Developing and Evaluating Effective 'Bushfire' Communication Pathways, Procedures and Products

Briefing Report One – Assessing current knowledge

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About this Report

In March 2012, the RMIT Effective Communication Team (CSOW) was approached by the Country Fire Authority to identify, develop and evaluate effective communication pathways for increasing awareness of the Victorian Bushfire Information Line (VBIL). The project will take advantage of "The Grid", which is a knowledge management tool developed by the CSOW team, which acts as a repository for knowledge within the emergency response domain. This briefing report establishes a contextual overview for this study by answering the following questions:

- What is the current VBIL service model?
- What are the current VBIL dissemination pathways?
- What might a future, multi-agency, multi-hazard service model look like?
- What are the implications for the research project moving forwards?

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Acronyms

CFA	Country Fire Authority
CFA-ECP	Country Fire Authority – Effective Communication Pathways
CSC	Customer Service Centre
DHS	Department of Health Services
DPI	Department of Primary Industries
DSE	Department of Sustainability and Environment
FAQ	Frequently Asked Questions
FSC	Fire Services Commissioner
MAMH	Multi-agency, multi-hazard
MFES	Melbourne Fire and Emergency Services
SCC	State Control Centre
VBIL	Victorian Bushfire Information Line
VIC SES	Victorian State Emergency Service

Part A: Aim of this Report

This report comprises an assessment of the current state of knowledge of the Victorian Bushfire Information Line (VBIL) services and procedures. This report will help situate the research in the context of both the current bushfire information service model, as well as a potential future public information service model. We also identify some minor implications for future work in the project.

This briefing report has been produced as part of a one-year (2012-2013) research initiative led by the Centre for Sustainable Organisations and Work (CSOW) for the Country Fire Authority of Victoria (CFA). The research project aims to identify, develop and evaluate effective communication pathways for increasing awareness of the Victorian Bushfire Information Line (VBIL). The project also seeks to consider these aims within the context of distributing VBIL products, including a new VBIL DVD.

Part B: Background and Scope

There are several major types of natural hazards which affect Australian communities, including floods, storms, cyclones, and bushfires. Victoria is particularly vulnerable to intense bushfires, with the State accounting for 54% of total bushfire deaths in Australia in the years 1900-2008 (Haynes *et al*. 2010: 188). The timely and effective dissemination of bushfire information, warnings and emergency advice is critical to enhancing public safety during bushfires. The Victorian public can currently access information about bushfire emergencies from a number of sources, such as fire agency web-sites, radio, television and social media.

The Victorian Bushfire Information Line is a telephone-based public information service that has been in operation since 2003. It provides both general bushfire information, as well as information about active fires. The VBIL is jointly operated by the Department of Sustainability and Environment (DSE) and the Country Fire Authority (CFA).

The current VBIL service model is likely to be replaced by a future multi-agency, multi-hazard information service as early as the 2013/2014 fire season. The exact nature of this service model is yet to be determined.

Methodology

The research data for this report comes from four sources. First, the VBIL project team provided the research team with a range of policy statements and related documentary material. This information has been classified and evaluated. Second, the research team has extensive experience working on bushfire preparedness and the communication strategies that are currently in place. In addition, the research team has compiled an extensive data base (known as the RMIT Disaster Grid). Third, six focused interviews were conducted with subject matter experts from the three emergency service providers (CFA, Fire Services Commissioner - FSC, and the Customer Service Centre – CSC). The purpose of the interviews was to provide the RMIT research team with a broader understanding of the current VBIL service model, as well as a future proposed Multi-Agency, Multi-Hazard (MAMH) model. Fourth, the research team undertook some observation of work procedures and practices at the CSC, as well as in other related VBIL settings.

Part C: The Current Service Model – The Victorian Bushfire Information Line

The Victorian Bushfire Information Line is a public information service provided by the CFA and DSE. It provides general bushfire information (serviced by a general 'Frequently Asked Questions' - FAQ - database), about the following topics;

- What is and is not permitted on a Total Fire Ban day or during the Fire Danger Period (fire restrictions)
- Current Fire Danger Ratings and what the ratings mean
- Current DSE fuel reduction burns and other planned burns
- Key bushfire preparation and planning information
- Programs, publications and services available from both CFA and DSE, including community meetings
- Emergency Relief Centre location details
- Neighbourhood Safer Place location details
- Recovery after a bushfire, including financial assistance essential water replacement and rehabilitation of assets and forest
- Community Information Guides.

Source: http://www.cfa.vic.gov.au/warnings-and-incidents/bushfire-info-line.htm

The VBIL also provides the public with information during and after fire events. This service is delivered by a customer call centre, which is located at Wendouree near Ballarat. Operating hours are between 8am-6pm on low fire danger days. On days of high fire danger, hours are extended according to Customer Service Centre guidelines, which are modelled on the State Control Centre (SCC) requirements and/or upon request of the SCC.

The VBIL Customer Service Centre

The Customer Service Centre is a 35 seat call centre, with three overflow sites. Two internal overflow sites are located at Sebastopol and Mount Helen (both suburbs of Ballarat), while the Department of Human Services (DHS) call centre in Geelong provides an external overflow site. Staffing of the CSC for any given day is determined by a readiness guide based on factors such as the Fire Danger Rating, weather forecasts and location of active fires. At any time, the SCC can also request for the CSC to extend its operating hours.

A VBIL process model sourced from a 2010 inquiry into the after-hours VBIL failure is presented below (Figure 1).

Figure 1: VBIL Process Model Flow Chart after the inquiry of 4 January 2010 (Adapted from: Department of Premier and Cabinet, 2010)
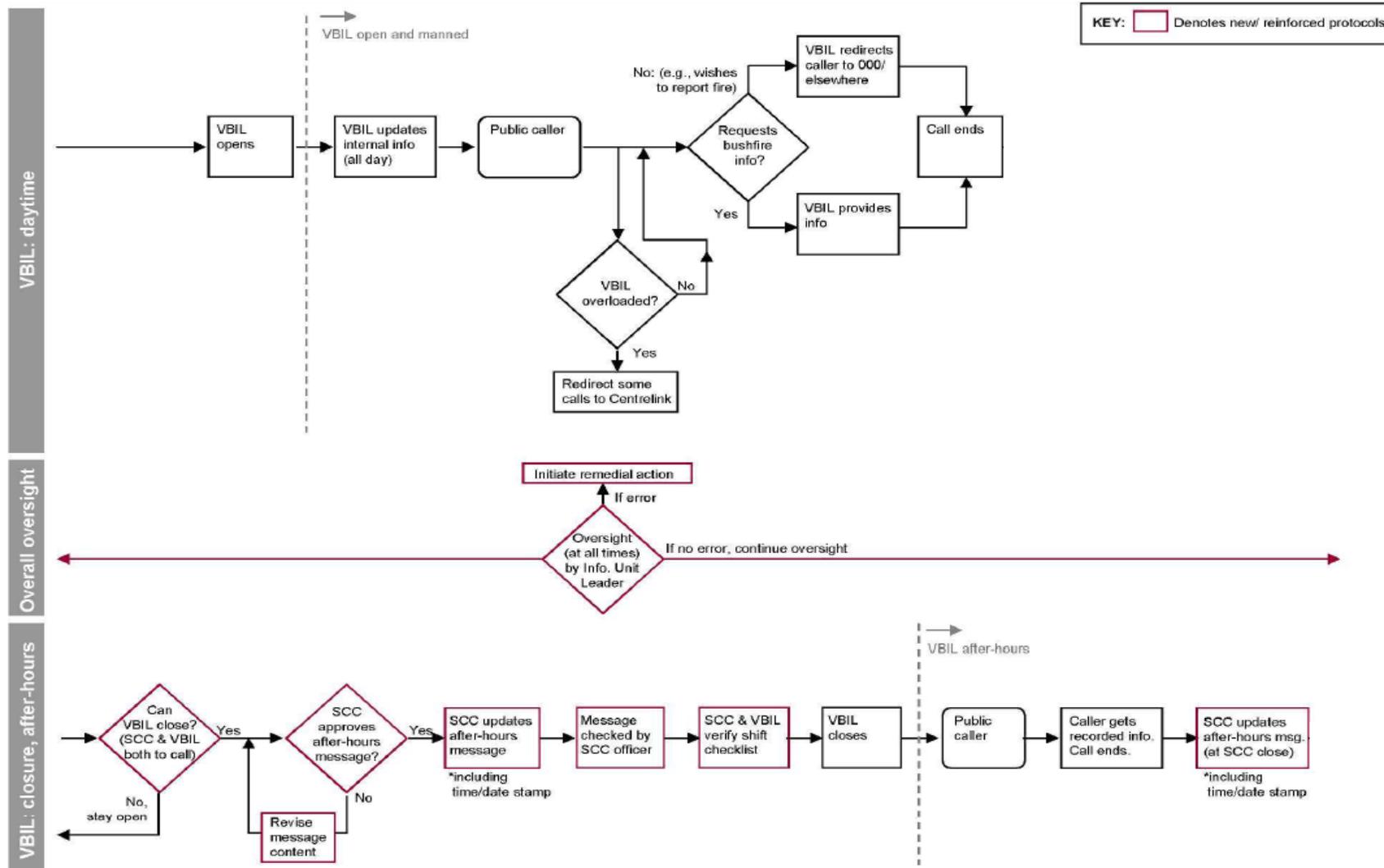
The daytime (top) 'process' describes the VBIL functions during business hours. During active fire incidents, upon receiving a call from members of the general public, call-takers will first check the list of fire events, using the CFA/DSE web-sites. If the fire is not listed, they will direct the caller to hang up and dial 000. If the fire is listed they will provide the caller with the latest advice and alert/warning levels. This process model also highlights an important decision point. If the CSC is overloaded, the decision will be made by the unit leader to initiate overflow procedures. The VBIL does not provide additional information to that which is available to the public via fire agency web-sites (or possibly the ABC radio). Rather, it provides another medium for community members to access this information.

The night-time (bottom) 'process' describes VBIL functions after business hours. Notably, the most up-to-date information about active fires is provided to the CSC by the SCC. Before the CSC closes, this information is uploaded to an automated message service which can be accessed by callers through a sequence of phone dial prompts.

The shaded 'process' in the middle of the chart corresponds to oversight activities. This activity is conducted by a unit leader who is responsible for the efficient operation of the CSC during business hours.

Where the VBIL differs from other information sources (e.g. the CFA web-site) is that members of the public are able to speak with a call-taker from the CSC (during business hours). What remains relatively unclear is the level of advice that the call-taker is permitted to offer to the caller. Interviews with CSC personnel revealed that advice about issues, such as how to prepare for an approaching fire, still follow FAQ guidelines. Nonetheless, grey areas appear to exist, for example, when call-takers are asked to provide advice on safety-related decisions under imminent bushfire threat.

There is a sequence to the intensity of work and the demands on call centre staff. As noted:

> *'Current experiences, I think on a quiet day like today I think call centre functions good. It certainly does have the capacity to handle call volumes and that kind of stuff. When it gets to the what we called medium level of activity, I am not quite sure because given the current call centre size and … the call centre capacity…But definitely, code green, code yellow, I'm very confident…what I'm worrying about is once we hit medium level of activity and beyond.'*

(Cfa-ecp-int-02, 2012)

As acknowledged, the current VBIL provides a good service during non-fire periods. However, there have been no major Victorian fires since Black Saturday, and the VBIL's capacity to deal with a large spike in incoming calls remains untested.

A concern with VBIL's capacity during a period of high demand also stems from the time taken to activate the external call centre overflow function at DHS (CFA-ECP-Int-02, 2012). The flow of work on a quiet day is manageable, although not always relevant to the VBIL service. On such a day, one call-taker was observed to answer approximately six calls in a half-hour period (although none of these calls were for the VBIL; they were for Department of Primary Industries which is also dealt with by this call centre). For all but one call, the relevant FAQ's were unable to provide a satisfactory answer for the caller. In each of these cases, the call-taker sought the assistance of their duty manager, leading to delays in information provision. These observations suggest that although the service model has many advantages, it sometimes places high demands on call-takers.

Another key issue is the sources of information for call-takers. As stated:

> *'We rely on information from the agencies of what's going on. If there is a fire, what is it, where is it heading, what's the likelihood of impact? A lot of times we're looking at - one of the real advantages in the last couple of years has been the OSOM, or one source, one message, so the CFA and DSE websites are in sync. That's a really primary source of information.'*

(Cfa-ecp-int-04, 2012)

There is recognition of the importance of providing timely, tailored, and relevant information to the public. But, there remains a tension between providing timely information, and the need to validate information through a chain of command;

> *'It's all based around getting info out as quick as we can and in a paramilitary [way], even though we're in grey but we've got these black lines that we run that's not always the quickest way of getting information out and so that's where one of our gaps is.'*

(Cfa-ecp-int-01, 2012)

Current problems include the importance of minimising prompts, waiting times, and recorded messages in order for customers to be able to speak with a person when trying to get information. This complication is likely to be heightened in emergencies and other stressful situations.

'So, in that sense we've had conversations about how many times we have to press numbers to get to certain places and waiting times and those sorts of things. Obviously, if they're already stressed, that could be really damaging if they have to press numbers and listen to recordings and those sorts of things.'

(Cfa-ecp-int-03, 2012)

The content of messages can also be an issue. Warning messages need to be concise, to use common language that people are familiar with, and offer advice that would lead to good safety-related decisions;

'What we put out's got to be in a useable format. It's got to be so that a person can read it and it's clear, it's precise, all that. Otherwise, if it's open to interpretation or if there's too much information then it's as bad to me as no info. So it needs to be very much consumable.'

(Cfa-ecp-int-01, 2012)

A major source of concern with the current VBIL system is the technical language used in some of the FAQs. One interviewee suggested that more common language responses would be easier for the general public to comprehend.

'It's functional, but it's not customer friendly. It's too technical. It's written from a legalistic point of view, not from a customer point of view. So, what is radiant heat? Well, that's when it's hot. But, I can show you that where it talks about - and we have - it has got better, but I still think we need to make it - really dumb it down to make it simple community information, not the legal answer.'

(Cfa-ecp-int-04, 2012)

Similarly, the interviewee maintained that some of the FAQs would be more useful if they were summarised into key points, providing a 'snapshot', with the option of more detail. The interviewee discussed the need to couple this with more tailored information. For example, with the use of more customer-friendly maps, local landmarks could be used when describing fire movements and trajectories. The goal of these changes would be to make calls as clear and concise as possible: 'moving away from having conversations [to] providing information'.

'The AHT, or the Average Handle Time, for a fire call is 6 minutes, 360 seconds. The concern I've got is that what you talk to a customer at the start of the call to what they remember at the end, they don't remember the whole - so it's a six minute call. We did locust a

couple of years ago; they were a nine minute call, fires are six minute and SES is a four minute call. It's a little bit more streamlined. I just think what we need to be working to is really a real - a more of an exec summary and if somebody wants to talk, then you've got that option.'

With respect to call volumetrics, call-takers sometimes have to field unnecessary calls because some members of the public expect to receive information over and above what they can find on fire agency web-sites.

VBIL Awareness Products

The VBIL service is part of a broader attempt by fire agencies, such as the CFA, to support safety-related behaviour during bushfire emergencies. Currently, the promotion of bushfire awareness in Victoria consists of a number of education initiatives and related activities. Despite such programs, agencies in Australia have seemingly struggled to engage communities with respect to bushfire risk awareness and preparedness. Research following the 2009 Black Saturday fires suggests that despite a moderate level of bushfire risk awareness among affected communities, preparations and plans for the eventuality of a bushfire were variable at best (Whittaker *et al*. 2009). More recently, a survey of households in 52 high fire risk townships in Victoria found that only 52% of households had a current fire plan, while only 18% had a written fire plan (Strahan Research 2010). Community meetings are typically poorly attended.

There may be a number of reasons and factors for poor levels of community engagement, including (but not restricted to):

- Quieter than normal bushfire seasons may lead to reduced risk awareness
- Reduced awareness as a function of time since last major fire
- Competing priorities and demands (financial and time)
- Concerns about other natural hazards (e.g. floods)
- De-personalisation of risk (i.e. bushfires are perceived as a low probability event)

As part of the broader fire awareness campaigns, the CFA and DSE have developed VBIL wallet cards and fridge magnets to promote the VBIL service. Prior to these initiatives, no dedicated VBIL awareness campaign had been implemented. In 2011, a dedicated VBIL project team promoted the VBIL by distributing VBIL wallet cards, VBIL fridge magnets and VBIL mini-fans at the CFA State Championships in Horsham and Colac. A new VBIL awareness initiative in 2012 involves the development of the VBIL Awareness DVD, which is due for distribution by late October 2012.

VBIL wallet cards

The wallet cards are small (business card-sized) cards that provide the contact number for the VBIL and some basic information about other services (e.g. the 000 emergency phone line). Potential advantages of the wallet cards include accessibility (small enough to be carried around in a wallet or handbag or similar item) and legibility (only space for critical information). Potential limitations may include a reluctance to carry around such materials. It may also be the case that members of the public do not frequent or access the sites where they are distributed, such as community fire education sessions.

VBIL fridge magnets

As with wallet cards, the VBIL fridge magnets are visible and accessible. The assumption behind this artefact is that most people are familiar with the concept of storing important emergency information on the household fridge. One profound limitation of this artefact is that community members should be at home when they become aware of a bushfire or related threat.

VBIL Awareness DVD (and cover design competition)

The VBIL project team has also commissioned the production of an awareness DVD, for distribution to communities. The DVD aims to raise awareness of the VBIL services. It will comprise 4 short video clips containing information about the VBIL, targeted towards different users such as local CFA brigades, community members, diverse populations and travellers. To encourage community involvement, the VBIL project team has engaged various on-line communities, such as ArtsHub and Desktop (websites serving Australia's creative arts industries), and organisations, such as primary schools and Montrose Brigade, to conduct a design competition for the DVD cover. The motivation for this competition is to increase community engagement through user-participation in the development of their safety-related material. DVD distribution strategies have also been developed and include the following:

- DVD distribution through CFA Community Education Coordinators
- DVD distribution through CFA Communities and Communication's community engagement kits targeting 500 high risk communities
- Advertising through the Fireman (primary industry newspaper)
- Dissemination strategies recommended by the research team

As of 5 Oct 2012, a pre-order of 1,930 copies of the VBIL Awareness DVD has been received.

VBIL Awareness and Uptake

Three important issues to consider are: 1) awareness of the VBIL service, 2) trust in a VBIL-type service, 3) effective pathways for raising awareness and confidence in a VBIL-type service.

For the VBIL to be successful, members of the general public, and in particular residents in bush-fire prone areas, must be aware of the information line. It is difficult, however, to assess the awareness of the VBIL amongst the general public. Some are of the view that knowledge of the VBIL is fairly limited, while others believe that community awareness of the VBIL is reasonably high.

> '[Awareness] - *It's pretty good. A lot of people do know it. Probably a lot of people know it but may not rely on it, or totally trust to use it but they definitely know that there is a number out there that they can use and get information from. So I'd probably say 50 per cent, 60 per cent or more that do know it's actually there…. So when we visit people, very often they've already got the magnet or they've got the pamphlet with the number on it and stuff like that, so it is pretty high. Whether or not they use it is another thing but we do see the magnet out there in plenty of places. People do know about it, yes, I've heard of that number. Yes, I know where it is, it's on the fridge. Sometimes when you ask people if they've used it, the number drops down a lot.*'

(CRA-ECP-Int-06, 2012)

According to this interviewee, however, some members of the community are reluctant to trust certain information sources, following "bad" past experiences (specifically during the Black Saturday bushfires).

> '*Probably just that the trust from the Black Saturday fires, people rang in and some of the information they were given wasn't up to date or clear enough about the situation at the time. The main [problem] appears [to be] how large the incident was, how quickly it was moving, information from the Bushfire Information Line website, radio, just wasn't keeping pace with what was happening on the day.*'

(CRA-ECP-Int-06, 2012)

Awareness of a VBIL-type service must be coupled with a trust in that service. One Interviewee observed that some members of the community prefer to acquire information from local CFA brigades.

'So sometimes if information comes from the brigade then it can be a lot more trusted and - what's the word for it? Yeah, they prefer it from the brigade than someone in an office somewhere else down in Melbourne just telling us we need to do this.'

(CRA-ECP-Int-06, 2012)

Many have expressed concerns about the current service model, including lack of up-to-date information after VBIL business hours:

'The fire is contained; crews will be mopping up overnight. That sort of information. Now that's good at nine o'clock at night. If at half past one in the morning something goes dramatically wrong, we get a puff of wind out of nowhere and all that sort of thing suddenly it's not accurate information anymore, yeah. So there's little links, and I'm not a hundred per cent perfect on all the processes. Our public info people in the field, do they, I think they can ring VBIL and update, I'm sure they can, but again I'm not sure on that one.'

(Cfa-ecp-int-01, 2012)

One interviewee discussed a number of methods and avenues for engaging with communities and publicising VBIL services. These include personal mail-out to residents, letterbox drops, posters, advertising in local magazines or newspapers, doorknocking, and targeting community organisations (such as Rotary, scout groups and schools). As suggested, distribution takes a number of forms in different settings:

'It's usually some inquiries. If we have a Fire Ready Victoria meeting we'll give them out then. A couple of times we've done little show bags for little events and made sure there's a card in them as well, just to get the information out there. Magnets are usually the most popular one, because people pick it up and stick it somewhere. Whereas the business card people might put it in their pocket, the pockets already full enough. Some of the people can put it on their fridge and have it there physically. It's amazing when you walk into people's houses how many fridges actually have the magnet on them.'

(CRA-ECP-Int-06, 2012)

With regard to distributing a VBIL DVD in such a way that is likely to be watched by recipients, there are potential challenges. Well-defined DVD distribution strategies previously mentioned and communication pathways identified during this research will assist the VBIL project in overcoming these challenges.

'It's pretty hard; because there's different parts of the community will take it pretty easy. So some will want it and watch it pretty easily, some will say, well, it's a DVD and I haven't got time, it's just another piece of publicity sort of thing. So to distribute it right across the community might be a bit of waste in some ways, if you try and send it to everyone. It's probably more of a targeted thing at the meetings, if you have a meeting, give it out. If you have an event, give it out to those people that are more interested, because once they ask for it or accept it they're probably more willing to watch it than those ones just to send it out and say, here's something.'

(CRA-ECP-Int-06, 2012)

The wallet cards and fridge magnets are currently available, while the VBIL DVD is scheduled to be launched in late October, 2012.

Members of the general public can obtain a wallet card or fridge magnet in two ways:

1. Local fire brigades can request supplies of the wallet cards and fridge magnets by contacting the VBIL on 1800 240 677. These artefacts are then distributed to the public at fire safety meetings or similar events.

2. Members of the general public can call the VBIL directly and request these products. This pathway obviously requires prior awareness of the VBIL service.

It is possible that these pathways are not the most efficient means for increasing awareness and uptake of the VBIL services. To improve the uptake of the VBIL, VBIL awareness products should be used to compliment awareness campaigns

As previously stated, levels of bushfire planning and preparation are variable and unevenly spread across locality residents. Levels of knowledge of bushfire safety concepts appear to be moderate at best. Other research suggests that despite an understanding that the safest place to be during a bushfire is 'somewhere else', many residents plan to wait and see how a fire develops before making a final decision to stay and defend or relocate (Strahan Research, 2010; McLennan & Elliott, 2012). Such findings draw attention to the importance of the provision of timely and relevant information through a variety of sources of which the VBIL is one.

Community engagement and education policies continue to be refined and promoted by many levels of government and related authorities, from local brigade level to State-wide awareness campaigns. The concept of shared-responsibility between community members and emergency service providers has been

developed and publicised since the Victorian Black Saturday fires although the balance of responsibility remains quite unclear.

A greater emphasis may need to be placed on communities as localities taking responsibility for their own bushfire safety, with a reduced reliance on emergency services. In such circumstances, information services, such as the VBIL, provide a vital public service. However, to be effective, members of the public need to know a) how and when to use these services, b) what type of information they provide, and c) how this information should be used to inform safety-enhancing decisions under bushfire threat. As well as exploring effective communication pathways for enhancing community awareness of the VBIL, the current research may also provide an impetus to explore future strategies for empowering communities within a shared responsibility model (although clearly beyond the scope of this research project).

Part D: A Multi-Agency, Multi-Hazard Approach

The move to a multi-agency, multi-hazard service has been proposed and promoted by the Victorian State Government, the Country Fire Authority and the office of the Fire Services Commissioner. This service will provide the public with integrated information about multiple natural hazards and emergencies, although the exact scope and content of the model is yet to be determined. Furthermore, it is currently unclear if this new service will replace or complement the existing VBIL, as a public information service. It is likely that agencies such as CFA, DSE, MFES (Melbourne Fire and Emergency Services), VICSES (Victoria State Emergency Services), DHS, and DPI will be involved in the new service model, although it is less clear if Victorian Police will be included (Research Interviews, September 2012). Given the range of potential participant services, the provision of information about bushfires, structure fires, storm damage, floods, plagues (and other pests), hazardous material incidents, motor vehicle accidents and road closures, amongst others, could be expected to be included in the new service model.

Currently the Fire Services Commissioner (FSC) has a proof-of-concept web-site in place that provides multiple hazard information to the general public.
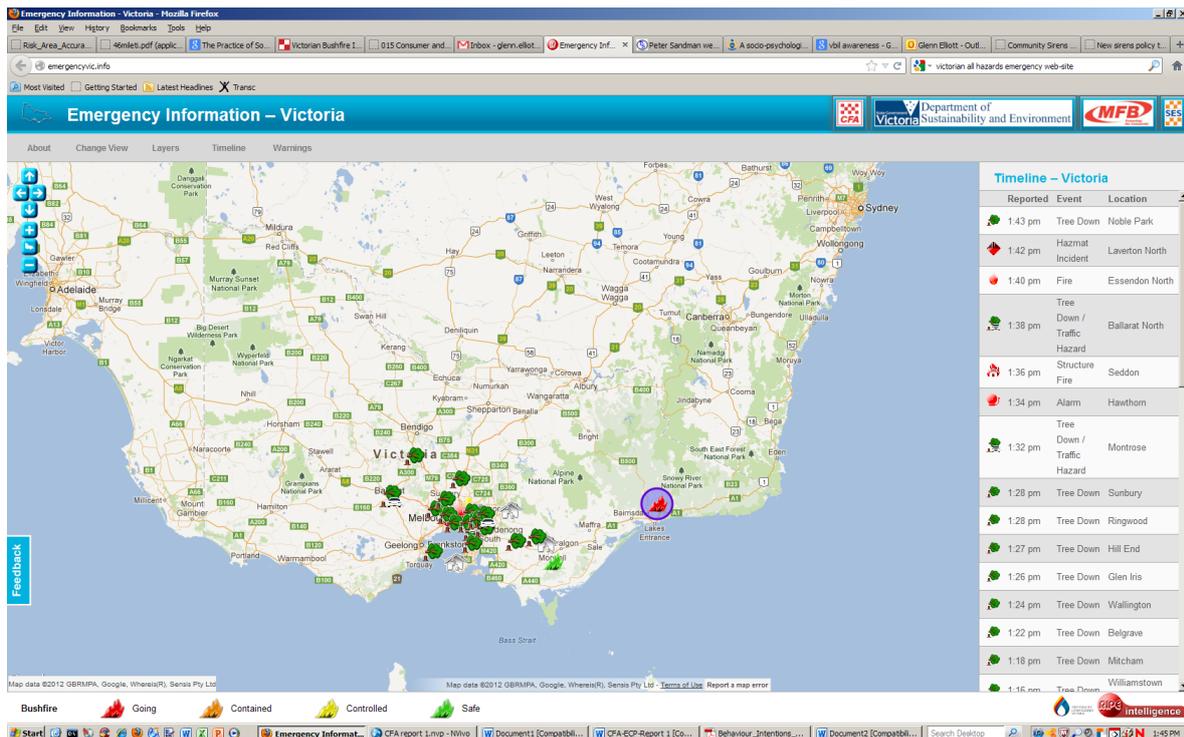
Figure 2: A prototype multi-hazard emergency information web-site
Source: http://emergencyvic.info/

This pilot website presents information on emergencies that the fire services and VIC SES are attending across the State of Victoria. Details provided include the location of incidents, when they were first reported and last updated, their size, the agency responding, the number of vehicles dispatched, and the local ABC radio frequency. In addition, the status of bushfires is given (going, contained, controlled, or safe). A scalable map allows members of the public to focus on information that is relevant to their location. During this test phase, public feedback on the design and functionality of the website is being sought.

The service provider for the Multi-agency, multi-hazard (MAMH) information service is currently unknown. It is likely that the contract will be put out to tender once a service model and requirements are decided upon.

Multi-Agency, Multi-Hazard Information Line

The detailed vision for and requirements of a MAMH information line will be developed in the next few months. With such a broad-scope service, an important consideration for emergency agencies is how information will be shared among emergency agencies. This is not seen as a potential problem (especially in the State Control Centre) as the agencies already have strong operational relationships (ECp-o1, 2012). One way of proceeding is by adaptation and incremental development

of the VBIL; a MAMH model could be implemented by expanding the current FAQ model to FAQs for multiple hazards (ECp-02, 2012, 2012).

Problems and Possibilities

The move to a MAMH information service presents significant challenges to emergency service agencies but also opportunities to address some current shortcomings. Many members of localities, for example, do not recognise the VBIL brand. Greater visibility needs to be achieved.

> *'Well when we - well for example when we go out and attend the volunteer forum for example. We talk to people, we are from VBIL, have you heard of us? Oh, not really. Great because they are volunteers from CFA. So if people involving CFA have no clue that's a cause of concern. When we go out to brigades, brigades as well - brigades are champions - every year we have championships, we've talked to brigades believe it or not most of brigades don't know about VBIL. So just from that we know that we have a problem.'*
>
> **(Cfa-ecp-int-02, 2012)**:

A multi-hazard service model could help to minimise confusion among members of the public about where to find information. As noted:

> *'But I think if we have - at the moment there are several different telephone lines that people can call about additional information in addition to 000. I think things will be easier if we just have one line perhaps, all hazard information line. Therefore in people's mind, that's very easy, one is 000, and one is all hazard information line. You can't get confused.'*
>
> **(Cfa-ecp-int-02, 2012)**

Indeed, fostering a common operating picture across emergency services agencies may be an important motivating force for moving to a multi-agency, multi-hazard information line;

> *'A lot of our projects are about new and developing things and how we can actually sort of fit them in with the current processes, how we can actually have a common operating picture across the four agencies who are using separate computer systems. Only recently have we now only got one phone on the desk. So those sorts of little things that you just think should be easy, but because you've got*

two systems for the main fire agencies. But then a third fire agency and SES coming in.'

(Cfa-ecp-int-03, 2012)

A further challenge is to engage urban-rural fringe communities. One interviewee noted that Black Saturday could have impacted on some Northern suburbs of Melbourne if the wind conditions had been different. This interviewee observed that awareness levels are lacking in some at-risk areas.

'The urban fringe stuff is stuff that really concerns us I think because you have such a population there that just don't understand where they're living and what the risk is.'

(Cfa-ecp-int-03, 2012)

MAMH Requirements

A number of potential MAMH information line requirements were raised across the interviews, including;

- One phone number for all emergency information (e.g. 555)
- Integrated, interoperable information unit within the SCC, drawing on information officers across all agency stakeholders
- Integrated technology in the SCC for pushing out timely emergency warnings
- The need for a reliable and robust service model (e.g. timely, relevant and tailored information)
- User-confidence deriving from positive user experience (cfa-ecp-int-01 suggested that if people have a negative initial experience with such a service, they are unlikely to use that service again)
- Every phone call is answered quickly
- Caters for culturally and linguistically diverse and other vulnerable groups.

Dealing with surge capacity is a simple case of volumetrics. Understanding how end-users perceive and use information to influence their safety-related behaviours and decisions is far more complex.

The move to a multi-agency, multi-hazard approach also has implications for the current project. Although, interviews with community members will remain focused on the current VBIL service model, we will endeavour to make recommendations about effective communication pathways generalizable to an all-hazard model.

This analysis has important implications. They are:

1. Methodologies should not be VBIL-centric

2. Procedures must be developed in relation to appropriate procedures and practices for a multi-hazard, multi-agency model.

3. Effective communication pathways should be generalizable to a multi-agency, multi-hazard service model.

Part E: Conclusions

Some of the key issues include:

1. Surge capacity. Service providers ability to deal with a surge in calls (e.g. during 'black Saturday-type' events) remains relatively unknown and of concern
2. Poor public awareness of VBIL service (particularly on the urban-rural fringe)
3. The need for timely, tailored and plain-language warning information. This can sometimes be at the expense of accuracy, which can be improved over time
4. The differences between push and pull information; encouraging people to seek their own information (e.g. through web-sites or VBIL) as opposed to waiting for further 'official' advice
5. The importance of gathering and documenting user requirements of a future MAMH information service

The data collected and summarised in this report will help inform future project methodologies, and analysis.

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Established in 2009, the Centre for Sustainable Organisations and Work promotes theoretically informed analyses across a number of disciplines. Unified by common enquiries into **Work**, **Sustainability and Organisations**, and **Globalisation**, Centre staff develop highly relevant evidenced-based theories and applied analyses of the contemporary social world. The aim is to inform and promote effective policy, practice and debate. A distinctive feature of the Centre's work is its use of historical and comparative reference. Thus, the work of the Centre is focussed on developing an understanding of people in the context of significant social, economic and organisational change.

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Developing and Evaluating Effective 'Bushfire' Communication Pathways, Procedures and Products

Briefing Report One – Assessing current knowledge