

Local Flood Guide Enhancement – Milestone 2 Report

Prepared for VICSES

March 2024



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About the research



Background

Victoria State Emergency Service (VICSES) provides emergency assistance to minimise the impact of emergencies and strengthen the community's capacity to plan, respond and recover, when emergencies occur.

Local Flood Guides (LFGs) are publicly available documents, developed by VICSES. They aim to:

- Increase understanding of flood risk;
- Guide perceptions around flood preparedness and resilience to risk;
- Help community before and during a flood by empowering them with actions they can take; and
- Increase intention to prepare for floods and intention to search for further information around flood risk and preparedness.

There are over 140 LFGs in circulation and more in development. LFGs serve as an essential community engagement tool.

Recognising the importance of addressing community feedback, it was determined that a thorough review of the LFGs was necessary to inform work to enhance their accessibility, comprehensibility and positive impact on community resilience.

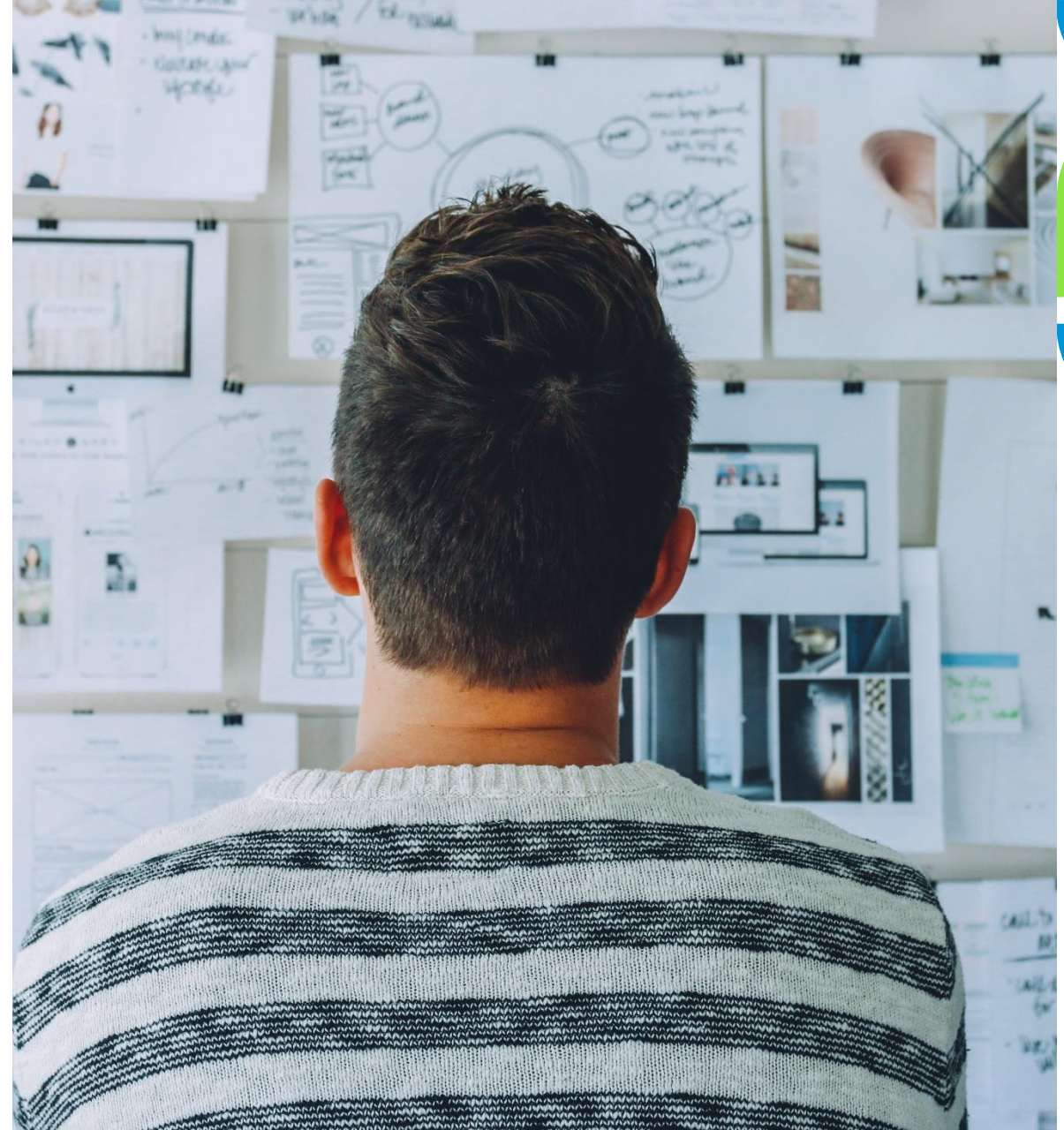
Research objectives

This research sampled Victorian people who reside in areas covered by Local Flood Guides. The community reviewed the Guides and recommended enhancements to inform the redesign process.

The specific objectives were to:

1. Understand awareness of and engagement with local flood advice, and with Local Flood Guides specifically.
2. Learn how to increase usage and optimise the effectiveness of Local Flood Guides in achieving their objectives.

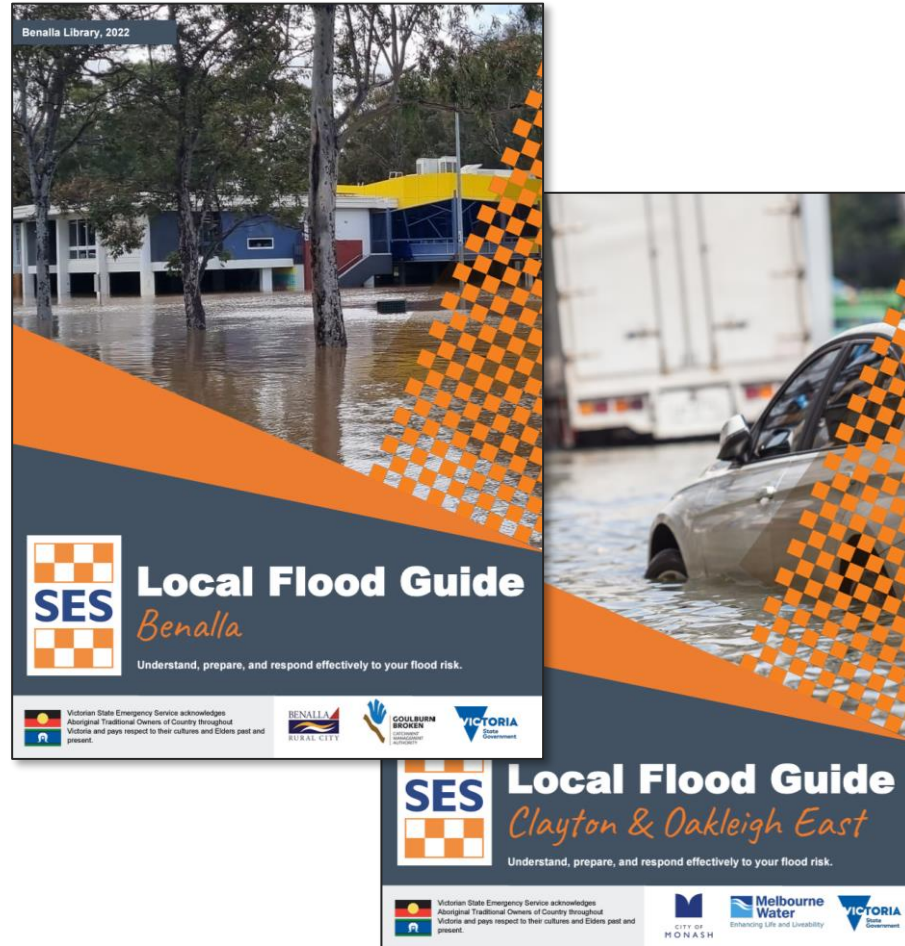
This report presents findings from Milestone 2. Milestone 2 focused on the second objective and reviewed LFGs that had been redesigned based on feedback from Milestone 1.



Project overview

MILESTONE 1			REDESIGN	MILESTONE 2
Project set up Inception meeting with core VICSES team and a separate visioning workshop between Quantum, core team and other stakeholders. Ensured comprehensive understanding of the current perspective and existing hypotheses. Literature review to highlight common practices used in flood advice produced by bodies other than VICSES.	Quantitative poll Concise 5-minute survey with n=505 respondents to poll the visibility and usage of LFGs. Informed the development of a suitable sample frame for the social research, with the right proportions of those who are aware / unaware of LFGs.	Qualitative social research 18x carefully recruited one-on-one in-depth interviews , hosted online. Moderators supported participants to unpack their perspective in full, critically evaluate the LFG website and their specific LFG, reviewing how each element is read and understood. Delivery of Milestone 1 report and debrief with VICSES stakeholders.	LFG redesign LFG documents and website were redesigned by VICSES . To obtain the best return on investment, VICSES redesigned just two LFGs – one in regional Victoria and one in metro Victoria. These two guides were used in the Milestone 2 in-depth interviews with the vision that all guides would be updated once final feedback was provided.	Qualitative social research 18x carefully recruited one-on-one in-depth interviews , hosted online. Moderators supported participants to unpack their perspective in full, and critically evaluate the LFG website and one of the two updated LFGs. Delivery of this Milestone 2 report and debrief with VICSES stakeholders.

Local Flood Guides reviewed in Milestone 2



VICSES redesigned two LFGs between Milestones 1 & 2 – one in regional Victoria (Benalla) and one in metro Victoria (Clayton & Oakleigh East). This ‘pilot redesign’ was deemed the best return on investment use of VICSES internal resources.

Milestone 2 participants from metro areas reviewed the Clayton & Oakleigh East guide and those in regional areas reviewed the Benalla guide.

To ensure the LFGs were seen as relevant to all participants, those who were viewing a guide that didn’t cover their home were asked to imagine how it would translate to their area specifically.

Milestone 2 methodology



In-depth interviews with 18x people who lived in an area covered by an LFG



Fieldwork was late-February 2024



Up to 75 minutes



Participants received a \$120 incentive

The project was carried out in line with the Market Research International Standard, AS ISO 20252.

Sample information:

The final sample suitably represented the communities within the areas covered by the LFGs. This included people:

- Of different ages, genders, regional / metro status, house owner/renter status.
- Who spoke a language other than English at home.
- Had a disability.
- Identified as Aboriginal and/or Torres Strait Islander.
- With levels of awareness and usage of local flood guides that represented the wider population, informed by the Milestone 1 poll outcomes.

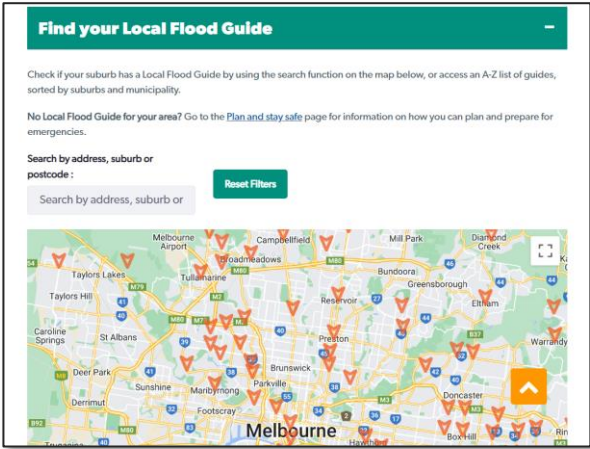
Milestone 2 included an over-representation of people who lived in areas covered by the two LFGs being reviewed; three participants from Clayton/Oakleigh East and two from Benalla.



Review of the re-designed LFG

Local Flood Guide homepage

The map on the LFG landing page functions well for Victorians who are tech-savvy



There's no arrow on my suburb...Does that mean there is no risk of flood for my suburb?

Benalla LFG

For those that are practiced with Google or Apple maps, the map provides an easy user experience with good functionality.

For this cohort, the map is easy to understand and navigate. They can find their suburb in a few clicks either via the map or postcode search.

However, there are also pain points in the map experience.

Without a legend, Victorians are uncertain of what the orange arrows indicate. Some correctly understand them to be showing Local Flood Guides, while others misunderstand them as VICSES units or points where roads have flooded.

Victorians are also unsure how to interpret it if there is no arrow on their suburb.

Importantly, for those who aren't familiar with interactive maps (including people as young as 60), the map is a barrier to entry.

For these Victorians, it is unclear how to zoom or move around the map. Some believe the border of the map is where the map ends and since their suburb is outside the peripherals then there mustn't be an LFG for their area.

- Some go to the postcode search, or the suburbs listed underneath but these pathways aren't immediately obvious to all visitors.

VICSES should make the postcode search more prominent so it stands out as the first option for Victorians who aren't familiar with interactive maps.

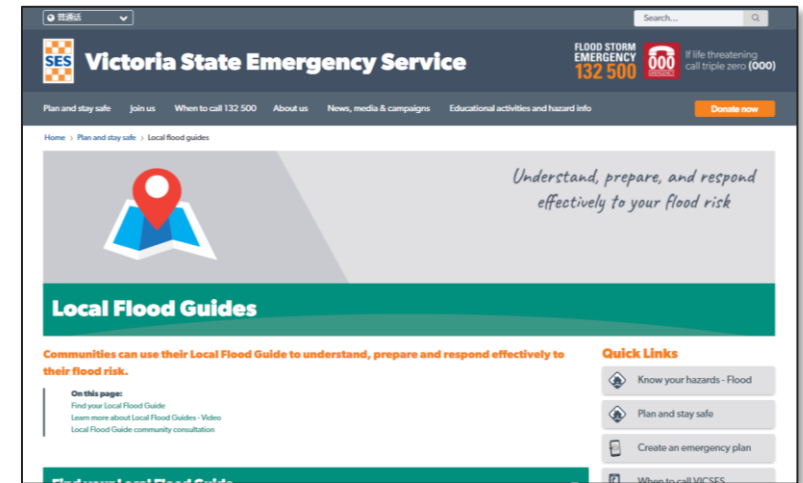
Also, add a legend at the top of the map to ensure correct interpretation of the orange arrows.

Otherwise, initial impressions of this page remain unchanged from Milestone 1

When first landing on the page, especially on a desktop with widescreen monitor, visitors are greeted by a grey box which takes up most of the screen. This creates issues:

- This first-impression challenges confidence that the page will be well laid out, easy to understand and navigate.
- The teal and orange text, as well as the grey box, icon and ‘Understand, prepare...’ text leads to this page being described as “busy” and “cluttered”.
- The search bar is not visible when visitors first navigate to the page.

An improvement on Milestone 1: Visitors were drawn to the map on the page which did aid those who were tech savvy to reliably navigate to the correct LFG.



VICSES would benefit from further decluttering this page. This includes more clearly inciting a pathway to obtaining the correct guide by re-thinking the grey box, map icon and accompanying text.

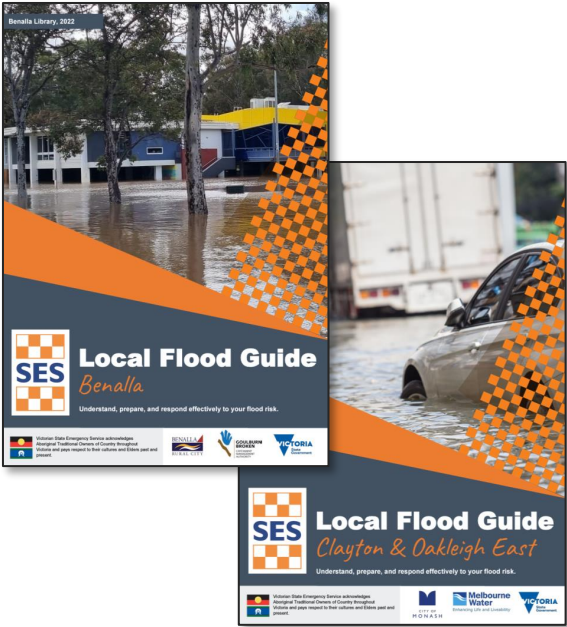
The postcode search should be visible on landing.

If it's an emergency, I'm coming here to find information, it's not clear what I can get here.

Clayton & Oakleigh East LFG

Local Flood Guide documents

The cover page provides important scene-setting for residents who tend to have little awareness of flooding in their area



I like the picture – that picture tells me I'm in the right document.

Benalla LFG

The local pictures are eye-catching, engaging and plausible.

Pictures of local destinations are attention grabbing. For those unfamiliar with flooding in the area, the pictures pique interest and raise the profile of the importance of flooding. For those familiar with flooding, the picture encourages reflection on past experiences and brings to mind the foundational knowledge that the LFG builds on.

SES branding makes the document unquestionably credible.

The size of the logo ensures it is seen by all readers and adds to a feeling of importance and credibility which sets the tone for the entire document. This means that when readers get to more specific information, for example the data table on page 4 'What might happen in a flood in your area?', it is accepted with confidence.

However, the intent of the document (embedded in the tagline) is initially missed by readers and is a barrier to informed engagement...

The document is far more reliably well understood when its intent is clear from the start. VICSES should make the tagline more prominent, thus stating the intention of the document upfront.

When it is observed, the table of contents clarifies purpose and aids navigation

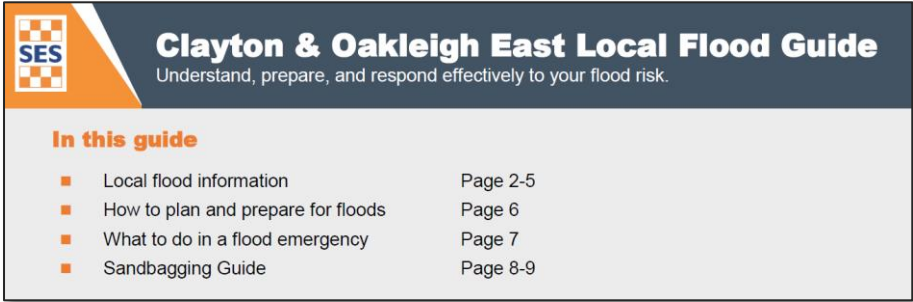
As a simple summary of the document, the table of contents is well received by readers:

- The contents sets expectations of what will be found in the document and emphasises the document’s purpose.
- The page numbers allow readers to skip to what is most relevant to them – e.g. in an emergency, skipping to page 7.

Set amongst white space, and with black text, the table of contents is easy to read. However, this also meant, especially as other parts of the document are so bold and colourful, it was sometimes missed by some readers as they skipped further down the pages.

Observing the table of contents greatly improves the user experience. It supports comprehension and navigation of the document. There is therefore merit in increasing its prominence.

Victorians also suggested using hyperlinks so that users can click on lines in the table and jump to the respective section of the LFG.



The image shows a thumbnail of the 'Clayton & Oakleigh East Local Flood Guide'. It features the SES logo in the top left corner. The title 'Clayton & Oakleigh East Local Flood Guide' is prominently displayed in white on a dark blue background, with the subtitle 'Understand, prepare, and respond effectively to your flood risk.' below it. A section titled 'In this guide' lists four items with their corresponding page numbers: 'Local flood information' (Page 2-5), 'How to plan and prepare for floods' (Page 6), 'What to do in a flood emergency' (Page 7), and 'Sandbagging Guide' (Page 8-9).

In this guide	
Local flood information	Page 2-5
How to plan and prepare for floods	Page 6
What to do in a flood emergency	Page 7
Sandbagging Guide	Page 8-9

I really like this [table of contents] – it is clear, easy to understand and allows me to skip to the sections I want to read.

Benalla LFG

‘Why does [location] flood?’ poses an interesting question, sparks curiosity and draws engagement

Why does Clayton and Oakleigh East flood?

- Stormwater drainage at the Clayton drain and Burton Avenue drain may not be able to cope with heavy rainfall causing flooding.
- Urban development such as more buildings, less green areas, reduces the ability for rainwater to soak into the ground, leading to the water pooling in low areas and causing floods.

This type of flooding is called **flash flooding**.

As established in Milestone 1, most people have no experience with flooding which results in a false sense of security. Framing this section as a question and explaining why their area floods dispels this and increases a sense of relevance.

The explanation in the Clayton and Oakleigh East guide is seen as a good length and easy to understand.

- Being succinct, it is not off-putting for the reader.
- It clearly explains what type of flooding occurs, leaving readers with a confidence understanding of local risks.
- It is easy to understand and doesn't include jargon.

Victorians take longer to understand and digest this section in the Benalla LFG.

- In the Benalla LFG, this section is longer and more complicated. As a result, readers take longer to digest it. Some are concerned that people who had less English language competency would struggle with this information.

Seems very wordy, synthesise it down so it's to-the-point.

Benalla LFG

The Benalla LFG section is on the upper-limit of what the average LFG user has appetite for. It may be too complex for some users.

‘How do floods impact communities?’ draws the eyes and quickly conveys important information

This section is broadly considered the most compelling inclusion in the first two pages.

- Use of striking visuals draw the eye and quickly convey important information. Diamond icons are intuitively understood as ‘warnings’.
- Intuitively understood as genuine threats, these warnings raise readers engagement with and sense of importance of the LFG overall.

However: It still isn’t clear to readers that these warnings may impact residents even if their own property remains above the flood level.

Those who judge that their property falls outside the at-risk area are pre-disposed to pay little or no attention to the LFG, believing it is not relevant to them.

This section is an opportunity to challenge that misconception. This could be as simple as flipping the clause; “Even if your home or workplace stays dry, floods can impact you in many ways.”



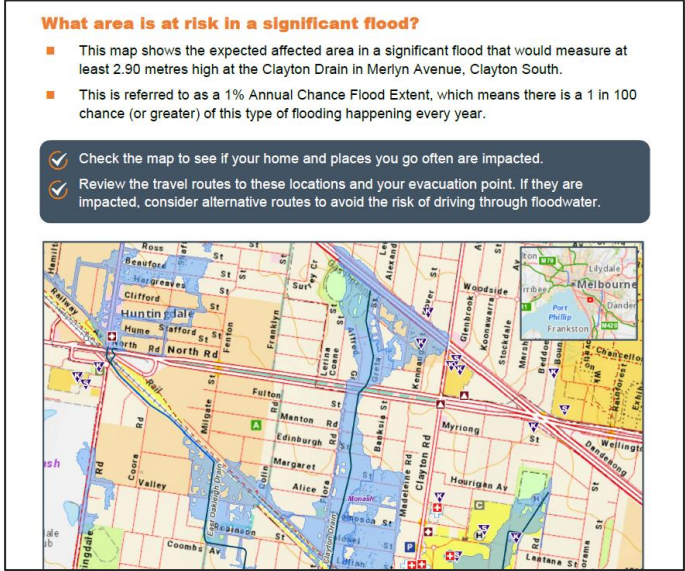
This section.. These icons are great. Flooding is more than your house... well set out, very clear.

Benalla LFG

These consequences aren't usually thought about; I wouldn't think of mobile, water to drink, sewage. Good job of communicating that info in an easy to understand way.

Clayton & Oakleigh East LFG

On reaching page 3, readers are impulsively drawn to the map and almost universally skip the instructional text



With readers drawn so strongly to the map, the design must work hard to direct focus onto anything else on this page.

At present, the user experience largely follows 4 steps: (1) get to page 3 and eyes skip down to map, (2) miss the text that tells the reader how to use the map, (3) potentially get confused by map and (4) potentially move on with minimal meaningful takeaway.

The title is the critical moment to direct readers to a behavioural outcome.

Victorians intuitively understand that the blue shows areas that flood, however if their house is not in the blue zone, the map is dismissed and the reader moves on.

A call to action should be included in the title which directs readers to also look for other places of interest. For example, 'Check your home, work and travel routes for water'.

Does the blue mean water? My place isn't in the blue, so I guess I'm good.
Benalla LFG

At present, the map doesn't reliably support Victorians to achieve a behavioural outcome. Partly this is because they're overlooking the blue-grey box.

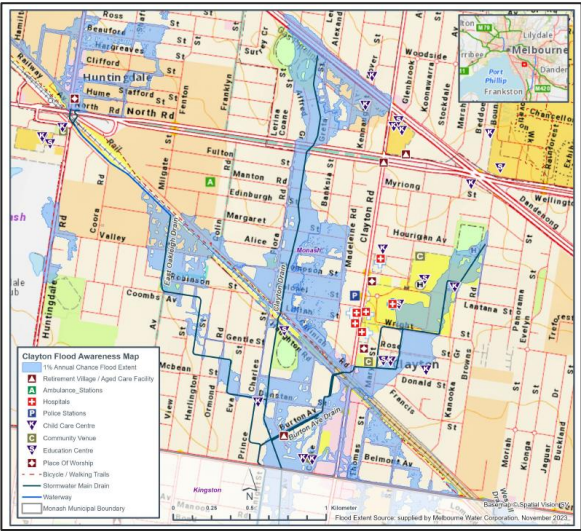
Given the blue-grey box is inevitably going to be less attention-grabbing than the map, VICSES should rethink the title itself to ensure a clear call to action is conveyed as context for the page as a whole.

As it's in an unfamiliar visual style, Victorians tend to find the map design hard to follow

There are several elements of the map which make it hard to understand.

- The map and legend include unfamiliar landmarks which add visual clutter – e.g. education centres, retirement homes, childcare centres, non-descript ‘community centres’, place of worship, municipality boundaries, etc.
- Unusual use of colour variation adds confusion – i.e. different shades of orange and yellow.
- The use of technical jargon adds uncertainty – e.g., ‘1% AEP Flood Extent’ in Benalla legend.

It takes close scrutiny for the average reader to correctly orient themselves and locate their property on the map.



VICSES may be limited in what can be done to make these maps more familiar (i.e. closer to Google / Apple Maps). However, as it's among the valued components of the LFG, there would be merit in anything that can be done to ensure readers more smoothly able to orient themselves.

It reminds me of a Melways, which is very old fashioned. It doesn't feel like a consumer-facing map like Google Maps.

Clayton & Oakleigh East LFG

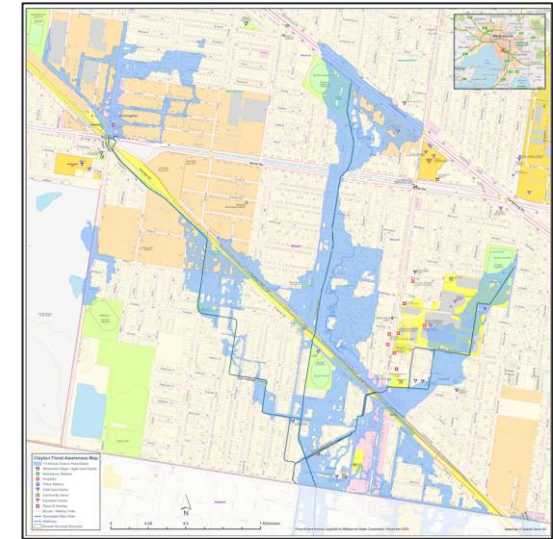
While the enlarged map is seen as useful, most miss the link prompting them to open it and some need support navigating

In general, the enlarged map is perceived as useful, especially in comparison to the map embedded in the LFGs, as:

- It is less busy, the water can be seen straight away.
- It has more detail, with the reader being able to look at specific streets.
- It has a more familiar use of colour scheme.

However, there are some obstacles to use:

- Due to the size of the font, the link within the LFG to the enlarged map is often missed.
 - Note the exception here is for those who are in flood-affected areas and are highly motivated to gather as much information as they can. This cohort pays attention to all details in the guide and appreciate the detail provided in this map.
- As it doesn't mimick commonly used maps such as Google or Apple, how to zoom and move side-to-side isn't immediately clear to users. Like the map in the LFG webpage, this was particularly challenging for people who weren't as literate with technology.



It's excellent but I did struggle to zoom in and out. I ended up using the slide bars to navigate.

Clayton & Oakleigh East LFG

‘What might happen in a flood in your area?’ page has useful information, especially for those who’ve been affected before

Height of floodwater (metres)*	Potential impacts and recent flood heights*
5.50m	1993 flood event and 1% flood level (area shown on map, page 3) Significantly affected most of Benalla, Bassetlaw, and rural farm areas. 870 homes and 210 businesses are likely to experience above floor flooding.
5.01m	361 homes and 138 businesses are likely to be affected by above floor flooding.
4.70m	Floodwater likely to start entering properties in Carter St, Walker St and Smythe St.
4.55m	Floodwater likely to start entering properties in Carter St, Walker St and Smythe St.
4.50m	Major flood level
4.45m	2022 flood event
4.40m	Floodwater likely to start entering Bridge St East CBD. About 36 homes and 21 businesses.
4.40m	Floodwater likely to start flowing in bottle shop (old Amott's Motors), 4.30m
4.30m	Floodwater likely to start entering
4.26m	2010 flood event
3.70m	Moderate flood level
3.65m	Floodwater likely to start covering
3.60m	Floodwater likely to surround the ovals, and enters the cricket and
3.50m	Floodwater likely to threaten the station.
3.45m	Floodwater likely to enter the Rose South, Market St and Benson St.
3.05m	Floodwater likely to enter area between skate park.
2.74m	Floodwater likely to flow into the B Art Gallery.
2.50m	Floodwater likely to start covering
2.20m	Minor flood level
2.20m	Access to Ackerly Ave (Stock Birds tracks around Lake Benalla are at

*The height measurement is at the Benalla river gauge at Benalla.
*This table includes information from previous flood events and flood in Benalla and flows.

The information is extremely helpful for those who have been affected by flood in the past.

- Those in high-risk areas have past exposure to this type of information – they understand the utility and find the information easier to understand.
- Those with no past knowledge find it difficult to follow. The sheer amount of information is difficult for many to digest and can lead to misinterpretations, such as reading the height as times. For this cohort, the table is seen as ‘nice-to-have’ – it is too difficult to understand so most don’t spend the time needed to comprehend it.

‘Before...’ and ‘During a flood’ are the most pertinent pieces of information, however they are lost on the page.

This information is vital as it tells the reader how to use the table. By making this information more prominent, VICESSES would improve usability for those who have a lower existing knowledge base.

This is a lot. I'm not great with numbers; I have no idea what any of this means and my brain really struggles to focus on it.

Clayton & Oakleigh East LFG

As the table is important to those who are most at risk, it is essential to keep. However, utility could be improved by make the table easier to digest. Consider using different colours or visuals to break up the information. Those reading the Benalla guide appreciated the reference to minor, moderate and major flood levels.

Victorians fail to understand the utility of the ‘Previous flood impacts’ section

Generally, Victorians receive this section in one of two ways – either it is seen as interesting but simply reinforcing points they have been made earlier in the guide, or it is seen as useless trivia.

Ultimately Victorians don’t feel they have gained anything new from this section.

Two points from this page may add value if transitioned elsewhere:

- Photos are a convincing reminder that this is real and has happened in living memory.
- The ‘Never enter floodwater’ statement in the Benalla guide is seen as a very pertinent reminder.

By removing this section, VICSES can create space to allow for other more important features to gain prominence.



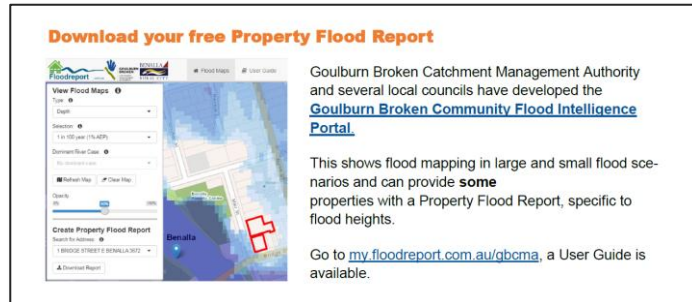
I couldn't give a stuff about the 1993 flood event.

Benalla LFG

The picture convinces me that flooding is a realistic risk. Makes me think of it as an emergency. Not just something to shrug off and that will be fine. It's actually serious. It can be dangerous if you're not switched onto it.

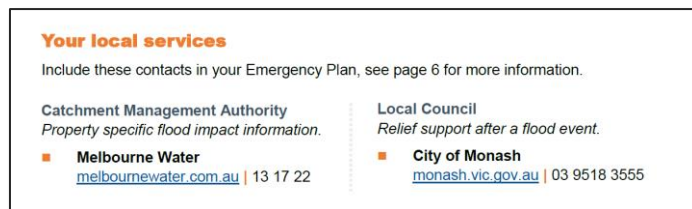
Benalla LFG

‘Free Property Flood Report’ and ‘Your local services’ are received well as personalised and useful information



In the Benalla guide, the free property flood report is seen as compelling.

- Personalised information with the ability to look at your specific property is engaging, especially for homeowners in high-risk areas.
- The language in this section is largely easy to understand.
- Caution: The concept of an ‘Intelligence Portal’ conveys a sense of deep knowledge that the report ultimately doesn’t provide. For example, readers expect the guide to include real-time information, projections of where flood levels will get to, and images of flooding.



Local services are seen as highly relevant and essential in a flood emergency.

However, Victorians largely skip over the text under the heading that references the Emergency Plan. This text could be removed and instead referenced on page 6, ‘Make sure to add the local services mentioned on page 5 to your Emergency Plan.’

I’m expecting real-time information in a ‘Flood Intelligence Portal’ and projections on where things will get to. If it’s just based on past flood data, then I’ve misinterpreted.

Benalla LFG

The Free Property Flood Report is received well but should be reworded to manage expectations of what it includes.

Reference to the Emergency Plan in the Local services section could be removed.

‘Plan and prepare for floods’ and ‘What to do in a flood emergency’ are highly engaging, useful and provide new info

The layout of these sections make information clear and easy to understand.

- While the pages have a lot of information, the use of colours, icons, numbered steps and information being grouped into boxes make it approachable and easy to digest.
- In addition, the QR codes and links to video are seen as useful for visual learners.

New and action-oriented information draws the reader in and empowers them to take action.

- Highlighting that one must be self-sufficient during a flood emergency is generally a stark reminder. Having 72 hours of safe drinking water, food, and any special needs or medications is new information for most.
- Other information is also seen as new and valuable, particularly the car diagram, information about blocking toilets and putting valuables up high.

The combination of visuals, formatting and action-oriented information make these among the most valued pages in the LFG. Action-oriented information is seen as highly-relevant and prompts Victorians to think more actively about how to prepare before and during floods. It empowers them with the knowledge for informed action-taking.



I thought I knew what I needed to do in a flood, but this does make me realise there is more I could do. I need to go and make a list of flood-specific things to do.

Clayton & Oakleigh East LFG

Slight tweaks could further improve utility of ‘Plan and prepare for floods’ and ‘What to do in a flood emergency’



Both pages:

- The grey boxes at the top of these pages are universally skipped. As the pages make sense without them, consider removing this text to provide more space on the page.

‘Plan and prepare for floods’ page:

- While the colour and formatting make the amount of information easier to digest, it is on the apparent limit of comprehensibility to the average reader. VICSES should ensure the final version is ideally less, but certainly not more text-dense than this draft.
- At present, the QR code at the bottom of the page is too small to scan unless you zoom in beyond A4 size. If the guide is printed, zooming won't be possible. If digital, some wouldn't think to or know how to zoom in on the document. Consider increasing the size of the QR code to mitigate these issues.

‘What to do in a flood emergency’ page:

- The QR code on the bottom-right of this page links to an invalid website, leading to an ‘Error 404’ message.
- Two pieces of information are seen as crucial but lost amongst the other instructions – ‘Leave BEFORE the flood arrives’ and ‘Never drive through floodwater’. Consider highlighting these so they are not missed.

While the ‘Sandbagging’ section is easy to understand, Victorians are not inclined to buy and store sandbags ahead of time

Victorians either do not have the motivation or resources to buy and store sandbags ahead of time.

- Many people do not have space to store sandbags, others don’t have cars to transport them and others still aren’t physically able to carry and lay sandbags.
- Even for those without barriers, the idea of having to sandbag their home feels so unrealistic that they are not compelled to do it even after reading the LFG.

However, the guide does successfully distill complicated and detailed information about how to lay sandbags in a way that is easy to understand.

- Diagrams are very helpful.
- Language is simple and easy to understand.
- Placing information in boxes and Q&A approach makes the information easy to digest.



The diagrams here are very easy to follow and the language is very simple. I had no idea how to lay them.

Clayton & Oakleigh East LFG



Additional information could help finalise the document

What's missing?

- A phone number that readers can call for multicultural translation.
- An evacuation point, or how to identify your own evacuation point.
- Options to access the guide in other ways, such as via mail or council newsletter. Accessing it online assumes everyone is computer literate which could obstruct some that aren't.

The map preamble mentions 'your evacuation point' as though I'm meant to know where that is. I don't know where that is, or how to find out.

Benalla LFG

This is a lot of information. What is someone doesn't speak English very well? Is there a support service for people who speak other languages?.

Clayton & Oakleigh East LFG

Local Flood Guide formats and distribution

As in Milestone 1, printed guides and social media are key distribution methods

Printable or printed guides are important in an emergency and for people with low tech literacy.

- Many Victorians who took part in this research had trouble accessing parts of (e.g. the map) or the entire guide without support. Many would prefer a printed version.
- In addition, those who had experience in emergency situations understand that they may not have access to internet or power and so having a printed version in advance is seen as the only option.
- Some suggest having a summary version that could be stuck to the fridge and accessed in the case of an emergency.

Victorians point to social media as a channel for growing awareness of the LFGs.

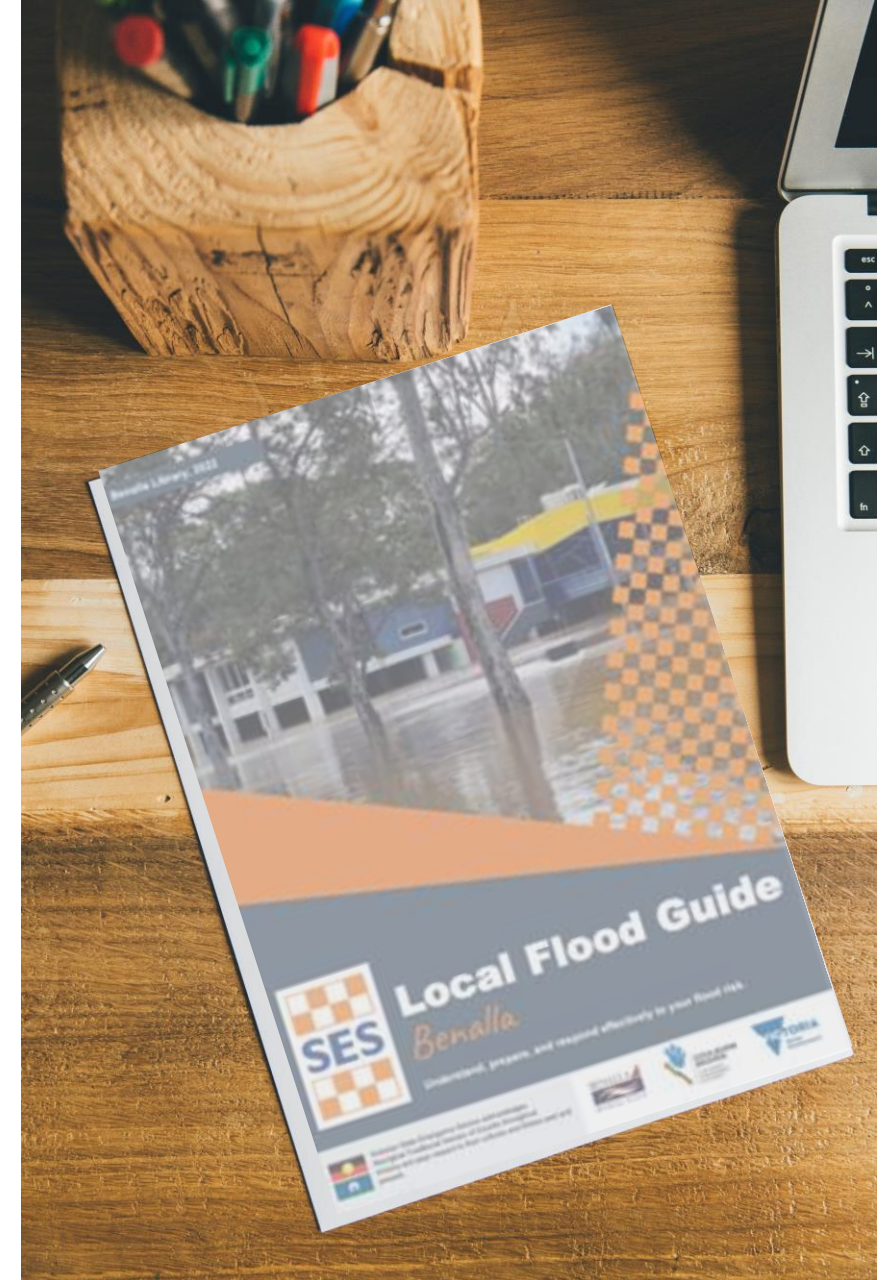
- For example, having sponsored posts immediately prior to heavy rain events, and updates on X during a flood event to get live updates.

Definitely need this printed. A lot of people in my area wouldn't have a computer or know how to read this on-screen. Once printed I believe it has everything you need.

Benalla LFG

If this were advertised on social media with a strong call to action prior to a big rain event, I'd open it.

Clayton & Oakleigh East LFG





Impact of the Local Flood Guides

The LFGs increase understanding of risk and preparedness, empower community and increase intention to prepare



Educate community on their local flood risk

Victorians learn about their local flood risk through information around which creeks flood and which roads and properties are likely to be affected.



Guide perceptions around flood preparedness and resilience

Victorians' base level of understanding is low. After reading the LFG, Victorians' understanding of preparedness and resilience to risk notably increases. Pages 6 (plan and prepare) and 7 (what to do in a flood emergency) are particularly valuable here.



Help community with actions they can undertake before and during a flood

The LFGs provide Victorians with many new ideas of actions to take (e.g. emergency kit, sandbagging), and what not to do (e.g. drive through flood water).



Influence intention to prepare for floods

After reading the LFG, many Victorians intend to download the VicEmergency app, organise an emergency kit, and prepare their property – e.g. clearing gutters.



Influence intention to search for more info

As the LFG was seen to provide sufficient information, particularly for those with low risk, Victorians weren't generally compelled to search for further information around flood risk and preparedness.



However, they were more likely to be alert for updates.

I would take action, probably print it out to know what I need. If I don't have power, I can't use the guide otherwise.

Benalla LFG

I'll get on the VicEmergency app and put more thought into an emergency kit.

Clayton & Oakleigh East LFG



Summary of key findings and recommendations

Summary of key findings

Following the redesign, the LFGs are refined, easy to understand, appropriately sequenced and hit the right tone.

It is observed that those from culturally and linguistically diverse backgrounds are able to follow the LFG.

There were minor issues among older Victorians who were less tech-savvy – these can be resolved.

The LFGs successfully meet their aims of increasing understanding of risk and preparedness, empowering community with actions they can take and increasing intention to prepare for floods.

Those at highest risk are the most engaged, but the LFGs are broadly considered relevant to all living within areas covered by a guide.

Post redesign, Victorians have a better understanding of the LFG's relevance and utility.

Readers are principally interested in practical action-oriented take-aways.

Minor changes could further improve engagement, comprehension and utility. These are summarised in the section which follows.

Following the re-design, the guide is refined, easy to understand, appropriately sequenced and hits the right tone

Find it very easy to read, engaging, nicely split up, logical order. Well presented overall. Easy to read, print and come back to if needed.

Benalla LFG

Tone – it's good. It gets people to understand that its serious and there are things they have to do.

Clayton & Oakleigh East LFG

Length

The length of the guide is deemed appropriate for the document. All the content included is viewed as important, useful and, for the most part, new.

Ease of understanding

The text is clear and simple, and the increased use of visuals like icons, graphics and colours after the redesign enhance comprehension and interest.

Flow

Pages 6 (plan and prepare) and 7 (what to do in a flood emergency) are viewed as having the most important content and being most useful in an emergency. As the flow made logical sense, but given these were the most important pages, a hyperlink in the table of contents could support ease of access.

Tone

The tone is perceived as appropriately direct. It creates a level of urgency without evoking panic and is well received by Victorians.

Considerations for further enhancement

Webpage

- **Remove the ‘Understand, prepare, and respond effectively to your flood risk’ banner and ensure the postcode search box is front and centre when visitors land on the webpage:**
 - E.g. “Find your local flood guide: enter your suburb / postcode”
 - Ensure search results show for all suburbs, postcodes and municipalities covered by an LFG.
- **Improve map experience.**
 - Make the postcode search more prominent so it stands out as the first option for folks who aren’t familiar with maps.
 - Add a legend at the top of the map for the orange arrows.

Cover page

- **Support engagement and effective navigation by making the tagline more prominent.**

Table of Contents

- **Consider making this bigger or adding white space to draw the reader’s eye.**
- **Consider using hyperlinks so that users can click on lines in the Table and jump to that section of the LFG.**

Considerations for further enhancement

Why does [location] flood?

- Clayton & Oakleigh East LFG hits the mark. Consider simplifying the Benalla section, aiming for simpler language and fewer words.

How do floods impact communities?

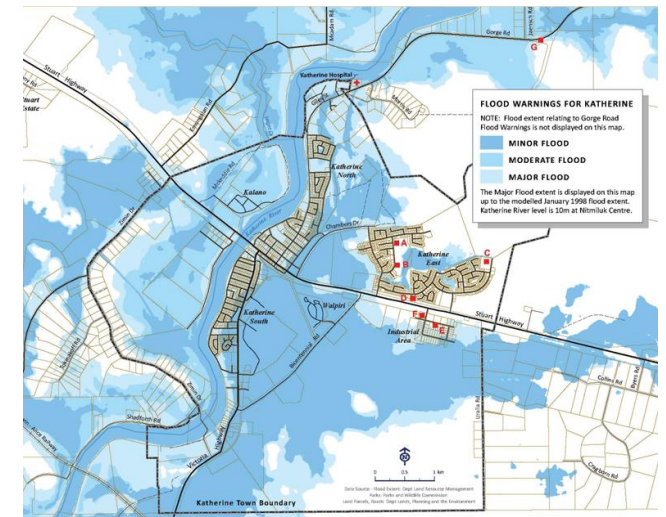
- Consider ways to increase understanding that these might affect you even if your house doesn't flood.
 - This could be as simple as bolding this text or flipping the clause; **“Even if your home or workplace stay dry, floods can impact you in many ways.”**

Map

- Rethink the title to include a clear call to action.
- Consider simplifying the legend and map
- Consider ways to ensure the map makes sense as a stand-alone
 - e.g. Adding succinct instructions overlayed onto map.
- Consider making the link to enlarge the map more obvious, as well as making the enlarged maps easier to navigate.

Map with simple legend

Northern Territory Emergency Service. (2018, August). *Flood Safe Katherine*.



Considerations for further enhancement

What might happen in a flood in your area?

- Reduce the amount of information.
- Consider ways to make the information easier to digest.
 - E.g. add colours, visuals to break up the information.
- ‘Before...’ and ‘During a flood’ are the most pertinent pieces of information, but they are lost on the page. Consider ways to make them more prominent.

Previous flood impacts?

- Consider removing this section.
- Ensure ‘Never enter floodwater’ statement from Benalla guide is kept and highlighted earlier in the guide.

Free Property Flood Report

- Simplify text by shortening the first link to ‘Flood Intelligence Portal’.
- Consider rewording this section to ensure readers have an accurate expectation of what the portal offers.

Using visuals / colour to break up text

Prepared BC. (2023, May). *Flood Preparedness Guide*

FLOOD ADVISORIES

The River Forecast Centre issues advisories about current or expected flood risks. There are three stages of notification:

- 1 High Streamflow Advisory**
River levels are rising or expected to rise rapidly, but no major flooding is expected. Minor flooding in low-lying areas is possible.
- 2 Flood Watch**
River levels are rising and will approach or may exceed the river bank. Flooding of areas adjacent to affected rivers may occur.
- 3 Flood Warning**
River levels have exceeded the river bank or will exceed the river bank imminently, and flooding of areas adjacent to affected rivers will result.



Using visuals to support understanding

Government of Western Australia, & Department of Fire and Emergency Services. (n.d.). *During a flood*.

Considerations for further enhancement

Your local services

- **Statement referencing the Emergency Plan is universally skipped so could be removed.**
 - Instead the local services section could be referenced on page 6, 'Make sure to add the local services mentioned on page 5 to your Emergency Plan'.

Plan and prepare for floods

- **Reduce the amount on this page.**
 - Remove the grey text box at the top of the page – it is universally skipped, and page makes sense without it.
 - Reduce the number of words in each box, aiming for similar amount to what is included in 'What to do in a flood emergency' section.
- **Increase the font size in step 3 'Prepare an emergency kit' under the icons.**
- **Increase the size of the QR on the bottom-left of page so it can be scanned when page is printed at A4.**

What to do in a flood emergency

- **Remove the grey text box at the top of the page – it is universally skipped, and page makes sense without it.**
- **Investigate why QR code comes back with 'Error 404' message and remedy.**
- **Make 'Leave BEFORE the flood arrives' and 'Never drive through floodwater' messages more prominent.**



Appendices

Milestone 2 interview guide

FINAL (21/02/24)

Local Flood Guide Enhancement

Job No.: 23083QL

Discussion Guide

Research objectives:

- To learn how to increase usage and optimise the effectiveness of Local Flood Guides by collaborating with the communities that will utilise them.
- To review the updated Local Flood Guide content and design in order to help it achieve its own objectives, which are:
 - o To educate the community on their local flood risk..
 - o To guide the perceptions around flood preparedness and resilience to risk.
 - o To aid emergency services in helping a community before, and during a flood by empowering the community with actions they can undertake.
 - o To successfully influence individuals' future intentions of flood preparedness and search for further information around flood risk and preparedness.

Overview of methodology:

- Round 2 of N=18 in-depth interviews.
- 75min.
- Online.

Concise summary of sample/target audience:

- Individuals that live in an area of Victoria covered by a Local Flood Guide (LFG).
- N=9 metro and N=9 regional areas.
Minimum of N=3 from Clayton/Oakleigh East and N=2 from Benalla.
Minimum N=1 person who identifies as Aboriginal and/or Torres Strait Islander.
- Mix of awareness/usage of LFG.
- Mix of age and gender.

1

Reminder to moderators – Trauma-informed approach:

As we are dealing with a sensitive topic (flood emergencies), we must take an empathetic and ethical approach to every interview. To have a trauma-informed approach, we must ensure that we're considering the following throughout any interaction with the respondent:

- *Respect, understanding and empathy* – Understanding and respecting that everyone is different, and should be allowed to express themselves at their own pace.
- *Transparency* – Clearly communicate the subject for each section.
- *Participant choice* – Giving participants choice where the interview is held, the length of the interview, what is discussed, and the language used to refer to them within reporting.
- *Psychological safety and avoiding retraumatising* – Be conscious of potential triggers and anything that may be distressing. Discontinue the interview if the participant should be impacted emotionally.
- *Referrals protocols* – Provide contact details for support services.
- *Right to withdraw at any point* – Ensure the participant is aware that they can withdraw from the interview at any time.
- *Strengths-based* – Focus on strengths and resilience, as opposed to just challenges.
- *Person-centred* – Remembering that everyone has unique needs, backgrounds, experiences, and identities.

2

Section 1: Introduction (2 mins)

- Thank-you for participating.
- Session will last up to 75 minutes.
- Anonymous and confidential.
- Being audio recorded – for market research purposes only. You may opt out if you prefer.
- Going to talk about your opinions. No right/wrong answers.
- You will receive a \$120 e-gift card as a thank-you for your time which will be emailed to you in the coming week.

Interviewer read out:

I'm a researcher for Quantum Market Research, a third-party research agency, and I have the privilege of chatting to people every day about a wide range of topics. I encourage you to speak openly and honestly – I'm completely impartial, non-judgemental and really value your input. All of your input will be kept anonymous and confidential – I'll only report back what people told me at an overall level and the client behind this research will never know who I spoke to specifically.

Section 2: Participant context (5 mins)

Objective: To get familiar with the participant and create rapport.

- Tell me about yourself?
 - o Where do you live? Who do you live with?
 - o What do you do for work?
 - o What attracted you to the suburb you live in? How long have you lived there for?
 - o What type of home do you live in? How long have you lived in that home? Do you own / rent / another arrangement?

3

Section 3: Top-of-mind perceptions around flood and flood advice (5 mins)

Objective: To understand the participants surface level perceptions around floods; their local flood risk, flood warnings, and their preparedness and past experience with flood advice.

Thank you, it's great to learn a bit more about you. Today we're going to be talking about flooding. Due to the nature of this topic, if there's anything you'd like not to answer for any reason throughout this interview, that's perfectly fine. You do not need to explain your reasons to me, please just let me know that you don't wish to answer and we can move onto the next question.

I will also pop some support services in the chat so you've got them if needed.

Support services:

[Beyond Blue](#)

24/7 mental health support service

1300 22 4636

[headspace](#)

Online support and counselling to young people aged 12 to 25

1800 650 890 (9am to 1am daily)

For webchat visit <https://headspace.org.au/eheadspace>

[Lifeline](#)

24/7 crisis support and suicide prevention services

13 11 14

[Men'sline](#)

24/7 counselling service for men

1300 78 99 78

[QLife](#)

LGBTI peer support and referral

1800 184 527 (6pm to 10pm daily)

Online chat 3pm to 12am daily

[13YARN](#)

24/7 crisis support for Indigenous Australians

13 92 76

- When I say "flooding", what comes to mind for you?
 - What about "flood risk"?
- How often do you think about flood risk?
- Compared to elsewhere, what's the flood risk like in your area?
- And compared to other properties in your area, what's the flood risk like for your home?
- Have you experienced flooding in your area recently (last 5 years)?
 - How prepared were you at that time?
 - What kind of information would've helped you the most at this time?
- Now, let's think about your preparedness for floods. Let's do a rating exercise, where 1 = Very low / very little and 5 = Very high / very much...
 - What is your awareness / familiarity with flood risk?
 - What is your awareness / familiarity with how to keep up to date with flood risk?
 - How prepared are you for a flood?
 - Why do you say that?
 - How confident do you feel you'd know what to do if there was a flood?
 - Why do you say that?
 - Does their feeling of preparedness depend on the extremity of the flood?
 - What would be your first reaction if you knew a flood was imminent?
- Have you seen or heard advice on floods and preparing for a flood before?
- What led to you seeking out flood advice / what led to you discovering that information about flooding (dependent on the situation)?

Section 4: Comprehension of LFG content and format review (35 mins)

Objective: Explore if the format and content of the guides are meeting their objective as a community engagement resource.

- We're going to get more specific and talk about Local Flood Guides produced and shared by Victoria State Emergency Services (VICSES).
- The flood guide is intended to support you to understand local flood risks, prepare for, and manage during a flooding event.
- VICSES publishes a Local Flood Guide which is specific to your local area, but for the purpose of this chat today, we will be asking you to review a guide from a Victorian suburb.

1. LFG Website landing page (5 min)

Please could you now open your internet browser? Once you've done that, please share your screen with me.

- Please enter ses.vic.gov.au/lfgt
 - At first glance, what do you think of this webpage?
- Now you're on this page, please explore at your own pace and just let me know your initial thoughts as you go through the information. Tell me what catches your eye. Let me know of any parts you particularly like or dislike, any questions you have or points of confusion.

2. LFG document review (2min)

- Now can you please enter this address into your internet browser;

Moderator note: Use Clayton for metro participants and Benalla for regional. Note, this cannot be accessed from the map.

 - Clayton & Oakleigh East LFG URL: ses.vic.gov.au/Clayton+LFG.pdf
 - Benalla LFG URL: ses.vic.gov.au/Benalla+LFG.pdf

Page 1 (2min)

- Looking at this first page, is it clear what type of information the guide will include?
 - What information are you expecting to find?
- Is this cover page required or should the document start on Page 2?

Page 2 (2-3min)

- Scroll down to the next page and have a look at the section 'Why does <location> flood. Upon reviewing, what is your understanding of what causes this area to flood?
 - Does the language in this section need to be simplified?
- I'll draw your attention to the next section, 'How do floods impact communities'.
 - In your own words, what is this section saying?
 - After reading it, is it clear that this is how you could be impacted even if your home itself doesn't flood?

Page 3 (2-3min)

- Scroll down to the next page and have a read of the information.
- Take a look at the two points in the dark box. Do these point help to understand how the information within the map can be used?
- Clayton & Oakleigh East only: Now click on the map to enlarge.
 - How do you feel about this version of the map?
 - On opening this, would you think to zoom in?
 - Have a go at that now and let me know what you [think](#)
 - Is it easy to navigate?
 - How does it compare to the map we saw in the document?
- Close that tab now and let's move on.

Page 4 (2-3min)

- Have a read of the information here.
- Tell me your understanding of what this is showing.
 - Would you use this in a flood event? How so?
- Do you want to know more about whether this information came from and how it works or is this sufficient information?

Page 5 Benalla only (2min)

- Take a look at the 'Download your free Property Flood Report' section and have a read.
 - What do you understand from that description?
 - Reading that description, what information would you expect to get from the Property Flood Report?
 - Does the language in this section need to be simplified?

Page 6 (2min)

- Have a look over this information.

7

- Is the format and content of this information easy to understand?

Page 7 (2min)

- Have a look over this information.
- Is the format and content of this information easy to understand?

Page 8 (2min)

- Have a look over this information.
- Is the format and content of this information easy to understand?

Overall feedback on the guide (10 min)

- Explore reactions to the specific:
 - Content
 - Language
 - Tone
 - Sequencing / prioritisation of information
 - Format / visual layout
 - Use of images, diagrams, and illustrations.
- Is the length of the guide suitable for this type of information?
 - Is there any information you believe isn't necessary to include?
- Is there any information that is confusing?
- How easy is the information to understand?
- Is it relevant to you? Which bits are more / less relevant?
 - What could improve to make it more relevant or useful for you?
- Is it useful? What's it useful for?
- Have you learned anything new from this that you didn't know before?
- What additional questions does it raise?
- What's missing?

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Section 5: Impact of LFGs (5 mins)

Objective: To explore the impact that viewing the LFGs has on the participants awareness and understanding of flood risk, warnings and preparedness and anticipated future behaviour.

I want to understand whether or not they're meeting their objectives. Let's go through them one by one to understand whether or how well you feel they've done their job. Remember that there's right or wrong answers, I'm completely impartial here. If there is no change, that is just as interesting to me.

Having looked at the guide, have they...

- Increased your understanding of the suburb's local flood risk?
- Changed how you understand flood preparedness?
- Beyond understanding and awareness, have they changed how you think you'll actually behave?
 - Would you undertake any action to prepare for a potential flood after reading the guide?
- What do you think the guides could've done better to help you prepare?

Section 6: LFGs practicality and formats (3 mins)

Objective: To get a handle on what the LFGs need to do in a practical sense to be useful for the community.

Thanks so much for your feedback on the Local Flood Guides. Now, I would like to focus on the practicality of them.

- Imagine that there's a flood emergency, how usable do you think these guides would be for understanding what you should do?
 - What would you use them for at this stage?
 - What could be done to make them more usable?

Section 7: Wrap-up (5 mins)

Objective: Close the discussion whilst eliciting any final contributions.

- In summary, we've spoken about:
 - Your general flood knowledge...
 - The Local Flood Guide is doing well at...
 - The Local Flood Guides could be improved by...
- Are there any other ways it could be improved that we haven't spoke about yet today?
- Is there anything I haven't asked but which you thought it would be valuable for me to know?

Thank & close

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