Evaluation of the Community Fire Unit program in the ACT

Prepared by Risk Frontiers

For

ACT Emergency Services Agency (ESA)

June 2016
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Acknowledgements

Risk Frontiers gratefully acknowledges the co-operation and input of ACT Fire & Rescue members, including Chief Officer Mark Brown, CFU Coordinator Station Officer Rob McGregor, Commander Richard Maloney and others who provided their time to be interviewed. Fire & Rescue NSW personnel are also thanked for their time and contributions. Members of the CFU Consultative Committee, Team Leaders and volunteers who provided valuable input to focus group discussions and interviews, and CFU volunteers who contributed through the completion of the online questionnaire are also acknowledged.
Perceived benefits of the CFU program in the ACT:

Our CFU community knows each other - and we look out for each other and would help each other if help was required. Our CFU knows people who are vulnerable in the street and so we would be more likely to help them if we could see that they needed help.

Certainly has enabled neighbours to gather together for a common cause as well as discuss issues and events in our neighbourhood.

A greater sense of community, introduced me to people/neighbours I would never have met.

Improved community spirit.

Word cloud depicting the most frequently cited words in relation to community and personal benefits of the CFU program
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Executive Summary

The Community Fire Unit (CFU) program was established under the Emergencies Act 2004 following the January 2003 bushfires in the ACT, in which four people died and over 500 homes were destroyed. Based on a program first developed by Fire & Rescue NSW in 1994, CFUs play a key role in both fire safety and community resilience programs managed by the ACT Emergency Services Agency.

Objective 9 of the ACT Strategic Bushfire Management Plan (SBMP) (2014) calls for “a community that is prepared for bushfires”. Having a community that is prepared for bushfires is a shared responsibility, not left to professional fire fighters alone. The SBMP requires the ACT community to increase its knowledge of bushfire risk and to take actions, as individuals and groups, to minimise the risk they face from bushfires. The CFU program is an effective strategy to increase community awareness, preparedness and to mitigate bushfire risk.

Considering there have been no serious bushfires impacting the urban areas of the ACT since 2003, the activation of the CFU program has not been tested in practice.

In order to garner a perspective of the program’s efficiency and examine ways in which it might be improved, ACT Fire & Rescue engaged Risk Frontiers to conduct an evaluation. To achieve this, a mixed qualitative and quantitative methodology was undertaken, including:

- Collaboration, interviews and consultation with key ACT Fire & Rescue personnel
- Benchmarking key aspects of the ACT CFU program with that of Fire & Rescue NSW
- Focus group discussions and interviews with 14 people from the CFU Consultative Committee, Team Leaders group and general CFU members
- Dissemination of an online questionnaire to 838 CFU members with 251 completions, giving a response rate of 30%
- An analysis of the distance between all of the Geocoded National Address File points and the nearest CFU in relation to Bushfire Prone Areas and historical fires
- An examination of existing documentation and records, and analysis of data contained therein

Overall, the research clearly shows the CFU program is a great asset to neighbourhoods in the ACT, not just with respect to reducing bushfire risk, but also in relation to enhancing community resilience and creating social cohesion and connectedness.

The cost of the CFU program is small, amounting to no more than the cost of (re)building a medium sized home.
The benefits of the program, on the other hand, are multiple:

- Prevention/reduction of loss or damage to property due to bushfires
- Prevention/reduction of injuries and/or fatalities due to bushfires
- Improving community connectedness, and thereby improving community resilience.

These benefits, in the medium term are likely to far outweigh the cost of a single home. A strong CFU program providing coverage to the ACT residential environment at risk from bushfires will be a valuable asset for the ACT Government. While almost the entire area around Canberra is officially designated as a Bushfire Prone Area, the distribution of the 50 existing CFUs is not uniform across the area. Bushland fringe areas of suburbs in the south and west of the city are well covered by CFUs, whereas suburbs in the north (e.g. Gungahlin, Palmerston, McKellar, Spence) have no CFUs, despite being faced with significant bushfire risk.

Currently, there is a minimum CFU volunteer density of 0.05, i.e. 0.05 volunteers for every property and a maximum volunteer density of 0.83, i.e. 8.3 volunteers for every 10 properties in the Bushfire Prone Area. The mean volunteer density is 0.22, i.e. 2.2 volunteers for every 10 properties. While there is no target volunteer density, we estimate that to be functional, CFUs should aim to have a minimum volunteer density of 0.2-0.25. An extra 145 and 270 volunteers are needed to achieve a volunteer density of 0.2 and 0.25 in each CFU, respectively.

Many issues were raised, however, in relation to recruiting and retaining membership numbers. These issues were related to an ageing membership and changing demographics within CFU areas. Other issues related to a lack of awareness of the program among the broader community and loss of interest due to delays that have occurred in the past between recruitment drives and induction training.

It is rewarding, however, to see there is longevity in the program evidenced by the fact that almost a quarter of respondents have been a CFU member for more than 10 years. Moreover, the vast majority of respondents (94%) stated they were planning on remaining CFU members. The main reason that motivated people to become a CFU member was ‘I know that I live in a bushfire prone area so I wanted to be able to protect myself/property/family in the future’

Overall, questionnaire respondents rated the support from ACT Fire & Rescue very well, with mean scores of 3.89 for support from local ACT Fire & Rescue stations and 3.85 for management and operational structure, where 1 is not at all supported and 5 is extremely well supported. Explanations for people’s responses were in general, very positive noting vast improvement in recent years.
However, there was some conjecture about whether CFUs are recognised and fully supported by all Fire & Rescue personnel. In this respect, getting CFUs to reach out to and touch base with their local stations was seen as a positive step in enhancing relationships as was encouraging Fire & Rescue stations to attend local CFU training sessions.

It was recognised that the CFU program is the largest volunteer group in the ACT and managing volunteers is a relatively new role for ACT Fire & Rescue. It was therefore suggested that ACT Fire & Rescue look outside their service for ideas and learnings on how to best manage volunteer groups, for example to the Rural Fire Service and State Emergency Service and also externally with Red Cross.

Improvements in the management and operation of the CFU program were celebrated. One major achievement was increasing communications between ACT Fire & Rescue and CFU members through activations and notifications. CFUs are now activated by way of a text message to five team members via computer-aided dispatch directly from the ACT Emergency Service Agency’s communication centre. This practice ensures inclusivity and credibility.

While there has been some coordination between the ACT Rural Fire Service (RFS) and CFUs, other units felt that there could be more interaction with their local RFS. Learnings between CFU and RFS can go both ways, as CFU members have detailed local knowledge that can be of great assistance to the RFS during a bushfire.

When asked whether they believed actions undertaken by their CFU have reduced the overall risk of bushfire in their neighbourhood, two-thirds (68%) stated that they thought it had and 18% were unsure. Many respondents described these actions relating to raising people’s awareness of bushfire risk, i.e. people seeing the trailer in and CFU members training their neighbourhood.

Overall, communication between CFU members and non-members in relation to reducing bushfire risk has been limited, however, with almost half (49%) indicating that communication has occurred ‘to some extent’ while 39% stating ‘not at all’ to ‘very little’. In relation to the perceived success of information transfer to non-CFU people, most respondents (67%) felt that it had been moderately to very successful.

It was recognised by ACT Fire & Rescue that enhancing overall community resilience through raising awareness is an important role for CFU members. They know their local community in terms of people and the environment.

Some CFU respondents misinterpreted the legislation surrounding the CFU area of operation. Some ACT CFUs described having to move their trailers outside of their area of operation in order to get back into it. Others believed that they should be allowed to
assist neighbouring CFUs outside of their own area of operation when needed. In reality, moving trailers a short distance in order to work within their areas of operation is well within the rules. ACT Fire & Rescue also support the strategy of neighbouring CFUs assisting each other and sharing resources. Therefore some further education and communications around this are needed. NSWFR still recognise this as a problem and are looking for a viable solution.

There is currently no enforced requirement in the *Standards and Protocols for Community Fire Units* for CFU volunteers to undergo skills maintenance/ refresher training. This means that volunteers may become rusty and skills may decline, leading to a reduced capability for the CFU to satisfactorily perform its duties, and to potentially endanger lives.

There is currently no requirement in the *Standards and Protocols* for CFU Team Leaders to report operational preparedness (i.e. training activities undertaken, numbers of volunteers active and available, numbers of volunteers who have undergone training etc.). This means that the CFU Coordinator does not have up-to-date information about the status of each CFU.

In summary, this review found the ACT CFU program to be of great value to the community, effective in reducing risks, raising awareness and increasing social capital. Based on the observations in the report, the following recommendations are made:

**Recommendation 1: Community outreach and engagement**

The CFU program currently plays an important role in terms of community outreach and raising awareness. However, it was noted that this role could be further enhanced and promoted. In particular,

- All members should be made aware that community engagement activities are part of their accountabilities as a CFU member.
- Training of volunteers and resourcing for wider community engagement activities should be provided, including education and guidelines around identifying vulnerable members and those who may require assistance. Resourcing might include a communications package (brochures and videos, on social media and through the smartphone app) for dissemination to the broader ACT community regarding bushfire mitigation and preparedness activities.

**Recommendation 2: Recruitment**

Recruitment for existing and new CFUs should be actively supported by ACT Fire & Rescue. Consideration should be given to identifying the locations and also the demographics (e.g. age, gender) of the volunteers desired. In particular,

- Membership recruitment should, in the first instance, be targeted at the CFUs with the lowest “volunteer density”. (Target numbers are contained in this report.) A protocol should be developed for units to draw membership from outside of their operational area, within reason.
• CFU Saturday, Canberra Bushfire Ready doorknocking, and other initiatives that assist recruitment should be well supported by all the fire services (including CFUs) and target all areas, including at-risk areas where there are no existing CFUs.
• Consideration should be given to advertising through multiple channels to reach a range of potential volunteer types, e.g. mainstream media, community channels and official and unofficial social media platforms. Advertising targeted at younger people should highlight that volunteering for a CFU does not involve many hours but results in members learning invaluable skills.

**Recommendation 3: Establishment of new CFUs**
Consider the establishment of new CFUs in suburbs that have the greatest exposure to bushfire risk. A staged approach (e.g. up to 4 new CFUs per year for the next five years) is suggested. Recruitment costs and equipment costs (trailer and personal protection equipment) should be budgeted for.

**Recommendation 4: Training**
Training of CFU volunteers should be structured to make it as easy and as quick as possible for a volunteer to get up and running in the CFU program. Regular ongoing training for all members should be carried out to ensure they remain compliant with requirements (e.g. radio training, first aid training). In particular,
• Induction training should be available on a regular basis following major recruitment drives such as CFU Saturday. If a new recruit is unable to attend an induction training session within a given period of time, initiation training should be undertaken locally.
• A variety of training options to maintain/generate interest should continue to be provided, including hands-on activities relating to extinguishing fires, experiencing radiant heat and observing water tanker truck operations.
• The option of introducing an annual skills maintenance/refresher course for all volunteers to ensure members remain active for service should be considered.

**Recommendation 5: Enhancing connections with other emergency response agencies**
CFU members identify not only with ACT Fire & Rescue, but with other emergency services as well, such as the ACT RFS. These links should be promoted and encouraged. In particular,
• CFU team leaders should be encouraged to connect with their local ACT Fire & Rescue station, and any issues surrounding these relationships should be addressed as soon as they arise. New ways to include CFU members in ACT Fire & Rescue activities should continue to be devised. For example, offering CFU members the opportunity to act as observers during hazard reduction burns in their local areas with direct instruction from fire agencies with respect to fire behaviour should be considered.
• ACT Fire & Rescue stations should as a priority attend local CFUs training sessions on a regular basis.
• ACT Fire & Rescue should develop a communications package for ACT RFS (brochures and videos, on social media and through the smartphone app) to enhance awareness of the roles and responsibilities of the CFU.

• ACT Fire & Rescue should support annual CFU networking and collaboration activities that involve other agencies (e.g. RFS, ACT Parks & Conservation).

Recommendation 6: Record-keeping and reporting
Record-keeping of CFU activities and personnel status (availability, training) should be enhanced, making use of technology. In particular,

• ACT Fire & Rescue should continue to update records on the status of CFU volunteers, particularly records pertaining to training compliance and active status. Development of a smartphone app to collect this data should be expedited.

• ACT Fire & Rescue should introduce an annual pre-bushfire season report (due late September) and annual post-season report (due late May) by CFU Team Leaders to the CFU Coordinator, specifying operational status of each CFU. To ensure compliance and to expedite data collection, collation and analysis, these reports should be completed online or via a smartphone app.

• Clear protocols should be developed with respect to logging WHS incidents with ACT Fire & Rescue.
Background

The January 2003 bushfires in the ACT, in which four people died and over 500 homes were destroyed, left a lasting legacy as to the risks faced by the community. A Strategic Bushfire Management Plan (SBMP) resulted. Objective 9 of the current version (Version 3, 2014) of the SBMP calls for “a community that is prepared for bushfires”. Having a community that is prepared for bushfires is a shared responsibility, not left to professional fire fighters alone. The SBMP requires the ACT community to increase its knowledge of bushfire risk and to take actions, as individuals and groups, to minimise the risk they face from bushfires. The SBMP included the establishment of Community Fire Units (CFUs) in areas of high risk on the relatively large bushland/urban interface as a bushfire mitigation preparation.

CFUs are established in the ACT under section 47 of the Emergencies Act 2004 for the protection of property in urban/bushland interface areas within the ACT. Based on a program first developed by Fire & Rescue NSW in 1994, CFUs play a key role in the fire safety and community resilience programs managed by the ACT Emergency Services Agency.

Each CFU comprises of volunteers who live in a bushfire prone area. CFU members are trained and equipped by ACT Fire & Rescue to assist in the protection of their property, and properties in the near vicinity, in the event of a bushfire. CFU volunteers are not fire fighters, but are trained to undertake fire prevention work, and assist with fire fighting during a bushfire that is impacting, or may impact, on their area.

The CFU program is only one of a number of volunteer organisations/activities available in the ACT. Volunteering offers a range of opportunities for participants to contribute to the community in a range of different ways. Participation can range from an afternoon or two in the lead up to the fire season with a CFU unit, to weekly involvement in an SES unit. These activities offer tremendous value to the public.

CFUs provide the opportunity for individuals to take their share of responsibility for preventing, preparing for, responding to and recovering from disasters, which is a key aspect of the National Strategy for Disaster Resilience. This is achieved both through bushfire prevention and risk reduction, and through building valuable social capital through engaging with the community.

Whilst not activated recently, the value of the ACT CFU program remains, and is beneficial to enhancing community engagement. This report is extremely supportive of the CFU program and its ongoing development and expansion in line with the ACT SBMP.
Review of the CFU program

The ACT Emergency Services Agency engaged Risk Frontiers to undertake an evaluation of the CFU program to review its efficacy, and to examine ways in which the program might be improved. It was specified that the evaluation should include:

1. A review of the governance structures
2. A review of the performance of the CFU program
3. Consultation and communication with CFU volunteers
4. A review of the cost-effectiveness of the CFU program
5. Benchmarking against the NSW CFU program, where applicable
6. An assessment of the value of CFUs in community education programs and heightened sense of responsibility for householder action in areas where there are CFUs present.

To achieve this, the evaluation incorporates case studies of CFU activities and activations to support any conclusions and recommendations to improve the operation of the program.

Evaluation Policy

The evaluation of ACT CFUs has been undertaken in accordance with the ACT Government’s Evaluation Policy and Guidelines\(^1\), which were designed to improve efficiency, effectiveness and appropriateness of government services in the ACT.

The evaluation, presented here in this report, is based on a mixed qualitative and quantitative methodology, including:

- collaboration, interviews and consultation with key internal stakeholders and personnel
- an examination of existing documentation and records, and analysis of data contained therein
- testing against stated performance objectives.

The following section describes the methodologies used to undertake the evaluation, including inception and progress meetings, analysis of membership numbers, governance structures and program funding and an analysis of CFU locations in relation to the Bushfire Prone Area and historical fires. The social research methodology is then described in terms of the online questionnaire, focus group discussions, interviews and data analysis.

The report then details the combined results of the evaluation with observations made throughout, broadly covering: questionnaire demographics; CFU membership and recruitment; program performance and governance; perceptions of support for the CFU

\(^1\) ACT Government (December 2010). Evaluation Policy and Guidelines. Policy Division, ACT Chief Minister’s Department, Canberra.
program including roles and responsibilities; previous bushfire experience and household intentions among CFU members; preparedness and communication; activation of CFUs; program improvements; and, views of training and equipment.

**Methods**

**Inception and progress meetings**

In order to capture the nuances specific to the ACT CFU program and aims of the evaluation, an inception meeting took place between Risk Frontiers and ACT Fire & Rescue on Friday 22 April 2016.

Mid-project progress meetings were held by telephone on Tuesday 10 May 2016 and face-to-face on Thursday 12 May 2016.

Discussions at these centred around:
- Progress with a GIS analysis of locations of CFUs in relation to bushfire risk
- Progress with an analysis of CFU membership numbers by bushfire risk and “membership density” to aid recruitment planning
- Progress of responses to the online questionnaire of CFU volunteers
- Preparation for focus group meetings with the Consultative Committee and with a set of CFU volunteers, and data gathering at the forthcoming Team Leaders meeting
- Preparations for interviews with ACT Fire & Rescue Station Officers.

**Membership, governance and program funding analyses**

In order to garner information regarding membership data, governance structures and financial reports, various discussions were held with:
- Mark Brown (Chief Officer, ACT Fire & Rescue) who discussed governance arrangements, funding arrangements, membership and location of CFUs. He also supplied information on recurrent and capital expenditure of the CFU program, and Work Health and Safety registers.
- Richard Maloney (Commander: Firefighting Capability, ACT Fire & Rescue) who discussed overall operations of CFUs and the CFU program, funding arrangements, membership and location of CFUs.
- Gary McKinnon (Acting Director: Operational Capability, Fire & Rescue NSW) who supplied information on funding of NSW CFU program
- Rob McGregor (CFU Co-ordinator, ACT Fire & Rescue) who supplied official membership numbers of all CFUs.

All analyses were undertaken in MS Excel and ARC GIS using information supplied by ACT Fire & Rescue, ACT ESA Spatial Services, and NSW Fire & Rescue, and GIS data derived by Risk Frontiers from the above.
Location analyses

An analysis of the distance between all of the Geocoded National Address File (G-NAF) points and the nearest CFU, Bushfire Prone Area (BPA) and historical fires was performed.

G-NAF is the nationally curated database of all of the physical addresses in Australia. The G-NAF point generally falls either on the building or at the centroid of the land parcel. The G-NAF points are used here as a proxy for buildings. ACT Fire & Rescue provided CFU location data. The ACT ESA Spatial Services provided BPAs and historical fire data.

Distance calculations were performed “as the crow flies” and not limited by suburb. Addresses falling within a CFU, BPA or historical fire extent were allotted a distance of 0; all other distances were recorded in metres. There was no differentiation between the different causes of historical fires, reasoning that if a prescribed burn was undertaken this demonstrated that the ACT Emergency Services Agency had deemed there to be a risk of fire that needed mitigation. The majority of historical fires within the data were prescribed burns.

The results were aggregated by distance bands based on previous research by Risk Frontiers about the probability of damage as a function of distance to bushland. The most exposed suburbs are defined using the suburb recorded within the G-NAF database.

Social research

Online questionnaire

An online questionnaire was designed based on the NSW CFU questionnaire (Haynes and Bird, 2014) and hosted via SurveyMonkey. Internal pretesting was conducted by Risk Frontiers and ACT Fire & Rescue to ensure the key aims of the research outlined in the Terms of Reference were addressed and the questionnaire was straightforward to complete.

The questionnaire contained 49 open and closed questions and covered various topics including:

- Demographics
- CFU membership
- Bushfire experience
- Preparedness and communication
- Activation of units
- Community and personal benefits of the program
• Program performance and support
• CFU training
• CFU equipment
• Major challenges and concerns

The questionnaire was disseminated by email to a total of 852 CFU members on Saturday 7 May 2016. 14 emails bounced back giving a distribution of 838. A first reminder was sent out on Monday 16 May and a final reminder sent out on Thursday 19 May 2016. The questionnaire was closed Monday 23 May 2016. 251 respondents completed the survey, giving a response rate of 30%.

A copy of the questionnaire is included in the Appendix.

Focus groups and interviews

Focus groups were organised with questionnaire respondents who indicated that they were willing to take part in further research. The main aim of the focus groups was to explore in more detail some of the issues raised in the questionnaire.

To ensure representation across demographics, people of varying age groups and gender were first invited to take part in focus group sessions during the morning and afternoon of Friday 13 May 2016. Based on initial interest, 11 am was set for the first focus group with five people confirming their attendance at the West Belconnen Fire Station in Charnwood.

Those that could not make the 11 am meeting were invited to a 3:30 pm session, which three people attended thus creating a second ‘mini’-focus group. A third focus group was organised by ACT Fire & Rescue at the ESA Training Complex in Hume with five representatives of the CFU Consultative Committee, prior to the commencement of the Team Leaders meeting on Thursday 12 May 2016.

Two respondents who could not make either of the meetings were interviewed separately – one at a local café on Friday 13 May and another by telephone on Monday 16 May. In total, four women² and 10 men took part in the focus groups and interviews, encompassing all age groups from 35-44 years to 75+ years.

In addition, three ACT Fire & Rescue Station Officers were interviewed by telephone, the incoming and outgoing CFU Coordinators were interviewed face-to-face, and one Fire & Rescue NSW official was interviewed by telephone.

² One woman attended the Consultative Committee focus group on Thursday 12 May and the mini-focus group on Friday 13 May.
Focus group participants and interviewees were provided with a brief background to Risk Frontiers, the research and specific aims of the discussions. Meetings were informal and relaxed and participants were encouraged to be open and frank. All participants were guaranteed that their names would not appear next to any comments, unless they specifically asked otherwise.

The following topics were discussed during the focus groups and interviews. Due to the nature of the research, this list, which is not exhaustive, was not necessarily followed in any particular order. Relevant digressions were encouraged to ensure the diversity inherent within the program was captured from all stakeholders.

- Recruitment, training and maintaining motivation
- Potential exploitation of existing qualifications among CFU members
- Communication between all levels: Fire & Rescue, the Consultative Committee, Team Leaders and CFU members
- Relationships and support between the Rural Fire Service (RFS), Fire & Rescue and CFUs
- Legislation and expectations in relation to CFU capabilities
- Work Health and Safety.

Focus groups and interviews were digitally recorded and transcribed by Pacific Transcription.

**Data analysis**

Quantitative data were analysed using the online tools provided by SurveyMonkey and datasets exported to Microsoft Excel. Qualitative data (open questions in the questionnaire and focus group and interview transcripts) were imported into the qualitative data analysis program QSR NVivo 10 to identify patterning of responses. Salient themes in the qualitative data were coded according to the specific aims of the research.

The Results section, which is a combination of the questionnaire, focus group and interview data contains quotes and written responses verbatim so that respondents’ voices can be heard. Please note, however, for readability, minor corrections were made in relation to spelling and grammar in written quotes.

The Results section also contains word clouds, produced using QSR NVivo 10. Based on open response text, word clouds provide a visual representation of the top 200 words most frequently used by respondents for a particular question. The largest word appearing in the word cloud represents the most frequently used word. Please note that the word frequency query includes stemmed and exact words, e.g. evacuate, evacuates, evacuated, evacuation are all represented under ‘evacuation’.
Results and observations

Overall, the research clearly shows that the CFU program is a great asset to neighbourhoods in the ACT, not just with respect to enhancing community resilience to bushfire but also in relation to creating social cohesion and community connectedness. These bonds promote social capital that will be invaluable not only during an event but also throughout the recovery phase following a future disaster of any sort.

The results presented in the following sections are a combination of the membership, governance and funding analyses, location analyses and social research. Observations are made throughout as suggestions for continuing the enhancement of the CFU program into the future.

Questionnaire demographics

Three-quarters of respondents were male and a third (33%) was aged between 55 and 64 (Table 1). Most respondents were working fulltime (46%) and almost a third stated they were retired (30%). Of those that were working, nearly a quarter (22%) work 10-20 km from home. The vast majority were homeowners (93%) with home and contents insurance (96%). Household composition was almost evenly split between couples with children or other dependents (41%) and couples without children or other dependents (43%). Most respondents rated their physical health as ‘good’ (4 out of 5) with an overall mean score of 3.85 where 1 equals ‘very poor’ and 5 equals ‘very good’.

Table 1: Respondent demographics and 95% confidence intervals indicating the range in which there is 95% certainty that the true value for the percentage of the demographic variable will lie, based on the population and sample sizes

<table>
<thead>
<tr>
<th>Demographic</th>
<th>% Respondents</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>75.0</td>
<td>(70.4; 79.6)</td>
</tr>
<tr>
<td>Female</td>
<td>25.0</td>
<td>(20.4; 29.6)</td>
</tr>
<tr>
<td><strong>Age group:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;35 years</td>
<td>6.0</td>
<td>(3.5; 8.5)</td>
</tr>
<tr>
<td>35-44 years</td>
<td>10.0</td>
<td>(6.8; 13.2)</td>
</tr>
<tr>
<td>45-54 years</td>
<td>20.1</td>
<td>(15.9; 24.3)</td>
</tr>
<tr>
<td>55-64 years</td>
<td>33.0</td>
<td>(28.0; 38.0)</td>
</tr>
<tr>
<td>65-74 years</td>
<td>23.7</td>
<td>(19.2; 28.2)</td>
</tr>
<tr>
<td>75+ years</td>
<td>7.2</td>
<td>(4.5; 9.9)</td>
</tr>
<tr>
<td><strong>English not main language spoken at home</strong></td>
<td>2.0</td>
<td>(0.5; 3.5)</td>
</tr>
<tr>
<td><strong>Working status:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time (30+ hrs/wk)</td>
<td>46.0</td>
<td>(40.7; 51.3)</td>
</tr>
<tr>
<td>Part-time (9-29 hrs/wk)</td>
<td>17.7</td>
<td>(13.7; 21.7)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>0.4</td>
<td>(0.0; 1.1)</td>
</tr>
</tbody>
</table>
Not working – retired & 29.8 & (25.0; 34.6) \\
Looking after house / children / dependants & 1.6 & (0.3; 2.9) \\
Invalid / disable & 0.8 & (0.0; 1.7) \\
Student & 2.0 & (0.5; 3.5) \\
Other & 1.6 & (0.3; 2.9) \\

**Distance of main place of work from home:**

<table>
<thead>
<tr>
<th>Distance of main place of work from home</th>
<th>Percentage</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not working/retired</td>
<td>30.6</td>
<td>(25.7; 35.5)</td>
</tr>
<tr>
<td>Work from home</td>
<td>9.0</td>
<td>(6.0; 12.0)</td>
</tr>
<tr>
<td>0-3 km</td>
<td>5.3</td>
<td>(2.9; 7.7)</td>
</tr>
<tr>
<td>3-5 km</td>
<td>5.7</td>
<td>(3.3; 8.1)</td>
</tr>
<tr>
<td>5-10 km</td>
<td>18.0</td>
<td>(13.9; 22.1)</td>
</tr>
<tr>
<td>10-20 km</td>
<td>22.4</td>
<td>(18.0; 26.8)</td>
</tr>
<tr>
<td>More than 20 km</td>
<td>5.7</td>
<td>(3.3; 8.1)</td>
</tr>
<tr>
<td>Other</td>
<td>3.3</td>
<td>(1.4; 5.2)</td>
</tr>
</tbody>
</table>

**Housing status:**

<table>
<thead>
<tr>
<th>Housing status</th>
<th>Percentage</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renting</td>
<td>4.9</td>
<td>(2.6; 7.2)</td>
</tr>
<tr>
<td>Home owner</td>
<td>93.1</td>
<td>(90.4; 95.8)</td>
</tr>
<tr>
<td>Neither</td>
<td>2.0</td>
<td>(0.5; 3.5)</td>
</tr>
</tbody>
</table>

**Level of insurance:**

<table>
<thead>
<tr>
<th>Level of insurance</th>
<th>Percentage</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>2.0</td>
<td>(0.5; 3.5)</td>
</tr>
<tr>
<td>Home only</td>
<td>0.4</td>
<td>(0.0; 1.1)</td>
</tr>
<tr>
<td>Contents only</td>
<td>1.2</td>
<td>(0.1; 2.3)</td>
</tr>
<tr>
<td>Home and contents insurance</td>
<td>95.5</td>
<td>(93.3; 97.7)</td>
</tr>
<tr>
<td>Other</td>
<td>0.8</td>
<td>(0.0; 1.7)</td>
</tr>
</tbody>
</table>

**Composition of household:**

<table>
<thead>
<tr>
<th>Composition of household</th>
<th>Percentage</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couple with children or other dependents</td>
<td>41.2</td>
<td>(36.0; 46.4)</td>
</tr>
<tr>
<td>One adult with children or other dependents</td>
<td>2.9</td>
<td>(1.1; 4.7)</td>
</tr>
<tr>
<td>Couple without children or other dependents</td>
<td>42.9</td>
<td>(37.7; 48.1)</td>
</tr>
<tr>
<td>One person household</td>
<td>4.9</td>
<td>(2.6; 7.2)</td>
</tr>
<tr>
<td>Shared house with other adults</td>
<td>2.4</td>
<td>(0.8; 4.0)</td>
</tr>
<tr>
<td>Other</td>
<td>5.7</td>
<td>(3.3; 8.1)</td>
</tr>
</tbody>
</table>

**Respondents who themselves, or someone within their household, require assistance due to disability or long-term injury/illness:**

<table>
<thead>
<tr>
<th>Require assistance</th>
<th>Percentage</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>to disability or long-term injury/illness</td>
<td>4.1</td>
<td>(2.0; 6.2)</td>
</tr>
</tbody>
</table>

**Physical health:**

<table>
<thead>
<tr>
<th>Physical health</th>
<th>Percentage</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very good</td>
<td>21.1</td>
<td>(16.8; 25.4)</td>
</tr>
<tr>
<td>Good</td>
<td>46.2</td>
<td>(40.9; 51.5)</td>
</tr>
<tr>
<td>Average</td>
<td>25.5</td>
<td>(20.9; 30.1)</td>
</tr>
<tr>
<td>Poor</td>
<td>4.4</td>
<td>(2.2; 6.6)</td>
</tr>
<tr>
<td>Very poor</td>
<td>0.4</td>
<td>(0.0; 1.1)</td>
</tr>
<tr>
<td>Other</td>
<td>2.4</td>
<td>(0.8; 4.0)</td>
</tr>
</tbody>
</table>

As with any sample, the degree to which it is representative of the population is exemplified by a ‘margin of error’. In Table 1, the 95% confidence interval is the range in which there is 95% certainty that the true value for the percentage of the demographic variable will lie, based on the population and sample sizes. For example, in the survey 75% of respondents were male. Given the sample size (n=251) and
population size (N=922) there is 95% certainty that the true percentage of males is between 70.4% and 79.6%.

**CFU membership and recruitment**

Each CFU defends and protects properties in a designated area which contains a number of properties. CFUs are of variable size due to the inherent diversity of ACT neighbourhoods (Table 2).

**Table 2: Characteristics of CFUs**

<table>
<thead>
<tr>
<th></th>
<th>Area (Ha)</th>
<th>Number of properties</th>
<th>CFU number and location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallest by area</td>
<td>5.91</td>
<td>43</td>
<td>35 - Wybalena Grove North, Cook</td>
</tr>
<tr>
<td>Largest by area</td>
<td>41.61</td>
<td>116</td>
<td>21 - Uriarra Settlement</td>
</tr>
<tr>
<td>Smallest by property count</td>
<td>7.31</td>
<td>40</td>
<td>16 - Titheradge Place, Chapman</td>
</tr>
<tr>
<td>Largest by property count</td>
<td>32.19</td>
<td>179</td>
<td>15 - McGiven Crescent, Kambah</td>
</tr>
<tr>
<td>Mean</td>
<td>13.67</td>
<td>82.9</td>
<td>From a total of 50 CFUs</td>
</tr>
</tbody>
</table>

As at 6 May 2016 there were officially 922 volunteer members in 50 CFUs, i.e. an average of 18.4 volunteer members per CFU. By comparison the NSW CFU program has 6500 members in 591 units, i.e. an average of 11.0 volunteer members per CFU. A reasonable measure of adequate volunteer membership is the number of volunteers measured as a proportion of the total number of properties in the CFU area. This may be termed the “volunteer density” (Figure 1).
Figure 1: Volunteer density for all CFUs

The minimum volunteer density is 0.05, i.e. one volunteer for every 20 properties (CFU 13 – Alexander Street, Hall). The maximum volunteer density is 0.83, i.e. 8.3 volunteers for every 10 properties (CFU 2 – Araba Street, Aranda). The mean volunteer density is 0.22, i.e. 2.2 volunteers for every 10 properties.

What is a reasonable CFU volunteer density?

It is understood that there is no specific target number of volunteers for a CFU other than an establishment criterion of a minimum of 8 members, and thus implicitly no target volunteer density. In times of bushfire threat, a group of CFU volunteers should be able to alert, assist with the protection of property, and prepare for evacuation their own properties and those of their immediate neighbours, i.e. 15 or 20 properties in total. This would amount to a volunteer density of around 0.2 to 0.25. At present only 32 CFUs (i.e. 64%) have a volunteer density of 0.2 or more, and only 22 CFUs (i.e. 44%) have a volunteer density of greater than 0.25. An extra 145 volunteers in total would need to be recruited to achieve a volunteer density of 0.2 in each CFU, and 270 volunteers would need to be recruited to achieve a volunteer density of 0.25 in each CFU (Table 3).
Table 3: Required number of volunteers to achieve a volunteer density of 0.2 and 0.25 in each CFU

<table>
<thead>
<tr>
<th>CFU</th>
<th>CFU Name</th>
<th>CFU Location</th>
<th>Property count</th>
<th># of volunteers</th>
<th>Volunteer density</th>
<th>Required number of volunteers (density=0.25)</th>
<th>Required number of volunteers (density=0.2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Alexandra Street Hall</td>
<td>164</td>
<td>9</td>
<td>0.05</td>
<td></td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td>37</td>
<td>Loxton Place Dunlop</td>
<td>96</td>
<td>7</td>
<td>0.07</td>
<td></td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>15</td>
<td>McGiven Crescent Kambah</td>
<td>179</td>
<td>15</td>
<td>0.08</td>
<td></td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>31</td>
<td>Somerset Place Duffy</td>
<td>99</td>
<td>9</td>
<td>0.09</td>
<td></td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>14</td>
<td>Weatherburn Place South Bruce</td>
<td>157</td>
<td>17</td>
<td>0.11</td>
<td></td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td>24</td>
<td>Champion Place Fraser</td>
<td>91</td>
<td>10</td>
<td>0.11</td>
<td></td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>41</td>
<td>Meredith Circuit Kambah</td>
<td>83</td>
<td>11</td>
<td>0.13</td>
<td></td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>40</td>
<td>Bagshaw Place Bonython</td>
<td>74</td>
<td>10</td>
<td>0.14</td>
<td></td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>Sparkes Close Fadden</td>
<td>125</td>
<td>17</td>
<td>0.14</td>
<td></td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>Cobby Street Campbell</td>
<td>126</td>
<td>18</td>
<td>0.14</td>
<td></td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>18</td>
<td>Hawkesbury Crescent Farner</td>
<td>154</td>
<td>23</td>
<td>0.15</td>
<td></td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>44</td>
<td>Richter Close Fadden</td>
<td>125</td>
<td>19</td>
<td>0.15</td>
<td></td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>42</td>
<td>Brassy Street Deakin</td>
<td>96</td>
<td>15</td>
<td>0.16</td>
<td></td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>35</td>
<td>Wybalena Grove North Cook</td>
<td>43</td>
<td>7</td>
<td>0.16</td>
<td></td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Allchin Court Kambah</td>
<td>127</td>
<td>21</td>
<td>0.17</td>
<td></td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>34</td>
<td>Jagarra Street Aranda</td>
<td>75</td>
<td>13</td>
<td>0.17</td>
<td></td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>48</td>
<td>Tullaroop Street Duffy</td>
<td>84</td>
<td>15</td>
<td>0.18</td>
<td></td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>29</td>
<td>Niblo Close Chapman</td>
<td>64</td>
<td>12</td>
<td>0.19</td>
<td></td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Appel Circuit Fadden</td>
<td>112</td>
<td>22</td>
<td>0.20</td>
<td></td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>39</td>
<td>Carslake Loop Gordon</td>
<td>96</td>
<td>19</td>
<td>0.20</td>
<td></td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Dryandra Street NORTH OConnor</td>
<td>70</td>
<td>14</td>
<td>0.20</td>
<td></td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>32</td>
<td>Dunstan Street Curtin</td>
<td>71</td>
<td>15</td>
<td>0.21</td>
<td></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>43</td>
<td>Willsmore Crescent Chifley/Pearce</td>
<td>94</td>
<td>20</td>
<td>0.21</td>
<td></td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>47</td>
<td>Eldon Place Duffy</td>
<td>61</td>
<td>13</td>
<td>0.21</td>
<td></td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>49</td>
<td>Binns Place Fraser</td>
<td>61</td>
<td>13</td>
<td>0.21</td>
<td></td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>22</td>
<td>Colquhoun Street Kambah</td>
<td>86</td>
<td>20</td>
<td>0.23</td>
<td></td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>46</td>
<td>Parkhill Street Pearce</td>
<td>58</td>
<td>14</td>
<td>0.24</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>Miring Crescent Aranda</td>
<td>82</td>
<td>20</td>
<td>0.24</td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**Observation:** Membership recruitment might, in the first instance, be targeted at the CFUs with the lowest volunteer density, in particular those with volunteer density less than 0.20, with target numbers given in Table 3.

**Membership records**

In the online questionnaire, respondents were asked to indicate their perception of the number of CFU volunteers in their unit (‘How many members are in your CFU?’), and the number of volunteers that were active (‘How many members regularly train in your CFU?’). In the vast majority of cases there was sufficient information provided to accurately identify the respondent’s CFU. These responses covered 47 of the 50 CFUs.
Based on the survey responses:
  
  • There was not a very high correlation between the perception of the number of CFU volunteers in each unit and the official count provided by ACT Fire & Rescue, and an even lower correlation between the perception of the number of active CFU volunteers in each unit and the official count.
  
  • The perception of the number of active volunteers was only 53.5% of the perceived total number of volunteers, i.e. in the eyes of their colleagues almost half of all volunteers do not train regularly. Extrapolating onto the official volunteer numbers, this would amount to almost 430 out of the 922 volunteer members who do not train regularly. This observation serves to reduce further the capacity of CFUs to assist in the time of bushfire threat. The mean active volunteer density reduces to 0.082, i.e. 0.82 active volunteers for every 10 properties.

ACT Fire & Rescue recognised that there was a significant issue with respect to out-of-date information. This initially became apparent when trying to communicate with members by email upon which membership numbers were based. When emails were sent out, approximately 200 to 250 emails would bounce back. From this, ACT Fire & Rescue identified the existence of four databases all cataloguing CFU membership, which needed to be consolidated. In order to do this, and garner a better understanding of how many members were involved in the CFU program, ACT Fire & Rescue contacted CFU members through the active registered email addresses and sourced further information from team leaders.

*We communicated directly with every single member of the CFU to find out one, whether they were still wanting to be an active member; two, could they update all their addresses. When I started, we used to say well, the numbers are between 1250 and 1300. Clearly, that was false... it's probably just under 950 of which have confirmed to us that they - yes, we still want to be an active part of the Community Fire Unit program. ACT Fire & Rescue.*

Similarly, NSWFR recognise the important role each team leader plays in providing up-to-date information regarding membership details of their unit. There, they act as a conduit between their unit and NSWFR.

**Observation:** Records on the status of CFU volunteers, particularly records pertaining to training compliance and active status should continue to be investigated and updated. It is noted that progress towards this goal is currently being undertaken by ACT Fire & Rescue with respect to the development of a smartphone app.
Recruitment targets and exploiting the existing skill base

Based on survey responses, the mean age of volunteers is 57.2 years. Only 6% of volunteers are 34 years or younger. While older volunteers play a useful role in the CFU, a risk remains that over time an aging member base will result in a higher proportion of volunteers that are unable to undertake fire prevention work or assist with fire fighting during a fire emergency, i.e. fully fulfil their duties in times of a bushfire emergency.

Future recruitment should thus be aimed predominantly at younger able-bodied volunteers (under 45 years of age). However, CFU members noted demographic changes in their communities and the challenges they impose with respect to recruiting new members due to the increasing transient nature of their local populations, noting here that only 5% of survey respondents were residing in rental properties.

So there's quite a few homes that people are holding on to and then renting them out to university students, which is great. But they move around... So I think for us that has been a challenge is getting younger people in. We've got quite a few young families. But they all plan on evacuating, which makes perfect sense to us but it seems that both the mum and the dad would be evacuating. A growing number of young people also have family in the town, so you've got that generational thing going on. So Mum would go with the kids and Dad would go to pick up granny or something along those lines. That's been a big demographic change from when we first started. CFU member.

**Observation:** ACT Fire & Rescue should evaluate the benefits of establishing a protocol for units to draw membership from outside of their operational area, within reason.

A CFU member was asked about their personal experience and opinions in relation ideas for recruiting younger people into the program. The issue of many people, particularly those with young children, being time poor was raised to which the CFU member commented:

*It's just every second week for an hour, you can easily arrange that. And I also like the attractiveness of getting more skills. I think that's good. Maybe it has to come more from ACT Fire & Rescue in terms of offering these training sessions.*

**Observation:** Advertising should continue to target younger people by highlighting that volunteering for the CFU does not involve many hours but results in members learning invaluable skills.

There is concern about the demographic change that is occurring in certain established areas around Canberra with respect to losing memory of bushfire and risk perceptions (Text box 1).
Text box 1: Consultative Committee concerns regarding the changing demographics of Canberra communities.

Huge demographic change so we’re all in established areas on a bushland edge. New suburbs in Canberra are now being planned with an edge road and huge buffers so they don’t back into the bush anymore but the change on our edge in 10 years has been phenomenal since the fire. That bushfire memory’s gone, you’ve got a whole new generation of people moving in.

Not only have you got a demographic change and of course the people who are coming are generally younger families with younger children in the main so [their perception is] - yeah, the fire is something that happened over there 5,000 kilometres in that direction.

It changes the vulnerability. We’ve lost our elderly people, gone from six to 10 houses that we put in that vulnerable category down to one maybe.

It changes the task around recruitment and awareness because you’re actually dealing with new residents but you’re also dealing with more able-bodied residents as well in our case.

There’s no doubt that people are very busy and in Canberra you have the option of spending every weekend down the coast if you wanted to.

A high proportion of double income in each house.

Yeah, that’s right. They’re always on bloody holidays.

There’s also the issue that a person might be getting too old to do the CFU but they’re not actually moving out of their houses. ACT Fire & Rescue.

NSWFR noted that there are other roles people can undertake when they are not able to be actively involved as a CFU member, e.g. identifying where static water supplies are located. ACT Fire & Rescue have also identified that there are a range of skills and strengths people can bring to the program even though they may face physical limitations.

They can run the accountability [system], they can... help the team leader at the trailer and that type of thing, because clearly dragging the lines of hose... [is] a bit beyond some of the old folk, but that doesn’t mean we want to cut them off at the knees and just turf them. We still want them to be involved, because like I said, there’s a lot of other benefits with being in a CFU as opposed to just putting out fires. ACT Fire & Rescue.
ACT Fire & Rescue acknowledged, and were strongly encouraged by members, that they should take advantage of expertise within the volunteer group, recognising that ACT CFU members are highly skilled and well educated.

That’s one of the things I think also that they don’t take into account. They don’t collect data on what people have already got in their qualifications. I’m a Cert. IV trainer, assessor. I’ve done half the SES courses and stuff like that and just never, ever been looked at. CFU member.

People are too keen to sort of go ‘why didn’t you ask?’ There’s almost an ‘I don’t know how to ask.’ [They’re] not sure what’s out there. Consultative Committee member.

Although ACT Fire & Rescue have recently sourced CFU members’ expertise with respect to the development of the new database, as described in the section entitled ‘Program improvements’, more can be done to exploit members’ skills as many are more than willing to assist in other areas.

**Observation:** Ways to source expertise and skills from CFU members for problem solving should continue to be devised, using the Consultative Committee and Team Leaders group as access channels, e.g., using skilled and experienced trainers to assist with induction training of new recruits.

**Location of CFUs**

While almost the entire area around Canberra is officially designated as a Bushfire Prone Area³ (BPA), the distribution of the 50 existing CFUs is not uniform across the area (Figure 2). Bushland fringe areas of suburbs in the south and west of the city are well covered by CFUs, whereas suburbs in the north (e.g. Gungahlin, Palmerston, McKellar, Spence) have no CFUs, despite being faced with similar bushfire risk.

A spatial analysis of suburbs in the ACT which do not have a CFU (i.e. 104 suburbs out of 128 in total) examined the number of properties within BPA (and therefore at risk) together with the number of properties that were within 100m of an historical bushfire (and thus had experience of a fire, even if it was a prescribed burn).

³ The BPA used here contains both high hazard vegetation types (forest, woodland and plantation) as well as moderate hazard vegetation types (e.g. grassland, shrubland). The variation in hazard is managed by using different buffers around the high (150m) and moderate (60m) hazard vegetation types. The analysis here does not consider the rate of travel of a fire in high and moderate hazard vegetation areas. The BPA is currently being updated by ACT ESA Spatial Services, drawing on a better understanding of the role vegetation type plays in bushfire propagation.
Figure 2(a): Location of CFUs, Bushfire Prone Areas, and historical fires (Source of data: ACT ESA Spatial Services)
Figure 2(b): Location of CFUs, Bushfire Prone Areas, and historical fires – zoomed to the northeast area of ACT (Source of data: ACT ESA Spatial Services)
Key results from this analysis (Table 4) were:

- 21 suburbs have more than 1000 properties entirely within BPA, amounting to between 34% and 100% of all properties in the suburb
- Of these 21 suburbs, 14 (67%) had a number of properties that have previously been exposed to a bushfire within 100m of the property (in 9 of these suburbs more than 60 properties had been thus exposed)
- A further 26 suburbs have between 500 and 1000 properties entirely within BPA, amounting to between 18% and 81% of all properties in the suburb
- Of these 26 suburbs, 8 (31%) had a number of properties that have previously been exposed to a bushfire within 100m of the property (in 3 of these suburbs more than 60 properties had been thus exposed).

Table 4: Most bushfire risk-prone suburbs without a CFU

<table>
<thead>
<tr>
<th>Suburb</th>
<th>Total # of addresses</th>
<th># of properties within BPA</th>
<th>Proportion of properties within BPA</th>
<th># of properties within 100m of an historical bush or grass fire</th>
<th>Proportion of properties within 100m of an historical fire</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGUNNAWAL</td>
<td>4822</td>
<td>2794</td>
<td>57.9%</td>
<td>180</td>
<td>3.7%</td>
</tr>
<tr>
<td>MACGREGOR</td>
<td>2803</td>
<td>2261</td>
<td>80.7%</td>
<td>87</td>
<td>3.1%</td>
</tr>
<tr>
<td>CASEY</td>
<td>2601</td>
<td>2161</td>
<td>83.1%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>NICHOLLS</td>
<td>2764</td>
<td>2132</td>
<td>77.1%</td>
<td>86</td>
<td>3.1%</td>
</tr>
<tr>
<td>KALEEN</td>
<td>2919</td>
<td>1826</td>
<td>62.6%</td>
<td>23</td>
<td>0.8%</td>
</tr>
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Of the 21 suburbs, 14 are in the north and northeast of Canberra (centred on Ngunawal/ Gungahlin) and six are in the south (Monash, and suburbs to the south of
Monash). Further analysis is required to establish the exact role that social factors and fire history might play in the uptake of volunteerism in these areas.

**Observation:** The establishment of new CFUs in suburbs that have the greatest exposure to bushfire risk as outlined in Table 3 should be considered. A staged approach (e.g. up to 4 new CFUs per year for the next five years) should be considered.

**Recruitment initiatives**

One of the biggest recruitment drives occurs on CFU Saturday in October each year, where local units undertake activities in their own communities to raise awareness of and encourage participation in the CFU program. However, CFU Saturdays do not always attract a lot of support from the broader community.

*We would try to get publicity for CFUs for CFU Saturday and other things. We didn’t seem to have a lot of success. ACT Fire & Rescue.*

CFU members supported advertising the program through mainstream media and around the local community.

*When I went to Hume in November for a training session they had the television, local television there and they had a bit of a news clip which was really good. That was great and I think these sorts of initiatives just say public awareness and then if there’s a local paper Chronicle to appear there... maybe also in the local shopping centre just sort of a bit of a poster also because it does get more attractive. We have a local shopping centre over there so yeah just those or even in cafes just a bit of a note on the noticeboard. CFU member.*

**Observation:** New ways to promote recruitment and awareness raising strategies relating to the CFU program through mainstream media, community channels and official and unofficial social media platforms should continue to be investigated.

Some CFUs use the locality of their trailers to advertise their unit’s activities to generate awareness among their neighbourhood.

*We’ve got a CFU practice sign that we write in the date and everything. That’s there, so everybody who walks up this really important walkway in our suburb walks past this sign.*

When the trailers were brought in for service, ACT Fire & Rescue personnel noticed that some had advertising by way of a *funky-looking poster* attached to the side describing what the trailer was about, its purpose and when the next open day was. ACT Fire & Rescue believe this as a great initiative for recruitment.
Others used the festive season to entice younger people to the group.

Before our Christmas party obviously we do a letter box drop about that inviting everybody and we get a good show. It’s pretty much same old but it’s still a big cross-section and people with kids come because they bring presents for Santa to [hand out].

CFU member.

**Observation:** Existing CFU program awareness-raising initiatives should be highlighted as best practice examples for other teams to learn from.

**Observation:** The linkage between the Canberra Bushfire Ready doorknocking initiative and the CFU program should be strengthened. This offers an important recruitment strategy to attract new recruits in their area.

Recruitment issues, however, were raised as ongoing challenges of the CFU program in the questionnaire, focus groups and interviews, with changing demographics as outlined in the section entitled ‘Recruitment targets...’ as the main factors.

*Recruitment is one of the real difficult parts of the CFU, and it comes up constantly.* ACT Fire & Rescue.

*Maintaining and recruiting members - new people in neighbourhoods may not be aware of a CFU operating.* CFU member.

*Recruiting younger members in areas where residents’ ages are increasing.* CFU member.

*Recruiting younger and possibly fitter members. We are working on this now, as a few of our members are likely to retire soon.* CFU member.

Although some units appear to be very active in this space, it is clear that there needs to be more consistency across areas and further support from Fire & Rescue is warranted.

As one member opined: *As soon as there is a professional I’d say that increased the importance of the topic.*

**Observation:** CFU Saturday, Canberra Bushfire Ready doorknocking, and other initiatives that assist recruitment should be well supported by the fire services and target all areas, including at-risk areas where there are no existing CFUs.

One CFU member interviewed noted the considerable delay it took between a recruitment drive, which generated her interest, to the time she underwent induction training.
So it was actually a letter drop and I thought that would be interesting... So I saw that it was an opportunity and just that it's a real hazard yeah and we live in that area so I thought it would be great to see what they are doing. I had no idea that the CFU (a) that they were existing and (b) that they were existing in my suburb. I put my interest down probably what is it, two and a half years ago but it took some time to attend an initial meeting or training so I have been active, let's call it active for one and a half years... the letter drop was probably in January and then I was going on a journey and so by that time it was the end of the fire season so there was nothing on and then I got into training in November so that's why sort of half a year’s delay. Since then, then there was still a delay, I think that was about communication because I had joined, I got my uniform and then I didn’t link up with my unit. I thought that the CFU coordinator would pass on my details. Maybe he did but I just didn’t get in contact with my unit. So then I decided well I’d just go because I knew where the trailer was so I’d just go, knock on the door and introduce myself. Then our team leader he put me on the contact list and then I knew when the training was and I could participate so that’s why those delays happened. CFU member.

Several other members also noted this issue with one commenting that they lost one or two new recruits because it took several months to get them trained.

The thing is that, once they’ve gone, we can’t get them back. That’s it. CFU member.

If I had joined the CFU when I enquired, I’d have another year on my timetable of events, because I enquired the year before and it took 12 months to get to a training session. CFU member.

Some members raised the point that the initial training used to be done within the unit.

That was absolutely superb, because as soon as we found we got new members, we called on a special training day. We said to the new member, these people are all here to support you. You’re part of our team. The vibe was fantastic. They were committed from that time on. Now they say we can’t do that. Rules have changed. You’re not qualified trainers. So if you get a new member that comes in after the start of the season, you’re probably going to have to wait till March. They’ll put on one or two courses, initial training, in October to December and then they say there are not enough numbers to justify it. So we have the same problem. We’re going to lose them. CFU member.

Can I just comment on that self-training? Yeah, we got a few out of that. They put on a course that five people went to to learn to be trainers and I went. I’ve been a university lecturer and a secondary teacher, but I went anyway. I think I got either two or three people which we trained that way. That was dead easy, because quite frankly this stuff isn’t rocket science. In fact, the people that we trained in unit who then went to the initial training universally said, we learnt more from you guys than we did from them. Canberra
is the second best educated city in Australia. There may be no members of my unit that haven’t got university degrees and so to actually train [new members] with standpipes and hoses and common sense is not a big challenge. CFU member.

In relation to this, the Consultative Committee voiced frustrations with respect to legality issues surrounding potential recruits.

One of the things that’s been frustrating, there’s been a shift in if you like the legal position of things about when potential recruits, people have just moved in, as to when they can actually touch a piece of gear and be covered by insurance. Over the decade it’s waxed and waned whether they’ve got to be fully trained and with their boots on before they can even join us. Or whether we have the authority and delegation to actually look after a potential recruit for a couple of our local training sessions to get them used to the system and then we dispatch them to do the formal training and then they rejoin the unit. This is how you seduce volunteers into an organisation. [At present] we can only really get new people in after they’ve done those six hours and if they cancel a session then they miss the whole season.

This is the biggest issue and until the legal guys pull their finger out it will get as bad as it ever was. We were told that once you send someone’s name to the CFU Coordinator and that person gets entered into the database it’s okay... but then it’ll change. We get another little message, oh we’re not allowed to do it like that anymore. You’re going ‘what on earth’s going on here?’ We don’t know what to advise. Consultative Committee members.

**Observation:** Induction training should be available on a regular basis following major recruitment drives such as CFU Saturday.

**Observation:** A protocol should be developed so that local teams can begin initiation for new recruits in cases where they are unable to attend an official induction training session within a given period of time.

**CFU longevity and motivation**

Importantly, the survey results show that there is longevity in the CFU program with almost a quarter of respondents noting they have been a CFU member for more than 10 years. However, the greatest proportion has been in the program for 2 to 4 years (Figure 3), thus highlighting the programs success at signing-up new recruits in some years and maintaining a certain level of longevity throughout, albeit waning among the six to ten year brackets. A small proportion (8%) declared that they had been involved in other fire agencies with most stating NSW or ACT RFS.
Figure 3: Length of time as CFU member

**Observation:** Further analysis to investigate people’s reasons for joining the CFU program and their motivations for remaining in it with respect to the longevity of their membership could be undertaken. The results of this could be used as promotional material for recruitment drives and awareness-raising.

The top three options that best reflect people’s motivations for becoming a CFU member were:

- I know that I live in a bushfire prone area so I wanted to be able to protect myself/property/family in the future (94% agree/strongly agree)
- If I and my neighbours are trained and equipped to defend our homes it gives us the greatest chance of saving them (88% agree/strongly agree)
- Bushfires affected my local area in the past so I wanted to be able to protect myself/property/family in the future (85% agree/strongly agree)

The vast majority of respondents (94%) stated they were planning on remaining CFU members. Of the 6% that said they weren’t planning to remain or were unsure if they would remain in the CFU program, many cited physical ability as the reason for their response. Others also noted the challenges of retaining membership and recruiting new (and younger) members.

One of main drivers for maintaining membership is ensuring that CFU members feel valued. This has been achieved by linking the CFU program into ACT Fire & Rescue
operations, i.e. activating members to join them on controlled burns and other operations.

_The more they get activated or notified, the more they think “oh, we’re actually part of this.” That will keep the enthusiasm up, going “you know what, I’d better go to some training because they’re activating us. I might be called upon, so I’ve got to be ready to go.”_ ACT Fire & Rescue.

_“This makes a big difference to our credibility.”_ CFU member.

CFU members were found to identify not only with ACT Fire & Rescue, but with other emergency services as well. These links should be encouraged.

**Program performance and governance**

Some of the major issues raised in the focus groups and interviews were related to the past performance of the CFU program. In this respect, it was recognised that previous Coordinators were responsible for multiple roles that took their focus away from the CFU program.

In other instances, past CFU Coordinators felt they were not adequately supported by upper levels of ACT Fire & Rescue management. It was noted that in the past (more than 2 years ago) there were issues with staffing the CFU program and having limited resources to provide training for the large number of volunteers in the program. ACT Fire & Rescue personnel suggested that to have consistency and continuity, the program needs three full-time and a couple of part-time staff.

_If I ever say anything, I’m never critical of anybody else who’s been in the role. It’s just been under-resourced._ ACT Fire & Rescue.

NSW have had similar issues with respect to resourcing with fire services having been asked to do more with less with a direct impact on the CFU program.

_Have to make sure the funding comes through to match what we can actually do. Get the best value for that money. The whole system wants to grow exponentially but the problem is how to manage that in terms of resources. The more we invest in them, the more there will be a cost._

_One thing we highlight from a public view, when we might have to take a CFU away due to lack of interest, we want the community to know that we are not abandoning them, we are relocating those resources to elsewhere. The decision is tied to community interest and not the desire of NSWFR to have it there._ NSWFR.
Observation: Ways to better resource the CFU program should be investigated. This may be achieved from a community resilience perspective and is discussed in more detail in the section entitled 'Benefits of the CFU program'.

The Consultative Committee discussed how imperative the CFU Coordinator’s role is in terms of making sure the right person is selected for the job, noting that they must be incredibly patient.

What’s at risk is the CFU program. If they cock up within the executive of picking the wrong person to be their Coordinator then the morale goes through the floor. Consultative Committee member.

[It has to be] someone who wants to be there. Whereas if they’ve got somebody on an injury sick list for three months or half a year and they’re off the truck that’s not the right person. Consultative Committee member.

Funding and cost-effectiveness of the CFU program

Annual direct costs (i.e. recurrent and capital expenditure) of the CFU program for the past 5 financial years are between $230,000 and $483,000 (Table 5), depending on capex scheduling (replacement of trailers and equipment). This data, however, does not include an attribution of indirect or support costs e.g. proportion of salary of Commander or Superintendent.

Table 5: Direct costs (i.e. recurrent and capital expenditure) of the CFU program, 2010/11 to 2014/15

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Notes:
2010-11 higher Employee Expenses due to debit adjustments to Annual Leave & Long Service Leave
2013-14 higher Employee Expenses due to debit adjustments to Annual Leave & Long Service Leave
2014-15 reduced Employee Expenses due to credit adjustments to Annual Leave & Long Service Leave
The cost of the CFU program is small, amounting to no more than the costs of (re)building a medium sized home. The major cost of the CFU program consists of salaries of the 1⅓ full time officers involved with the co-ordination of the program.

The benefits of the program (described in more detail in the section entitled 'Benefits of the CFU program') are multiple:

- Prevention/reduction of loss or damage to property due to bushfires
- Prevention/reduction of injuries and/or fatalities due to bushfires
- Improving community connectedness, and thereby improving community resilience.

Whilst these benefits cannot be quantified, in the medium term they are likely to far outweigh the cost of a single home (i.e. the current cost of the program) and have been summed up nicely by one CFU member (Text box 2).

**Text box 2: Challenges of maintaining the CFU program with respect to budget challenges**

*The point that we try to use is that [the CFU program] is part of building stronger communities, stronger communities, resilient communities, public education about bushfire, because that's actually - one of the biggest things that came out of the mental health snapshots that we were involved in doing during and right after the Canberra bushfires was the mental health of the community and then trying to project that six months down, one year down, two years down, five years down, 10 years down and then trying to put in infrastructures that would promote, build and strengthen and sustain a healthy mental health community.*

*One of the big lynchpins for that was the CFU. So it was a real risk, because we knew it was outrageously expensive. Unless we had major firestorms every year, which we don’t want to have we’d have to find other things, other indicators to prove that this was a viable program to suggest and to build on. So whenever I get the opportunity to include CFU in the stuff that I do, it’s actually coming at it more from a social policy angle. Then that goes into mental health ACT and stronger communities, stronger families and all that kind of stuff.*

*I guess the thing that we tried to say in our initial recommendation is that this is not expensive. It’s actually a very, very financially viable way of getting equipment out into the perimeter, of maintaining it out there so that you don’t have your fire trucks running around or you don’t have to rely on Rural Fire Service to have hoses and what not, that we have this capacity and you’ve got a community that actually knows more than it did before…*

*But if all the CFU does - which is actually a lot - is get the standpipes up or get the hydrants clean...public information out in our communities. If requested or activated, standpipes are*
up, the hoses are out. Then once the crews go through, we can mop up. That's huge and it's massive and it's very, very cost efficient because they're not paying us to do this. But I can also see the flipside of when you're grinding through a budget and it's just increasingly shrinking and you've got the federal government - because we are in a territory, can't forget that. Got a federal government that's doing its own weird things around emergency and disasters and then the ACT. The fact that we've been able to not only be sustained but actually grow I think is brilliant. CFU member.

It was envisaged that the economic efficiency of the CFU program would, in part and where possible, be measured by a cost-benefit analysis, using an approach similar to that of Gibbs et al. (2015) in an economic analysis of the Community Fireguard Program (CFG) in Victoria. However, a constraining factor is the availability of accurate appropriate data.

For example, Gibbs et al. (2015) made dollar estimates of the reduced loss of life and the reduced loss of property, and aimed to include the dollar value of improved psychological well-being in the community. To accurately estimate the benefits of the CFU program would require an assessment of the number of fatalities prevented and property losses reduced specifically by the actions of CFU members in the course of their duties during a bushfire. Given the paucity of recent damaging fires (and hence data) in the ACT, estimates of these quantities are at best unreliable. Furthermore, this would require significant assumptions about the long-term bushfire behaviour in the ACT.

In terms of costs, Gibbs et al. (2015) estimated volunteers’ donated leisure time as a direct cost. However, the questionnaire data presented here indicates that it is unclear exactly how many volunteers are in each CFU, and that only around half of these are active, making any estimate of this cost extremely unreliable. For this reason, only direct dollar costs have been considered here and benefits have not been quantified in dollar terms.

Although not a perfect comparison, the study by Gibbs et al. (2015) does shed some light on the value of volunteer bushfire groups. They identified that active CFG participation reduced the risk of property loss from 35% to 21% compared to no CFG participation, illustrating the efficiency of fire preparation in households. Gibbs et al. (2015) used data on property losses in Victoria which showed that regular participation in the CFG program was associated with lower property losses, translating into a predicted cost saving of $412,800 per CFG group due to CFG participation for a major bushfire event. However, in the event of a catastrophic fire all volunteers will be evacuated and they will have little opportunity to reduce property losses – their value would be in pre-fire mitigation only.
Using the Australian Government’s value of a statistical life (i.e. $3.5 million per life) and assuming the reduction in risk of fatality is similar to the reduction in risk of property damage, Gibbs et al. (2015) estimated that that CFG participation would result in a cost saving of $27.7 million for the 2009 Black Saturday bushfires. Using similar risk reduction values (unsubstantiated for the ACT case), the reduction in fatalities in the 2003 Canberra fires would be of the order of $9.4 million. Whilst CFU volunteers could play a major role in assisting in evacuation of the CFU neighbourhood in the event of an extreme event such as the 2009 Black Saturday fires, it is unlikely that they would have much impact on preventing property damage when fire danger is extreme.

Nevertheless, a strong CFU program offering complete coverage to the ACT residential environment will be a valuable asset for the ACT Emergency Services Agency outside of extreme-catastrophic fire days. As identified in the analysis of CFU locations, certain suburbs in Canberra that are at-risk of bushfire do not as yet have a CFU; this is particularly prevalent in the northeast of the city. The establishment of a CFU does not incur any significant extra set-up costs, except recruitment costs. Once set up, every CFU incurs capex costs relating to equipment (trailer and personal protection), as well as induction training. A concerted recruitment drive in these areas, planned and co-ordinated by a dedicated resource in ACT Fire & Rescue, will help to bridge this gap.

**Observation:** It is expected that additional support for the CFU program or the availability of a specific project officer to undertake recruitment in areas of high risk can be achieved through the Emergency Service Agency’s Strategic Reform Agenda.

The extra costs recommended will amount to an approximate doubling of the current annual CFU program costs, but will still be no greater than the cost of rebuilding two homes.

The direct cost per CFU amounts to between $4,600 and $9,660 per annum, based on the figures for the past five financial years (Table 3). By comparison, the budgeted direct costs of the NSW CFU program (591 CFUs) amounted to $1.9 million in financial year 2015-16. This amounts to an expenditure of $3,215 per CFU per annum. Several reasons may exist to justify the difference:

- The NSW program is larger, and thus there are economies of scale (e.g. coordination costs are significantly less per CFU)
- The NSW program is more mature, requiring less recruitment and establishment costs.

**Governance structures**

The establishment, objectives and functions of the ACT CFU program is governed in legislation by s 47 to s 50 of the *Emergencies Act 2004*.

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Operational guidelines on locations of CFUs, training, responsibilities of various CFU ranks, safety, use and maintenance of equipment and general methods of operation are detailed in *Standards and Protocols for Community Fire Units*\(^5\).

The ACT CFU program’s business plan for 2015-16 is contained in *CFU Business Plan 2015/16*. This document details a vision for the program, and identifies possible development in key facets of its operation, e.g. recruitment, skill retention, location demand, and growth potential. A SWOT analysis for the program defines its position.

The *Emergencies Act 2004* is clear on the functions of CFUs. However, s 49(2)(c) requires a CFU to “Assist with recovery operations after a fire emergency”. This function is reiterated in *Standards and Protocols for Community Fire Units* (Section 5).

However, the term “recovery” is not defined in either the *Act* or the *Standards and Protocols*, and thus it remains unclear exactly what the limits of involvement of CFU members are. Recovery might entail only short-term post fire-front ember watch activities, or it could include recovery in a broader sense, which might be longer-term, e.g. manning recovery centres, and post-event cleaning up. A clear definition is required to ensure that appropriate training is provided to volunteers, and that volunteers are aware of their commitment.

**Observation:** ACT Fire & Rescue should define the extent of the role of CFUs in post-fire recovery. The *Standards and Protocols for Community Fire Units* should be updated to reflect this clarification.

The CFU program is well structured. CFUs are led by a Team Leader, who in turn reports to the CFU Coordinator. In addition, CFU volunteers elect a Consultative Committee to represent them in dealings with ACT Fire & Rescue. This structure should make for good communications at and between all levels of the program.

There is currently no enforced requirement in the *Standards and Protocols* for CFU volunteers to undergo skills maintenance/ refresher training. This means that volunteers may become rusty and skills may decline, leading to a reduced capability for the CFU to satisfactorily perform its duties, and to potentially endanger lives.

Annual skills maintenance/ refresher training should ideally be carried out in the CFUs designated area, in conjunction with local station crews, to provide the local crews with an understanding of the CFUs capabilities. The training will provide the CFU Coordinator with a quality assurance around CFU capability and assist in managing Work Health and Safety (WHS) risks. Further skills training (beyond the scope of the

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CFU program) may be offered to volunteers by local station crews or the Rural Fire Service (RFS) on a voluntary basis.

**Observation:** ACT Fire & Rescue should examine the option of introducing an annual skills maintenance/ refresher course for all volunteers. This training should be carried out in conjunction with local station crews in the CFUs designated area.

There is currently no requirement in the *Standards and Protocols for Community Fire Units* for CFU Team Leaders to report operational preparedness (i.e. training activities undertaken, numbers of volunteers active and available, numbers of volunteers who have undergone training etc.). This means that the CFU Coordinator does not have up-to-date information about the status of each CFU.

**Observation:** ACT Fire & Rescue should introduce an annual pre-bushfire season operational report (due late September) and annual post-season report (due late May) by CFU Team Leaders to the CFU Coordinator, specifying:
- number of registered volunteers in the CFU
- number of active/ available volunteers
- number of volunteers that have undergone skills maintenance/refresher training
- status of equipment (i.e. trailer)
- any other item that might impact or has impacted the ability of the CFU to perform its duties in during the bushfire season.

To ensure compliance, these reports should be designed to be short, and not onerous to complete. To expedite data collection, collation and analysis, these reports should be completed online or via a smartphone app.

**Work Health and Safety**

Assisting with fire fighting during a fire emergency [*Emergencies Act 2004 s 49(2)(b)*] is by definition a task that may put CFU members in danger. It might be assumed then that there would be a significant number of reports pertaining to WHS.

The WHS register for the CFU work unit going back to June 2013 contains only 5 records of injury amongst all volunteers. This might imply excellent training and adherence to procedures, or alternatively a culture in which reporting of WHS incidents and injuries is neglected.

When questioned about the very few logged WHS incidents the Consultative Committee were not surprised and believed it to be an accurate representation. They all cited safe practices and that they’re all *pretty careful.*
People know that pressure comes out of the bloody water mains, don't stick your head over the thing... As soon as someone is leaning over it... people always go pull your head back. People know that generators, pumps are heavy and one person can’t lift it off the trailer and carry it around. Consultative Committee member.

CFU members also cited safe working practices but acknowledged that other minor issues (two heat stress cases mentioned) are only logged in their own books.

Our team leader is really good like he makes sure we operate safely when we train and of course he has more knowledge because he has been a member probably from the start, very early. CFU member.

Logged in the occurrence book, but it wasn’t serious enough to go beyond that. CFU member.

**Observation:** Clear protocols should exist with respect to logging WHS incidents with Fire & Rescue.

CFU membership is not restricted by age or ability. ACT Fire & Rescue are mindful of the risks associated with this. However not all CFU tasks require physical strength and fitness; the less fit can be used in doorknocking, and supplying the team with refreshments. The opportunities and advantages of developing guidelines to identify fitness for duty with respect to undertaking certain tasks as CFU volunteers could be considered.

There is a huge variation in abilities among CFU members. A lot of elderly people in their 70s +. This is one of the things in the back of our minds if there is a fire situation. It is a general concern with Fire & Rescue. ACT Fire & Rescue.

In terms of first aid, CFU members were concerned by the fact that no one on their team was first aid trained. ACT Fire & Rescue, however, worked to rectify this and now boast almost all (42) units from 50 have at least one member with first aid training. Although some members feel that this has been a long time coming.

They were pretty pleased that everybody had finally got 40-odd members first aid trained. That first meeting that I ever went to in 2009 was that, by the end of 2010, we’re going to have 50 to 60 people trained in first aid, so that’s not bad seven years later. CFU member.

However, some feel that CFU are underqualified, even with 40-odd members undergoing first aid training through ACT Fire & Rescue.
When we were training people in the unit, we gave them a first aid session. That meant several of our people had to be at least up to strength to talk about first aid, that's gone. CFU member.

Observation: First aid training among CFU members should be expedited in an effort to ensure that at least two active members per CFU have current first aid training by the start of the 2017 bushfire season. This should be increased to at least four active members by the start of the 2020 bushfire season.

Perception of support for the CFU program and its roles and responsibilities

They are a community fire unit. It's your community, it's your fire unit. They've got to understand that if they want it, they've got to take ownership of it. It's not up to us to do everything for them. We'll support whatever you want, but it's a community fire unit. ACT Fire & Rescue.

Team Leaders group and the Consultative Committee

Based on the questionnaire results, the Team Leaders group scored a mean of 3.82 and the Consultative Committee scored a mean of 3.52 in terms of how CFU members rated their performance, where 1 is inadequate and 5 is totally adequate. With respect to the Team Leaders group, many respondents felt that they weren't qualified to answer, as they were not aware of their role as a group. Others provided comments (mostly positive), in relation to their own team leader. Positive comments were also received by those who sit on the Team Leaders group:

Very happy with the amount of investment in the team leaders, we have regular meetings, people’s questions are always taken seriously and there is a strong camaraderie in the group.

A lack of awareness was more prevalent as a response with respect to the Consultative Committees performance with a general view of:

I don’t know who they are or what they do.

Team Leaders meet as a group at least twice per year – at the start and at the close of the fire season.

A lot of stuff that happens which I suppose is the learning that happens across the movement, happens in those team leaders meetings. Consultative Committee member.

The Consultative Committee meets approximately every eight weeks and currently comprise of seven members. The Consultative Committee’s role is to address any significant issues raised by the Team Leaders group.
The CC [Consultative Committee] actually has the ability to in a way approach and correspond with the Minister directly. Rather than us be restricted to only going up the command line, which means going through the Chief Officer of Fire & Rescue then through the Commissioner and then to the Minister. If we have a bit of a gripe about something it’ll just be snipped in the bud, however many layers. But if there’s something really irritating us that we feel strongly about and now we’re at what, 950 something members of volunteers, it’s nearly the biggest or is the biggest volunteer group in Canberra, we can say sorry we disagree but we’re going to the Minister. Consultative Committee member.

The Consultative Committee regarded themselves as a foundation of the CFU program and a very important element of it in terms of continuity and retaining corporate memory. This perception is based on the fact that their positions on the Committee are generally much longer than the appointment terms of CFU coordinators.

This is from a structural point of view; this is not really appreciated by the team leaders or the rest of the community CFU members. This is really the structure that we’ve almost self-sorted into and this is what we want because we know it will work and it is resilient to change. Consultative Committee member.

One of the concerns that the Consultative Committee raised with respect to their role was that if the Team Leaders meetings are poorly attended they are unable to adequately address CFUs needs and expectations.

Our only real input is from the team leaders meeting and not everybody’s at the team leaders meeting... What I feel is that I’m not necessarily adequately representing across the board, across all the CFUs. I only take my inputs from the team leaders meetings and that’s what I bring forward to the CC [Consultative Committee] and that’s what we take forward to the Minister... In addition to issues we raise internally. Consultative Committee member.

The Consultative Committee was aware of the fact that many members do not know they exist.

One of the problems we had was that we don’t advertise on the website. Our members don’t know much about us other than at team leaders meetings we get mentioned. For a little while there the Superintendent would not, for privacy reasons, allow us to have our email addresses and phone numbers on [the website]. That’s since been okayed but I don’t think our addresses and phone numbers are there yet. Consultative Committee member.

The challenge that the Consultative Committee faced with respect to being accessible and visible as a representative group for the CFU was that they lacked government access.
We face if you like a hurdle dealing with the website bit because it’s run through ACT government and [we lack direct access to the website because] we are not staff. Consultative Committee member.

Apart from transparency on the website, the Consultative Committee believed the elections for Committee membership also created greater exposure among Team Leaders and CFU members.

**Observation**: Greater communication with CFU members should be undertaken to highlight the Team Leaders group and Consultative Committee’s roles and responsibilities. Simply disseminating key points from each meeting will help to raise awareness of both groups.

Only recently, however, have minutes from the Team Leaders meetings been taken and this was due to the interest of one CFU member.

[CFU member] started tagging along to meetings like the team leaders meeting and then the CC [Consultative Committee] meetings and for the first time because notes [were being taken] we actually started having a record of what we talked about. Outrageous really. Fire & Rescue do that now as a matter of course. But it’s important that that be supported and continued into the future. Consultative Committee members.

**Observation**: Minutes of every meeting should continue to be taken and logged, including action items.

The Consultative Committee believe that they have quite a nice geographic spread. While there are no set boundaries surrounding CFUs that each member represents, some initiate contact with their adjoining units in order to organise joint events, e.g. CFU Saturday activities. It was considered difficult to have anything formalised in terms of designated areas due to the clustered nature of many CFUs and large spread of others.

In addition to the issues relating to the accessibility and visibility of the Consultative Committee via the ACT Fire & Rescue website, the Consultative Committee noted other challenges with respect to government protocol and privacy issues.

*There was this sort of super privacy way of going through Fire & Rescue or the ESA. Even now the privacy issues that we face out in teamland, Fire & Rescue or ESA or the Attorney-General still hasn’t solved it, which is ridiculous because you do a doorknock, you collect names and addresses of people, you’re holding essentially personal information. We wouldn’t be able to collect that information if we didn’t have the logo on our T-shirt.* We
represent Fire & Rescue - they trust us to hang onto the information but then we can’t put it anywhere and we can’t give it to Fire & Rescue because if we give it they then have to look after it under the whole privacy issues.

What happens is that a number of us doorknock our neighbourhoods and we keep... who lives where, whether there’s one or more people there that need to be evacuated, do they have a gate that leads to the back reserve, do they have a swimming pool that we could use... are we allowed to use it? And it’s just all gleaned through a one-on-one conversation at the front door but it’s really useful for us to know that the old lady up the road’s got a visual impairment and is actually going to need some assistance. Consultative Committee member.

A related observation is made in the section entitled ‘Preparedness and communication’.

**ACT Fire & Rescue**

Overall, questionnaire respondents rated the support from ACT Fire & Rescue very well, with mean scores of 3.89 for support from local ACT Fire & Rescue stations and 3.85 for management and operational structure, where 1 is not at all support and 5 is extremely well supported. In general, respondents were very positive noting vast improvement in recent years.

*Has improved exponentially in the last 18 months.* CFU member.

*Over the last decade the support has had ups and downs due to resourcing, presently a good structure is in place.* CFU member.

*We are provided free training, uniforms, maintenance of our equipment trailer, and are kept in the loop through regular email updates.* CFU member.

However, it appears that of the few negative comments raised some were associated with issues inherent within individual units and not necessarily a reflection of the current management and structure provided by ACT Fire & Rescue. As opined by one member *there is lots of support available, if we choose to use it.*

*As far as uniform and the opportunity to train and the opportunity to attend Hume, the opportunity to train at their trailer and the fact that we will send Fire & Rescue resources to that training if they let us know about it, I think they’re supported. I think they’re supported quite well. It’s just up to the individual groups to actually tell us that they want somebody to turn up, and we can always manage it.* ACT Fire & Rescue.

Another strength of the ACT CFU program is that it is local.
I know where every single trailer is and I’ve been to every area in the suburbs. I know where they are, I know a lot of the team leaders by face and all that type of thing, so our support for them is better, but that’s only because of the geography. It’s not because of New South Wales ignoring them. It’s just because we can do that because it’s a smaller jurisdiction.

But they get any support. Anything they ring up and ask for, we’ll do. If they ring up and they say they want to come to training - and we’ll even do - if they ring us up and say we’d like to do training as a group, can you do it, we’ll put a day on for them. We’ll do that. We’ll say yeah, come out at this time and we’ll do something separate, if they want to do that, but not a lot of them actually take that up. A few have, but not a lot have. ACT Fire & Rescue.

When asked, however, about support coming from the broader community, one ACT Fire & Rescue official responded: “I’m not actually even sure whether they’re completely recognised within our agency... That is my opinion. That’s not a fact.”

NSWFR also acknowledged that sometimes there is reluctance with respect to engagement between NSW Fire & Rescue stations and CFUs because local NSWFR don’t necessarily see the need. NSWFR do, however, recognise that building a relationship between the station and the CFU needs to be developed. NSWFR believe that ACT are doing well in this respect by getting CFUs to touch base with their local stations. Although, like the ACT, NSWFR stations have a whole host of other things to do as well, so there is an issue of balance.

**Observation:** Promotion and support of CFU team leaders connecting with their local Fire & Rescue stations should continue, and any issues surrounding these relationships should be addressed as soon as they arise.

ACT Fire & Rescue personnel and CFU members noted for the most part, there was a good level of support for the CFU program from local stations with one member declaring that ACT Fire & Rescue support has been *absolutely fantastically* well received by his unit.

*As far as relations with the Fire & Rescue, I’ve had really nothing but positive. We have had on at least one, I think two occasions, fire engines happened to drive by - they’re driving around - and then they’ve found us in the middle of a practice and just come in and said, okay, let’s take over, and taken over the standpipe and put it through the pump there and then put it into our hoses and just about scared the living daylights out of all the elderly guys or ladies who are handling the hoses. You get a bit of pressure up. Once, we got them to come out by booking them and everything. They came out and with a crew of - there were four of them. They actually gave us a training session which was really good. They*
came out and they just took over. So [the team leaders] just said all right, because one of our problems is boredom. CFU member.

We bring them once out to watch us do an activation and then debrief. We bring them out another time later in the season. We train with them. Nothing but cooperation every time. At that level, it’s fantastic. CFU member.

**Observation:** New ways to include CFU members in Fire & Rescue activities should continue to be devised.

The CFU is the least utilised of the volunteer organisations in ACT ESA. There are a large number of members but they are not as active as some other volunteer organisations, such as the ACT RFS. Some respondents believe that ACT Fire & Rescue lack understanding on how to support the program.

It’s taken a long time for them to regard CFUs as a positive asset. Even now we get mixed messages. I mean, the ultimate irony is that the whole program came out of the massive disaster of 2003 and our bottom line instruction is, in the event of an event like that, get out. So why have CFUs? Well, you have CFUs perhaps because they can help Fire & Rescue, but it’s only in this last season that they’ve actually integrated the availability of CFUs into their call out process - the very first time... Every time they take a positive step to reinforce the message that CFUs really are part of their system, they do something stupid that sends a negative message. CFU member.

I get the impression [ACT Fire & Rescue] are willing. It’s just that - and this isn’t a criticism - they’re not used to managing volunteers. CFU member.

Yeah, I think there’s good conversations to be had between the fire fighters and the Red Cross, because 70% of the workload is handled by volunteers in Red Cross. It’s the largest volunteer organisation in the world and Australia’s no exception to that. They can’t function without volunteers and they’re very upfront about that. The way they train - having just gone through yet another load of Red Cross training, the way they work with their volunteers shows that experience and that absolute commitment to the volunteer way. I think those skills as learning skills and teaching skills and working with volunteer skills, I think there’s probably a lot of peer to peer conversations that could enrich the experience for the volunteers, because that’s one thing Red Cross makes really clear is that they’re there to make sure your volunteer experience is the best experience you can have. I’ve watched a lot of people now go through the Red Cross training and they just come out feeling empowered and enthusiastic. CFU member.

To this end, it was noted that the new CFU Coordinator attended the 2016 National Volunteering Conference in Canberra in order to learn ways in which Fire & Rescue can better support and manage the CFU volunteers.
Observation: Support and promotion of learnings among the CFU management team from other volunteer organisations should continue.

ACT Rural Fire Service

In terms of support between the different agencies and the CFU, one member who is also an RFS volunteer commented:

There's this odd separation between CFU, RFS and Fire & Rescue. Between RFS and Fire & Rescue, from my perspective, it tends to be on the upper level, not on the ground. You meet the guys on the ground. I worked with guys out there at [Pialligo] last week at the fire out there. There's not a problem. Fire & Rescue will treat RFS differently. I guess you've just got to expect that, because we're not part of their regulation. We don't call them sir. It's odd, but they call us sir. Yes, sir.

In some instances, there has been a great deal of support for CFUs from RFS.

We always get the RFS to turn up to our CFU Saturdays. CFU member.

We had a burn-off in our area. We had a training day on. I knew they were burning and so I went over. I saw the officer in charge and I said, look, we've got a CFU get-together around the corner. Can I bring the guys over? He said, I can't let you on the fireground, he said, but you can come over and watch. So we did. He came up then. I can't think what unit it was, but he came up and gave us a whole briefing what they were doing, how they were doing it, why they started at nine o'clock in the morning and waited for the weather, et cetera, et cetera, went through the whole process which some of the guys had never seen or heard of before. But they were really great. They did a burn just up the road here probably a month or so ago and they actually contacted me to see if we were having any training on to go down and watch that one which just goes to show there is a difference between some of the RFSs in some of the different areas. CFU member.

While there has been some coordination between RFS and CFUs, other units feel that they have not been given any support from their local RFS.

RFS will treat CFU differently. I tried to get CFU and RFS to do some blending and got stood on, because I didn't have the authority to allow an RFS vehicle to be with the CFU. CFU member and RFS volunteer.

We've had outright blunt hostility on occasions [with RFS]. They burn-off near us. CFU member.
We got a little further. We have an RFS unit not far from our patch. It’s blindingly obvious that, if we had a fire, they’d be active right next to us. So I agitated to get together. We succeeded in getting them to come to our patch on a Saturday afternoon when we train. They brought a couple of vehicles and we brought our trailer. We looked at each other and talked about it. So they invited us for a return visit. Oh, no, I couldn’t take my trailer off my patch, so they actually brought a training trailer out and the then Coordinator came out. So he and I visited the RFS station. We just had a Q&A out on the tarmac, but the misconceptions [among RFS] about what CFUs are about were astonishing. Absolutely astonishing. It was reported back up through the chain that this was a good thing to encourage. In the succeeding three years, I made repeated attempts by contact with that RFS to repeat our visit and I never got a response. Never got a response. Good noises from the leader, but the training people never responded. CFU member.

[The RFS] refer to the CFUs as the Smurfs. CFU member.

These issues, CFU members believe, are to the detriment of everyone. Learnings between CFU and RFS can go both ways, as CFU members have detailed local knowledge that can be of great assistance to the RFS during a bushfire.

We’ve actually established a mechanism for refilling their tankers using our gear, which gives them three or four minutes of break while we put water in their tank. I put a bridging on the hydrant. I run two 38 millimetre lines. I put them through a pump. They come out the other end as two lines and I can fill a moderate sized tanker in four minutes. We’ve done it. Little bit of innovation. CFU member.

I think, from a practical point of view, this is - and as I said, I don’t like the politics. Give me the practical point of view. Katoomba proved the usefulness of CFUs for exactly what you’re saying is filling. As an RFS crew, you get permission to leave the fireground and go and refill. You get there and find there’s two other tankers sitting in front of you and you wait around. If we had a CFU unit that had three hoses out from two different hydrants and we just come to a point, we sit in a truck. Well, we get out actually, because we want to connect. From a practical point of view, we then say this is what we can do. Once you’re in an RFS unit, you can say to comms, can we have a standpoint? Well, it’s not us. It’s the hierarchy and the incident controller. Can I have a standpoint at this point? Can you get CFU to do it? CFU member and RFS volunteer.

There’s a fire engine up the back. I’ve walked up. I’ve said, look, do you know where the hydrants are and stuff? Because we’ve got a fire main that actually goes past beyond the back of the house. We use all those standpoints. I’ve more or less been, in those cases, generally fairly politely told to go away. I don’t go out and play the bureaucratic level. That was my job many years ago. But this hostility - they’re being prima donnas in - just from reading in the newspapers, they’re being prima donnas. There’s been a great deal of
hostility, especially to the merger. I mean, it's quite a serious cultural problem as far as I'm concerned. CFU member.

One member postulated that collaboration between the fire agencies and linking in with the development of the CFU program was a key strategy developed following the 2003 bushfires.

*One of the outcomes that we did when we did the mop-ups [after the 2003 bushfires] was the frustration of different fire agencies and their own internal communications were not functioning very well and the fact they didn't have equipment out in the perimeters which is one way they decided where to put the CFUs initially. But the whole idea from that was that those units with all the gear would be in the right places with people who could put the standing pipes up and put the hoses up. Then that communication then, that interface communication should be established and then between all the different parts of the fire fighters. It sounds as though that goodwill and commitment to, yes, have better communication, use the resources we have with these additional strategically located equipment and trained people hasn't actually gelled the way that I think it was originally envisioned to do so in order to be a bit more of a net across the city... It's detrimental actually, because that was one of the things that came out from the disasters and emergency briefings right afterwards was it was that entrenched silos and cultures that prevented decent effective communication, let alone decision makers above that in the role of the federal government and all that stuff.* CFU member.

Some CFU members related these issues to the culture inherent within some emergency service organisations.

*You won't get CFU and RFS together until you get RFS and Fire & Rescue together.* CFU member.

*The Royal Canberra Show actually provides a classic example of the culture. So basically what we have is we have the fire brigade [Fire & Rescue] and the CFUs. CFUs who are there with the fire brigade are treated as members of the fire bridge. We get lunch provided and everything. The fire brigade, the guys are extremely welcoming, extremely helpful and they even set us to work briefing on how we cut down buildings with concrete cutters and things. But over there there's the ACT RFS which don't come near it. There's a completely separate display. Over there is the New South Wales one, literally within sight of each other. Literally it's as far as this room across the way. So there's three independent displays and no-one has anything to do with anyone. It's quite marked if you look at the culture.* CFU member.

While there was a call from ACT CFU members regarding linking in with RFS, as did NSW CFU members (Haynes and Bird, 2014), NSWFR indicated that it is not one of their focuses. NSWFR recognised, however, that RFS do things very well in the community
and that it would be beneficial for that relationship to stay strong. NSWFR noted that RFS are instrumental in enhancing community awareness of bushfire risk and motivating people to develop emergency plans and preparation, which directly relates to the CFUs role, i.e. enhancing community resilience.

**Observation:** ACT Fire & Rescue should engage with the ACT RFS regarding opportunities to improve collaboration between the two agencies and take learnings from examples where good relationships exist at the local level.

**Observation:** ACT Fire & Rescue should develop a communications package (hardcopy and soft, e.g. videos on social media and through the smartphone app) for RFS to enhance awareness of the roles and responsibilities of the CFU.

**Others**

From interviews with CFU members, it was clear that many believed there needed to be greater awareness of the CFU program among the broader community and including other agencies.

*I think just to have that awareness in the community that it is something very essential and it’s a good service and I think it’s just not out there. Even me having lived in the area for like whenever I was there I would go for a run or so but I wouldn’t have noticed the trailer or anything like that existing. My partner had lived in the area for a long time and he didn’t know it either... There’s a lot of resources going into it like if you see the uniform it’s a lot of course the trailers are updated at the start of the season and there might be 50 trailers so it’s a lot of cost that the government puts into these services. So it would be good if it’s more known about.* CFU member.

**Observation:** ACT Fire & Rescue should develop a general communications package (hardcopy and soft, e.g. videos on social media and through the smartphone app) for dissemination to the broader community to enhance awareness of the roles and responsibilities of the CFU.

**Observation:** ACT Fire & Rescue should support an annual networking and collaboration activities that involve other agencies (e.g. ACT Parks & Conservation, RFS) as well as the CFU.

ACT CFU members also called for greater recognition among other emergency services, e.g. being easily identifiable to the police. This issue was also raised during the Blue Mountains bushfires: “People couldn’t get through – the blockades, police would stop them, and that’s an issue. I think that’s something that’s got to be addressed. Our Captain couldn’t get through (Haynes and Bird, 2014; p. 41).”
NSWFR agreed that these discussions are essential to ensure roles and responsibilities are clear and that they must involve the permanent, retained and volunteer fire services alongside the police and CFU members. *If it isn't clear from the word go then we've got people moving in different directions.* However, NSWFR were quick to point out that the emergency services are there to save lives and if roadblocks are up, no one from the emergency services would be willing to put CFU members in a vulnerable situation.

The main form of CFU identification discussed among members was ID cards, which some of them had but others didn’t. Of those that had their cards on them at the focus group discussions, some observed that theirs had expired in 2010 while another member noticed that his doesn’t have an expiry date.

*Some people have - they’ve been given out sporadically, intermittently over the last 13 years.* CFU member.

**Observation:** All CFU members should hold current ID cards.

In addition to calling for improvement with the distribution and currency of the ID cards, members also discussed having something like a badge to wear to make them more identifiable.

*We have nothing else that identifies us in any other activity as members of the CFU or members of even the Fire & Rescue group. I went to St Florian’s Day which was also the Last Post Ceremony at the War Memorial... when you go there as a CFU member, nobody can identify who you are... he said, ‘why don’t you guys get a pin that you can pin on your jacket like the SES guys do?’ He said, ‘then people will notice who you are.’* CFU member.

**Observation:** A promotion and recognition strategy for CFU volunteers should be developed.

### Previous bushfire experience and household intentions

In terms of bushfire experience, the large majority (42%) of questionnaire respondents indicated that while they have seen or heard about fires from various sources, they lacked direct experience (Table 6).
Table 6: Previous bushfire experience among respondents

<table>
<thead>
<tr>
<th>Option</th>
<th>% respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have had no direct experience of bushfires but have seen and heard about them from various sources, e.g. in the distance, on the news, training videos, family and friends</td>
<td>41.6%</td>
</tr>
<tr>
<td>Bushfires have damaged my neighbour’s property in the past</td>
<td>29.0%</td>
</tr>
<tr>
<td>Bushfires have damaged my property in the past</td>
<td>26.5%</td>
</tr>
<tr>
<td>I have fought bushfires in the past</td>
<td>33.6%</td>
</tr>
<tr>
<td>I have been involved in a hazard reduction burn / back burn</td>
<td>13.9%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>11.3%</td>
</tr>
</tbody>
</table>

Respondents were also asked to note what others in their household intended to do in the event of a bushfire in their area, with the most common responses being evacuate (Figure 4). However, the intention to evacuate was often cited as relating to severity and conditions on the day.

There was some concern raised from both ACT Fire & Rescue personnel and CFU members with respect to actions on extreme to catastrophic bushfire days.

*I don’t know if necessarily everyone understands the difference between a severe versus catastrophic - and the safety issues around those that might dictate how early you bail.* CFU member.

*Quite concerned that the current policy of extreme fire days CFUs are not involved or integrated into the strategy.* CFU member.

*If 2003 were to happen again, I would have a great deal of concern for their wellbeing.* ACT Fire & Rescue.
Observation: A protocol should be put in place that informs CFU members and their households with respect to clear triggers for when to evacuate. Also information should be provided so members can recognise when it may be too late to evacuate and how to shelter actively and safely within their, or a neighbours, home.

Observation: Discussions among each unit should be promoted so that members’ intentions to evacuate under certain circumstances are clear among the entire team.

Preparedness and communication

Respondents were asked to rate their perceptions of the level of preparedness for bushfire among their household, CFU members, and other people in their area that are not CFU members. As with the results from the Blue Mountains study (Haynes and Bird, 2014), respondents rated non-CFU people as far less prepared that their household or CFU (Figure 5).

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Figure 5: Perceived preparedness of “people in your area who are NOT Community Fire Unit members” (non-CFU); perceived preparedness of respondents’ “Community Fire Unit” (CFU); and, perceived preparedness of respondents’ “household” (Household). a) shows the total percentage per category and b) shows the weighted response.

With that initial training I found that was probably the most valuable so far because just to make you think what can I do. What I think are things I can do to protect my home or be more prepared. CFU member.

Overall, communication between CFU members and non-members in relation to reducing bushfire risk has been limited, with almost half (49%) indicating that communication has occurred ‘to some extent’ while 39% stating ‘not at all’ to ‘very little’. In relation to the perceived success of information transfer to non-CFU people, most respondents (67%) felt that it had been moderately to very successful.

We do encourage them to talk to their neighbours and their people within their community about things that they can do to make their place safer... I couldn’t say how actively involved they get with that. ACT Fire & Rescue.

When asked whether they believed actions undertaken by their CFU have reduced the overall risk of bushfire in their neighbourhood, two-thirds (68%) stated that they thought it had and 18% were unsure. Many respondents described these actions
relating to raising people's awareness of bushfire risk even if it hasn't been through direct communication. Nevertheless, this isn't always the case. One CFU member summed up the general complacency among the broader community.

*I have an awareness and find it's a bit sad that I feel there's not much public urgency about the topic.* CFU member.

It was recognised by ACT Fire & Rescue that enhancing overall community resilience through raising awareness is an important role for CFU members. They know their local community in terms of people and the environment. And members have the ability and opportunity to inform people that their homes will be less vulnerable if they simply clean out their gutters of leaves, for example. ACT Fire & Rescue officials also recognised that this was something that could be added to the newly developing database: *to say yes, we did a fire safety walk around or something like that.* ACT Fire & Rescue.

**Observation:** All members should be made aware that community engagement activities are part of the accountabilities as CFU members.

**Observation:** Members should be supported by providing resources and training relating to community engagement initiatives.

**Observation:** Community engagement initiative ideas and success stories from within and outside the CFU program should be shared.

Some ACT CFUs were involved in a Canberra Bushfire Ready doorknocking program.

*So the professionals came around and we were walking with one of the professional fire fighters and just did the door knock and handed out information. So that was good of course on one hand to see what the response is and they [the public] usually were open when they sort of thought yeah we should do a bit more around our property but we haven’t gotten around. So they were aware but there seemed to have been a bit of maybe laziness at looking after that.* CFU member.

When asked how the CFU felt being involved in this program with the professionals, they responded: *it was my team leader and myself turning up for the Saturday. So it wasn’t really a big response. Maybe it was because it was a Saturday.* CFU member.

This CFU member was also asked about how she viewed the community's response, to which she replied:

*As soon as there is a professional I’d say that increased the importance of the topic instead of just the blue uniformed volunteer coming around. I think that made quite a difference*
and they had the fire truck there as well so kids came out and they had a bit of a look. So I think it was good.

**Observation:** CFU strategies that enhance community resilience and involve collaborations between all emergency service agencies and programs, including greater, more meaningful involvement of CFU members in the Canberra Bushfire Ready doorknocking program, should continue to be supported.

The value of community engagement was also recognised by NSWFR and acknowledged as something that should be invested in as a key focus: *Anything the program adds in terms of resilience is money well spent.* NSWFR.

In NSW, CFUs are required to complete Pre Incident Plans, which involve documenting potential resources, risks, hazards and nominated points of interest within their “Area of Activity” in relation to:

1. Australian Standard 3959 Rated Structures
2. At risk people to inform of Bushfire conditions
3. Potential Bush-Urban Interface Access/Egress sites
4. Residential Gas Cylinders (Not BBQ cylinders)
5. Geographical Hazards (Cliffs, slip/trip, Steep inclines)
6. Hazardous Materials
7. Solar Panels

The purpose of the NSW Pre-Incident Plan is to create greater efficiency and intelligence for the management of bushfires so as to assist CFU members and the emergency services during an event. Pre Incident Plans are to be completed during preparation and preparedness training, and are in addition to their Bushfire Survival Plan.

Each NSW CFU develops a Pre Incident Plan for their street (Figure 6). It is recognised as a great way to tie in with the fire services because *if you go into a street and they have a CFU it’s a great source of information, and on that trailer there will be a completed Pre Incident Plan.* NSWFR. Not only is this extremely valuable to the fire services but it also recognises and shows respect for the local knowledge of each CFU alongside enhancing awareness among the broader community.

**Observation:** ACT Fire & Rescue should implement a Pre Incident Plan for ACT CFUs to complete on an annual basis and submitted as part of the annual pre-bushfire season operational report (as outlined in ‘Governance structures’). The implementation of this formal document will help address the issues raised by the Consultative Committee with respect to government protocol and privacy issues (as outlined in ‘Team Leaders group and Consultative Committee’ section).
NSWFR also support a strong communication plan through social media. NSWFR use social media as another tool for reaching the wide-ranging demographics of their membership as well as generating interest among the broader community. Another benefit of using social media for NSWFR is that they are able to identify the coverage of their messages through Twitter Analytics or Facebook Insights, for example. ACT Fire & Rescue are in the process of reviewing e-strategies developed by NSWFR for their CFU program.

**Observation:** The learnings from the NSW CFU program to develop e-strategies relating to the use and development of smartphone apps, databases, Facebook, Twitter and websites for the ACT CFU program should be considered, taking note that any strategies must be developed based on stakeholder feedback and not used to replace existing communication.

**Activation of CFUs**

Only 18% of respondents indicated that they have been involved in an activation, with the most common activities involving providing assistance to other fire agencies (39%), being a point of contact for the community (21%), and preparing (15.4%) and defending (15.4%) property from ember attack and spot fires.
Interviews with ACT Fire & Rescue personnel revealed there have been issues in the past with respect to activating units. In these instances, the communication centre would inform the CFU Coordinator so that they could call the relevant CFUs. However, the CFU Coordinator position was not on-call 24 hours a day and was therefore not able to receive information from the communication centre in every instance. This was due to a management decision a number of years ago.

*They said okay, we’re not going to have the CFU Coordinator activating the units in case of a fire, but they didn’t put anything into place to actually get that sorted.* ACT Fire & Rescue.

To rectify this issue, the CFUs are now activated by way of a text message to five team members via computer-aided dispatch directly by ACT Emergency Services Agency’s communication centre. This is the same process as the fire trucks, the ambulance and any other emergency services: *it’s one place, it’s the one spot fits all.* The details of the contactable five team members are confirmed with each team leader every month over the fire season and any changes are directly entered into the computer-aided dispatch: *we religiously do that, because without that, it’ll fall over.* ACT Fire & Rescue.

To ensure inclusivity, communications between ACT Fire & Rescue and CFUs has also been expanded to include notifications, whereby any report of fire in local areas is shared with CFU members.

*They would see there was a fire on the news that evening and they will go oh, that Fire & Rescue, they didn’t call us again, what’s going on? But if they’re actually getting a notification, they go oh, that’s notified, they mustn’t have needed us. But at least they’re in the loop, so they’re getting kept in that frame.* ACT Fire & Rescue.

*This makes a big difference to our credibility.* CFU member.

**Observation:** Consistent communication between Fire & Rescue and CFU members with respect to activation and notifications should continue.

Previously ACT Fire & Rescue was relying on the team leaders to send out emails, so emails would only go to the Team Leaders and the Consultative Committee. However, if a team leader was away for a period of time, the rest of the team would not receive any communications from ACT Fire & Rescue. The Consultative Committee therefore initiated a process to create awareness around the level of distribution of each email.

*There was all this selective sending out. Some would go to everyone or some would only go to the team leader and you’re going hang on, this - then it was relying on being flicked around. Again that’s in this private database stuff. Now we have a line at the bottom, this*
message has been sent to all members, team leaders or team leaders and deputies or just to the CC but it tells us now and that’s excellent. Consultative Committee member.

ACT Fire & Rescue station officers have also had it impressed upon them that if they think a CFU is needed, they can activate them or notify them. Notifications, like activations, however, are only sent to the five designated team members and not the whole group. It is then up to one of those five to share the activation or notification message with the remaining members of their team.

**Observation:** Reminding ACT Fire & Rescue station personnel to provide their local CFUs notifications on a regular basis and activations whenever deemed necessary should continue.

Importantly, ACT Fire & Rescue will not activate a CFU on a catastrophic fire day, because they believe that their skill set, as based on the ACT Fire & Rescue CFU training, is not adequate to deal with the conditions.

*A lot of them seem to have an idea that they’re gearing themselves up for a mega fire again, but they’ve clearly been told we’re not going to activate you on those days.*

*Our main goal for the CFUs is them being some eyes and ears, and putting out ember attack. So if they see that ember lands there, they’ve been instructed to do two things. One, contact Fire and Rescue via the radio and tell us that there’s now a small fire here, and then also try to combat it if they can, but they’ve been taught - the team leaders have all been given instruction in what we call a CAN report... it’s a simple way of communicating, so they don’t have to think too much about sending a message. [We’ve] made a template up that’s inside every trailer. It’s CAN report: Conditions, Actions, Needs.*

*Okay, so 45 minutes later that might change. They’ll go okay, conditions are we can now see some flame that’s come over the hill. Actions, we’re trying to put it out, and need, we need help. So we can then put resources to that actual area. So what we’re actually saying is CFUs is really linked to Fire and Rescue operations now, because they’re keeping an eye on that and they’ve had radio training, so they know how to communicate with that radio back to comm centre, so we know what they’re doing. ACT Fire & Rescue.*

An issue raised by ACT Fire & Rescue personnel and CFU members was related to communication during an activation. It was acknowledged by both groups that the current radios were *almost toy-like* and needed replacing, which ACT Fire & Rescue were in the process of doing.
Observation: CFU members should undertake regular radio training and test their skills so that they are well equipped to assist ACT Fire & Rescue and other agencies during an activation.

Other issues raised in relation to activation were with respect to legislation surrounding their area of operation, as was also the case in the 2013 Blue Mountains bushfires (Haynes and Bird, 2014). NSWFR still recognise this as a problem and are looking for a viable solution.

The main fear that NSWFR have is if CFUs are permitted to take their trailers outside their areas of operation, some people may use this opportunity to freelance into other areas that may be many kilometres away, thus removing a valuable asset from its prescribed area. While NSWFR recognise that this instance might be a very rare case, it is still a possibility that they need to weigh up.

Moreover, NSWFR identified that having CFUs work in somewhat grey areas (i.e. outside their areas of operation) makes it very difficult for the backroom systems to keep up-to-date with the parameters surrounding each unit, which is a critical part on knowing where each unit is and what they are doing.

Nevertheless, some units do move their trailers outside of their area of operation.

*We’ve moved our trailer many times outside of our area of operation or our training area. We always have.* CFU member.

*We’re right next to unit X. We abut grassland, so our risk is relatively low. There’s a few trees but not much. He’s got a forest right at the back of his patch. He’s had one activation, self-activation. It’s entirely possible that he confronts a situation that’s bigger than he could handle, but we’re not allowed to go and help him. Crazy. It’s just nonsense.* CFU member.

*To get to the other side, we have to actually drive out of our operational area to drive back into it.* CFU member.

There appears to be a misconception within ACT Fire & Rescue with respect to legislation surrounding CFUs areas of operation. It was suggested that some officials have asked for CFUs to undertake certain actions but are reminded that they cannot go outside of their operational and training areas.

Observation: Clear protocols on CFUs areas of operation should be developed and communicated, and this information should be shared among members and ACT Fire & Rescue personnel.
There was also discussion about a provision in the Act that allows, in the event of an activation, CFUs to use anybody willing and able to help provided they're not doing anything dangerous.

In the trailers we've got vests for those people, we've got spare sets of gloves and things like that. Somebody comes and offers help we can actually capture them into the group and then actually in an event they are then covered by WorkCover I understand. Consultative Committee member.

**Observation:** Clear protocols relating to the involvement of non-CFU people using CFU equipment and assisting CFU members during an activation should be developed and communicated.

In terms of activation, it is also critical to recognise the limitations of CFUs – they are not properly equipped to fight a bushfire like ACT Fire & Rescue and RFS are. CFUs also have a lot more emotional investment in their area of defence. It is their homes they are defending and the places where they've raised their families. NSWFR pointed out that from a fire fighter’s point of view, agencies like ACT Fire & Rescue and RFS are there to save lives. However, the CFU have a strong attachment to their areas of defence making it more difficult to advise when people should withdraw.

*We need to be mindful that that messages need to be strong and whether people are able to make a logical decision at that time. The real challenge is we won't know until they are in that position.* NSWFR.

The broader community must also understand CFUs limitations: *The street looks at them for leadership but a life is worth a lot more than a house.* In some instances, ACT volunteers were concerned that their non-CFU neighbours were of the assumption that everything will be OK if there is a bushfire because there was a CFU in their street. However, as NSWFR correctly pointed out, CFUs should not be regarded as the panacea but rather one treatment among a host of others designed to enhance community resilience to bushfire. Non-CFU members also need to ensure that they and their homes and properties are prepared for bushfire, and that they have a good evacuation plan developed well before it is needed.

**Program improvements**

Participants discussed many improvements to the program over the last few years. One of the major ongoing improvements is the development of a more sophisticated database to keep up-to-date and accurate records of the CFUs with respect to membership and training etc.
I think New South Wales, a lot of their back room stuff is really good. What they can keep on computer with regards to what’s happening, that was where we sort of thought look, we’ve got to get with the strength here. ACT Fire & Rescue.

The Consultative Committee members discussed how this had been an ongoing issue: we have to say that on that side it’s been diabolical; that has only been recently addressed, thanks to the work of CFU members (Text box 3).

**Text box 3: ACT Fire & Rescue discussing the development of the database**

We’ve got some consultants working at the moment on building a new database that’s going to give us a lot more information for the CFU. We’ll be able to add into the database training days, so when somebody has done a day of training, either with their local unit or with Fire & Rescue at Hume, we’ll then enter it into the database so we can then know when they did their last bit of training.

The good thing with that, the consultants tell me, is what we’ll be able to do is run reports, so we’ll be able to run through and go okay, we haven’t seen this group of people - we’ll be able to identify who we haven’t seen, so we can then email them directly and say hey, we haven’t seen you for a long time; why haven’t you - what’s the actual problem?

When this is up and running, we’ll be now able to target individuals that haven’t done any particular training. The database will also have the ability to track our trailer maintenance, which at the moment we keep it in a separate record, but all the records for CFU will all be brought into one place, so it will be a one stop shop for uniform issue, training, all those things.

So the numbers and all those things will be in that database, which is really going to drag the CFU into the 21st century. It’s going to be really, really good.

In addition to the database, discussions at the Team Leaders meeting centred on the development of a smartphone app to make it easier for team leaders to log training sessions, etc. The app, however, generated mixed emotions among volunteers (Text box 4).

**Text box 4: CFU volunteers discussing the development of the CFU app**

I don’t understand mobile phones, which is going to be really strange, because I’m guessing that the only way that this app will work is it’ll probably only work through probably a mobile phone system which has data. So where’s this actually going to head in another direction that I’m going to get what size videos that are going to turn up in this? You’re going to have to have an internet connection with a data download.
But I just don’t use my mobile phone that way. If all these apps or this mobile phone app that they were talking about last night is going to give us all updated data and all the rest of it and I’m out away from the house and not next to my computer that has an internet connection, I’m not going to get any of it till I get home anyway.

It’ll exclude a lot of people, but if you want young people, you’ve got to...

I don’t have a smartphone, but everyone I know does and not just younger people... So I mean, I think to not do it really puts us out of step with a lot of communication things. It’s also a way - if you have a designated tweeter during a training session, they can tweet about what they’re doing and take some pictures about what they’re doing and start building a whole blog, add that to the whole blog capability and everything else that goes with that to make it attractive and energised. You and I were talking earlier about the changing face of volunteers and volunteering and the whole volunteering movement. Social media is such an important... critical part of it and it’s so exciting to engage in that. To not do it I think is really to the detriment. I think that the more who engage in it, the better.

WHS concerns have been addressed through training and protocol. This is with respect to knowing who is activated or training at any given point in time. Previously, it was difficult to know who had activated when called to do so. To overcome this, accountability boards where installed on every trailer, with responsibility resting with each CFU member in terms of them registering that they have activated (Text box 5).

**Text box 5: WHS protocols for activations**

When you lift up the trailer door, inside there is now a system for - every member of the CFU has got their own little magnet with their name on it. When they turn up to the trailer, they’ve all been instructed - and I’ve done it by email, I’ve done it at every training session, banged it home to the team leaders - that the individual must come and take their magnet from this side and put them at available. That’s if they’re at training or if they’re at an incident.

So at any given time, the team leader can look at it and go okay, we’ve got 25 members, but seven are here at that fire and I know which seven they are. So what that means, clearly, at the end of the day, is the job’s finished, they’ve been told they’re no longer needed. “Okay, where’s old Jack?” - so the team leader can actually look through his list. “Jack, where are you?” “I got a bit tired and I went home.” Well, that’s okay, at least we know where Jack is. But if we can’t contact him, we’ve got to assume he’s out there.

Clearly they always work in pairs, they’re always told to work in pairs, so they work safe, but that’s basically the gist of why it’s there, so we actually know, now, at any particular incident or training, who from each CFU is there. ACT Fire & Rescue.
Ensuring every team member had access to the trailer was another initiative implemented to improve operations. Initially, the trailer was only accessible with a key but not all team members had keys. It was unrealistic to expect that those with keys would always be available at the time of an activation.

*Somebody might turn up to do something, and if a team leader or someone didn’t have a key, they couldn’t get in. How useless was that? So we actually had, in the service round last year when they first came in, they all got a key box put on them, a combination, and we told the team leaders to tell everybody your combination so they can now come up, and the first arriving person can get in and do it. So that’s been a bit of innovation, a big help for them, along with the accountability. So they’ve said that’s really helpful for them as well. It was actually cheaper to do that than supply keys to everybody, because getting a set of keys cut was about $11 or something and then you’ve got 1000 members... these key boxes were actually cheaper than buying a key for every person that may lose it.*

Another improvement was in relation to ensuring roles and responsibilities are clearly defined. In some instances, team leaders were of the impression they had to do everything. From ACT Fire & Rescue’s position, however, they want the team leader to stay with the trailer during an activation.

*We want you looking at that accountability board, we want you actually being in command and control, so you say to your [team members] - can you go to that fence line and can you go to that fence line and just let me know what you’re seeing? He or she can still scout around, but their main role is coordinating what the team is doing, not having to do everything for the team.*

**Benefits of the CFU program: community and personal**

Empowering people by giving them the equipment and training is a very important part of the CFU program, but both ACT Fire & Rescue and NSWFR recognise that there is a lot more to it than just response. Preparedness, providing assistance to other community members and bringing people together is just as important as response as it enhances community resilience. In particular, respondents discussed how being involved in the CFU program had enabled them to meet with, and get to know neighbours that they otherwise would not have met.

*A real community of friends has developed from our shared experiences amongst people who previously didn’t know one another. CFU member.*

*With six people actively involved and another 30-40 of them all engaged via the CFU program, that’s nirvana. NSWFR.*
The social benefits are huge... they get together a real lot, the ones that do, and it's a bit of a focus for the community. Where I see them being really valuable is in a recovery stage of a large fire, particularly if it happens in their area. They can be really useful then. ACT Fire & Rescue.

After the drill we have a social drinks thing and what we've found is that that approach does generate more social cohesion in your catchment area and it does keep people engaged and people do tend to come along more often because of that I think. CFU member.

The value of having CFUs assist during the a recovery phase was also noted by NSWFR who discussed the marvellous work the CFUs did in the Blue Mountains bushfires in 2013 after the fire services had left. The CFUs were instrumental in mopping up and putting out spot fires from embers, in addition to playing a valuable role in the recovery process. The CFUs role in the Blue Mountains generated a lot of positive feedback particularly with respect to their role in acting as a conduit for government departments and NGOs to reach affected communities during recovery.

Furthermore, it was noted that being in the CFU enabled members to get to know who was vulnerable in their community and who may require assistance, thus building social capital. One member noted that this was an important wider community benefit that should be encouraged.

Knowing your neighbourhood is important in a fire crisis. Who needs help? Who is home? Knowing the answers to these questions could be encouraged. CFU member.

The questionnaire results also show that volunteers recognise the broader rewards of the program in terms of building social capital, community connectedness and awareness-raising (Figure 7).
Some units encompass community engagement events by holding social functions that are open to the whole neighbourhood after every training session.

_Every practice we have a social function afterwards. Often it’s a BYO drinks and nibbles in someone's garden or we go to a local restaurant. Every practice, which is once a month, [one member], who’s got a really flash printer, prints off a circular saying come and meet your neighbours. There’s a social thing afterwards. Come and try and, if you don’t like it, that’s fine. So [team leader] prints these notices and I - with the assistance of my dog - deliver them. I letterbox the whole two patches. You do get [non-CFU] people come and you do occasionally get people stay. CFU member._

NSWFR and ACT Fire & Rescue recognise that this level of engagement is a great measure of the success of the CFU program in some areas. Not only have people been brought together to enhance community resilience to bushfire but they have also shown support for one another in other times of need.

_I had an 80 year old lady in my unit who had a minor stroke. All she could do was work the standpipe, but that was fine. She could stand there and turn this. We put the standpipe in and put her there. She turned the standpipe on and off, because she knew the signals. Then she came to the social function afterwards. That was cool. She’d still be doing it if she hadn’t unfortunately passed away. Nearly all the all the CFU unit turned up at her funeral. CFU member._
**Observation:** Training and resourcing for wider community engagement activities should be provided, including education and protocols around identifying vulnerable members and those who may require assistance.

**Training**

*One of the constant things that the team leaders say to me is oh, yes, we’re struggling for numbers. What they also struggle for is people turning up regularly.* ACT Fire & Rescue.

Questionnaire results suggest that over half the volunteers have not attended a training session conducted by ACT Fire & Rescue for more than one year (Figure 8). This result is a concern given the fact that this research was conducted at the end of a fire season when units and members should have been most active.

![Pie chart showing respondents perceived time since they last attended a training session conducted by ACT Fire & Rescue.](chart)

**Figure 8:** Respondents perceived time since they last attended a training session conducted by ACT Fire & Rescue.

On a more positive note, a majority (62%) of respondents noted that they have attended training with the CFU within the last 4 months (Figure 9) and overall, 75% of respondents rated their training as mostly to totally adequate in preparing them for an activation.
Figure 9: Respondents perceived time since they last attended a training session conducted by their CFU.

One of the main issues raised during the focus groups and interviews with respect to training was that Team Leaders found it difficult to keep training sessions interesting and that volunteers often found them boring due to their repetitive nature. ACT Fire & Rescue had also noted this issue and related it to the fact that the skills refresher course was traditionally combined with induction training.

*So a person who was doing a skills refresher would come into Hume and they'd just sit there and go through exactly the same stuff that they would have done when they joined.* ACT Fire & Rescue.

It was clear, however, that the repetitiveness of induction training failed to motivate continuing members. In order to make skills refresher training more interesting, ACT Fire & Rescue split the courses.

*So we do induction days, which are separate, and we do the skills refresher days, both at Hume and with the trailers separately as well, so that all the training is actually sort of split.* ACT Fire & Rescue.

*We sometimes will send Fire & Rescue resources down to train with them there, but when we do it at Hume training, it's a bit more of an advanced training. We can - because we've got gas, hot props and things out there, we can actually put them in the face of a real fire, which is controlled, so they can learn a lot of hose-handling skills, and the feedback from that has been really, really positive.*
I did notice a lot more people coming to the training once the word got around, and there was a couple of members of CFU, the team leaders would communicate with the rest of the group and say hey, you’ve got to get out there because this is really good, we’re putting out fires, we’re doing this, and we’d get water tanker trucks coming in and they’d get demonstrations and they’d be able to look at fire trucks, so really good, fun mornings.

There was no PowerPoint. It was all just practical work that we went through, so they really quite enjoyed it. The numbers - we were averaging up to probably 25 to 30 each of these Saturday mornings, and generally we’d see some people come a couple of times, but we’d see a lot of people that hadn’t come before, so a lot of people were getting on board with that. ACT Fire & Rescue.

These training sessions were promoted to the broader public as well as other CFU members via the ACT Community Fire Units Facebook group.

The Consultative Committee and CFU members also discussed the tailoring of training in positive terms.

So now you have new recruit and refresher than plonking everyone together so very much designing the training to suit the needs of the volunteers. Consultative Committee member.

We went out for one of these so-called refresher things which I’ve got a lot of my people to go out to. It wasn’t really much of a refresher thing. But it was great fun, because everyone got to put out these great big petrol fires with hoses. Everyone that went came back saying, hey, don’t know if I learned anything, but it was fantastic. CFU member.

**Observation**: A variety of training options to maintain/generate interest should continue to be provided, including hands-on activities relating to extinguishing fires, experiencing radiant heat and observing water tanker truck operations.

The development of a training calendar was recognised by ACT Fire & Rescue personnel and the Consultative Committee as another positive element to help support the CFU program.

We said okay, we need a training calendar, so we would now put out a training calendar with 10 or 12 dates available for them to come into Hume and train, generally on a Saturday morning for three hours. So they know in advance. ACT Fire & Rescue.

The other thing was that we [the Consultative Committee] said that it makes it hard if we don’t know when a new recruit’s training can be so it’s handing out training schedule well ahead of the season so that we’ve got that for CFU Saturday. Consultative Committee member.
Observation: Timely advice with respect to Fire & Rescue training sessions for CFU members should continue to be provided, e.g. via the training calendar.

However, ACT Fire & Rescue recognise that further improvements to the training program can be made.

Another example is we've got to firm up the way the - when they come and do the induction training [is run]. We're trying to keep the classes down to ideally 20 and 10 now [instead of 30 or 35] and do more of them, so we can work on their personal skills a lot better, their fire fighting skills and that. ACT Fire & Rescue.

CFU members discussed how they had developed their own policies but there was a need for clear protocols with respect to requirements for members attending training to remain active for duty.

I keep a sheet, a running sheet. If they have turned up once at the beginning and they haven't turned up by about the fourth or fifth [training session], I ring them up and say, listen, are you going to turn up to the next couple of meetings? If not, I'm going to make you inactive. CFU member.

This issue was also related to the awards for service.

We now get a long service medal for 10 years of CFU service, because you only have to turn up once a year for two hours' training. So for 20 hours, you get the same medal as somebody that's been on the ground working their butt off trying to get things going six, seven hours a week. CFU member.

Observation: As outlined in “Governance structures”, ACT Fire & Rescue should examine the option of introducing an annual skills maintenance/ refresher course for all volunteers to ensure members remain active for service.

Another component of training was designed to address any misconceptions CFU members had regarding their role during an activation. In some instances, members were of the impression that they were required to actively fight the fire in the bush. However, ACT Fire & Rescue impressed upon them that their role was purely to fight the fire from their fence line.

The main thing is to protect themselves. We don't want them getting hurt. It's to protect the property. A water tanker can go into the bush. It's got roll-down curtains and spray bars and emergency water. They've only got their lines of hose.
Every single member of the CFU got this diagram of how we wanted them to set up, which was the team leader at the trailer, and he places his members up on the fence line, looking out for ember attack, and then if they saw a bit of fire coming, saying we want the hose up on this position here. They’d roll their hose up and then do what they could.

We really banged home to them the importance of escape routes. We didn’t want them in any danger, so a good way to escape is back to the trailer and back to a place of relative safety. Here in Canberra, if you come back down to where the CFUs are located, if you come back down to the road where they’re at, you can keep dropping down, and it’s really quite safe, compared to, say, the Blue Mountains. ACT Fire & Rescue.

**Observation**: Continue to work with CFUs to identify safe escape routes specific to their local areas and highlight the need to evacuate when required to do so.

NSWFR considered that the ACT were in a better position than them in terms of training due to the more manageable size of the program: *The program needs to be as self-sufficient as possible. Units need to engender enthusiasm themselves. We don’t have enough people to have a person to come visit them every week.* NSWFR.

ACT Fire & Rescue personnel stated that stations were open and willing to be involved in training their local CFUs one day a year and that there is a realisation of where their level is at. *These people don’t get out and do it every day like us.* CFUs need ACT Fire & Rescue personnel to help them understand fire behaviour in their local area, identify where the risks are and how to best protect their houses.

However, due to the workload of ACT Fire & Rescue stations, officials affirmed that they couldn’t be consistently relied upon.

*It is good to use the station support but you can’t rely on it as the major method for maintaining training and skills. It is important to keep working together but the skill maintenance shouldn’t be on the station.* ACT Fire & Rescue.

**Observation**: The level of priority for ACT Fire & Rescue stations to attend local CFUs training sessions on a regular basis as part of their community engagement schedule should be raised. Attendance may involve just a half hour meet and greet session, or a one to two hour demonstration of equipment or discussion of local conditions.

ACT Fire & Rescue personnel also noted that while there are a few core CFUs with strong dedicated team leaders that make sure they have a training day once a year with the local Fire & Rescue station this level of engagement is quite varied and a large number do not try to engage with their local station or are very spasmodic.
"A lot of it falls down to the team leaders. We really want the team leaders to manage their team."

**Observation**: Additional support should be provided to units that do not actively seek the support of their local Fire & Rescue station. This initiative should come from the local station in the first instance.

There was a call by ACT Fire & Rescue personnel to reinstate the practice of allowing CFU members to participate in hazard reduction burns on an observation basis. This was seen as an excellent way for gaining firsthand experience of fire behaviour. However, despite its usefulness and ability to generate great interest it was stopped due to legislation.

This call was also echoed by CFU members who discussed the need for training under more ‘real conditions’. With one member noting how one group actually cancelled their training because the conditions were too hot and windy! Training and education in their home locations, with ACT Fire & Rescue personnel, was also noted as needed, in order that potential scenarios were worked through and prepared for.

*In-situ (neighbourhood site) training with ACT F&R people, perhaps also RFS volunteers; I think it important that operational strategy is discussed and practices held in response to different potential circumstances. In our case in 2003 the fire started at one end of the street and progressed along it as a flank fire which led to 9 out of 14 houses burning. The sorts of questions that can be asked are: What if the fire outruns the CFU? What if the children of CFU members are at home on their own just up the street? What if the fire arrives on a broad front? What if your house catches alight? CFU member.*

**Observation**: Investigate the opportunity for CFU members to act as observers during hazard reduction burns in their local areas with direct instruction from fire agencies with respect to fire behaviour.

**Equipment**

Overall, most respondents have not encountered any issues with their CFU equipment (Figure 10) and those that had, mostly noted that it was quickly replaced or repaired by ACT Fire & Rescue.

*I’d like to see professionals check the trailers every few months if possible because once a year seems too infrequent.* CFU member.

*Radios. Even though we regularly charge them, we have had problems with batteries. Other than that, all equipment has been well maintained and reliable.* CFU member.
We have found a number of non-operational hydrants. CFU member.

We had a problem with standpipes leaking but this has been fixed. CFU member.

Hydrants are on wrong side of road requiring at least 3 lengths [of hose] just to reach the extremity of most backyards in our designated area. CFU member.

![Figure 10: Respondents acknowledgement of problems found with CFU equipment](image)

Only a quarter of respondents noted that their CFU needed more equipment to help them defend homes and properties during a future activation. Some calls for additional equipment were relatively straight forward: due to the depth to the back fence... an additional portable pump and hoses may be useful. CFU member.

Better 2-way equipment that has better range without the issues of interference from nearby microwave transmission towers. CFU member.

Others, however, were certainly more costly: A 4wd to take the trailer up steep driveways. A bus to evacuate the elderly. Radio headset for hands free communication. CFU member.

In relation to the additional costs of providing additional equipment, one CFU member questioned: could temporary exchange or “floating” resources be available depending on likely approach of fires?
Conclusions

In summary, this review has found the ACT CFU program to be of great value to the community, effective in reducing risks, raising awareness and increasing social capital. Based on the observations in the report, the following recommendations are made:

Recommendation 1: Community outreach and engagement
The CFU program currently plays an important role in terms of community outreach and raising awareness. However, it was noted that this role could be further enhanced and promoted. In particular,

- All members should be made aware that community engagement activities are part of their accountabilities as a CFU member.
- Training of volunteers and resourcing for wider community engagement activities should be provided, including education and guidelines around identifying vulnerable members and those who may require assistance. Resourcing might include a communications package (brochures and videos, on social media and through the smartphone app) for dissemination to the broader ACT community regarding bushfire mitigation and preparedness activities.

Recommendation 2: Recruitment
Recruitment to existing and new CFUs should be actively supported by ACT Fire & Rescue. Consideration should be given to identifying the locations and also the demographics (e.g. age, gender) of the volunteers desired. In particular,

- Membership recruitment should, in the first instance, be targeted at the CFUs with the lowest “volunteer density”. (Target numbers are contained in this report.) A protocol should be developed for units to draw membership from outside of their operational area, within reason.
- CFU Saturday, Canberra Bushfire Ready doorknocking, and other initiatives that assist recruitment should be well supported by all the fire services (including CFUs) and target all areas, including at-risk areas where there are no existing CFUs.
- Consideration should be given to advertising through multiple channels to reach a range of potential volunteer types, e.g. mainstream media, community channels and official and unofficial social media platforms. Advertising targeted at younger people should highlight that volunteering for a CFU does not involve many hours but results in members learning invaluable skills.

Recommendation 3: Establishment of new CFUs
Consider the establishment of new CFUs in suburbs that have the greatest exposure to bushfire risk. A staged approach (e.g. up to 4 new CFUs per year for the next five years) is suggested. Recruitment costs and equipment costs (trailer and personal protection equipment) should be budgeted for.

Recommendation 4: Training
Training of CFU volunteers should be structured to make it as easy and as quick as possible for a volunteer to get up and running in the CFU program. Regular ongoing
training for all members should be carried out to ensure they remain compliant with requirements (e.g. radio training, first aid training). In particular,

- Induction training should be available on a regular basis following major recruitment drives such as CFU Saturday. If a new recruit is unable to attend an induction training session within a given period of time, initiation training should be undertaken locally.
- A variety of training options to maintain/generate interest should continue to be provided, including hands-on activities relating to extinguishing fires, experiencing radiant heat and observing water tanker truck operations.
- The option of introducing an annual skills maintenance/refresher course for all volunteers to ensure members remain active for service should be considered.

**Recommendation 5: Enhancing connections with other emergency response agencies**

CFU members identify not only with ACT Fire & Rescue, but with other emergency services as well, such as RFS. These links should be promoted and encouraged. In particular,

- CFU team leaders should be encouraged to connect with their local ACT Fire & Rescue station, and any issues surrounding these relationships should be addressed as soon as they arise. New ways to include CFU members in ACT Fire & Rescue activities should continue to be devised. For example, offering CFU members the opportunity to act as observers during hazard reduction burns in their local areas with direct instruction from fire agencies with respect to fire behaviour should be considered.
- ACT Fire & Rescue stations should as a priority attend local CFUs training sessions on a regular basis.
- ACT Fire & Rescue should develop a communications package for ACT RFS (brochures and videos, on social media and through the smartphone app) to enhance awareness of the roles and responsibilities of the CFU.
- ACT Fire & Rescue should support annual networking and collaboration activities that involve other agencies (e.g. Parks, RFS) as well as the CFU.

**Recommendation 6: Record-keeping and reporting**

Record-keeping of CFU activities and personnel status (availability, training) should be enhanced, making use of technology. In particular,

- ACT Fire & Rescue should continue to update records on the status of CFU volunteers, particularly records pertaining to training compliance and active status. Development of a smartphone app to collect this data should be expedited.
- ACT Fire & Rescue should introduce an annual pre-bushfire season report (due late September) and annual post-season report (due late May) by CFU Team Leaders to the CFU Coordinator, specifying operational status of each CFU. To ensure compliance and to expedite data collection, collation and analysis, these reports should be completed online or via a smartphone app.
• Clear protocols should be developed with respect to logging WHS incidents with ACT Fire & Rescue.

References


Appendix 1 – About Risk Frontiers

Risk Frontiers specialises in the assessment and management of disaster risk across Australasia. Based at Macquarie University, Risk Frontiers is the largest disaster research and development centre in Australia.

Over the past twenty years Risk Frontiers has prided itself on providing practical and pragmatic management solutions to industry and government, and is globally recognised for its expertise. Risk Frontiers has extensive experience in the emergency management sector across Australia, with our overall aim to improve the management of risk and the safety of the community.

Risk Frontiers has a great deal of experience in undertaking social research and evaluation projects to assist organisations to better understand communities at-risk of disaster events. Risk Frontiers staff have real world community engagement and emergency planning experience, combined with strong research and advisory skills.

Risk Frontiers recently completed an investigation of the effectiveness of Community Fire Units (CFUs) activated in the Blue Mountains in NSW during severe fires that occurred between 17th and 23rd October 2013. This review involved an online questionnaire, focus group discussions and interviews with key CFU volunteers, and revealed issues with communication. Recommendations from this project led to NSW Fire & Rescue being awarded $1.375 million of funding to upgrade fire fighting equipment, develop a smart phone app and improve communications with and among their volunteers.

In collaboration with researchers from CSIRO and RMIT, Risk Frontiers investigated sheltering practices during the 2009 Black Saturday fires. This was based on an analysis of interviews with survivors and life and house loss data, and examined the circumstances and challenges experienced by residents when sheltering. This research was important as the Royal Commission into the fires found that the binary approach of ‘stay and defend or leave early’ did not reflect the reality of what people do during bushfires. It recommended the development of a comprehensive bushfire policy that provides for ‘more options and different advice’. In particular, it was suggested that community refuges and personal bushfire shelters be considered as a backup in the event that residents were unable to safely leave or defend their property. However, prior to this study, which was completed in November 2015, little research existed documenting sheltering practices during bushfires. The research provided recommendations for bushfire safety policy and community education.
Appendix 2 – Online survey of CFU volunteers – questionnaire
Dear Community Fire Unit member,

Risk Frontiers, a research centre based at Macquarie University has been engaged by ACT Fire & Rescue to evaluate the Community Fire Unit program in the ACT in relation to governance structures, performance, consultation and communication and cost-effectiveness.

This survey is designed to explore some of these components. We estimate it will take approximately 15 minutes to complete and we would greatly appreciate it if you could provide us with your views and opinions.

Participation is voluntary and all information or personal details gathered in the course of the study are confidential. No individual will be identified in any publication of the results. If you decide to participate, you are free to withdraw from further participation in the research at any time without having to give a reason and without consequence.

You are welcome to request access to reports arising from this research.

If you have any questions or comments about the research, please email deanne.bird@mq.edu.au or call 0434 498 910. Alternatively please email rob.mcgregor@act.gov.au or call 6207 8454.
2. Demographic questions

1. Please indicate your gender
   - Male
   - Female

2. Please indicate which age group you belong to
   - 18-24
   - 25-34
   - 35-44
   - 45-54
   - 55-59
   - 60-64
   - 65-74
   - 75+

3. Is English the main language spoken in your home?
   - Yes
   - No

If no, what is the main language spoken in your home?


3. Demographic questions (continued)

4. Please indicate the option that best represents your working status:

- Working - Full time (30+ hrs)
- Part-time (9-29 hrs)
- Unemployed
- Not working - retired
- Looking after house / children / others
- Invalid / disabled
- Student
- Other

5. Approximately how far is your main place of work from home?

- Not working / retired
- Work from home
- 0-3 km
- 3-5 km
- 5-10 km
- 10-20 km
- more than 20 km
- Other (please specify)
4. Demographic questions (continued)

6. Please indicate whether you are renting or you own your primary residence:
   - Renting
   - Home owner
   - Neither

7. Please indicate what level of insurance you are covered by:
   - None
   - Home only
   - Contents only
   - Home and contents insurance
   - Other (please specify)

8. What is your postcode?

9. What is your Community Fire Unit number and/or location?
5. Demographic questions (continued)

10. What is the composition of your household?

- Couple with children or other dependents
- One adult with children or other dependents
- Couple without children or other dependents
- One person household
- Shared house with other adults
- Other (please specify)

11. Do you, or anyone else in your household, require assistance due to disability or longterm injury or illness?

- Yes
- No

Please provide details if needed:
12. In general, how would you describe your physical fitness?

<table>
<thead>
<tr>
<th>Very poor</th>
<th>Poor</th>
<th>Average</th>
<th>Good</th>
<th>Very good</th>
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</table>

Other (please specify)
6. Community Fire Unit membership information

13. For how long have you been a Community Fire Unit member?

- [ ] Less than two years
- [ ] Two to four years
- [ ] Four to six years
- [ ] Six to eight years
- [ ] Eight to ten years
- [ ] More than ten years

14. Have you ever been, or are currently, a member of another fire organisation (volunteer or retained e.g. ACT Fire & Rescue, RFS, CFA, CFS, NSW CFU)?

- [ ] Yes
- [ ] No

If yes, please specify which one(s):
CFU ACT

7.

* 15. Please read the statements below and select the option that best reflects your motivation to become a Community Fire Unit member: Please answer every statement.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree or disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
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<tbody>
<tr>
<td>Bushfires damaged my property in the past so I wanted to be able to protect myself/property/family in the future</td>
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<tr>
<td>Bushfires affected my local area in the past so I wanted to be able to protect myself/property/family in the future</td>
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<tr>
<td>I know that I live in a bushfire prone area so I wanted to be able to protect myself/property/family in the future</td>
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<td>Bushfires are a major threat in Australia and everyone should be prepared to fight them</td>
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<td>I feel that staying at home is the best way to protect my property and wanted to be able to do this safely</td>
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If I and my neighbours are trained and equipped to defend our homes it gives us the greatest chance of saving them

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<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree or disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
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<tr>
<td>My friends joined so I joined too</td>
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<td>I wanted to become more involved with my community</td>
<td>○</td>
<td>○</td>
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<td>I thought it would be fun to join a Community Fire Unit</td>
<td>○</td>
<td>○</td>
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<td>I wanted to be of help to ACT Fire &amp; Rescue</td>
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Other (please specify)

16. Are you planning on remaining a Community Fire Unit member?
   ○ Yes
   ○ No / unsure, please briefly explain your answer:
8. Questions about previous bushfire experience and preparation

17. Please tell us what experience you have had of bushfires. Tick the statement(s) that best resembles your experience of bushfires (you may tick more than one box):

- [ ] I have had no direct experience of bushfires but have seen and heard about them from various sources, e.g. in the distance, on the news, training videos, family and friends
- [ ] Bushfires have damaged my neighbour's property in the past
- [ ] Bushfires have damaged my property in the past
- [ ] I have fought bushfires in the past
- [ ] I have been involved in a hazard reduction burn / back burn
- [ ] Other (please specify)

18. If you share your home with others (e.g. family, friends), what would they do in the event of a bushfire in your area (e.g. evacuate, stay at home etc.)?
9. Questions in relation to preparedness and communication

19. Please indicate how prepared you feel your household is to deal with a bushfire.

<table>
<thead>
<tr>
<th>Not prepared at all</th>
<th>Poorly prepared</th>
<th>Somewhat prepared</th>
<th>Quite prepared</th>
<th>Well prepared</th>
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20. Please indicate how prepared you feel your Community Fire Unit is to deal with bushfires.

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<tr>
<th>Not prepared at all</th>
<th>Poorly prepared</th>
<th>Somewhat prepared</th>
<th>Quite prepared</th>
<th>Well prepared</th>
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21. In your opinion, how prepared do you think people in your area who are NOT Community Fire Unit members are to deal with bushfires?

<table>
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<tr>
<th>Not at all prepared</th>
<th>Poorly prepared</th>
<th>Somewhat prepared</th>
<th>Quite prepared</th>
<th>Well prepared</th>
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Please explain your answers:
10. Transfer of information

22. How much have you communicated with people in your area who are NOT Community Fire Unit members about reducing bushfire risk?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Very little</th>
<th>To some extent</th>
<th>A good deal</th>
<th>A great deal</th>
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23. How successful do you feel the transfer of information from Community Fire Unit members to the surrounding community has been?

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<tr>
<th>Not at all</th>
<th>Not very</th>
<th>Moderately</th>
<th>Very</th>
<th>Totally</th>
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Please explain your answers:
24. As a Community Fire Unit member, have you activated at some point in the past?

☐ Yes

☐ No

If yes, please give detail:
12. Activities undertaken during activation

25. How did you first hear about the fires / activation?

- ACT Fire & Rescue notification through text message or phone call
- Other official sources (ACT RFS, media etc)
- Friends / neighbours (not Community Fire Unit members)
- Community Fire Unit members
- Saw embers, smoke, flames
- Other (please specify)
26. What activities did your Community Fire Unit undertake during activation? Please tick all that apply.

☐ Clearing vegetation
☐ Preparing property
☐ Defending property (ember attack and spot fires)
☐ Point of contact for the community
☐ Assisting other fire services
☐ No activities undertaken
☐ Other (please specify)

27. If you engaged in activities to assist other fire services can you please list your actions below:

[Blank space for response]
13. Risk reduction

28. Do you think the actions undertaken by your Community Fire Unit have reduced the overall bushfire risk in your neighbourhood?

- Yes
- No
- Unsure

Please explain your answer:


29. Other than reduced bushfire risk (if applicable), are there any other benefits your CFU has brought to your local community?


30. Has being a CFU member resulted in any personal benefits to you or your family (other than reduced bushfire risk, if applicable)?


14. Program performance

31. How well do you think your Community Fire Unit is supported by your local ACT Fire & Rescue station(s)?

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<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>Moderately</th>
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Please explain your answer:

32. How well do you think the overall CFU program is supported in terms of management and operational structure?

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<th>Not at all</th>
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<th>Moderately</th>
<th>Very</th>
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Please explain your answer:
33. How adequately would you rate the performance of the Consultative Committee?

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<th>Inadequate</th>
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<th>Mostly adequate</th>
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Please explain your answer:


34. How adequately would you rate the performance of the Team Leaders group?

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<th>Inadequate</th>
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<th>Mostly adequate</th>
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Please explain your answer:


35. In relation to the location of Community Fire Units in the ACT, do you think they adequately cover the region in terms of fire prevention and preparedness?

<table>
<thead>
<tr>
<th>Inadequate</th>
<th>Somewhat adequate</th>
<th>Moderately adequate</th>
<th>Mostly adequate</th>
<th>Totally adequate</th>
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Please explain your answer:


15. Questions regarding Community Fire Unit training

36. When did you last attend Community Fire Unit training conducted by ACT Fire & Rescue?

- More than a year ago
- 8 - 12 months ago
- 4 - 8 months ago
- 0 - 4 months ago

Other (please specify)

37. When did you last attend Community Fire Unit training conducted by your Community Fire Unit?

- More than a year ago
- 8 - 12 months ago
- 4 - 8 months ago
- 0 - 4 months ago

Other (please specify)

38. How adequate do you think your CFU training has been in relation to preparation for activation?

- Inadequate
- Somewhat adequate
- Moderately adequate
- Mostly adequate
- Totally adequate
16. Questions regarding Community Fire Unit training (continued)

39. What aspects of your Community Fire Unit training, if any, have been particularly beneficial?

[Blank space for response]

40. What aspects of your Community Fire Unit training, if any, have been particularly inadequate?

[Blank space for response]
17. Questions regarding Community Fire Unit equipment

41. Have you encountered any problems with the Community Fire Unit equipment?
   - Yes, problems encountered while using or testing equipment
   - No problems encountered while using or testing equipment
   - Equipment not used or tested

If yes, please provide detail:

42. Is there any extra equipment needed by your Community Fire Unit to help you defend homes and properties during a future activation?
   - Yes
   - No

If yes, please provide detail:
18. CFU membership

43. How many members are in your CFU?

44. How many members regularly train in your CFU?

45. Do you think these numbers are sufficient for your unit to prepare for and prevent bushfire risk in your area?

- [ ] No, we need more active members
- [ ] Yes, we have enough active members
- [ ] No, we have too many active members
19. Challenges and concerns

46. In your opinion, what are the major challenges your Community Fire Unit faces?

47. Please describe, if any, concerns you have in terms of risks associated with the program, including Work Health & Safety risks.

48. How do you think these challenges and / or concerns can be addressed?
49. Is there anything else you would like to add?

50. This is the end of the survey.

Thank you for taking the time to provide us with your views and opinions.

We will be conducting focus groups to discuss these issues in more detail. If you are interested in taking part please provide your email address or contact number below (this information will be stored separately to your answers above):