglesea student

When asked how they would know if a fire had started in their area, children most commonly referred to the 'Vic Emergency' smart phone application, which they said they had learnt about in the program.

You check the Vic Emergency app. It's an app where it tells you what the dangers are and if a fire could start and what the weather is and just those sort of things.

-Anglesea student



S1: You get Vic Emergency.  
 S2: It's an app for Victoria.  
 S1: And if a fire starts it will say 'There's a fire in Yarra Glen in your watch zone'.

-Strathewen students

Some children also referred to other warning mechanisms, such as radio broadcasts, and were aware of the need to stay tuned into these mechanisms on high fire danger days.

S1: The radio probably, so you put the radio on to see.  
 S2: And sometimes in the morning if you just leave it on the news and it might say stuff and you'd do t if you're in Anglesea and it's going to be a really severe day.

-Anglesea students

Students also discussed the importance of knowing what to take if they did have to leave. Several girls in Anglesea felt that learning what to take was the most valuable thing they had learnt in the program.

S2: The most valuable thing was probably the packing exercise, what to pack because everyone needs to know that if they're in a situation where there's a fire coming.  
 S1: We heard lots of stories from [veteran brigade member] saying how his daughters just took their makeup and ran out. That's why it's good to know because if they'd been through this [program] they wouldn't have grabbed that!  
 S2: They should have grabbed photos of their family and friends.  
 S1: Documents, insurance.  
 S3: But instead they grabbed their makeup to look good!

-Anglesea students

One of the children further explained that before participating in the program she had never considered what to pack in the event of a bushfire emergency, but she now had a much clearer idea of what would be needed:

I really didn't know before. And this is going to sound pretty obvious, but before doing the CFA, I wouldn't have packed up my family photos. I would have just left with some shoes and what I'm wearing, but then when I joined, I realised why it's important to pack different things.

- Anglesea student

Another student viewed having an emergency kit as so important that she chose it as the topic of her presentation workshop, which she enthusiastically described as follows:

S1: We're doing two skits of two different families and one of them is a prepared family and one of them is a not prepared family and then we're doing a quiz at the end. And we do these two skits where one of them is like a really disorganised family and they're like freaking out and they're throwing stuff in their bag - like makeup and rocks and nothing really useful - and then they freeze in the car and the narrator comes out and shows the audience what's in



the bags and why you should not do that. And then there's an organised family and they're already packed. They've got fuel in the car, pet food and then they get in the car and just drive off and the narrator goes through what they've packed in their bags and they've got useful things like...

S2: Water, long-lasting food...

S1: Clothes, a booklet of how to survive a fire. And then the narrator comes out and says "The fire reached Anglesea but fortunately their home was not lost and so the mother and child go home and can help other people who have lost their homes". And then we do the quiz.

-Anglesea students

This particular student now keeps an emergency kit packed during the fire season, an action that she directly attributed to the knowledge she gained through developing her presentation.

Interviewer: So does your family have an emergency bag or a box packed during the fire season?

S: Yes.

Interviewer: And had you done that before you did the research for your presentation?

S: I had no idea before! I didn't really do anything about it beforehand.

Interviewer: Okay, but you did after the presentation?

S: Yep

Interviewer: And would you say you did that because of what you'd learned?

S: Yes, definitely.

-Anglesea students

In Anglesea, students discussed learning what kinds of protective clothing to wear in a bushfire. One student recounted an experiment in which they tested the flammability of fabrics. Through this activity, they discovered that natural fibres, such as cotton and wool, were less flammable and would provide more protection during a bushfire.

Well, we recently did an experiment. We had different types of clothing like wool, cotton, synthetic, bathers material, and we lit them on fire to see what they would do and the synthetic material melted so it would melt onto your skin so it would all like stick there if there was a fire and it heated up like that.

-Anglesea student

The students then applied the results of their experiment to determine what kind of clothing would provide the most protection in a bushfire.

S1: So we figured that we should definitely wear...like if we knew the fire was coming we'd probably wear long clothes made out of cotton. Yep, natural materials.

Interviewer: What about on your feet, did you talk about what to wear on your feet?

S1: We didn't, but I would think some boots with like...made out of natural materials again. Because then like with the embers, if there's some on the ground, you could step on them and it wouldn't hurt your feet.

-Anglesea students



S1: Like you know what to wear like you'd wanna wear like wool, things that come from like natural clothing...Because natural doesn't burn.  
 S2: Yeah it doesn't burn as easy. Like cotton.  
 S1: And like things that are like man-made, burn and melt. Like these kinds of tops [synthetic sports t-shirt] would melt. You would wear like long pants and like a jumper.

-Anglesea students

Some students in Anglesea also spoke of learning about the local designated '*Neighbourhood Safer Places*'<sup>3</sup>. Importantly, these students understood the distinct purpose of these safer places and suggested that they would only go there if they were unable to leave the town.

Yeah and we learnt about the Neighbourhood Safer Places, like a place of last resort. If the fire's already there and you can't get out of town then there's, I think, two places in Anglesea where you can go, where it's safer...There's one at the shops and one next to the river.

-Anglesea student

S2: And we learnt where the places of last resort are and that's down at the riverbank and at the main shops.  
 Interviewer: So what are the places of last resort?  
 S2: Well, they're places that won't be nice. Well, if you go there it won't be a good time. It's practically just a place where you can go to survive from radiant heat but it would still be horrible.

-Anglesea student

On the topic of household bushfire plans, most students were aware of their household bushfire plan and had discussed it with their parents. In student surveys, 13 of Anglesea students (72%) responded that their family had a bushfire emergency plan, 2 students (11%) responded that they did not<sup>4</sup>, and 3 students (16%) responded that they were unsure. Amongst those students who indicated that they did have a household bushfire plan, 13 (100%) indicated that they had discussed the plan with parents. In Strathewen, 5 (100%) students responded that their family had a household bushfire plan and 4 of those (80%) responded that they had discussed this plan with their parents.

In the interviews, some children reported that it was their involvement in the program that had prompted them to find out about their household bushfire plan. As one child noted:

I know when [CFA staff member] asked "Do you guys have a fire plan?", a lot of them in my group have said 'I don't know' but then we come next week and say 'I've told my parents that we should have one and they've discussed it with me'.

-Anglesea student

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<sup>3</sup> A '*Neighbourhood Safer Place*' also known as a '*Bushfire Place of Last Resort*' (NSP-BPLR) is a place of last resort when all other bushfire plans have failed.

<sup>4</sup> One of these children had only moved to Anglesea from interstate at the beginning of the school year.



When asked about the details of their household bushfire plans, all of the children described plans to leave early. Importantly, they also demonstrated a clear understanding of what 'leaving early' would mean in practice. For example, one Strathewen student explained that on a hot day her family would monitor the 'Vic Emergency' app and leave as soon as a fire started: however, she also emphasized that if it was a particularly hot day, they would leave before a fire started.

S1: My family would get everything important and then we'd leave.

Interviewer: And how do you know when to leave?

S1: Usually on a hot day mum and dad have the thing up on their phone to see where all the fires are.

Interviewer: So would you leave if a fire had started?

S1: Yeah. Or before, if it's really hot.

-Strathewen student

Similarly, another student in Anglesea explained that on a hot day, her family would pack up, monitor the 'Vic Emergency' app for any fire activity and then leave if a fire came within a certain radius: however, she also pointed out that if it was a Code Red day, they would leave early in the morning, even in the absence of any fire activity.

S1: Well on a hot day, it's usually like pack your bags and be ready for the fire so we can leave just in case.

Interviewer: How would you know when to leave?

S1: Because my parents have the fire app on their phones. They've got it set to like a certain radius of how far away the fire is, so it would alert them on their phone and stuff so we can leave... And well if it was a Code Red day and it was in the morning and we knew that it was a Code Red day, we would probably leave, I would hope. And we'd probably go into Geelong, probably early in the morning to beat the traffic. And also it's cooler in the morning so we can get there earlier and we can find something to do while we're in Geelong or Torquay or Melbourne or something.

-Anglesea student

Some students also spoke of backup plans that would be enacted in the event that they couldn't leave early. For example, one student explained that while her family planned to leave early, if a fire reached Anglesea before they'd had a chance to leave, they would evacuate to the Neighbourhood Safer Place at the river.

S1: This is my house and I just have to walk and go down through the park, then I'd be at the river.

Interviewer: And is that your family's bushfire plan?

S1: Um, yeah basically. Well that's if it's in Anglesea already. If it's a bit further out, then we would just leave and go somewhere else.

Interviewer: Right and when would you leave?

S1: I think when it was in Lorne or something...if it was in Lorne or somewhere then we would definitely leave.

-Anglesea students



Similarly, another child explained that while her family planned to leave early, if it was too late to leave, they would go to the beach.

Interviewer: And how about you, has your family got a bushfire plan?

S1: Um, well it depends on where the fire is coming from. If it's in the Lorne area, we'd probably get our things and go to Geelong if we have time. But if we don't have time and we can't really go anywhere, we'd probably just do our fire plan and if we can only go a certain distance we'd probably go to the beach and bring all our valuable things that we need.

-Anglesea student

Without exception, parents who were interviewed believed that their child's knowledge of bushfire and bushfire safety had increased substantially as a result of the program. Moreover, parents highly valued their child's learning in this domain.

I think across most of the areas she has an increased knowledge and it's definitely a positive. I can't, I couldn't find a negative in it 'cause she's just, you know, she's more knowledgeable and that's just got to be better, you know?

-Strathewen parent

Parent: You know, in the event that we were stuck in a bushfire again, we've got more, the kids have got more understanding on how fire works and, you know, how to address that. So it's brilliant.

Interviewer: Do you think the program has increased her knowledge of the local bushfire risk and how to respond?

Parent: Yep, absolutely. Yep.

-Strathewen parent

Several parents interviewed believed that as a result of the program, their child's level of knowledge was either on par with, or more advanced than their own.

You know, really, I think in many ways, she's better informed than I am.

- Anglesea parent

She's the one who's done the program, so she's the acknowledged expert...The learning we've had by looking at the CFA website and watching their little videos and going to the meetings and all that, well she's at that level now. In fact, she's beyond that level now. She's beyond that level now because she's had some formal training in fire ecology, which as a family we didn't have. I guess I have a bit of a biology background so I was somewhat aware of some of that stuff. But now, yeah she understands how, and why, those things work.

-Anglesea parent

I think he really understands it a lot. A lot more. Probably better than us. Oh, maybe not my husband but potentially much better than me.

-Anglesea parent



I'm a fire fighter and so is my husband and she came back and asked us stuff that we didn't even know. So, you know, I thought it was really fantastic.

-Strathewen parent

Parents had also been impressed, and in some cases, surprised by the level of knowledge and understanding demonstrated by the children at the student presentation workshops:

I was incredibly impressed at all the kids' knowledge... I thought the kids knew more than the adults about it all. I shouldn't be surprised that the kids know more than adults because that's often the case, especially this sort of thing because they learn more about it. But I was particularly impressed by their level of knowledge and the sorts of questions they were asking the grownups to think through.

-Anglesea parent

They had a day or an afternoon that we went to and saw and they had demonstration tables and each of the kids had to demonstrate a particular aspect of bushfire. So, [my child] was on the moisture meter and she was showing us how it works and things like that, which was just fascinating. And she seemed to really understand exactly what it was used for and how it worked which was fantastic...I honestly went there not expecting to be delivered that depth of information from them. I thought it would be much more light on. And they really had a massive grasp of what they were telling us.

-Strathewen parent

Several parents also pointed out that the children not only delivered their presentations without referring to notes, but confidently answer questions from their audience. Parents viewed this as further evidence of the children's depth of understanding.

I was surprised at how much they were able to explain at the different parts of the workshop because they weren't sort of referring to notes. They seemed to be able to say it off the top of their head and understand the different scenarios of a bushfire. So, yes, I was impressed by that.

-Anglesea parent

We did attend their community awareness event where they taught us about what they'd been learning...I thought they covered all the basics really well. They talked really confidently, the kids. Like they understood what they were saying. They weren't just regurgitating...And you could ask them a question outside of their presentation and they were capable of answering confidently.

- Anglesea parent

I think that they were given the right amount of information for them to process and understand and to be able to deliver back. You know? And they really had a good grasp on it. It wasn't just something that they learnt on the surface and didn't know the reason. They really seemed to have a really good grasp of what they were telling us and a really good understanding. And I think that makes it important. That gives them the ability to be able to answer the right questions





and tell you the right information.

-Strathewen parent

Teachers, staff and volunteers had also been impressed by the level of knowledge and understanding that the children had acquired through the program.

The first group, I was just blown away at the amount of knowledge that they had that they'd obviously retained. Yeah, because that first group I'd sort of got them towards the end of the year when they were just getting ready to sort of develop their presentations and do that. So that was amazing. I was like, 'I could put you on as one of my seasonal staff!' It was amazing.

-Emergency management staff, Anglesea

So in Anglesea, I think it's totally hitting the mark. It's building the understanding in the kids of the local risk context and their understanding of what happens in the space, in terms of the different roles of emergency management agencies and the role of the community and the role of individuals. The kids are well and truly capable of building an incredible depth of knowledge. I've certainly witnessed that.

- Council Officer, Surf Coast Shire Council

I know that some of the kids that we've had go through have picked up more stuff than some of the adult volunteers have picked up about fire behaviour. And even the McArthur Meters, when I've had a mental blank I've had one or two of them actually reshown me how to use a McArthur Meters, [they'll say] 'Oh no you've missed that step'.

- Volunteer, Anglesea CFA

Also the amount of skill development! When we first started looking at the MacArthur Meter, I thought 'You're kidding me. I'm never going to get this'. And the kids did and I think I underestimated them a little bit.

-Teacher, Anglesea Primary School

Amongst the teachers, staff and volunteers, there was wide agreement that the program had been highly effective in increasing children's knowledge and understanding to the extent that they would be able to make informed decisions about bushfire safety in the future.

There's more of an awareness. Like, just them being aware of the weather. If it's a really hot and windy day, I've heard so many kids go, 'Oh no, we go to our Nan's in Geelong' or "We do this." Like, they're not just down on the beach because it's really hot and you want to go for a swim. You know, they're thinking much more broadly about things and it's just from having that understanding.

-Volunteer, Anglesea CFA



I believe that the kids that have gone through today actually are coming out with a level of understanding which would enable them to make decisions based on knowledge rather than fear.

-Volunteer, Anglesea CFA

A lot of it has been about demystifying fire disaster - for our kids to know what the lead up to a disastrous day would be like, what to look out for. I confidently believe that they're informed enough to help their families make good decisions. You can't put a measure on that, but I think that's where we are at.

-Teacher, Strathewen Primary School

The interview data from program staff and volunteers, teachers and the students themselves provided important insight into the various mechanisms and processes that had contributed to student's increased knowledge and awareness. The first involved the place-based and experiential nature of the learning activities whereby children have gone out into the local bush to assess local risks and have learnt how to use tools and equipment to better understand their own local environment. Program staff and volunteers all explained how readily the children engaged with the place-based, experiential learning activities that characterised the program.

Yeah to come out into the field, there's so many lessons to be learnt because it's so tactile. It just seems, from my observations of this year's group, I went out and did the day where they were GPS marking significant landmarks and flora that was going to be in a future burn and take photos that they could come back to and it was just fantastic to watch the interaction out in the field and I suppose how responsive they were. They were not 'Oh geez, do we have to go out there'. It was really positive stuff.

- Volunteer, Anglesea CFA

I think that one of the main reasons the kids get so much out of it and are so engaged is because they have these different people coming in and they have access to all of the equipment, everything that we use. It's not just a Powerpoint or they're being shown a radio. Like, they're on the radio, they're talking on the radio. They're using the GPS. They're doing PHOENIX runs in that program. They're there with the fire table, lighting things and putting things out. You know, it's really hands on. They're out of the classroom. They're in the bush...That is the key success to the program is that they get exposure to all of those things.

-Emergency management staff, Anglesea

And we try and do a lot of hands on showing. So when we go to the bush, and I talk about a very high fuel load, well a very high fuel load means that you look at the bush and you can't see through it - it's closed, it's tight, which makes it more dangerous. Where if you can look through it, it's more open, the fuel's arranged differently...So you've sort of got that ability to really describe things, but be more practical with it. And because we do a lot of practical stuff wherever we can because there's nothing more boring than sitting there at a



whiteboard and saying, 'Now children, you write down what I write down'...They just don't learn the same amount.

-Volunteer, Anglesea CFA

Teachers also highlighted the fundamental importance of the place-based, experiential learning activities for achieving the knowledge and awareness outcomes:

The students being able to use all the gadgets, the GPS and the other tools, the walkie talkies, anything real and authentic that the students can use to develop skills is very engaging. So, I think they've been very fortunate with the gadgets and things they're able to use and the technologies and stuff. It's not theory. If we were standing in a classroom teaching fire behavior, it would be very boring. These students are learning it while seeing it, especially on the excursions we go on, but also using the gadgets to know the science behind it all. So, that's what I think is very successful definitely.

-Teacher, Anglesea Primary School

I think being able to get your hands on this equipment that's worth so much money that our kids would never have touched and to be able to use it and talk it through, explain it and then have the job of teaching, for the kids to master these skills and then given the important role of informing the community. So, it's very valid learning. It's real learning in the real world. They've been able to take it on board, apply it to their lives, talk about it at home, sell it to the local community and beyond.

-Teacher, Strathewen Primary School

From the students' perspectives, the place-based, experiential learning activities were a key strength of the program. They described how much they valued those activities and highlighted how important they had been for the development of their knowledge and awareness.

In the program, we got to go to real places where bushfires have actually been and learnt about fire behavior and it was real.

-Anglesea student

S1: It's great to go into the bush because then you learn about more instead of just describing it, because some people in our space [class] are visual and they'd rather see than hear it.

S2: Yeah like kinesthetic... It's where like you have always fiddle with something. Yeah, you have to actually do something to learn.

-Anglesea students

Well, my favourite things were when they took us like on the excursion to the reservoir...

I liked when they brought all these cool gadgets in so like the Whirling Hygrometer and the McArthur Metre and we got to try them out.

-Strathewen student



S1: You don't really find out about that stuff in the classroom because you don't get to see the environment of it.

S2: You don't get the experience.

S1: Yeah, you don't get the experience.

-Strathewen students

Another important mechanism contributing to the quality of student learning was the student-led, inquiry-based approach that underpins the development of the student presentation workshops. As program staff, volunteers and teachers explained, the students were given a high degree of ownership over their learning and were encouraged to navigate their learning in a direction that was meaningful to them. Program staff and volunteers were highly conscious of the need to support - not direct - student learning because they viewed the student-led, inquiry-based approach as a major strength of the program.

The program is structured, but [the Program Lead] and the teacher's say, 'How do you want it to look?' And I reckon a really important part of it is although they're guided, they do have a fair bit of say of what they want to do in the program and how they want to go about learning. We've got the outcomes that we want to try to reach, but they work out how to get to the final destination, so to speak. I think that's really important.

- Volunteer, Anglesea CFA

Letting these kids steer it helps them develop leadership and that's a key component. Bushfire knowledge is important, but what if they were still fearful and still relied on teachers and we do it to rote where they don't have to think or be challenged and we don't do scenarios and they weren't having to stand up and teach other kids. To teach, they realise that they had to know more than the kids they were teaching and have to answer questions and that [use] knowledge...We assist them in getting the presentations right, but they do it all.

-Staff, Anglesea CFA

If you just get someone [who] comes along [and] says, 'Right, we're going to do this thing and you're going to, you know, make this claymation and it's going to be about, you know, the fire index or something', that's not as powerful as having a talk with some kids, and you're saying, you know, 'What don't we understand? And what are the most important things that you think we should know?' And you work your way through it. Eventually they'll come to the same stuff, but *they* will have got there, and that'll make the learning more powerful.

-Volunteer, Strathewen Bushfire Relief

Well, it's not a talk-talk. It's hands on. It's creating. Children are actually creating and designing... As far as the children are concerned, they are the ones that are doing it. They're creating it. They're doing their story, writing their stories. They're creating their models. They're actually part of the process. And they perceive it as doing it themselves. And because of that, it has more value to them.

- Volunteer, Arthurs Creek CFA

It really depends what sort of direction the kids are going in too...And then obviously when we're doing the fire tables we are lighting things up. So, it's our



department coming in, there's a lot of safety protocols and procedures, and you can't just let kids go play with fire! But for me as a trainer, you're still ticking those boxes that you want to be teaching the kids but letting them have a bit of freedom to interpret it and to present it in a way that they understand to other kids and the community.

-Emergency management staff, Anglesea

When it comes to the project, we tend to stay back arm's length away until it comes to time when it's obvious they need something. So if they haven't asked us, we might say to them, 'Well, have you thought about this or that?' or 'Do you want to talk about...?'. You know, they're on a bit of thread and you say, 'Do you want me to expand that a bit more? I'm happy to sort of explain a bit more about that.' But you try and let them back the decisions and come to you rather than us going to them, because it is their workshop after all. And sometimes, you know, I've just got to bite my tongue because you can see where they want to go and they're not getting there and I think 'If I only said something!' but then I'd say, 'That's my project then. It's not theirs anymore'. So they've got to learn what it is, you know, to ask the question and to keep it going.

-Volunteer, Anglesea CFA

Teachers also emphasised the importance of the student-led, inquiry-based approach. As one teacher noted that the ultimate objective of the program is for the children to be able to 'stand up and teach others', and a student-led, inquiry-based approach is what empowers them to do this successfully.

A lot of it is inquiry-based as they move through the program. They definitely get a lot more choice around what they feel is important, that they want to present. Rather than us spoon feeding them. So, they're getting more choice. We support them a lot around how they want to do it, they want it to be engaging and I guess bringing them back to what the purpose is. So, always making sure they know why they want to do with the lesson and what their audience can get out of it. So, that's empowering for them.

-Teacher, Anglesea Primary School

Students agreed that the student-led inquiry-based approach was a key strength of the program and they valued the freedom they had been given to direct their own learning in areas that were of interest to them.

We get to be very independent. At the start of a session [the Program Lead] usually gives us a little bit of a brief about how long the session is going to go for and what to do, just practise and stuff. And then she sends us off and then she will come around and support us and give us ideas but it's really, really independent and we always have to work on our own, well not on our own, we're in groups and we have to learn to use teamwork with people that we don't usually work with. That's a big part of it.

-Anglesea student



And the teachers and the [CFA staff and volunteers], they just leave it up to us to think about it and then they're just there to give us feedback and help us along... And Grade 6 is a lot more independent and you get a lot responsibility. It's all you planning...It's cool! It's scary at times because you like don't know what's going to come out of it, but that's good.

-Anglesea student

Interviewer: How important is it that the students can choose their own topic for their presentation?

S1: Very important.

S2: Because we get to put our ideas out.

S1: Because then we don't have to follow, we can just choose our own path.

S2: Yeah, and we have better ideas than teachers and we're more creative.

S3: Yeah kids are more creative, so then we get to think more about some more stuff. So, us getting to choose is very good and then we aren't always treated as kids.

S1: It makes us feel more responsible.

- Anglesea students

We got to use our initiative and have our ideas valued. I had a voice, it wasn't just the adults. It was run by us and they valued our opinions.

-Anglesea student

S1: It was really fun to work it out [the presentation].

S2: Yeah, and instead of them just telling us what to present, we had our perspectives.

S1: Yeah, we could do our own ideas.

-Anglesea students

The direct involvement of staff and volunteers from various agencies and organisations was also identified as a key factor in the quality of children's learning. From the perspectives of the children, having the opportunity to engage with and learn from staff and volunteers from a range of different agencies and backgrounds was a major strength of the program. The children highly valued the expert contributions of agency staff and volunteers and many of the children felt those contributions were essential to their learning.

You need people who have fought fires to tell us about fires.

-Strathewen student

S1: Well for our presentations, we need people who will fight in the fires and know more knowledge.

S2: Yeah, not just a random person who searched it all up on the internet!

-Anglesea students

[The teachers] don't know as much as the CFA do and they don't know how to use the proper equipment and things like that.

-Anglesea student



Well, you get to meet new people which is good. And I think because they volunteer at CFA and know all about fire and stuff, we definitely learn more about fire from them than probably our teachers at school.

-Anglesea student

The children also appreciated the opportunity to learn from experts from within their own local community because they viewed these people as having a detailed knowledge of local bushfire risks and local bushfire history:

If someone from like Melbourne or Geelong came down, they wouldn't know the area whereas people who lived here, it's good, because they know the area and they know how it would burn.

-Anglesea student

They experienced fires and they'll know a lot more about them. They fought the Wye River fires. They know what happened.

-Anglesea student

S1: It was nice to meet people who have been in that situation and how they reacted.

S2: Like [veteran brigade member]

S3: Yeah like [veteran brigade member] was the [CFA] Captain then and he did Ash Wednesday. He was the captain when that happened so we also got to see how he reacted in that situation and what he did and then also, other members of the CFA how they react when bushfires hit them and how they take it in.

-Anglesea students

Teachers agreed that the contributions of agency staff and volunteers to the design and delivery of the program was fundamental to the quality of children's learning and the overall success of the program.

I think had it been just school based, it wouldn't have had anywhere near the depth, the content and the success. I couldn't have done the delivery on my own to the extent that we've had, not in a million years... Having the local experts that you tap into and then you've got your outside experts. I think, that really high skill level coming from outside [is important].

-Teacher, Strathewen Primary School

Some teachers felt that they lacked the requisite knowledge and expertise to be able to provide their students with accurate, evidence-based information about fire bushfire behavior and bushfire safety. As one teacher explained, while her own knowledge and understanding had increased substantially as a result of the program, the continued input and support of experts was essential:

I wouldn't have the skills or the confidence to sit there with kids and I wouldn't know if I was telling them the right or wrong thing. It's been great that I've been learning as well. And in fact I'm not as fearful of fire anymore and I understand



its behaviour better so it's been really great learning for me as well...I don't want there to be any misunderstandings, so that's why you need experts in.

-Teacher, Anglesea Primary School

Finally, teachers strongly emphasised that the extended period of program delivery was a key factor in the depth and breadth of children's learning and was essential to the development of quality presentations. As one teacher explained, the children's learning is scaffolded across the full two years, so that by the time they complete the program they have achieved a high level of competency.

It actually starts at the end of Grade 4. So at the end of Grade 4, they do three sessions as a little bit of a taster I guess, a little bit of a 'Tune in to the CFA project'. They get to visit the station and try out a few of the gadgets and they learn the phonetic alphabet, get to know the station as a second classroom... So then Grade 5 is really a lot of that learning, where they are learning about fire behavior... Once they've acquired that knowledge, they're then working out their workshops to present to their families and then once they're through to Grade 6, it's more about empowering them to teach more out in the community. So I think you need that two years for that involvement - you've got to learn the basics before. You've got to walk before you can run. They've got to get those skills, they've got to feel confident with being able to use the different tools when they're presenting or sharing with other people, like the MacArthur Meter and all those other things and knowing how to map properly. Without those skills they wouldn't be able to include them in their workshops, so I think without that commitment, you need to have that commitment to have that success that we're having and the engagement and that continuity.

-Teacher, Anglesea Primary School

Another teacher noted how running the program over two years enabled the children to experiment, make mistakes, learn from those mistakes and improve. She suggested that this kind of learning is rare in schools, but has significant benefits for children's development.

This is the one thing that kids get to do in primary school where they see it through for a few years. It's not just about 'Okay, we're just going to learn about this statistics and probability for the next six weeks. This is a six week maths block and then we're moving onto something else'. It's not segmented. It's quite a broad thing that goes on and on, so you've got plenty of time to fail and try again and have a crack at things [and go a] little bit sideways if they didn't work out. You don't have to rush. You've got time to jot it down, scribble it out, rip it up, try it again - you know, give it some thought process.

-Teacher, Anglesea Primary School

### ***Increased confidence and empowerment***

Teachers, program staff and volunteers, parents and students all described ways in which the Survive and Thrive program had increased children's confidence and empowerment. For many interviewees, this increased confidence and empowerment was one of the most valuable outcomes of the program. One way the program achieved this outcome was through the development and delivery of the student presentations. Many of the children





explained how the opportunity to develop and deliver their presentations had increased their confidence for public speaking.

When we did the presentations with the program, that helped with community speaking and being more confident. Even when people asked questions, we knew how to respond.

-Anglesea student

I could never speak in public, now I can...When we started the program, my friend said he would never present in front of people, but by the end of it he was running the burn table[which was] one of the most important parts of our presentation to help people learn about how quickly fires spread.

-Anglesea student

We had a few nights where people came along and we got to teach them to how to use those things. And we got to teach everyone including my Pops - who's in my family - how to use them...It felt good because like I got to pass the information onto others and it made me feel really smart!

- Strathewen student

Children also viewed their increased confidence as having tangible implications for their future roles in bushfire risk management. As one child explained, with the confidence that they had gained through presenting to their families and the wider community, they would now be more likely to have 'a voice'.

S1: Well in the future we might have more of a voice because we'll be more confident.

Interviewer: And you get that confidence from teaching other people?

S1: Yeah. From teaching grownups.

-Anglesea students

Teachers, in particular, identified children's increased confidence as one of the most important program outcomes. As one teacher noted, while the program had achieved multiple outcomes across a range of areas, it was the children's increased confidence that was most significant.

Confidence...confidence has soared. We've had students with dyslexia that really struggle with writing but this kid got on a burn table and could talk about fire behaviour because he knew the knowledge and he didn't have to write it down, didn't have to have a script. Just that teamwork and getting along. Their mapping skills are phenomenal - the way they can actually map fire spread. But I would say the major thing is just confidence and every child having success.

-Teacher, Anglesea Primary School

Parents also viewed the increased confidence that their children gained through developing and delivering presentations as being one the most important outcomes.



I think just on a personal level - for the kids - it's really just been wonderful to see all of them really have something that they know that they can teach the adults. And that's just awesome for them. They love that. It's really confidence boosting and empowering.

-Anglesea parent

I think she's a lot more confident, especially in the public speaking side of things [and] in sharing in groups. I believe she's more confident in just explaining things or being able to verbalise and talk about things or even just talking about fires and what they are. You know?

-Anglesea parent

The abilities and the skills that the kids get around their confidence is really important because that obviously plays into when they're doing their presentation. So their communication and the confidence and their presentation abilities, all of those things come out of having the opportunity to do it through the program.

-Anglesea parent

And also the education aspect where they've been involved in educating the other members of the community or other school groups or other parts of the school or us as parents. There's a real sense of pride of their role in that and their knowledge and what they've learnt and imparting that to others...And that I think, I mean she didn't use this word, but my sense was they felt really a great sense of empowerment or ownership of what they're doing as well.

- Anglesea parent

I guess it gives them, you know, a reason. It's not just worthless, just another class. It's not just something else. It's something that they can give back I guess. They can teach - they sort of become the teachers or the presenters in their community. And then the community goes, 'Hey, you know, you did a really good job!' or 'I didn't know that. You taught me that'. You know? I think that's a really great thing.

-Strathewen parent

For some of the children, developing the confidence to speak in public had been a significant achievement. For example, one father explained how his son had always been a very shy and introverted child, but by the end of the program he had a newfound confidence, which was on clear display when he accompanied his father to an official government event:

He was always a quiet, quiet kid...So, to see him come into the program and then have the confidence to talk about stuff... but to go in and have the confidence to talk to politicians, whether it be Sarah Henderson, who he's probably seen around here, but even Federal politicians that he's never met before or their personal assistants. For him to be actually able to hold a conversation at a level [that] I reckon was beyond maturity. And as a parent, it was just fantastic. I remember talking to the photographer and he's 100 yards in



front of us talking to one of our guides for the day and I said 'Have a look at him, he's chatting away. Holding his own in a foreign environment'. And that for me was as a result of what the program brought to the table.

-Anglesea parent

His son agreed that the program had been fundamental in building his confidence:

I spoke confidently to politicians and that is because the adults from the Survive and Thrive program always made us feel like we could just talk to them and they are just people learning like we are as kids.

-Anglesea student

Other parents observed similar outcomes in children who had previously lacked the confidence to speak in public. One mother explained how the program provided an opportunity for her son to develop his public speaking skills in a way that drew on his strengths and as a result, he had succeeded in delivering a presentation that he was proud of:

[The program] wasn't just about bushfires it was about other things. It was about confidence and development and ideas and public speaking and all [of] the kids participating, not just a couple of kids that were good at it for the public speaking parts... It's a big deal for him to public speak, a really big deal. That part of the program was really good because a lot of the time when they do public speaking stuff they're big things - like every kid has to make a speech at assembly and has to participate. But this was very much, what are you into? And he thrived in public speaking with a group - talking about something he knew a lot about - rather than standing up at assembly. And it reminded me and him that he is a good speaker: he's just not that typical outspoken articulate kid, that he can do those sorts of things. So, that was really important for me. I think that he has lots of skills in that and you don't always get to play them out. So, that was good for me to watch him do that. He was really proud of himself.

-Anglesea parent

Teachers, staff and volunteers agreed that the process of developing and delivering presentations had been integral in the process of empowering the children to confidently engage and converse with their families and wider community.

We did the practise [presentation] here first, which was just the school families and staff and that got any worms out of the system and they did really well. They just owned it and that just really boosted their confidence. And in that process, to have a student or two who really struggled with public speaking and being the focus of attention, standing up there and having confident dialogue with a wider group of community members and presenting facts and information, just blew me away... They owned it and they were comfortable and confident with it. They knew what they knew.

- Teacher, Strathewen Primary School



They were absolutely amazing. There were stations around the room and you went from one station to the next, so the student would have been repeating him or herself quite regularly! If you talked to your neighbour at the time, you know, one of the little fellas would say, 'Excuse me, this is very important. Can you listen to this?' And really it was just so... it was empowering. It was just amazing. They felt worthwhile. They knew their stuff. And they probably knew that we didn't know it. And they were just so enthusiastic to share their knowledge. And, yeah, it was brilliant.

-Volunteer, Arthurs Creek CFA

I guess it makes them proud and confident that they're able to pass the knowledge on, that they've learnt from others, and that's empowering in itself. It's empowering because other students can look at what these kids can do. If an adult stood there doing it, it wouldn't be as impressive. I think the kids get a real kick out of it as well: they get to dress up and make props. They get to really showcase what they've been doing.

-Teacher, Anglesea

What we're doing in the short term is we're empowering the children to be a part of their community and to deliver a message that wasn't getting delivered through normal channels the way we've always done it in the past within CFA. So for me, the biggest linkage that is key, is it's the kids. We've empowered them, and they've gone on to deliver it. And people seem to respect the kids when they do because the kids talk with such authority that it seems people [think] 'If the kids can understand this, we should be able to understand it as well. It should be easy enough for us to understand'. So for me, it's all about that empowerment of kids, and how the kids are delivering the message. And for me, that's been the key.

-Volunteer, Anglesea

The kids teaching kids, I see it in their self-development as members of our community. They're confident and telling their brothers and sisters and [they have] that ability to stand up. The ability for them to stand up in front of other kids and teach them and then stand up in front of adults the next year round and teach them is amazing. For a kid who's ten or eleven, that's a life skill.

-Staff, Anglesea CFA

Children also spoke of feeling more confident in their ability to help their families prepare for and respond to a bushfire event. For example, one child felt that the knowledge he gained through the program had empowered him to have his say in the household bushfire plan:

S1: Having a say in our fire plan. Like if your parents have put together a plan and then say, 'This is our plan' and I'm a bit worried... Well, like our overall plan is just to get out before a fire comes, but if we're stuck in there, I would want to have a say of what to do and I wouldn't want to be worried that that would not work. So, having a say is good.

Interviewer: And do you think that program helps you to have your say?

S2: Yeah, it helps me because I didn't know anything about fire before and now I might even know more than my Mum and Dad!

-Anglesea student



Parents agreed that the knowledge and understanding that children had gained through the program had empowered them to become involved in household discussions and decision-making:

With kids I feel like you say it to them and then they've forgotten it again or they're, they're just distracted, or they're not really tuning in. But I feel that this program actually does... And, you know they had an information night where you sort of say, 'Ok, you've got forty seconds. There's these items on the table, what are you going to grab?' You know, and you grabbed all these different things and a mobile phone card and this sort of stuff. And, you know, and then they're sort of criticising us for what we forgot... So, it's really good because they have got that information to know what to get and, you know, they have that empowerment to be active in what decisions are made.

-Anglesea parent

It gives them the ability or the belief that they have the choice. They can make choices. They've got the knowledge. I don't know how to put it properly into words I guess, but when they feel that way, they can openly talk about it. They're not going to shy away from it because they've been given all that knowledge and that feeling that they know what they're talking about. So, they come home and they say, 'Hey! This is this. And this is this'. And kids love to feel like that, especially at that age. They're coming into teenage years and things like that are so important to them - to be able to feel like that they're in control of things that they're doing.

-Strathewen parent

One Strathewen parent made a comparison between the Survive and Thrive program and other programs that her children had been involved in over the years. She felt that the depth of knowledge acquired through the Survive and Program was the primary influence on her child's increased confidence and empowerment:

It's not just, 'Here, go home and tell your Mum or Dad to make a fire plan. Here's a book', which has happened in the past with my kids. They literally came home with a book and I said, 'Oh, so what did you do?', and they said 'Oh I don't know, but we just have to do this with you'. And I'm like, 'Alright, so you really were just talked at'. You know? And that's the difference. And so, yeah, that book, with the fire plan, ended up in the fire! Just ended up in the bin, you know? I think with kids, when they're really involved in the whole process they can say, 'Well, the reason we need to do this is because...' They have the 'because's'. So when they have that, they have much more power I think.

-Strathewen parent

Another Strathewen parent agreed that the children's increased confidence and empowerment was underpinned by their increased knowledge of bushfire behavior and bushfire risk management. Hence, she viewed increasing children's knowledge of bushfire as a key driver of the children's recovery.

I think it's a wonderful program. It's given these kids confidence and understanding of what is involved and what to do...The children that are involved in this program, most of them went through Black Saturday or were



around and involved in that. So, you know, they have a very good understanding of the destruction and devastation that fire can cause. I think that this program creates confidence. It gives them knowledge. It gives them the ability to understand what is going on, on a scientific level, on a whole different level. And that is so important to kids, I think, as part of a recovery process.

- Strathewen parent

### **Reduced worry and fear**

In Strathewen, the children reported that the program had reduced their bushfire-related worries and fears. While they were well aware of the damage and destruction that bushfires can cause, they felt that learning how to anticipate, prepare and respond effectively had made them less afraid. This reduction in bushfire-related worries and fears could potentially be attributed to children's knowledge of, and confidence in, in their household bushfire plans. In the student surveys, amongst the 18 children in Anglesea and Strathewen who responded that their family had a household bushfire plan, 11 (61%) of students reported that they were very confident that their plan would keep them safe in the event of a bushfire, while the remaining 7 (39%) of students reported that they were somewhat confident.

In the focus groups interviews, children explained that it was 'learning what to do' that had reduced their bushfire-related worries and fears. One boy explained that while he still worried about bushfires during the summer months, he felt safer "*because you know what [bushfires] can do, but you also know how to stop that*". The other children agreed:

I'm not as scared as I was, because I know what I could do.

-Strathewen student

S1: I'd be probably less worried...Well, we know what to do in bushfires, so we're not really that scared...If a fire came, I'd feel a lot safer than I did before I did this program.

S2: Because we know what to do.

-Strathewen student

Well I kind of used to feel a little scared when we had to pack stuff, but now it's kind of like 'Ah, its fine'. It kind of made me know what's going on more and how things work with the fire.

-Strathewen student

In their own interviews, parents in Strathewen also commented that the program had reduced children's bushfire-related fears. One mother explained that since Black Saturday, her daughter had experienced significant anxiety in relation to bushfires, but the program had been highly effective in reducing that anxiety.

The outcome, you know, it's actually really benefited her with her anxiety and I think it's given her a really good understanding of everything and more



confidence in the ability to, you know, in the event that we were stuck in a bushfire again, the kids have got more understanding on how fire works and how to address that. So, it's brilliant...I just think providing the kids with an understanding and information is the key ingredient. It's giving them knowledge and that knowledge reduces their fear levels. Having an understanding of it all is a huge part of the recovery process... It's given her control because it's given her knowledge and understanding so, you know, that in turn, you know, creates a surety and creates a sort of control over that fear.

-Strathewen parent

Another Strathewen mother explained that when the program was introduced into the school, she had some initial concerns about how it might impact on some of the children, but any concerns were alleviated once the positive outcomes began to emerge:

I guess I was a bit hesitant about the effects it would have on some of the other kids that are probably a bit more raw to the situation. But overall, and watching all the kids, I think that all of them have come away positively, I guess similar to [my daughter]. Knowledge is power. They know much more about how, why and where and I think that that knowledge gives them a capacity to believe that, you know, it's not all bad, I guess. Or they know why and they know how. I think overall, all of them definitely seem to be enjoying the program. When we spent the afternoons with them, there wasn't kids freaking out or anything like that. They all seemed to be really positive and smiling and happy and very knowledgeable.

-Strathewen parent

This parent now took the view that providing bushfire affected children with knowledge and information, albeit at the appropriate time, was key element of the recovery process:

You could not implement this immediately after, a disaster, but I think maybe a couple of years later. I think it's really important for kids, especially the little ones, to have as much information as they can. You know, a lot of the time people sort of try and, I don't know, wrap them in cotton wool and not explain stuff and try and avoid the question and let's not talk about fires. Do you know what I mean? Thinking that's the right approach. But I really don't think it is. I think information is the key.

-Strathewen parent

The majority of children in Anglesea also reported that having access to knowledge and information had reduced their bushfire-related worries and fears.

I feel more confident now having the knowledge. Less worried.

-Anglesea student

S: Maybe when I was little I was scared because I felt weak, not weak, but I guess I wouldn't know what to do if I was alone or something.

Interviewer: And has the program made you feel less afraid?



S: Yeah, because at our age, you're sometimes home alone and if something does happen we know how to respond.

- Anglesea student

S1: I don't really see a bad thing in the program because learning about bushfire, I mean, I don't know if this is everyone's opinion, but if we're learning about something, well I don't see a bad side to it.

S2: But it could also be um, mentally, like...

S1: You could be worried.

S2: Yeah. You could.

S1: Yeah. Or a bit paranoid.

Interviewer: So some kids might feel a bit worried?

S1: Yeah, but definitely not for me.

- Anglesea students

While some children reported that their increased knowledge and awareness of bushfires had made them more afraid of bushfires, they did not view this as a negative outcome. For example, one girl explained that before the program, her lack of fear was due to a lack of awareness. She was now felt more afraid, but she was also more informed and would know how to respond to a bushfire event:

S1: I'm probably more [scared] because now I'm actually thinking about it, whereas earlier I wasn't, so I wasn't as scared.

Interviewer: Is it good to think about or would you rather not think about it?

S1: I'd rather think about it.

Interviewer: Why?

S1: Because then you can be remembering everything to do and then if there is a bushfire, you're more likely to know what to do.

-Anglesea students

One child explained that through the program, she had become more aware of the destruction that bushfires can cause, which had made her more worried and afraid, but she also knew how to protect herself, which had made her less so.

S1: I think knowing more about it and knowing how it moves and what it does definitely helps because being able to map a fire, then you can kind of predict, well not exactly predict, but kind of get a rough idea of, you know like if you know the wind speed and stuff you might get a rough idea of when you should leave and that sort of stuff. But it definitely helps a lot to know more about it because then you understand the devastation it can cause.

Interviewer: But does it make you feel more worried or afraid?

S1: I think yes, but kind of no as well, because it does make me feel better that I know this stuff and I can deal with it.

-Anglesea student

Amongst the Anglesea parents, there were no reports of any children experiencing elevated levels of bushfire-related anxiety or fear. Rather, most parents believed that empowering children with knowledge and information had exerted the opposite effect:





He's never shown any signs of being, you know, frightened or we've never really had any discussions of any concerns. If we do talk about it would be, you know, 'Where would we go as refuge?' And it might have been, 'Oh, we'd go to the beach or we'd go somewhere.' But he never sort of spoke it about in a worrying tone and nor has he since he's had the education as well.

-Anglesea parent

I certainly haven't felt that there's been an anxiety response or, you know, an over fearfulness or... In fact, I would have to say, a little bit like for my own learning with this, is that if anything it's probably dispelled myths or some of the fears. Information about, you know, equipping you with what to do and what you can do...It's not really normalising it, but kind of accepting that this is part of where we live and so understanding and knowing this information actually equips and helps the kids. And I think that's probably been the impact that I've noticed...certainly not a fear or angst response.

-Anglesea parent

He can get a bit spooked by different things. But no, he hasn't by that. And actually my family have a property up in the Strathbogies where, if there was a fire there, you'd be in trouble as well. And so we talk about it a bit up there, what we would do. And so he doesn't seem to. He doesn't seem to have. Whereas he's had bad dreams and thoughts about a tsunami coming here!

-Anglesea parent

I think he's probably, although it's probably still a scary scenario, I think the fact that he's aware of how he can act, you know, might sort of help him take a bit more control of his feelings– not that there's anything wrong with being scared – because he has a better understanding of, you know, what it may mean if there is a bushfire.

-Anglesea parent

## Household level outcomes

### ***Increased knowledge and awareness within households***

All parents interviewed viewed the program as a valuable mechanism for increasing knowledge and awareness of bushfires hazards and bushfire safety within households. Analysis of parent interview data indicated that increased knowledge and awareness within households was the result of both the student presentation workshops and the spontaneous household discussions that had been initiated by children throughout the course of the program.

With the exception of one parent<sup>5</sup>, all of the parents interviewed had attended the student presentation workshops. All of the parents viewed these workshops as providing a valuable learning experience for their household and many of them reported that they had acquired new information.

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<sup>5</sup> While this parent was unable to attend the workshop due to work commitments, but her spouse did attend.



I sort of found that I learnt a bit from their workshop as well. So, they probably know a bit more than some of the parents. And it's through this program.

-Anglesea parent

I mean I can't speak on behalf of everybody - some people may have already known some of this stuff - but I know that we didn't and it was like, 'Oh, ok, that's how that works'.

-Strathewen parent

We went to the last year's presentation night, where they did present their workshops. So, that was very interesting. I mean, I even learnt a bit more, you know, by attending those workshops. It sort of opened my eyes up a bit more.

-Anglesea parent

It wasn't all new information, it was a reminder. But there was definitely some new information. And some things that you think you know, but you don't. The kids knew more than us and that really made us think things through and we've talked about it significantly since.

-Anglesea parent

Several parents also provided specific examples of what they had learned at the student presentation workshops. From what to pack in an emergency kit, to how weather influences fire spread, to the safest way to shelter in a car - the information presented by the children was viewed as interesting, informative, and useful.

Well, having that emergency kit, knowing what to take, knowing what to have in the emergency kit. Because I think they had sort of cards with different items on them and we got into groups and we [discussed] different people's opinions as to what was important to have in the bag. And there was a lot of discussion around what were the key items to have and the priority of their importance. I thought that was very interesting. It made me aware that these are certain things that would be handy to have in an emergency kit [and] that I probably hadn't sort of thought everything through. And I thought, 'Oh yeah, I would need that' or, you know, 'That would be handy'.

-Anglesea parent

There were a few things I learnt at one of the first info things we went to too. I guess I'd thought, 'If a fire came then you go to here... and if it was here or there and whatever, you've really got to just sort of get out'. If anything, I think it's moderated some fears. It's just given me a better sense of what we've got to work with, what the parameters might mean, rather than just going, 'Oh my gosh, we've got to get out'. That sort of thing. It's like 'Just think it through a little bit' like 'Ok. Where is it? What are the weather patterns at the moment? What do we need to do? Where is everyone in the family?' You know, sort of think through some of those things a little bit more concretely. I remember them talking about the fire patterns and working out the time that it takes for a fire to spread and what it would look like on a map and the kids drew it out with us. And that was really quite enlightening just to see how the behaviour of a fire



might go. That was almost a bit reassuring in a way. That fire does have a pattern and does have behaviours - depending on the parameters of course.

-Anglesea parent

Something my partner and I didn't know before is that we always thought we knew what happened if you were driving and got caught in the fire, but I didn't actually really know how to park the car. That was really new information and that was information we passed on to the [extended] family as well. We all knew that you can't outrun a fire, that you stop - and that's not something we plan on happening - but we always thought we knew what to do in that case, but we didn't. So that was new information. That was pretty profound for me.

-Anglesea parent

There were quite a few things in the presentations that were really interesting - fuel loads and stuff like that. There was information there on the different types of barks and different types of fuel loads. That was really informative. And the other one, where they were measuring the humidity levels, moisture levels in the leaves and stuff like that. That was quite interesting too.

- Strathewen parent

Look, I actually learned more each time I went. Like, even though I went on [my oldest daughter's] one and I learned a lot, I went to [my youngest daughters] one and I learned more again. You know, even the way they map and project how fires come. And, you know, how quick, with ember attack and that side of things. And how when wind changes. I really loved learning all that. And it's a computerised model, so to have kids present that too kind of makes you go, 'Wow!' You know? They're actually understanding that side of things... I really loved all the mapping side of things and the [PHOENIX] projection. I definitely learned from that.

-Anglesea parent

P: I suppose just being aware of the app, like for the phone. Because I think they changed the name didn't they, it used to be... Oh sorry, I forgot the name of it now but...

Interviewer: Vic Emergency?

P: Yeah, that's right. Yeah. Yeah, so that was something I came up to date with during that session.

-Anglesea parent

Parents also identified the spontaneous household discussions initiated by their children throughout the program as having an important influence on knowledge and awareness within their families. Parents reported that their children would often share what they had been learning in the program, and in doing so, they brought new information into the household.

Certainly I would say that he would come home and tell us lots of things after a day of CFA. And you know, many, many of those things I would not have known before. He would bring it up whenever they would have a session. He would come home and talk about it.

-Anglesea parent



Most parents also reported that bushfires and bushfire safety had become a more frequent topic of discussion within their household and they attributed this directly to their child's involvement in the Survive and Thrive program.

It [Survive and Thrive] does make us talk about it more and it makes you think about it more than we had. It's, you know, with the talking and thinking about it, I think that it supports the whole family.

-Anglesea parent

We would have those conversations every night when he would come home from having a CFA day, which we would not have had [otherwise].

-Anglesea parent

You know, [the children] talked to the people who'd lived through Ash Wednesday and so we all had a bit of a conversation about that because we all know different people here in town who have [survived Ash Wednesday]. And where people went. And how it got cut off, you know, for basically sort of a few days afterwards. And stuff like that. I think it definitely engendered conversation.

-Anglesea parent

I guess it just brought it to the front, I guess, more than anything. That we've probably been a bit more blasé about the risk. And with [my daughter] learning it, she really brought it back into the house with that 'Hey guys!' You know? It got us talking about it, which is a positive thing I think.

-Strathewen parent

I guess to me, I think it is something that's really useful because it raises the profile with the children and therefore it then gets discussion within families. So it's sort of the extra benefit of having the children involved is that, you know, they go home and have a discussion about, 'Well, how come we haven't got a fire plan?' or 'This is what I think!'. You know? So, I think it's really important.

-Strathewen parent

One parent also noted that the program provided a channel through which households could gain access to valuable local knowledge. She described how her son would frequently share his knowledge of bushfire behavior and it was the localized nature of that knowledge which she found particularly useful.

You know, we've been here for about six or seven years, so it's not like we've grown up here or anything else. And so that familiarity that [my son] would have with [the area] out the back of Anglesea, where fires are likely to come from. And like, he's come home and told us stuff about fire behaviour and the direction and how you can see where it has come through and how it behaves. I think that was really useful and fantastic. And it's sort of so localised and really making use of the knowledge of people who've lived here for a long time to understand what happens here.

-Anglesea parent



Parents also emphasized the value of children coming home and asking pointed questions, which in itself had exerted a strong influence on household knowledge and awareness. As one parent explained, her son's questions had highlighted the gaps in her own knowledge and compelled her to critically reassess her position on various aspects of household bushfire safety:

The kids asking the questions, you have to articulate what you think and you start saying something and think 'Actually I don't really believe that anymore, that's not true'. So that's what it was - having to articulate those things to children who just keep asking and saying 'That's not right' and you say, 'You're right, that's not right and we need to do something'. So I think that's all it is - it's just that the kids have that knowledge and they're asking questions and parents have to answer them...The kids saying 'What would you do here?', 'Do you know this?' I think when kids ask questions it reminds you of what you do and don't know. I was a bit embarrassed that there were some things I couldn't answer [my son] on.

-Anglesea parent

Several parents who felt that their own levels of knowledge and awareness had already been quite high prior to the program, emphasized the value of the program for households in which levels of existing knowledge and awareness were low.

Say if it's a child in a family that has never talked about it, I think that's where it's quite powerful, just from an awareness point of view. I think that's the key great thing about it...I think that there is a really good spin off in terms of any kids that are doing it whose family, or the circles that they're in, sort of don't talk about this stuff or families who don't have a high level of awareness. So I think that that, just raising their awareness, so that they go home and have some conversation about it is a real strength.

-Anglesea parent

As the kids come home I think, you know, especially for people that aren't involved, you know, their kids are rabbiting on about this, that and the other and I think that's, yeah, I think that's really important. So, I definitely see it more than just the kids learning.

-Strathewen parent

P: I think our family is a little different to most because we're on the front line. We're not involved with the CFA because, well I'm just too old now, but where we live, we'll burn, there's no question. So we've always been focused, always since day one, on 'Ok, how can we live in this, not destroy it but live in it when the fire comes through?' But I think many families who don't live on the edge of town, I don't think it's in the front of their minds... I think we have gotten more understanding from the program and it's added to the understandings we had. But I think for many other families in town, it's quite new, because if you don't live on the edge [of the bush], if you're not involved in the CFA, then where do you interact with that knowledge?

Interviewer: So for those families it's filling a gap in their knowledge and awareness?

P: I believe so. Absolutely.

-Anglesea parent



When discussing the impact of the program on knowledge and awareness within their households, several parents emphasised the fundamental importance of children's confidence and empowerment. As one parent explained, it was the children's increased confidence and empowerment that was the key driver of change.

There's sort of the fire safe kids programs, that are very surface level programs. Kids take it in. They're more interested in getting on the red fire truck or holding the hose and they'll say 'Hey Mum, I squirted a hose today!' It's all very surface stuff aimed at kids, whereas this program seems to be really empowering the children and giving them the knowledge. So, by doing that, when they're going home and they're talking about it, the parents sort of have to sit up and go, 'Oh, wow! You know what you're talking about. Well, tell me more!' That's how I sort of see it. And then the parents go, 'Hey, my kid's quite interested in it, maybe I should pay more interest in it, get involved, go down there or go down to the CFA'. Or something like that. I think the other programs that are around, it's an opt-in or a very surface level, whereas this just seems to be - especially with the older kids in the school - it's such a fantastic, hands on, in-depth program that really, really gives them the knowledge and the power to be able to go home and go, you know, 'This is what we're talking about. And this is how it is and why it is'.

- Strathewen parent

### ***Increased child participation in household bushfire planning and preparedness***

In the focus group interviews, many of the children reported that they had become more involved in household bushfire planning and preparedness as a result of the program: they had talked to their parents about fire plans, assisted with household maintenance (i.e. cleaning gutters, mowing lawns, clearing fuel from the around the house) and helped assemble and maintain emergency kits.

The children suggested a variety of reasons for their increased participation. Some children felt that the program had challenged them to reassess their role in household bushfire planning and preparedness: they had previously considered bushfire planning and preparedness to be the domain of adults, but they now saw themselves as having a valuable contribution to make.

S1: I thought 'I don't really have to do anything' but now I know that anyone can help with the fire plan and anyone can do everything.

S2: I thought the parents just like do all the work and then tell their kids what's going to happen.

Interviewer: And what do you think now?

S1: It's the other way around. Now we tell the parents what to do!

S2: Now I think that everyone should be involved.

-Anglesea students

For other children, the program had increased their interest in bushfire planning and preparedness and made them more aware of its importance. For example, one girl explained that prior to the program, she had never been particularly interested in the subject, nor had she really understood the need for



a bushfire plan, but she was now taking a much more active role in her household.

S1: I definitely help with the fire plan now, like I get engaged and stuff with what to do.

Interviewer: But you didn't before?

S1: No, not really. I just didn't find it that interesting because I didn't think we would need to use it or something. But now I'm more aware and more prepared.

-Anglesea students

The girl's mother had also observed this increased interest and engagement in the family's bushfire plan, a change that she directly attributed to the Survive and Thrive program.

I love how they've actually come home and said, 'We don't have a firebox!' And I say, 'We do actually. Come and have a look at it'. You know, and I've thought, 'We've gone through this but you still haven't remembered!' So maybe it's because they own it more when it's at school or it's more physical. You know, maybe us just saying, 'Here's our fire box, maybe we didn't go through it in detail like they do at school or, you know, do scenarios and that sort of thing. Maybe it's a little bit more because it is a whole subject. Maybe that is why. Because at home it's like [sigh].

-Anglesea parent

Several children also explained that their increased participation could be attributed to a shift in the attitudes of their parents. For example, children in Strathewen felt that the presentation night had provided them with an opportunity to demonstrate their knowledge and understanding, and as result their parents were now more aware of their capacities to contribute.

S1: Well, the presentation night, sort of, I reckon, made them realise that we can do more.

S2: Yeah, because we have lots of knowledge of fire.

-Strathewen students

Meanwhile in Anglesea, one girl attributed her increased participation to increased levels of parental trust in her ability to 'do things correctly':

S1: Your parents trust you more.

Interviewer: Trust you?

S2: Yeah, they trust you to do things correctly because you've learnt how to.

-Anglesea student

Parents agreed that children's participation in household bushfire planning and preparedness had increased as a result of the program. In the parent surveys, 100% of parents reported that they had discussed their bushfire plan with their child and in the interviews, many parents indicated that this had been a direct result of the program. As one parent explained, prior to the program she had tended to exclude her children from discussions about their household bushfire



plan: more recently, however, she had begun providing her children with more information.

We've had a few more open discussions about it, whereas I suppose I probably hadn't talked to him much - or his sister for that matter - about it. Whereas he's raised it a couple of times by saying, 'This is what we're doing at CFA' or, you know, 'I've got CFA today' or something like that, which has often triggered that discussion of 'Well, if there was to be a bushfire, this is what our plan would be for the family'. So, I think we've had a few more discussions.

-Anglesea parent

As a result of the program, some parents were now intending to afford their children a more substantive role in the actual development of the household bushfire plan. While they may have informed their children of the plan in the past, they now saw their children as having the capacity to be active participants in the planning process.

We probably haven't included, or thought to include the kids, other than to say, 'This is our plan, this is what we do, da, da, da'. It's been a bit more, probably a bit tutorial of just, 'This is what we would do.' Whereas I think we definitely will have a different way of doing that with her. And that's because of the program... I think that's something we could definitely work on is revisiting that again and including her more, especially because I think she'd have a lot to add to that now than when we did it perhaps a few years ago.

-Anglesea parent

Certainly she has now pretty much the same understanding of the risks and the benefits I suppose - the risks of bushfire and the benefits of being organised. So, she's now on the same page as us on that. And that comes from a sort of, dare I say evidentiary basis. She's learned some facts or at least some factoids, so she can now help us make those decisions. So, when we revisit the plan she'll be a lot more of an active participant and we'll be looking for her to be too.

-Anglesea parent

When asked what had created these opportunities for increased child participation in household planning and preparedness, parents commonly referenced the level of knowledge their child had acquired through the program. As noted in the earlier discussion of child-level outcomes, parents believed that their child's knowledge had increased substantially as a result of the program, and as such, they now saw their children as having a genuine contribution to make to household bushfire plans.

I'm pretty sure she feels more a part of it now. Because she's the one who's done the program, so she's the acknowledged expert...The learning we've had by looking at the CFA website and watching their little videos and going to the meetings and all that, [my daughter] is at that level now, in fact she's beyond that level now because she's had some formal training in fire ecology, which as a family, we didn't have. I guess I have a bit of a biology background, so I was somewhat aware of some of that stuff. But now, yeah, she understands how and why those things work. So yep, she's part of the planning team now.

-Anglesea parent





I think given that he's had the opportunity that he's had through the program, he's really well placed to participate in that [the planning process]. And he's of the age now too that it's really important for him to do that as well... Whilst you'd always include them, you probably think, well, he's really got a lot more value to add now because of his own learning.

-Anglesea parent

I think it's allowed her to have knowledge to participate more, if that makes sense. So she knows a little bit more what she's talking about. So when we are having the discussion, she can say, 'Oh, well hey, do you really think that's a good idea?' or she's able to use that knowledge to participate. As opposed to sit there and go, 'Mum and Dad know everything and we'll just do what they say'.

-Strathewen parent

I remember when we packed [the emergency kit] and we were packing and I go, 'What else do I need to pack?' You know? And he would be reeling it off. So, you know, 'What else do we need to bring? What would you bring?' You know, so I'd be quizzing them because I knew that they had the knowledge. And they were all for it.

-Anglesea parent

I think when she's made comments I really notice that I pay more notice to that. I don't think the older two would have quite as much idea. Well, they might a little bit - we talked about different responses - but her having done the program, definitely. She's got knowledge and information, that we probably haven't had and workshopped or worked through quite as in-depth. Yeah, so she's definitely an extra resource in the family in that sense, having done the program, for sure.

-Anglesea parent

Parents also attributed children's increased participation to increased levels of confidence and empowerment. With this confidence and empowerment had come a sense of ownership over planning and preparedness activities: the children were asking questions, initiating discussions and getting more involved, and they were doing so of their own accord:

I think they took ownership of it. So, I know that when [my son] came home after that presentation thing, he goes, 'Oh Mum, have we got everything prepared? Where is it? Why isn't it near the door, or the garage door?' You know? 'Why is it still in the storage area?' So, they sort of took ownership, you know? And I remember [he] goes, 'Oh Mum, we need to check our fire plan'. And stuff like that. So, they start to own it. And it gave them confidence in order for them to be able to talk about it as well.

-Anglesea parent

She's pretty empowered. I'd say that's what the program has done for her. Like, she's empowered to be a part of the decision and to help pack the car and she tells the stories to others as to why we're not home today. And I've heard



her talk about it with other family members as to why we've gone away for the day. She can tell that story really well - to her siblings and to family.

-Anglesea parent

Well, you see the confidence. I can see the confidence in her to even raise an issue or mention something in terms of our plan. Because we've had it on the wall. So I think, what's been quite noticeable for me I think, is her confidence to engage with that herself which gives me confidence of like, 'Oh, yeah, of course. You've got a lot to offer us in this!' Equal stakeholder is a good word for it. She's definitely a valued contributor, yeah.

-Anglesea parent

She'll talk about the fire kit that we've got or the bits like woolen jumpers that got taken out and used for something else and they need to be put back. And talking about 'How early do we leave? And if we do leave, who goes and who stays?' And, you know, different things about that. So she's certainly more involved. I think that's been really helpful for her and for us too. She's both informing us and also having conversations with us about that.

-Anglesea parent

One parent also emphasised the role of trust in her child's increased participation. Because her child had been learning from experienced fire management practitioners, she was considered a trustworthy source of bushfire related information.

I would definitely say I would trust her judgment and thoughts about it and take them quite seriously - what she would have to add to that or say about things, for sure... I trust what she says because she's been doing that program. Really. If she's had that hands on conversation and interaction and discussion and working through stuff with [the CFA program staff and volunteers], you know, really, I think in many ways, she's better informed than I am.


-Anglesea parent

Amongst the parents interviewed, children's contributions to household planning and preparedness were highly valued. One parent shared that she was looking forward to her younger daughter entering the program so that she too could become a more active participant in household planning and preparedness.

I think it's really important and I want my daughter to have the same opportunity as [my son] to know something where they can participate in family decisions with some sense of authority or knowledge base about it that's as great as, or more than ours, so that they can really contribute to that decision-making and challenge us.

-Anglesea parent

One CFA volunteer reflected that in the early stages of the program, she had underestimated children's capacities for participating in household planning and preparedness. She had initially thought that as a result of the program, children might pass on some key information to their parents and that would be



the extent of their role. However, her assumptions about children's participation had been transformed and she was now convinced that children have the capacity to be actively involved in household planning and decision-making:

I'm a prime example of underestimating this age level of kids. I went in there thinking this is a great conduit, you know, kids can learn a bit, teach their parents. I've come out thinking those kids should be fully involved in planning fire plans. They should be fully involved in discussing trigger points of when they need to go. They should be completely involved in those family decisions because they are so switched on and they are so knowledgeable. Oh, they're amazing. And I was actually really taken back and I said to the Principal, 'My god, I underestimated these kids. They are amazing. They should be a really important part of living out here and making family decisions, you know? Making decisions.' They should be. We should be listening to their input. Families should be listening to their input.

-Volunteer, Arthurs Creek CFA

### ***Enhanced bushfire planning and preparedness within households***

In both Anglesea and Strathewen, all of the parents indicated that the levels of planning and preparedness in their households were relatively high. In the quantitative survey, all 12 parents indicated they had a household bushfire plan in place and 9 parents (75%), indicated that they had a bushfire emergency kit. In the interviews, most of these parents recalled that they had developed their plans and constructed their emergency kits before their child had become involved in the Survive and Thrive program.

However, there was evidence that children's participation in the program had enhanced their existing plans and preparations. For example, when asked if the program had enhanced her household's planning and preparedness in any way, one mother explained that her daughter's recent contributions to the planning process had not only increased her confidence in the existing plan, but encouraged her to consider various contingencies that she had previously overlooked:

She has things to value add that we perhaps haven't thought through or affirming what we've perhaps thought about before. I think it's been affirming. Some of that's definitely been affirming. And I think it's helped me feel a little bit more confident...I think, for me, we've got most of our information through reading or the odd community meeting kind of thing. So, yeah, it's quite affirming and I think, yeah, perhaps triggered other angles that we hadn't thought about before.

-Anglesea parent

One parent explained that as result of the program, they had not only added items to their firebox, but had also revised their triggers for leaving. While the plan had always been to leave, they had been adopting a 'wait and see' approach: however, as a result of the program, they would now be more inclined to leave in advance of any direct bushfire threat.

We've probably added things to the fire box that we didn't have in there. And we're probably more inclined to leave rather than stay based on more information, do you know what I mean? Whereas, maybe before the program,



we would have been more inclined to sort of say, 'Oh, we'll just wait and see how it all pans out', and at the last minute think you can go. Do you know what I mean? So that's probably been a big change.

-Anglesea parent

Another parent explained that while the family had developed a comprehensive plan several years prior, the student presentation workshop had prompted a review of that plan:

Certainly when you're 'forced' to go to a night like that you can't help but think about 'What's in my fire plan? Have I thought about that? Have I got are those batteries recharged? Where's the bottled water?' Yeah, so I would say, yes, her involvement in that program did encourage us to relook at our fire plan.

-Anglesea parent

For one mother - an Ash Wednesday survivor - the program had exerted a significant influence on the quality of the household plan. As a result of the workshop, her and her partner had worked through the details of the plan in much more depth and they had also incorporated her aging parents, who lived locally, into their plan:

P: I was particularly impressed by the [children's] level of knowledge and the sorts of questions they were asking the grownups to think through and that made a significant change to how much we've articulated our plan. It's not enough for us to just write it down - I'm embarrassed to say - but next year we will make it happen.

Interviewer: Who was involved in those discussions?

P: Myself and my partner. And [my child] was involved to some degree, but not as much, and that led to us having a conversation with my parents because they're in a sort of dangerous area - just to make sure that the plan we had in place for what we would do for them, [that] we were really clear about [it].

Interviewer: Would you say that the conversation with your parents was also triggered by the Survive and Thrive activities?

P: Absolutely. It directly contributed to it.

-Anglesea parent

Her account of how the program had enhanced her household's bushfire plan is worth presenting in full.

Our plan has always been one of those really simple plans that we hadn't really articulated. What we hadn't talked about was at what point we would leave. So we made a decision that on a day when the school would close that we would leave town on those Code Red days. The other thing we made a decision about was that on those high bushfire risk days when school was on was that one of us would stay in town. We wouldn't be out of town because we both work in Geelong and that we would make sure that we weren't separated from both the kids and my parents. Otherwise there would be nobody there. The school has a clear plan, that they keep kids with them but I want the kids with me or I'd want to be with them if there was that level of fire. We made a decision that we would work from home or take the day off on those high risk days and that we would also work out with my parents that they would come to our house. And on those days, if we knew there was a bushfire - not impacting the town - but if we knew there was a bushfire, then my parents would come



with us. They would leave their property and come to ours so we could leave together. We planned a fire kit. It didn't happen, but we planned it! We backed up all our documents though. We made all our documents electronic and we already had done some of those things, got all our photos. My brother lives in a bushfire prone area in WA, so we swap hard drives. We already had some things in place, so I guess our main focus has been, if our house burns down how we keep what we need. Before, I guess we didn't take it as seriously. We thought 'We'll just leave and we'll be alright'.

-Anglesea parent

Some parents had already invested significant time and effort in the development of their household bushfire plans prior to their child's involvement in the program. However, as one parent pointed out, a program like Survive and Thrive would likely have significant benefits in households where levels of planning and preparedness are low:

Our plan was very comprehensive prior to the program. We researched a lot. I was in the CFA, so I sort of I have an understanding of how fire works as well and what to do in the situation of a fire. So, no, I don't think the program has affected that. But it could. For a family that wasn't prepared, there's a lot of information those kids get on what you should be doing and what you should have in your emergency management kit. And, you know, the signs to look for. So, maybe in other people's situations, yes, that would definitely benefit but in ours, we were very thorough with what we'd already done as part of our emergency management plan.

- Strathewen parent

### ***Strengthened household capacity for emergency response***

There was wide consensus amongst both children and parents that the program had strengthened household capacity for emergency response. Children felt that with the knowledge they had gained through the program, they would be able to assist their families to evacuate more quickly.

S1: And the benefits would be getting out of the house quicker and things like that.

Interviewer: Like your family can respond faster?

S1: Yeah.

Interviewer: Why can your family respond faster?

S2: Because you've learnt how to do things and we have more knowledge of what to do if there's a fire and it's dangerous.

Interviewer: Do you think that kids who don't know might slow the family down?

S2: Yeah, and so then like if there's another hand, they'll have more people to help for ideas than if there's just like one person doing it, there wouldn't be as much ideas going around.

S1: Like getting the photos in the car because you wouldn't want your photos to get burnt.

-Strathewen students

Parents also felt that the knowledge the children had gained through the program had strengthened their household's capacity to respond. In Anglesea, one parent explained how her daughter was now more accepting and supportive of the need to leave early on severe fire danger days.



Interviewer: Do you think that the program has had benefits for [your daughter]?

S1: Absolutely. Huge benefits.

Interviewer: How would you describe those, those benefits?

S1: Well, from a general perspective, she understands what our bushfire emergency plan is all about and why we would need to enact it. But we have left on Severe days, have left the home, and she hasn't argued about that because she understood what it was for.

-Anglesea students

In Strathewen, one parent explained that the program had increased her daughter's capacity to assist with any final preparations on those occasions when it had been necessary to enact the household's plan for leaving early.

P: We've actually put the plan into action a couple of times. So, there's been a couple of fires locally that could have potentially, you know, got out of control. So everybody knows their role and what to do. You know, we have our bags, special bags packed. In summer, everybody grabs those, loads those in the car. We turn off gas bottles. We remove everything from around the perimeter of the house. Lock all the doors. You know, make sure that phones are charged and everybody has a role to play. So, we've actually put that into action a few times.

Interviewer: And what role does [your daughter] play in that process?

P: Yeah look, mainly getting her own bags and her stuff organised and into the car. Helping remove doormats and that sort of stuff from the perimeter of the house. Monitoring the phones. Monitoring the updates on the websites and stuff while preparing animals and getting all that sort of stuff sorted out.

Interviewer: Do you think [your daughter's] participation in the program has increased her capacity to be able to do things on the day, when it actually needs to be done?

P: Oh definitely, yep, definitely. Yeah, but definitely, you know, it's definitely attributed to the program, you know, the information that that's given her.

-Strathewen parent

The Wye River fire emergency in December 2015 provides further evidence of the program's impact on household capacities to respond. In Anglesea, one parent explained how during the fire, her two sons, both of whom had been involved in the program, had been able to remain calm and in control.

I think one of the biggest benefits is their confidence. That they could deal with it. And not being too scared or panicked. That's a huge thing. Because we saw with my nieces and nephews at Christmas time when the Wye River came, they panicked. Like, they were so panicking. And it was like really having to calm those kids down to say, 'It's ok, you know. You're going to be alright. It's not that close, you know. It's miles away'. But our kids were very, very calm.

-Anglesea parent

She also explained how her sons had been able to assist with the household preparations and monitor the threat level as the fire moved along the coast:

And having the knowledge of what to do and knowing almost the sequence of things – 'Right, let's get this done, let's do this and let's do that' - and being calm and confident about it. I was even asking [my son] [about the threat level]



and he goes, 'No, it's ok'. Because he was saying it's only... I can't remember if it was an Extreme day, I can't remember the situation, but he was saying, 'No, no. Because of this' or 'Because of this it wouldn't be too bad. Let's check, you know, let's check what the wind direction is.' And all of that type of thing that I wouldn't have necessarily checked, but he checked, you know?

-Anglesea parent

When asked if her sons' actions and behaviours had exerted any impact on the household's capacity to respond, her response was unequivocal:

P: It makes a huge difference. It allows the adult, who has to sort of like steer it, to remain calm. Because you don't need to worry about their mental wellbeing or calming them down or their anxiety. Because our little niece's anxiety just went right up, you know? That whole day!

Interviewer: Was it a distraction?

P: It is. That's what I'm saying. Yeah, it's a huge distraction. And it was like, you had to like spend so much time with her and justifying it and, you know? So, yeah it was interesting.

-Anglesea parent

In his own interview, her son explained how the program had given him the knowledge that he needed to cope effectively on that day.

S: So when the Wye River [fire] was [happening], I had family from Melbourne come down and my cousin, she was year 6 or 5, I don't know, she was a year below. Like she was really worried but I wasn't because I knew it was far away and probably wouldn't reach Anglesea. But she was really like stressing out. And Mum had to tell her she'd be fine. And even if it got close, we would be gone.

Interviewer: If you hadn't done the program, do you think you might have panicked as well?


S: Yeah. I probably would have been a bit panicky that it would get too close. But yeah, it was interesting.

-Anglesea student

Another Anglesea parent provided a similar account of how her son had been able to remain calm and in control throughout the Wye River fire emergency.

When it did come time through and we decided we should get everything at the front door, he was really calm and methodical about things. I was quite surprised. Out of the four of us in the house, because I had my mum there as well, he really was very calculating and calm about what he was doing, and I was like 'Wow!'...I was like kind of watching him and he was just taking control of the whole situation... I was really surprised, because I really wasn't feeling calm at all myself. I really wasn't at that stage, I had my mum with Alzheimer's with me and I was worried about how we were going to deal with her and he was like 'We just follow what we said we would do. We're following it'. Yeah, like it's quite surreal when I look back because he's like the smallest in the house, he's the youngest one in the house...I was just 'Give me a bit of what you've got' because I was not feeling the same way. I thought maybe he just looks like he is feeling like that, but in fact when I asked him he was feeling really calm and in control.

- Anglesea parent



In his own interview, her son confirmed that on the day of the fires, he had felt calm and in control, a response that he directly attributed to his involvement in the program.

On Christmas Day when the fire went through Wye River, close to us, I was not as nervous as the adults. I had plenty of knowledge about fires and the CFA to draw from...like it's still sort of, like you're not worried about fire just like day-to-day but if there is like a big fire sort of near you, you are worried, but you're calmer. Like, you're not like running around the house just like worried. You're kind of more relaxed about it... Because we knew what would happen in a fire. And like, you weren't as worried if there was to be a fire, which it ended up, there was in the end. And we actually had some knowledge of what was happening and what to do. Like, we weren't just panicking about the fire coming towards us.

-Anglesea student

While the Wye River fire did not at any stage pose a direct threat to the Anglesea, the community was being encouraged to remain alert throughout the fire event and for these families, the children's capacities to stay calm and lend assistance where needed, meant that the parents could focus on what they needed to do to ensure their family's safety.

## Community-level outcomes

### **Strengthened brigades**

An unintended outcome of the Survive and Thrive program in both Anglesea and Strathewen has been the establishment of Junior Brigades. In Anglesea, the first cohort of Survive and Thrive students explained that upon completing the program at the end of Grade 6, they had wanted to maintain their association with the CFA and continue their learning and skill development.

Interviewer: And so after you finished the program, you started the Junior Brigade, is that right?

All: Yep.

Interviewer: So why did you do that?

S1: We wanted to learn more skills.

S2: I think it was like a follow up from...

S3: It was kind of just like, yeah, a follow up from what we did.

S1: Just to keep on doing it, I guess.

S2: Because it was sort of similar to the project.

S3: I'm pretty sure that everyone found the project interesting, so then we just kept with it because we were out of primary school.

Interviewer: Do you think you would have started the Junior Brigade if you hadn't done that project?

S2: Probably not.

S3: No. We wouldn't have really known that that it was possible to create a project like this.

-Anglesea students

Other children in the current Anglesea cohort were also planning on joining the Junior Brigade when they completed the program at the end of Grade 6.





Importantly, when they spoke about their motivation it was because they viewed it as an opportunity not only to advance their skills, but to also have fun.

Interviewer: Do you have plans to join the Junior brigade?

S1: I probably will.

S2: Yeah, I will because like what [my older brother has done] done. He's done so much different things. Like every second Thursday he'll go on like a walk and they'll get like lunch and all that and he'll go up to Wye River. And recently he just went on a massive bushwalk and they went out for dinner and they just do like heaps of things!

-Anglesea students

S1: And we also have the option of going to Junior Brigade in high school

Interviewer: And do you think you'll do that?

S1: Yep, probably, yep.

S2: Yep.

S1: And I don't know yet because I have other commitments like footy.

Interviewer: And why do you want to join the Junior Brigade?

S2: Because the CFA is fun!

-Anglesea students

A parent of one Junior Brigade member directly attributed her daughter's involvement in the Junior Brigade to the student-led active learning approaches adopted in Survive and Thrive program. She explained that her daughter had always been highly engaged by the program activities and had been excited to further her knowledge and skills by becoming a Junior Brigade member.

She was always really excited by it. Like, I think the way the program's put together really suits her as well. So, lots of talking and active learning really suits her... The fact that she's continued into her second year now as part of the Junior Brigade means that she got a lot out of the program. She owns it. I'm not forcing her to go. It's something she wants to do... It was by invitation, so if they wanted to join up and become members, they could do that. They weren't forced to do it. It wasn't part of the school program. It was something that they were invited to do if they wanted to continue their education and being a part of that community organisation. [My daughter] was very keen to get involved.

-Anglesea parent

In her own focus group interview, her daughter's enthusiasm for the Junior Brigade was evident when her and her friends explored the benefits of establishing a network of Junior Brigades across the neighbouring communities of Lorne, Airey's Inlet and Geelong:

S1: Maybe [we could] combine with other groups if there is any.

S3: Yeah, maybe Aireys CFA or Lorne CFA or Geelong.

S2: Yeah, see what they do compared to us, sharing ideas as well.

S3: Yeah, I don't think they have kids this age at theirs, so we should encourage their local CFA to encourage kids to join and learn more about it, so then when they do it they can tell all their friends and then their friends can join from all different local areas that they live in. It would be good to spread it and let everyone know what we're doing to help the CFA.



S1: Yeah, that would be good.

- Anglesea students

While teachers, program staff and volunteers made a point to emphasise that the program is not intended to be a recruitment exercise, they did view the establishment of the Junior Brigades as a valuable outcome of the program because it has the potential to strengthen the local brigades.

The first thing is the brigade's got strong. And that's been a two way street. So the brigade are really community-focused, so they saw the value in this program and they accept it and they contribute to it as much as they can, as they're volunteers. The advantage for them is also, they've got a Junior Brigade with a group of kids that are really keen to go on and I reckon, without a doubt, some of them will be career fire fighters. I've got no doubt. So the brigade have gotten some new members out of it all.

- Volunteer, Anglesea CFA

We have a Junior Group and let's face it, that's the future, that's the future of the brigade. That's the future of the community. Hopefully, the children that are doing these programs, they're still in the area, they will become members of the brigade. So therefore, that is a direct benefit, a carry on benefit. I'm sure that a lot of the children that have done the program, or [been] involved in any way, would be more inclined to become volunteers in the future. But then that's a benefit we'll just have to wait and see.

- Volunteer, Arthurs Creek CFA

Also for our kids to understand the importance of volunteering is something that I haven't touched on too. Many of them have become members, they're actually going to junior CFA. Even the ones that haven't become weekly, nightly members outside school, they have a really good insight into what the volunteering process is and the impact and how it works and how it matters and I think that's what you want - you want community minded people coming through who have got an understanding. They might not be involved as yet, but they've got an understanding and a connection.

-Teacher, Strathewen Primary School

Another identified benefit of the Junior Brigades was the potential for building sustained connections and channels of communication between the CFA, children's households and the wider community. As one CFA volunteer explained, for as long the children remained involved, there would be continued opportunities for the sharing and exchange of knowledge and information at the both household and community level.

Because the first group, as they're Juniors now, so they've still got that interest. So they're still going home to Mum and Dad and saying, 'Oh, you know, we've learnt about this and we learnt about that'. And they're talking to, you know, people that they play football with, netball with, tennis with, cricket with, whatever, and it's just this spread's starting to come through the community.

-Volunteer, Anglesea CFA



One Anglesea parent who was connected to the local brigade, noted that the program was opening up the brigade to the wider community and this had led to an increased interest in volunteerism amongst the parents. She provided an example of another parent who had attended the student presentation workshops and realised that she would have a lot to offer as a volunteer.

Just a couple of weeks ago, one of the Mum's came up to [the Brigade Captain] at the fish and chip shop on a Friday night and said - because the night before was the Grade 5 presentation - 'I'm still buzzing so much'. I just cannot believe how going to the station and experiencing that night, she had been personally feeling and she just said 'I just realised how much I would have to offer but I'd never been game enough'. And so they started having a conversation and a couple of days later she actually came down to the school and spoke to [school receptionist] in the office, who's in the CFA as well, and said 'Can I just ask you a few more questions from a female perspective, what are your views of joining the fire brigade? Because I'd never thought about it until Thursday night when I was there with my daughter'. And she was seeking out people in the community, just finding her feet a bit, and she is going to come up, she said she was going to come up, she's thinking she might have some skills...Not that when you do those nights you're expecting that you're going to start recruiting people, but it's just been, I don't know what you call that, a side effect of what's going on. The [Brigade Captain] is not walking around going 'How would like to join the fire brigade?', but people are feeling that innate thing of, 'I want to be part of this, this is something really great and I've got something to offer'.

-Volunteer, Anglesea CFA

As explained by another CFA volunteer, this increased interest in volunteerism could possibly be attributed to the way in which the Survive and Thrive program challenges public perceptions of the CFA and makes the Brigade seem more approachable and accessible to a wider range of community members.


That's an unintentional consequence I think of the program, I believe that's the case. Because this lady's not the only one who has enquired about becoming a volunteer. Another father on the same night from this year's cohort has also expressed interest. And I think it's a way of breaking down those barriers and becoming approachable, and you know, everyone sees a fire station as bigger than what it is, but I think the perception of fire stations is grossly overrated.

-Volunteer, Anglesea CFA

When discussing this unintended outcome, program staff and volunteers strongly emphasised that the Survive and Thrive program is not, and should not be seen as a recruitment exercise for the brigade. Rather, any increased interest in volunteering amongst parents should be seen as the byproduct of a program which puts children and their families firmly at the center.

### ***Strengthened capacity for effective community engagement***

Amongst program staff and volunteers in both Anglesea and Strathewen, there was wide consensus that the Survive and Thrive program has increased local capacity for effective community engagement. Not only did they consider the program to be a valid and legitimate form of community engagement, they judged it as being substantially more effective than many of the more



traditional approaches that have been adopted in the past, such as brochures and community meetings.

And the parents will say, 'Oh, I had so and so come home to me and tell me that so and so. Is that true?' 'Yeah, a hundred percent true.' 'Wow! I didn't know that'. And it's like, 'Oh, well, what? So you're telling me all the twenty seven million brochures you've had thrown at you, you still haven't worked that out? But your kid comes home from a course at school for an hour or a couple of hours on a Tuesday, and you now know that fact?' I find it incredible. I find it really inspiring to think that that one session you had with those kids has just already made a difference to an adult. And they're the ones that should know about it, you know?

- Volunteer, Arthurs Creek CFA

So, I see it that the parents seem to take more in when it's coming from their children... There's no doubt in the families, you talk to families after the workshop and you're having a chat and they're saying, 'Oh no the kids come home, and all they do is rabbit on about this and they rabbit on about that'...And it's kids getting that message out and it seems to be that the adults are actually listening. And they're not only listening, but they seem to be taking in and absorbing it better than if I'm standing on a street corner, like we used to - you know, how we used to do these bushfire talks on the street corner?

-Volunteer, Anglesea CFA

We don't do it, but we *can* call a community meeting every year before a fire season and ask people to come in and, you know, hear this, that and the other. Most of them don't come. The people that come are those, well, we're speaking to the converted. The ones who come, know about it. The ones who don't know about it, don't bother coming. So this is probably our only avenue to those people.

-Volunteer, Arthurs Creek CFA

I've actually been to quite a lot of community events and stuff like that and it tends to be the same people and the demographic. It tends to be basically retirees who will always come for a free lunch and that's the community engagement that happens. You're not getting the people that have families, that have kids at school, who are the ones that we really need to be engaging with...And we've tried different avenues but we just don't seem to cut through. Whereas with this program, when you go to the presentation nights and the families are there and the kids are spruiking fuel reduction burning and they're spruiking fire plans and kids are getting parents to talk about their plans... it's pretty amazing.

- Emergency management staff, Anglesea

Program staff and volunteers provided a range of reasons for why the Survive and Thrive program has provided a more viable approach to some of the more traditional approaches they had employed in the past. Some participants explained that the busy lifestyles of local families are not conducive to traditional modes of community engagement and that empowering children to become educators and advocates increases opportunities for reaching this particular demographic.



They're funny communities along the Surf Coast. Anglesea is a bit different but as you get further down the coast there's a lot of absentee landholders and it's really hard to engage with people. And the people that have kids tend to be the people that work locally - they might be builders or whatever - and they can be difficult to engage with as well because they are quite often working, so that opportunity to tap into the kids and the kids can be advocates for risk reduction and shared responsibility and that if we want to live here then fire is part of that landscape and getting that message from the kids, I think, is pretty amazing.

- Emergency management staff, Anglesea

I've been to plenty of those 'Be Prepared' bushfire presentations, where the CFA person, who's been trained up in a room of other people has to deliver the message in the order the message has been written down and the people who are there in the room are the ones who probably don't need to be there because they've probably been to every other one and they only go to do the right thing by the local brigade. And then the vast number of people don't show up because they're too busy. But you hold a school meeting and you'll get all the parents and all the grandparents and everyone comes to see what they [kids] do and they talk. You know, they'll talk with the CFA people there and in that context, you can present all sorts of stuff to a massive audience that you never get at through those other things, you know.

- Volunteer, Strathewen Bushfire Relief

A parent in Strathewen strongly agreed with that assessment:

I think there's a bit of a disconnect going on... And it's nothing to do with the CFA and their issues. It's to do with just lifestyle. People's lifestyle on the urban fringes, they're just too busy. They don't think about CFA. They don't think about the job they do. If the CFA's in the school with the kids, working with them, teaching them, the kids are taking it home. They're going, 'Hey Mum, hey Dad'. You know, people that have no care at all, they're going 'Hey, this is what we're learning and, you know, so and so from the local CFA's come in and, you know, he just, he's also in the football club'. I don't know. They're bringing that connection back and I think that's so important.

-Parent, Strathewen

Some participants attributed the effectiveness of Survive and Thrive to the fact that it is community-based: it is designed and delivered by local people in local schools and is very much focused on the local socio-environmental context and as a result, it is highly relevant to the local community. As one participant explained, having local experts support local children to become educators and advocates grounds community engagement in the needs and priorities of the local community which in turn, increases capacity for effective community engagement:

The other thing of course is, and I'm a believer in this, is that the community's trying to make it happen for itself. And you use the CFA people as experts, then that's also a lot more powerful way of doing it. So, whether it's through the school or whether it's through our fire groups, you've got a bunch of community people taking responsibility. If it's a group from the school or a group of kids, that sort of stuff grounds it back in your own community. So, the stuff in the CFA packages is terrific but I just reckon there's better ways of people engaging with it... The difference is when you go to a Fire Ready meeting, there's a person



who's delivering a package and they've kind of got to get through it and you've got a small amount of time and it starts and it finishes and it's all over and everyone walks away. And there wouldn't be much sort of further thought about it. With something like this, when you're doing it through a school, not only are you reaching lots and lots more people, but they're much more likely to talk about it because the kids are talking about it.

- Volunteer, Strathewen Bushfire Relief

Volunteers and teachers in Strathewen also suggested that in the post-fire context, Survive and Thrive had been an effective way to bring the community back into conversations and discussions about local bushfire risk and bushfire safety. They felt that in a community that had been so heavily impacted by the Black Saturday fires, standard approaches to community engagement would not have worked. Rather, a very non-threatening, gentle approach was needed and Survive and Thrive provided this.

I think it's an area that people are really nervous about, especially in our environment after 2009. They're really nervous about whether you're doing the wrong thing or the right thing, including us. Including us. From a psychological level, for everybody. Because, you know, they have been through the worst thing that they will ever be through probably in their whole lives. And at what point do you come in and put together a claymation that talks about leaving early, you know? What do the FDRs mean, you know? And it's because it's so gentle and the approach was always to go very gently, so no one feels intimidated. I shouldn't say it because this only the impression I get - [but] I don't feel like we've stood on toes at all.

-Volunteer, Arthurs Creek CFA

I think we've brought along a lot of families who had huge post trauma issues. We've scaffolded them quite a bit too and helped bring them back in discussion. And seeing them turn up to the kids' presentation events last year, that was huge because a lot of those people would never have attended one of those before because they weren't in the headspace to do so and I think we had great success.

-Teacher, Strathewen

We have people who are deeply impacted by Black Saturday, deeply impacted, so having them sitting there and talking to the kids doing stuff and learning stuff and the kids are prattling on and seeing some of the stuff. Think about the Claymation. You have the parents going there, the whole lot [of them] lived through hell. And here the kids are doing their innocent little claymation about fire danger and what that means and you know, the danger days and the weather and that type of deal. For them to be sitting there, that's massive.

-CFA staff, Anglesea

By any standard, the community event at which the children presented the products of their learning was a resounding success. Sources in Strathewen estimated that approximately 80 people attended the student presentation workshop and many of the attendees had no direct link to the school: that is, they were not parents or relatives of the Survive and Thrive student cohort, but



members of the wider community. Thus, while the program had been always been focused squarely on the needs of the children and their families, it had also increased capacity for community engagement at the local level.

And so, when we open up the presentation night to whoever wants to come, we had probably 80 [people] there, which was fantastic. There was no expectation put on anyone. They were just to come and enjoy what the kids had achieved that year. And, and I think that without people realising it, it promotes a sense of positive feeling. It promotes well-being. You're sitting alongside your neighbours enjoying an experience that these school kids are having.

-Volunteer, Arthurs Creek CFA

P: I think the second one we had like a community [event], it was at the hall. We had the whole community. We invited the whole community. Everyone in town was invited. So, it wasn't just the parents of the school, it was everyone got to see what they'd been learning, you know?

Interviewer: And did you have people come along that didn't have kids at the school? Or didn't necessarily have direct connections to the school?

P: Yeah. Yep. Yeah, absolutely. Which was fabulous, you know? I guess, you know, I guess we're quite a tight knit community anyway, but you know, that doesn't mean they have to come along to everything that we do. And they definitely did. We had a really good crowd. It was excellent.

-Strathewen parent/Arthurs Creek CFA Volunteer

This community night we went to last year, where the children demonstrated their knowledge, there were a lot of people there. And they weren't just people I knew. So, there are a lot of community parents and neighbours there who are there because, you know, they were interested in the program and really interested in what the kids were learning.

-Volunteer, Arthurs Creek CFA

### ***Strengthened relationships between agencies and schools***

Amongst the participants in both Anglesea and Strathewen there was a strong sense that the program had supported and strengthened meaningful relationships between agencies and the school community:

I think an absolute bonus would be the amount of community strengthening and unity that's come out of it and so many different connections - our kids with CFA brigade members, with older, different, all manner of locals, our kids with one another.

-Teacher, Strathewen

What it does is strengthen a relationship. And by the time we went on camp<sup>6</sup> with the kids, we were like good mates. It was absolutely fantastic. And so that automatically reflects on the community because when you've got two people who get along really well from two significant organisations within a community, being our fire brigade and the school, it's already a positive.

-Volunteer, Arthurs Creek, CFA

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<sup>6</sup> As part of the program, the Strathewen children travel to Anglesea where they stay at the YMCA camp and spend time with the Anglesea students.



For us, we see it as a segue way to really establish relationships with the school that are more meaningful beyond a [tree] planting day...the school's directly opposite our depot so we really want to be part of fostering that relationship with the kids... What we're doing now, I think it's really good, like the kids walk past the depot and yell out at the guys, and you get to know the kids well.

- Emergency management staff, Anglesea

Importantly, these strong relationships were seen as having significant benefits. One volunteer at Arthurs Creek CFA explained that because of her close relationship with the Principal, the school now had an advocate within Brigade.

And it's kind of lovely that result, that relationship, if it works, you know? Like I'll find I'll go into a brigade meeting and I'm in there battling for one of our schools. You know, so, we'll have listening sets come up and we'll talk about the fact the school should have one. And so, automatically, then they have a person in there battling for them. So I'll say, 'Well as a brigade, who's going along fine at the moment financially, why can't we permanently lend a listening set to each of the schools?' [It's] Subtly, subtly. It's not a grandstanding. But as soon as something comes up where our schools are involved, our radar turns on.

-Volunteer, Arthurs Creek CFA

The development of strong relationships between the schools and the brigades had provided opportunities for students to establish intergenerational connections with CFA volunteers. As reflected in the extracts below, these connections were highly valued by students, teachers and CFA volunteers alike.

[CFA staff member] is just a wealth of knowledge but we've got local knowledge too and all of our locals have jumped on board. The 'Slave Day' or 'Community Helpers Day' officially, but to see oldies and youngies and all sorts of people coming along to be part of something that big, that just blows me away, each time. That's four days we've done now and each time I get home and think yeah that was really special. So much good and so many welfare boxes are ticked with something like that - kids coming along and feeling part of community and feeling connected, you lower your risk of so many things, on a welfare and well-being side.

-Teacher, Strathewen

You develop a relationship with the teacher and the kids and you go through a process of actually dreading the fact the program's going to finish and you're going to lose those Grade 6's that you've had a great year with and you're actually knowing you're going to miss them...And it's really nice in itself. So I'll catch up with some of those kids at our memorial, our Black Saturday memorial. And, it's a really lovely thing. You catch up with these kids that you spent a Tuesday with for a quite a long time and... So all those little things. And even other people seeing that interaction, that's got to be a positive in itself, you know?

-Volunteer, Arthurs Creek CFA

And you see kids now, like I was at the athletics in Melbourne a few months ago and one of the young guys was there and I saw him, and I went up and said





'How you going?' And anyway, we're chatting away about a bit of stuff and he just started talking. And he knew me through this, but I just treat him like an adult and he just spoke back nicely the same, you know? And those kids now, if I see some of them, they'll always say, 'Hello, how you going?' and 'What are you doing?' And I don't see them all that often, but if they know that you're there, they see you, they don't just walk away. They acknowledge you. And yeah, it's really big that development. And I know that's not the intent of the program, but it is a by-product that's valuable.

- Volunteer, Anglesea, CFA

I know some people now who are involved in the CFA who I didn't know before joining and I can kind of go to them for help because there's [veteran CFA volunteer] who lives up the road from me so I can go to him for help and know that I feel safe when he's there because he's part of the CFA. So, it's good to have other locals that are CFA people and they know what to do and you know who they are and where they live.

-Anglesea student

### **Strengthened relationships between agencies**

In Anglesea, where multiple agencies have been involved in the design and delivery of the program, there was evidence that the program had provided an opportunity to strengthen relationships between those agencies. Program staff and volunteers reported that at an agency level, relationships between the local CFA Brigade, DELWP and Parks Victoria had been relatively strong before Survive and Thrive was introduced: however, the program had provided valuable opportunities to establish and strengthen relationships at a personal level:

So like I say, we did have a pretty good relationship to start with. But for me personally being in the Survive and Thrive Program, I've built relationships with like, the [CFA] Captain and the other guys and we're on a first name basis.

-Emergency management staff, Anglesea

For me personally, [there are] people that I didn't really know in DELWP prior to the program but after them being involved here, on the fireground, I'm on a first name basis with them now.

-Volunteer, Anglesea CFA

This strengthening of relationships was seen to have multiple benefits: it had allowed staff and volunteers from different agencies to develop a better understanding of each other's strengths and weaknesses; it had increased opportunities to learn from people with different skill sets; and it had promoted a sense of trust and respect between individual staff members and volunteers. As staff and volunteers explained, this all had significant implications for interoperability on the fireground:

It's only when I go to fires or burns in other areas that I see how lucky we are to have such a close relationship with our community and CFA. Like, it's not about who's in charge - it's about, you know, we're all working together to put out the fire...That we're all here working together for that same outcome and the best



way to do that is to recognise each other's strengths and weaknesses and to know each other and to respect each other...If you're all turning out to the one fire and you're all from the one community, but you actually never talk to each other, and you're meant to just be one team fighting a fire? Comparing that to [when] you're all rolling out to the fire, you're pretty much all on first name basis, you know each other's experience and you know each other's strengths and each other's weaknesses. How much more effective are you at combating that fire?

- Emergency management staff, Anglesea

Well, it allows us to have is trust of other agencies. So, when there are other burns being done out the back here, they ring us, and they have done, but even more so now, so that we can send people that maybe wouldn't have gone previously because that trust is there. Things like 'Well we can't send a truck out there now but we will send a slip on with these two people' 'Oh yeah, that's no problem, send them out'.

- Volunteer, Anglesea CFA

One local fire manager also suggested that in communities where inter-agency relationships are weak, a program like Survive and Thrive would offer a valuable mechanism for building and strengthening those relationships, thereby supporting the 'Safer Together' framework.

It all comes back to [how] they're really promoting and working towards this 'Safer Together', which means this inter-operability. So, you know, it's just something that really works for that. So, there's huge benefits - it's not just about educating the kids, there's huge benefits community-wise to the program. And, yeah, like I said, because Anglesea, and we have Aireys and Lorne, like the coastal group, we're pretty close how we work together and the relationships that we have but that doesn't mean that sort of relationship can't grow in other communities. And the Survive and Thrive Program would be a really good catalyst for that because, you know, you're bringing in people from the CFA, from Parks Victoria, from DELWP, to all be a part of the program. So, you know, you're just building those relationships.

- Emergency management staff, Anglesea

## **PROGRAM SUSTAINABILITY IN ANGLESEA AND STRATHEWEN**

Amongst program implementers in both Anglesea and Strathewen, there is strong support for the continued delivery of the program and the evaluation identified some key factors that will support the sustained implementation of the program in these communities over the longer term. These factors include:

- The community-based partnership
- The specialist expertise of the Program Lead
- The continued support of agency staff and volunteers
- The continued support of teachers

Each of these factors and their relevance to the sustainability of the program in Anglesea and Strathewen are discussed in detail below.



### **The community-based partnership**

From the perspectives all program implementers, the foundation for the sustainable implementation of Survive and Thrive is a strong community-based partnership that has the full commitment of brigade and the school:

I think unless you've got the [brigade] liaison with the school and have the support of the school, it's not going to work.

-Volunteer, Arthurs Creek CFA

So the brigade are really community-focused. So they saw the value in this and they accept it and they contribute to it as much as they can as they're volunteers.

-Volunteer, Anglesea CFA

The school needs to take it on and take it on seriously, because they can't take it on half-hearted. It's either in the curriculum or it's not. If it's in the curriculum, then they need to be supportive of it, which we're really lucky here, our teachers that we've got are just fantastic.

-Volunteer, Anglesea CFA

Our local fire captain he's been so supportive too, the whole brigade has and that's been important.

-Teacher, Strathewen Primary School

At Anglesea, the community-based partnership between the brigade and the school was established in a meeting involving brigade members, the school Principal and the full teaching staff. Together, they explored what the program might include and how it would be integrated into the school curriculum. The decision to include the full teaching staff in this initial discussion was identified as a key factor in the long-term sustainability of the program. As one teacher explained, programs in schools come and go, but gaining the support of the full teaching staff - including the lower and middle primary teachers who would not directly be involved in program delivery - had enabled the kind of whole of school buy in that supports sustainability:

As a teacher you have probably 30 new things thrown at you a week and you can't be passionate about all of them, stay with all of them. So for it to have the longevity that it's had... A lot of things come and go really quickly, *really quickly* in teaching, and you go 'Oh we were really hammering on that and now we've moved on and we don't even do that anymore, we do this now'. So the fact that we all came together in the beginning there was some solidarity around that from the very beginning, which I think was really helpful because I think if all teachers hadn't been in the loop and talked and all that to start with, it would have been another one of those things.

-Teacher, Anglesea Primary School

At Strathewen, the importance of the school-brigade partnership to the sustainability of the program was repeatedly emphasised by CFA volunteers and teachers alike.



My advice would be, that somebody from the brigade has to be a key person and obviously a key person at school, whether it be a Principal or a head teacher. You've got to start off with a good relationship there. That's the only way it's going to work. You've got to trust each other.

-Volunteer, Arthurs Creek CFA

Underpinning everything is having a really good relationship with our local brigade, our wider community and that's evolving, that's strengthening all the time and our families and experts outside, to have a healthy working relationship and to sort of have nussed out where it is you want to go.

-Teacher, Strathewen Primary School

At both Strathewen and Anglesea, the community-based partnerships have provided the architecture for designing locally relevant program activities. While the Survive and Thrive program has overarching objectives, program implementers agreed that the activities for achieving those objectives should not be imposed upon a community by external agents. Rather, through the community-based partnership, the local brigade and the school collaborate to formulate activities that are tailored to the local social and environmental context, draw on the assets and strengths that exist in the community, and engage the needs and interests of the students. Through this process, the school and brigade take ownership of the program, which promotes sustained program delivery.

It would be a mistake to write all this down. To say, there's step one, two, three, four, five and then you go off and do the steps. There's something I think about the school and the kids and the CFA people working through it together. Planning how they're going to do it. The idea of going to the reservoir in the CFA tankers and all that sort of stuff, you know, that's related to our area. You've kind of got to think about, 'Well, what's there? How will we make this ours? How will we ground it in local experience and local people?'

- Volunteer, Strathewen Bushfire Relief

It has to be community-centered. They have to decide what they want. And the whole program, if it's to go ahead, it has to be community-based, not a program that is stipulated by the CFA [headquarters]. It has to be self-managed, self-planned and self-run by the school and the community because every community is different. So, you can't have a set program, simply because [of] the difference in communities, different places. It has to be managed from the school and the local CFA with the help and support of the CFA [headquarters]. A community-based program run by the local CFA - that's where I put the emphasis on. It has to be local. It has to be community-based. Not stipulated. There can't be a set program.

-Volunteer, Arthurs Creek CFA

If you're going to develop a program like this, number one - it relies on good relationships, and number two - it needs that ability to be organic and follow a bit of a tangent...I reckon part of it is being able to do it organically to a certain degree, so whether that's a strength...well yeah, we've just been able to sort of explore stuff. So yeah, I think the strength of it is that we're able to take those tangents and adjust and modify and go with stuff.

-Volunteer Anglesea CFA



I think the nice thing about our Survive and Thrive - the Strathewen angle - was that it evolved. It was very much based on where the kids were at and what we thought [the] local need was and we owned it. I think that's a really important thing for a community to feel like they're driving it, developing it and you haven't lost control...The way that it evolved and worked we could stop things if we didn't feel they were okay and change things. That was really important. I think its relevance and flexibility for us - that we were able to tweak it and tweek it and really make it work for us and keep it really relevant to our families, our communities and head in directions that became apparent and important as things went on.

-Teacher, Strathewen Primary School

### **Specialist expertise of the Program Lead**

In both Anglesea and Strathewen, program implementers identified the specialist expertise of the Program Lead as an integral factor in the sustainability of the program. However, data from interviews with program implementers suggests variation in the level of involvement that will be required for sustained implementation in the two program schools. In Anglesea, the Program Lead plays a significant role in the program activities, including the design and delivery of weekly Bushfire Behaviour and Resilience Sessions and the coordination of other agency staff and volunteers. There was a sense that the sustainability of the program in Anglesea is dependent on the Program Lead being able to provide this current level of support. At Strathewen, by contrast, the program is now running relatively independently. While the Program Lead provided a high level of support while the program was being established in the first year of the pilot project, the school is now striving to become as self-sufficient as possible. As one Strathewen volunteer explained:

We needed to do this independently. We needed it to fall on us now. We'd had a year and we knew the direction. We knew the objectives of the program. We also knew what our kids needed and what direction we needed to take. And we needed to be in control now.

-Volunteer, Arthurs Creek CFA

For this volunteer, building local capacity to become self-sufficient was essential to the ongoing sustainability of the program. Under this model, the Program Lead provides the necessary support and guidance to establish the program and then the responsibility for program delivery shifts to the teachers and volunteers at the local level. While the Program Lead remains available to provide ideas, support and guidance when needed, the community takes ownership of the day-to-day program activities:

You know that idea of teaching a person to fish and they'll eat for life, give a person fish and they'll eat for the day? It's exactly the same concept. If you encourage them to be as self-sufficient as possible and to take full responsibility, you're going to have a far better program than if someone comes from a long way away, from outside, to direct them. It's never going to be sustainable. My main thing though is that I really think the key is making a community as self-sufficient as possible and offering whatever support wherever it's needed. Once they've agreed that they want to go with it, give whatever support you can



and then at every opportunity, touch base to say, 'Are you right with that? Do you want a hand?' 'No, I think we've got it.' 'Fantastic. You know where I am. Give me the heads up if you want me to give you a hand with something.' So, they run with it. And they achieve from it. And then they gain some momentum. And the communication continues.

-Volunteer, Arthurs Creek CFA

While the Program Lead continues to provide a high level of support in Anglesea, one Anglesea teacher did suggest that teachers, agency staff and volunteers will become more self-sufficient over time, which may enable the Program Lead to redirect time and resources to establishing the program in other schools.

Especially as time goes on because at the start of the program your reliance on [the Program Lead] is quite massive but maybe as you get down the track more you can go 'Well now [they] could facilitate four schools instead of one'.

-Teacher, Anglesea Primary School

Importantly, in both Strathewen and Anglesea, program implementers emphasised that continued access to the specialist expertise of the Program Lead would contribute to the continued effectiveness of the program, regardless of the level of self-sufficiency achieved. As one teacher at Anglesea pointed out, teacher turnover within schools would require the Program Lead to provide increased levels of support at different stages over the life of the program.

You're always going to have new teachers, so if you don't have your [Program Lead] you're going to have people floundering with what they're supposed to be doing.

-Teacher, Anglesea Primary School

Another volunteer at Strathewen suggested that once a community has become relatively self-sufficient, ongoing communication with the Program Lead would allow for the cross-fertilisation of new ideas and innovative practices across program schools.

[The Program Lead] could show [us] examples of what other communities are working on. Maybe even give contact numbers. You know, 'Listen this group's done this. Feel free. I've spoken to them. She said, ring her any time if you want to discuss your community and what direction you want to take.' The idea part of it is often for a lot of people the hardest thing to come up with. You know, to put it out there and say, 'Hey! You know, why don't you do this with your school?' And it's like, 'What a great idea!'

-Volunteer, Arthurs Creek CFA

The key finding here is that different communities will likely require different levels of support from the Program Lead over the life cycle of the program and providing communities with the right level of support at the right time will be essential to the program's sustainability in any given community.



I think every community is going to want a very different level of support. Some will want someone to be there giving lessons every week. Others will want a support they can just call at any time and ask for advice. Others will want to just take it and run with it. And so that's where the program is going to have to, in my opinion, have a massive amount of options to fit all the different communities.

-Volunteer, Arthurs Creek CFA

### **Support of agency staff and volunteers**

As highlighted in the earlier discussion of program outcomes, the contributions of agency staff and volunteers to the design and delivery of the program have been fundamental to the quality of the children's learning and the overall success of the program. As such, the continued contributions of agency staff and volunteers to the program will be a key factor in program sustainability. From perspectives of teachers in both Anglesea and Strathewen, the ongoing commitment and support of agency staff and volunteers will be essential:

I think local community drivers, within the school and from outside, having someone with that passion to really get behind something and chase funding and all those sorts of things, having a [committed local volunteer] on your hands, having the local experts that you and tap into and then your outside local experts. Having the brains behind getting something going, having your [Program Lead] and your [agency staff] and your [local volunteer] to really support it because the school world is a pretty cluttered and hectic one so having that amount of support from outside is huge. It's a team.

-Teacher, Strathewen Primary School

You definitely need experts to work with you and then of course, once I've been learning and I'm then more confident to do follow up and sometimes students ask questions that I wouldn't have the answers to, so you need someone that knows their stuff.

-Teacher, Anglesea Primary School

Amongst the agency staff and volunteers there was a high level of commitment to remain involved in the program and this commitment stemmed from a strong belief that the program delivers significant benefits to the children, their families and the wider community. In both Anglesea and Strathewen, there was at least one local CFA volunteer who was investing a substantial amount of time in the program - anywhere up to one day per week, sometimes more during busy periods (e.g. in the lead up to student presentation workshops or when funding applications were due). These volunteers, referred to as 'key drivers', were viewed as being essential to the sustained implementation of the program.

You've got to have a key person. A key driver. At least one, but hopefully a couple. So we have a key driver. She gets it. She's excited about it. She's enthusiastic about it. She follows stuff up. She makes things happen. So I think you've got to have a person like that. And it's terrific that she's a community person. She's from the CFA side of things. Because it can work when there's a school person doing it, but they've got a lot of things to keep their eye on and a



project like this just becomes one of the millions of things. But someone like our key driver, she's got her focus on that. So, I think that's a key part of the success.

-Volunteer, Strathewen Bushfire Relief

In addition to the key drivers, program sustainability is augmented by the contributions of other volunteers who play a less time intensive but highly valued role. In Strathewen, for example, local CFA volunteers are invited to attend 'Community Helper Days' where they assist the children with their creative arts-based projects. There is a high level of enthusiasm for these community helper days within the local brigade and attendance has been growing from year to year, which bodes well for the sustained implementation of the program.

From our point of view, it's really good to see it, to be in the school, to feel the vibe of the school. To connect with the children on that level is very special...It was fun! And the kids felt it was fun. And it was mixed group of some people there. There was some Strathewen and some Arthur's Creek. And then of course, some of us could stay all day and some of us couldn't. But from that point of view, it didn't matter. Everything was accepted. The kids, I'm sure, would feel special that they could have all those adults give up their time for them.

-Volunteer, Arthurs Creek CFA

We were very careful for our first year and everything was run by [the Principal] to make sure she was comfortable with who was coming in and out of the school. And we had probably fifteen visitors from all over our community arrive and were told what to do for a few hours by our kids...And it was so successful that we have had to run two of them this year. We've got two coming up. Within no time of me advertising it within our brigade, I had too many people wanting to be involved. So, that gives you an indication of what the community is thinking so far.

-Volunteer, Arthurs Creek CFA

In Anglesea, staff members from other local emergency management agencies - primarily DELWP and Parks Victoria - also provide in-kind support for program delivery by facilitating Bushfire Behaviour and Resilience Sessions with students. Depending on the staff member, this in-kind support has ranged from a couple of hours a year to a couple of hours a month. Importantly, these in-kind contributions have had the strong support of management within the participating agencies.

If it's not myself it's been my staff and we've been pretty active in terms of encouraging the involvement in the program. And I've encouraged the guys to be really active and part of that program...I think it's really good that the stuff we're doing with the kids, it's just stuff that sort of grown organically and now I really push with my team that we make ourselves available and I'm really keen to keep pushing that along. I just think it's incredibly valuable...I see it as a priority for my staff and they're instructed to, well I don't have to instruct because they want to be a part of it, but we always try to be as accommodating as we can to this program.

-Emergency management staff, Anglesea





My superiors are very supportive of me being involved in the program and really see the benefits. So we have wholehearted support from both DELWP and Parks to be involved. So, to spend our time with them and also spend our resources with them. So, yeah, it's definitely, it's because it's has been whole heartedly supported that it works. And like in my work plan, I have that I will spend, you know, roughly this amount of hours with this program.

-Emergency management staff, Anglesea

Importantly, the staff members themselves are strongly committed to the program and highly value their involvement in it.

For me, I've enjoyed it and they [the children] just bring a lot to it. They ask good questions and they bring an enthusiasm to it. I think it's been a really unique program and I love being involved. And I think most of the people that hopefully have been, love being involved too. I think it's been positive for everyone in that sense.

-Emergency management staff, Anglesea

I really love teaching and I'm really passionate about the program.

-Emergency management staff, Anglesea

Moreover, they see a close alignment between their participation in the Survive and Thrive program and the broader frameworks that are guide current policy and practice within their organisation, such as 'Safer Together', which further supports their ongoing involvement in the program.

Well, for, like my perspective, and [my organisations] perspective, it slots so well into the Safer Together program. We are all taking this real interagency approach... And there's been a big shift in the past sort of twelve months to really engage with the community and be a lot more - what do the community actually want from us as fire agencies? So yeah, it just, it fits in so well with the direction that these agencies were taking. This kind of program, it just ticks all the boxes.

-Emergency management staff, Anglesea

I guess it's probably within my team sort of charter if you like or our direction to contribute back to the community. So, it's kind of aligned with our team values if you like anyway...The team I'm in, a big part of our role is dissemination of information and working with community so they potentially understand their risks better themselves. So yeah, this fits pretty neatly within that. I suppose a lot of our stuff is more around adult education or adult...working with other adults in communities but it's definitely not a stretch for me to be involved in the program.

-Emergency management staff, Anglesea

I mean, particularly with this current government, the Andrews government...I mean, maybe it changes from government to government a little bit, but I



mean they're all about community-centred and place-base engagement. It's within our mandate I guess to do some of this.

-Emergency management staff, Anglesea

## Support of teachers

In both Anglesea and Strathewen, teachers expressed a high level of support for the sustained implementation of Survive and Thrive in their schools. There were a variety of factors underpinning this high level of support. Teachers at both sites believe that the program is providing their students with a learning experience that is highly relevant and meaningful in the context of their own lives.

Our program has had a very local focus which I think has been the key...It's local, it's learning while doing. It's been the experts coming in or [us] going to them. The kids have learnt alongside really incredible community members and experts. So, I think being able to get your hands on this equipment that's worth so much money that our kids would never have touched, and to be able to use it and talk it through, explain it and then have the job of teaching. For the kids to master these skills and then be given the important role of informing the community, it's very valid learning. It's real learning in the real world. They've been able to take it on board, apply it to their lives, talk about it at home, and sell it to the local community and beyond.

-Teacher, Strathewen Primary School

I've watched these students thrive and really blossom with confidence and knowledge because this project allows them to explore all areas of the curriculum in an environment that is real and meaningful, as opposed to theory and scenarios...they are able to try things out for real.

-Teacher, Anglesea Primary School

In Anglesea, one teacher also explained how the program had become a part of the school culture, with younger students and their parents looking forward to the time at which they will be inducted into the program:

I've taught the little kids [and] they're looking forward to the year that they get to it. It's almost like a rite of passage. I keep going back to that heartfelt stuff. It's become a bit tribal or, I'm trying to think of the right word for it, where kids and families are like 'We can't wait to get up to that bit so that then our kids will be part of it'. So you think with that sort of drive behind it with parents and families, as well as staff, you'd like to think that with the resources it could always continue to tick over.

-Teacher, Anglesea Primary School

Teachers in both Anglesea and Strathewen also emphasised that a program like Survive and Thrive would remain highly relevant in their communities: there was a strong sense that by empowering children with knowledge and skills, this program has the potential to reduce local bushfire risk, both now and into the



future. As such, they expressed strong support the continued implementation of the program over the longer term.

I think knowledge to understand the science behind bushfire and all the factors that go into making a fire danger rating, determining what it is...For a lot of adults pre-Black Saturday, if we'd had that knowledge, I guarantee a lot of people wouldn't have stayed... Even as our own disaster becomes further and further in the distant past, I think looking at where we live and climate change issues, looking at the changing way that we live further out in high risk areas, it's important learning.

-Teacher, Strathewen Primary School

Well, I imagine coming to the 30th anniversary of [the program]. I see that there would be no reason why it should finish, apart from obviously like what you say, resources. Because unlike other things, you might learn about some digital thing, the latest thing that the kids are into, and then that moves on really quickly. This town is always going to need people who are fire savvy and understand how to survive in their environment. That's not going to change. So the program will evolve and change but it would be amazing if it were still here.

-Teacher, Anglesea Primary School

A major theme emerging from the interviews with teachers was related to how readily the program activities could be aligned to the curriculum. Given that an overloaded curriculum is repeatedly cited as a major impediment to the delivery of school-based DRE, this is a significant finding. While the Australian Curriculum now includes a unit on bushfires in Grade 5 geography, teachers had found myriad links across other parts of the curriculum, including but not limited to the STEM subjects (Science Technology, Engineering and Maths).

We've got a Principal who is highly committed and believes it's really important and as a staff member I also had to commit to the 2 hours a week, but it's been well worth it, you know? It covers so much of the curriculum anyway, but in a more authentic way.

-Teacher, Anglesea Primary School

It covers so much of the curriculum...It's science, it's technology it's engineering and it's maths...If you actually got the Victorian curriculum out [to see what] the CFA project would cover, you'd find something in every area of that curriculum.

-Teacher, Anglesea primary School

It covers *stacks* of the Victorian curriculum... STEM in the outdoors is the buzzword at the moment. It's geography and the technology side of things, using machinery and equipment. There's a mass of things involved - there's art, design and tech, all those sorts of things as well. Your science is huge...There's that disaster element in geography but it's also all [of] that geospatial stuff in Geography as well when they're map reading and out there doing orienteering projects and things using their map reading.

-Teacher, Strathewen

The big thing that I've come to realise about it is just how much curriculum it covers. So in the beginning people always go 'Oh, how could you possibly do



that?' and a good example was when we presented at the Geography Teachers Association thing a few weeks ago, we had lots of people come up to us afterwards and say to us, 'We would love to do something like this at our school but we couldn't sacrifice two hours a week'...I think teacher's just go 'We can't fit it in' because that's what teaching feels like all the time - you can't fit it in. But it's just reshaping what you're already doing and you're doing it in a more authentic, engaging educational way with a project, and the kids can see that following through.

-Teacher, Anglesea Primary School

When you look at it, like the civics and citizenship section of the curriculum, stuff like that, you're thinking all those things. It's not just the reading, writing, maths, but you're also thinking of the big picture with how this connects to the local station.

-Teacher, Anglesea Primary School

One teacher explained how the program had provided opportunities to address areas of the curriculum that she had been struggling to address in an authentic, meaningful way. For example, she had been able to cover the Australian Curriculum cross-curricular priority on 'Aboriginal and Torres Strait Islander Histories and Cultures' through the Survive and Thrive program.

Now we're into it as teachers, everything that happens we go 'Oh that could be CFA!' or we go 'Well that goals already been ticked off by CFA, all the kids already know that geography, that mapping, that history'. The Indigenous side of things has been a huge one because that's become really big in the curriculum, you know, how are we going to fulfill this new Indigenous curriculum thing" Oh, well we've just done a smoking ceremony out in the bush and we've just done indigenous plants. It all fits in. So yeah, I think that for us, it was a learning curve at the beginning, but now it has just become a natural thing that we just think like that now.

-Teacher, Anglesea Primary School

In Strathewen, a teacher had been surprised by how much of the curriculum she had been able to cover through the program. When asked to identify any unexpected benefits of the program, she responded:

Probably the amount of curriculum content we've managed to address, often inadvertently. I wouldn't have expected it to be of that scale, but we've covered so many outcomes that I didn't think we'd be touching on.

-Teacher, Strathewen Primary School

Another factor contributing to teachers' commitment to the program was related to the way in which it had gone beyond the curriculum to support the social and emotional development of their students. In Anglesea, teachers emphasised the benefits of the program for promoting student well-being and highly value this aspect.

Maybe I'm using the word curriculum too much. I think what I mean is that there's all those curriculum aspects to it, but all those other things, like the kids well-being and all those emotional things. It's all part of it.



-Teacher, Anglesea Primary School

It goes beyond Maths and things like that. It's also that personal learning and that speaking and listening and that confidence and stuff that it gets into the kids as well...[And] teamwork because they actually have to commit to something and present something and modify it.

-Teacher, Anglesea Primary School

In Strathewen, the way in which the program had supported social and emotional development held particular significance. One teacher lamented that she had not had access to a program like Survive and Thrive in the earlier phases of the recovery process. She explained that the program had supported her students to regain a sense of safety and control, which she identified as a fundamental precondition for effective learning in a post-disaster context:

Last year, when we were well into the thick of this program, I remember sitting back and thinking 'If only I'd been able to offer something like this from about 2011 onwards'. I wish for those kids who had really experienced disaster-related trauma, I think it could have made a real difference to some of those guys who are now exiting high school. They've all gone on and done really well, but it would have been a strengthening program for them. And another thing that put us in good stead for managing a school post-disaster is if you don't get the welfare and safety and well-being bit right in kids, the learning is not going to be what it could be. If they feel safe and like they're in control and that they've got a handle on their world and local environment and their place in space and where they live, you've got so much of a launch pad for learning.

-Teacher, Strathewen Primary School

Finally, all of the teachers expressed a strong commitment to the sustained implementation of the program in their schools because they felt it had successfully addressed and responded to the diversity of needs of all learners, including students with diagnosed learning disabilities.


One of my most passionate things about this has been watching kids who I've had diagnosed through the years with learning disabilities completely shine in this course and in this program....You really would not believe it. If you'd asked me in prep would that kid be doing that now I would have said no, and I believe that being part of that program was a huge part of that'.

-Teacher, Anglesea Primary School

Students who may have struggled with learning in the classroom, for various reasons are truly engaged because they see the value and a connection to themselves and their community.

-Teacher, Anglesea Primary School

Taken together, these findings suggest that program implementers strongly support the sustained implementation of the program in both Strathewen and Anglesea. The program is highly valued by agency staff, volunteers and teachers, all of whom are highly committed to ensuring the continued delivery



of the program. In Anglesea, sustaining the program in its current form will likely require the continued provision of a high level of support from the Program Lead, but as will be discussed in the proceeding section on scaling up, maintaining this high level of support may have significant benefits.

## PATHWAYS TO SCALING UP

Given the wide-ranging positive outcomes of the program in both Anglesea and Strathewen, some discussion of possible approaches to scaling up the program is warranted. Amongst program implementers, there was strong support for scaling up the program to other bushfire prone communities in Victoria:

I hope it's expanded. It should be a natural part of every curriculum. Well, especially in bushfire prone areas. And if it's run by the local CFA in each of these areas, then that is definitely what should be done.

- Volunteer, Arthurs Creek CFA

For me, one of the things that I would really like to see, I'd like to see every rural brigade be able to be in a position to be able to deliver the program.

-Volunteer, Anglesea CFA

Why not reach beyond our school? We know we are doing great things here but if we can take that out a little bit further and maybe encourage others. Because the curriculum is cluttered and school is a pretty hectic for people teaching and leading, particularly in small schools, but if we can show that it's doable and have a bit of a model that can be tweaked, adapted, revamped, then we've had a broader impact [and] made a difference elsewhere. Then hopefully we're equipping another generation somewhere else or having a little hand in keeping that on the table for kids elsewhere.

-Teacher, Strathewen Primary School

It's obviously very relevant and applicable in many across the state and country, but at least for here, it would be great to see the same program running in all of our local schools. Like if it was embedded across the Surf Coast and then over time you're capturing generations of people as they go through the program and really building that local knowledge really meaningfully. I think that would be a fantastic outcome to see.

-Council Officer, Surf Coast Shire Council

In considering how the program might be scaled up to other communities, the 'scale-by-expansion' approach provides a potentially viable model. As described by Selby and Kagawa (2014) in the UNESCO/UNICEF *Technical Guidance for Integrating Disaster Risk Reduction in the School Curriculum*, the scale-by-expansion approach involves four key phases:

1. Developing and implementing a new program on a relative small scale.
2. Refining it based on experience and evaluation.
3. Replicating it in a manageable number of new locations.
4. Expanding it across a wider region in a staggered roll-out.



In parallel to these four phases, program developers and implementers engage in a learning process involving three key phases:

1. Learning to be effective (i.e. fixing the problems in the program).
2. Learning to be efficient (i.e. developing the means to bring the program to more stakeholders, including through capacity training of personnel).
3. Learning to expand (i.e. developing the organisational capacity and capabilities for at-scale implementation).

Having achieved positive outcomes at a small scale in Anglesea and Strathewen, it is recommended that the Survive and Thrive program developers and implementers draw on their own experience and the results of this evaluation to refine the program, replicate it in a number of new communities and engage in the three-stage learning process to develop a model that has the potential to be implemented at scale. Clearly, this will require further financial investment and whether or not the required investment is worthwhile is a decision for potential funders. However, if a decision is taken to expand the program beyond Anglesea and Strathewen, scale-by-expansion represents a more viable model than scale-by-explosion, which is only appropriate in cases where best practice has been firmly established or where there are few components or variables involved. As one CFA volunteer, emphasized:

What we do in Arthurs Creek-Strathewen would not work, well may not work, in other brigades areas. And neither should it. You have to base it on the community that they're in, the school. There are lots of factors that have to be taken into consideration. And what we do, and what works for us, doesn't necessarily mean it'll work for anyone else.

-CFA Volunteer, Arthurs Creek CFA

While Survive and Thrive has achieved wide-ranging positive outcomes in Anglesea and Strathewen, an assessment of whether the program can be effectively be delivered and sustained at-scale is beyond the scope of the this evaluation. However, a scale-by expansion approach would provide a viable architecture for making this determination.

To support any future efforts towards scaling up, it is recommended that the program activities be documented in sufficient detail to enable the replication of the program in new locations. While the evaluation has identified particular activities that have contributed to the identified outcomes, it would be beneficial for these activities to be documented in a higher level of detail. There would be significant value in developing practitioner guidelines or training materials that can provide program staff, volunteers and teachers with technical advice on the design and delivery of program activities, including the Bushfire Behaviour and Resilience Sessions and the development of Student-led Presentation Workshops. The production of practitioner guidelines or training materials will help to ensure the preservation of valuable institutional knowledge that has been gained through the implementation of the pilot project. While the structure and content of any practitioner guidelines or training materials should be determined by the project team, the findings of the evaluation would support detailed documentation of the systems and processes that enable the design and delivery of locally relevant program activities that



support the place-based, experiential, student-led, inquiry-based approaches that have underpinned program effectiveness in Anglesea and Strathewen.





## CONCLUSIONS

This evaluation has found that the Survive and Thrive program is meeting its objectives and delivering valuable outcomes for children, households, and communities. Children participating in the program demonstrated a high level of awareness of the bushfire risks in their local area and articulated a well-developed knowledge of key bushfire safety measures. Moreover, there is substantial evidence that this level of knowledge and awareness is a direct outcome of the program. Children have also been empowered to confidently communicate their knowledge with others via the student presentation workshops and spontaneous discussions with their families at home. Amongst parents, teachers, children, program staff and volunteers, this increased confidence and empowerment is considered to be one of the most important outcomes of the program. Importantly, the program has also served to ameliorate children's bushfire-related worries and fears, particularly in Strathewen where some children had experienced elevated levels of anxiety as a result of the Black Saturday bushfires.

At the household level, the program has served to increase levels of knowledge and awareness amongst parents. This increased knowledge can be attributed to both the student presentations and the spontaneous discussions initiated by children at home. The program has also had a positive influence on levels of child participation in household bushfire planning and preparedness: children are not only more aware of their household bushfire plans, but are actively contributing to the development of those plans. They are also actively participating in other activities, such as packing emergency kits and clearing up around the house. Importantly, children's increased participation is highly valued by parents who now see their children as having a significant contribution to make to household bushfire safety and there is evidence that the program has enhanced bushfire planning and preparedness within households. There is also evidence that the program has strengthened household capacity for emergency response because children are better able to remain calm and provide valuable assistance to their families.

At the community level, a significant, albeit unintended, outcome of the program has been the strengthening of the local brigades. While the establishment of the Junior Brigades has the potential to strengthen the brigades over the longer term, there is also some evidence of increased interest in volunteering amongst parents who had not been previously involved with the CFA. There is also evidence that the program has increased local capacity for effective community engagement and there was wide consensus that the program represents a more effective approach to community engagement than the traditional approaches. Additionally, the program has strengthened relationships between agencies and schools, which has created opportunities for students to establish positive inter-generational relationships with local volunteers and empowered local volunteers to become advocates for the school within their local brigade. Finally, the program has strengthened relationships between staff and volunteers from different agencies, which has had a positive impact on inter-operability at the local level.



The evaluation also identified three key mechanisms that have been fundamental to achieving the various program outcomes. The first is the partnership between the local brigade and the school. These partnerships have provided schools with the necessary technical expertise and support for effectively educating children about local bushfire risks and bushfire safety. Teachers view this technical expertise and support as being fundamental to the observed program outcomes and assert that the ongoing success of the program is dependent upon the continued support of their local brigade. The partnerships with local brigades have also enabled the coordinated involvement of other local agencies, which has augmented the range of technical expertise and support that is available to students. As noted earlier, the partnership model has the additional benefit of strengthening relationships at the local level, which has distinct advantages for all involved.

The second mechanism relates to the pedagogical approaches that have been employed in the program. The place-based, experiential approaches to educating children about bushfire behavior and local bushfire risks have been highly engaging for the students and provided them with meaningful, relevant learning experiences. The hands-on, practical learning activities have also enabled the full participation of students with learning difficulties, thereby promoting fundamental principles of diversity and inclusion. Meanwhile, the student-led, inquiry based approaches to the development of student presentations and other student projects has given students a sense of ownership over their learning and supported them to become empowered risk communicators. Additionally, the extended program delivery over two years provides the necessary conditions for scaffolding student learning over time, which has contributed significantly to increased levels of confidence and competence.

The third mechanism relates to the student presentation workshops. These events not only provide students with an opportunity to develop their public speaking skills, they also constitute a legitimate form of community engagement that has increased levels of knowledge, awareness, planning and preparedness within households. The distinct advantage of the student presentation workshops over other more traditional modes of community engagement is that they are community-based: supporting local children to become educators, grounds community engagement in the needs and priorities of local families and the wider community. Additionally, while it did not emerge as a theme in the data, the student presentation workshops also represent an authentic mode of student assessment, thereby fulfilling a key requisite of quality education.

The evaluation identified four key factors that will support the ongoing sustainability of the program in these communities. Firstly, the foundation for the sustainable implementation of Survive and Thrive is a strong community-based partnership that has the full commitment of brigade and the school. This partnership supports the development of locally relevant program activities and encourages the local community to take local ownership of the program. Secondly, the specialist expertise of the Program Lead provides program implementers at the local level with the ideas, support and guidance to establish a viable program. While the Program Lead continues to provide a high level support in Anglesea, the Strathewen contingent have taken



ownership of the day-to-day program activities, suggesting that once a program is established, a community can become relatively self-sufficient, thereby supporting longer-term sustainability. Thirdly, sustainability is highly dependent on the continued support of the agency staff and volunteers who dedicate their time to the delivery of the program. Amongst staff and volunteers, in both Anglesea and Strathewen, there is a high level of support for the program and a strong intention to remain involved in its ongoing delivery, suggesting that in these communities, the program remains viable. Finally, teachers are highly supportive of the continued delivery of the program. They place a high value on the educational outcomes of the program and have been able to align those outcomes to a large proportion of the formal curriculum. They also place a high value on the social and emotional learning that is fostered through the program and appreciate the extent to which the program is inclusive of diverse learning abilities.

Taking together positive outcomes of the program and the strong support for continued delivery in Anglesea and Strathewen, consideration should be given to how the program can be scaled up to ensure that other school communities in bushfire prone areas can access its benefits. Based on the findings of this evaluation, a scale-by-expansion approach would be most appropriate. By replicating the program in a number of small communities and engaging in learning for effectiveness, efficiency, and expansion, the Survive and Thrive model could be progressively scaled-up without compromising the valuable outcomes that have been observed in the communities of Anglesea and Strathewen.

While this evaluation provides strong support for the effectiveness of the Survive and Thrive program and offers insights into the ongoing sustainability, it is important to highlight and acknowledge several methodological limitations that have influenced the findings. Firstly, data collection for the evaluation was conducted between May and August 2017 when the current cohort of students was only six months away from completing the program. Consequently, it was not possible to collect baseline data, which would have enabled a more rigorous assessment of program outcomes. Additionally, the timing of the evaluation meant that the current cohort of Anglesea students had not yet delivered their presentations to students in other schools, so this element of the program could not be examined. Secondly, the sample size for the evaluation is relatively small, even for a qualitative evaluation. Although there was a high level of participation amongst program staff, volunteers, teachers, students and parents, the class sizes at both Strathewen and Anglesea are small, which placed restrictions on the number of eligible participants. Thirdly, time restrictions on the evaluation meant that the data collection process with students in the schools had to be modified and the focus groups were not as in-depth as had been planned. While the focus groups with students did provide a valuable source of data and provided important insight into their experiences of the program, the depth and breadth of that data set is somewhat limited.

Extant limitations aside, the evaluation provides a valuable evidence-base that can be used to inform further development of the Survive and Thrive community-based partnership model. It has identified core mechanisms and processes that facilitate student learning and development and enhance household and community capacities for effective bushfire risk management. It



has also identified key factors that underpin program sustainability and made recommendations for a scale-by- expansion approach to expanded delivery. Chief among those recommendations is the need to develop practitioner guidelines or training materials that will preserve valuable institutional knowledge that can provide a solid foundation for the replication of the program model in new locations.

With the recent introduction of bushfire education into the Victorian Grade 5 Geography Curriculum, there is a valuable opportunity for fire agencies to capitalise on these evaluation findings to effect real change in bushfire prone areas. However, there is a continued need for ongoing research and evaluation which further extrapolates the core mechanisms and processes that reduce bushfire risk and increase resilience in children's households, schools and communities.

## APPENDICES

### APPENDIX 1: PARENT SURVEY

#### PARENT SURVEY

Participant Number:

1. **How likely is it that a bushfire could impact on your local area?**  
 Not likely at all      Somewhat likely      Very likely
2. **If a bushfire did impact on your local area, how severe could the damage be?**  
 Not severe at all      Somewhat severe      Very severe
3. **How likely is it that a bushfire could impact on your property?**  
 Not likely at all      Somewhat likely      Very likely
4. **If a bushfire did impact on your property, how severe could the damage be?**  
 Not severe at all      Somewhat severe      Very severe
5. **How likely is it that a bushfire could impact on your child's school?**  
 Not likely at all      Somewhat likely      Very likely
6. **If a bushfire did impact on your child's school, how severe could the damage be?**  
 Not severe at all      Somewhat severe      Very severe
7. **If there was a bushfire in your area, how confident are you that you would know what to do?**  
 Not confident at all      Somewhat confident      Very confident
8. **If there was a bushfire in your area, how confident are you that your child/children would know what to do?**  
 Not confident at all      Somewhat confident      Very confident
9. **How prepared is your household for a bushfire?**  
 Not at all prepared      Somewhat prepared      Very well prepared
10. **Does your family have a bushfire emergency plan?**



Yes

No

Unsure

\*If you answered No or Unsure, go to question 13

11. **Have you ever discussed this plan with your child/children?**

Yes

No

Unsure

12. **How confident are you that your family's bushfire emergency plan will keep you safe in the event of a bushfire?**

Not confident at all

Somewhat confident

Very confident

13. **Does your family have a bushfire emergency kit?**

Yes

No

Unsure

14. **Does your child's school have a bushfire emergency plan?**

Yes

No

Unsure

\*If you answered No or Unsure, finish the survey here

15. **Have you ever discussed the school's bushfire emergency plan with school staff?**

Yes

No

Unsure

16. **Have you ever discussed the school's bushfire plan with your child?**

Yes

No

Unsure

17. **How confident are you that the school's bushfire emergency plan will keep the teachers and students safe in the event of a bushfire?**

Not confident at all

Somewhat confident

Very confident



## APPENDIX 2: PARENT SEMI-STRUCTURED INTERVIEW PROTOCOL

### PARENT INTERVIEW

- How do you perceive the bushfire risk for your local area?
- How do you perceive the bushfire risk for your household?
- What action, if any, have you taken any action to prepare your property for a bushfire event?
  - Were your children involved in these activities in any way?
- Do you have a bushfire plan?
  - If yes, what is it?
    - What role will your child/children play?
      - For staying:
        - What role will your child/children play?
      - Was your child/children involved in developing the plan? If so, how?
  - If no, do you feel that you need one?
- Could you describe for me your understanding of the Survive and Thrive program?
  - Are you aware of the kinds of activities your child has participated in?
  - Did you attend any of the events associated with the program? What events?
  - Did you have any discussions with your children about the program?
- From your perspective, what impact has the Survive and Thrive program had on your child's knowledge, attitudes or behaviours about bushfires and bushfire safety?
  - Other impacts - e.g. confidence, bushfire-related fears?
- Can you think of any ways in which the Survive and Thrive program has influenced bushfire knowledge and awareness amongst the members of your household?
  - Has it had any influence amongst your extended family or friends?
- Can you think of any ways in which Survive and Thrive program has influenced levels of actual bushfire planning and preparedness in your household?



- Do you think you Survive and Thrive program has had any effect on your child's level of involvement in bushfire-related discussions or activities in your household? For example, maybe you always had a bushfire plan, but you hadn't talked to your child about it until Survive and Thrive.
- Can you think of any ways in which the Survive and Thrive program has influenced bushfire knowledge, awareness, planning and preparedness in the broader community?
- In your view, what are strengths of the Survive and Program?
- Can you identify any the weaknesses in the Survive and Thrive Program? Or any possibilities for improvement?
- Do you have any other comments or feedback on the Survive and Thrive program that you would like to share?

Participant number

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## APPENDIX 3: STUDENT SURVEY

### STUDENT SURVEY

Participant number:

Age:

School:

Year level (current):

1. **How likely is it that a bushfire could impact on your local area?**  
 Not likely at all                      Somewhat likely                      Very likely
  
2. **If a bushfire did impact on your local area, how severe could the damage be?**  
 Not severe at all                      Somewhat severe                      Very severe
  
3. **How likely is it that a bushfire could impact on your property?**  
 Not likely at all                      Somewhat likely                      Very likely
  
4. **If a bushfire did impact on your property, how severe could the damage be?**  
 Not severe at all                      Somewhat severe                      Very severe
  
5. **How likely is it that a bushfire could impact on your school?**  
 Not likely at all                      Somewhat likely                      Very likely
  
6. **If a bushfire did impact on your school, how severe would the damage be?**  
 No severe at all                      Somewhat severe                      Very severe
  
7. **If there was a bushfire in your area, how confident are you that you would know what to do?**  
 Not all confident                      Somewhat confident                      Very confident
  
8. **If there was a bushfire in your area, how confident are you that your parents/guardians would know what to do?**  
 Not all confident                      Somewhat confident                      Very confident
  
9. **How prepared is your household for a bushfire?**  
 Not prepared at all                      Somewhat prepared                      Very prepared
  
10. **Does your family have a bushfire emergency plan?**  
 Yes    No    Unsure



\*If you answered no, go to question 13

11. **Have you ever discussed your family's bushfire emergency plan with your parents/guardians?**

Yes

No

Unsure

12. **How confident are you that your family bushfire plan will keep you safe in the event of a bushfire?**

Not confident at all

Somewhat confident

Very confident

13. **Does your family have a bushfire emergency kit?**

Yes

No

Unsure

14. **Does your school have a bushfire emergency plan?**

Yes

No

Unsure

\*If you answered No or Unsure, you can finish here.

15. **Have you ever discussed the school bushfire emergency plan with your teachers?**

Yes

No

Unsure

16. **Have you ever discussed the school bushfire emergency plan with your parents?**

Yes

No

Unsure

17. **How confident are you that your school bushfire plan will keep you safe in the event of a bushfire?**

Not at all confident

Somewhat confident

Very



## APPENDIX 4: STUDENT FOCUS GROUP ACTIVITIES

### STUDENT FOCUS GROUP

#### General questions to open

Could a bushfire happen around here? Why?

If a bushfire did happen around here, what do you think would happen?

Does your family have a bushfire plan?

- What is it?
  - Triggers to leave
  - Where to go
  - How to get there
  - What to take

Does your family have a bushfire emergency kit?

- What's in it? Why?

Has your family done anything to prepare your property for a bushfire? What? Why?

#### Body mapping

This activity is to help us find out what you did in the program.

#### HEAD – KNOWLEDGE AND AWARENESS –WHAT DID YOU LEARN?

- Did you learn anything about bushfire behaviour?
  - How bushfires start
  - How bushfires spread (embers, flame)
  - How the vegetation influences bushfire behaviour
  - How the topography influences bushfire behaviour
  - How the weather influences bushfire behaviour
- Did you learn anything about how to prepare for bushfires?  
About what people can do before a bushfire happens?
  - Preparing your house (clearing up, sprinklers etc)
  - Preparing your family (bushfire plans, emergency kits)
  - Preparing your animals
  - Preparing the community
  - Anything else?
- Did you learn anything about how to be safe during a bushfire?



- What to do
- Where to go
- How to find information
  
- Did you learn anything about bushfire warnings?
  - Fire danger ratings
    - Hold up FDR – Did you learn anything about this?
    - What each level means
    - What people should do when it is on each level
  - How to know if a bushfire is threatening your community?
  
- Did you learn anything about the emergency services?
  - Who they are – different agencies
  - What they do?
  - Their responsibilities
  
- HOW IMPORTANT WAS IT FOR YOU TO LEARN THESE THINGS? WHY?
- WHAT WERE THE MOST IMPORTANT THINGS YOU LEARNED?

#### Ears and mouth – sharing knowledge and information

- Who shared their knowledge with you? Who did you learn from?
  - What knowledge did they share?
  - How important was it for you to learn from all these different people? Why?
  
- Did you share your knowledge with other people? (parents, siblings, friends, teachers, emergency services, other kids, community members)
  - How did you share your knowledge?
    - Presentations
  - What knowledge did you share?
  - How important was it for you to share your knowledge? Why?

#### Legs - places

- Where did you go? (excursions, camps, into the bush)
  - What did you do there?
  - How important was it to go to those places? Why?
  - What was the best place you went to? Why?

#### Heart – feelings

- Did the program change the way you feel about bushfires?
  - How did you feel about bushfires before you did the program? (worry, concern, fear)



- How do you feel about bushfires now? (worry, concern, fear)
- How did you feel while you were doing the program?
  - Did you ever feel worried or afraid about what you were learning?

Eyes - the way you see things – your attitudes

- Has the program changed the way you see the local bushfire risk?
- Has the program changed the way you see your role in bushfire safety?
- Has the program changed the way you see the emergency services?
- Anything else?

## **H Assessment**

Strengths

- What do you like about the program?
- What do you like doing?
- What are the best things about the program?

Weaknesses

- Is there anything you don't like about the program?
- Is there anything you don't like doing?
- Are there any bad things about the program?

Improvements

- How could the program be improved for the next students?
- If you were in charge, would you do anything differently?



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