# T R A N S C R I P T

# LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

## Inquiry into the 2022 Flood Event in Victoria

Melbourne – Thursday 12 October 2023

**MEMBERS**

Sonja Terpstra – Chair
David Ettershank – Deputy Chair
Ryan Batchelor
Melina Bath
Gaelle Broad
Wendy Lovell
Samantha Ratnam
Rikkie-Lee Tyrrell
Sheena Watt

**PARTICIPATING MEMBERS**

John Berger
Ann-Marie Hermans
Joe McCracken
Evan Mulholland
Rachel Payne

**WITNESSES**

Kate Fitzgerald, Deputy Secretary, Emergency Management Victoria,

Chris Stephenson, Deputy Commissioner, Emergency Management Victoria,

Tim Wiebusch, Chief Officer Operations, Victoria State Emergency Service, and

Mariela Diaz, Chief Executive, Emergency Recovery Victoria, Department of Justice and Community Safety.

**The CHAIR**: I declare open the committee's public hearing for the Inquiry into the 2022 Flood Event in Victoria. This public hearing is for the Environment and Planning Committee, an all-party committee of the Parliament looking into the October flood event. We will be providing a report to Parliament, which will include recommendations to the government. Please ensure that mobile phones have been switched to silent and that background noise is minimised.

I would like to begin this hearing by respectfully acknowledging the Aboriginal peoples, the traditional custodians of the various lands we are gathered on today, and pay my respects to their ancestors, elders and families. I particularly welcome any elders or community members who are here today to impart their knowledge of this issue to the committee. I welcome any members in the public gallery, and I remind those in the room to please be respectful of proceedings and remain silent at all times, when they eventually arrive.

For those of you that are giving evidence today, all evidence taken is protected by parliamentary privilege as provided by the *Constitution Act 1975* and provisions of the Legislative Council's standing orders. Therefore the information you provide during the hearing is protected by law. You are protected against any action for what you say during this hearing, but if you go elsewhere and repeat the same things, those comments may not be protected by this privilege. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament.

All evidence is being recorded, and you will be provided with a proof version of the transcript following the hearing. Transcripts will ultimately be made public and posted on the committee's website.

At this point I will take the opportunity to introduce myself, and then committee members will also introduce themselves to you. I am Sonja Terpstra. I am the Chair of the Environment and Planning Committee, and I am also a Member for North-Eastern Metropolitan Region.

**David ETTERSHANK**: I am David Ettershank. Welcome. I am a Member for Western Metropolitan Region.

**Melina BATH**: Melina Bath – good morning – Member for Eastern Victoria Region.

**Gaelle BROAD**: Hi. I am Gaelle Broad. I am a Member for Northern Victoria.

**Wendy LOVELL**: Wendy Lovell, Member for Northern Victoria Region.

**Ryan BATCHELOR**: Ryan Batchelor, Member for the Southern Metropolitan Region.

**The CHAIR**: Thank you all for those introductions. All right. With that, we will welcome your opening remarks. I understand you have each got a 3-minute slot, just for those opening remarks. I will keep that time in tight, but then of course there will be plenty of opportunity for us to ask you questions. It is a very long session this morning. What we will do is have a short break at around 10 o'clock, just to allow everyone to sort of freshen up a little bit, and then we will continue on with the questions. I think, Kate, you are the first on my list, so over to you – just a 3-minute introduction. Thank you.

**Kate FITZGERALD**: Thank you, Chair. On behalf the panel I would like to start by acknowledging the traditional owners of the Kulin nation, and I pay my respects to elders past, present and emerging. We would also like to acknowledge any traditional owners present here today and pay our respects.

My name is Kate Fitzgerald. I am the Deputy Secretary of Emergency Management in the Department of Justice and Community Safety and am responsible for the emergency management portfolio within the

department, which includes those organisations represented on our panel today. On behalf of the panel we recognise the significant work of the inquiry and welcome the opportunity to engage today on the important issues for communities impacted by the October 2022 floods. I will now hand over to Chris Stephenson. Thank you.

**Chris STEPHENSON**: Good morning. My name is Chris Stephenson. I am the Deputy Emergency Management Commissioner at Emergency Management Victoria. I have been in this role since 2019. My responsibilities during the floods of 2022 included supporting the emergency management commissioner to execute his role in the coordination of operational activities, including the running of the State Control Centre. I am going to provide a brief overview of Victoria's emergency management arrangements and how these arrangements supported the response to last year's floods.

As the committee has already heard, this flood event caused immense damage throughout the state and, sadly, resulted in the deaths of two individuals, which we would like to acknowledge. The event was significant in scale, occurring over 13 weeks and impacting 64 of Victoria's 79 local government areas. An emergency of this significance and scale is too big for one agency to manage by itself. It requires multiple agencies to pull together, pooling their resources and capabilities. VICSES was the primary responder agency for the flood event, supported by a range of other departments and agencies including Victoria Police, the Country Fire Authority, Forest Fire Management Victoria, Fire Rescue Victoria, the Australian Defence Force and many others. I would also like to acknowledge the enormous contribution made by volunteers like those from VICSES and the CFA.

Under the Victorian arrangements the emergency management commissioner is responsible for ensuring the response to an emergency is being effectively controlled and coordinated and that all agencies involved in responding to the emergency are working together in a coordinated and effective way. Emergency Management Victoria supports the commissioner to perform these functions. When an emergency reaches a particular size and scale it becomes a major emergency and the emergency management commissioner is required to appoint a state response controller to take over all control of the response across the agencies involved. The state response controller is also supported by regional and incident controllers, who are making decisions and coordinating activities at the regional and local level. The entire network of control and coordination is supported by the State Control Centre operating here in Melbourne and regional and incident control centres.

The other point I want to make is that a flood event joins a growing list of major emergencies that Victorians have faced in recent years, including major bushfires, storms, an earthquake and of course the COVID-19 pandemic. We also know that the future is likely to bring more serious, regular, concurrent and compounding emergencies that may be beyond the scale of the events that we have seen to this point. In this context I would like to acknowledge the value of this inquiry. It is crucial that we learn from past events. I will now hand over to Tim Wiebusch from the VICSES.

**The CHAIR**: Thanks.

**Tim WIEBUSCH**: Thanks, Chris. Good morning, members. My name is Tim Wiebusch. I am the Chief Officer Operations at Victoria State Emergency Service. I too would like to begin by acknowledging that there were many communities that were and continue to be impacted by the 2022 floods, and I particularly acknowledge the two families whose loved ones lost their lives during these floods, and we extend our condolences to them. I would also like to acknowledge the tremendous effort of our 2500 volunteers and staff that, over 89 days of response, contributed almost 400,000 hours, let alone the many weeks of training, exercising and preparedness ahead of these floods. VICSES also extends its very sincere thanks to our partner agencies that provided significant support including thousands of professional volunteers, not to mention communities that rallied to join our agencies to protect as best they could their communities.

VICSES is a volunteer-based organisation operating 24 hours a day, 365 days a year. We are the control agency for flood, storm, earthquake, tsunami and landslide and the largest provider of road crash rescue, as well as supporting other emergencies. Over the three years of La Niña climatic conditions VICSES have led a range of preparedness activities with agencies and at-risk communities. Our state, six regional and 75 municipal emergency management flood sub-plans were in place. 140 local flood guides were accessible to provide information to at-risk communities, with almost half a million downloads during October 2022.

Since the Comrie review of 2011 VICSES has partnered with a range of agencies to build on lessons learned and bolster capabilities. Significant work has been done in terms of public communication, having translated messaging accessible to CALD communities in 38 languages. We established a panel and accreditation program for flood analysts, trained more than 300 land-based swiftwater rescue operators and introduced Snap Send Solve as a real-time tool for capturing local knowledge, and we worked closely with council to develop 215 sandbag collection points. In preparing for spring we had undertaken a range of readiness activities: targeted engagement with 20 high-risk communities, public communication campaigns, a series of cross-border workshops with New South Wales, a comprehensive briefing program with agencies and designing and delivering a state-based exercise in September 2022.

On Tuesday 11 October the response moved from being led by VICSES during the readiness phase to a multi-agency response under the state control arrangements. VICSES volunteers, with our sector partners, strengthened flood defences and responded to over 20,000 requests for assistance. That included 1500 flood rescues. Our volunteers also supported Victoria Police with evacuations; deployed 1.5 million sandbags, being the largest on record; and our members were part of 24/7 multi-agency incident management teams that issued over 4500 warnings during that period, not to mention the media conferences and community meetings.

Finally, VICSES crews assisted local relief agencies to deliver medical and food supplies and fodder to animals. I think the VICSES can demonstrate that we are a continuous improvement agency, and we look forward to refining our approaches with our partners and communities. I will now pass to Mariela.

**Mariela DIAZ**: Thank you, Tim. I am Mariela Diaz, the Chief Executive Officer for Emergency Recovery Victoria. ERV was established in October 2022, following the recommendation of the inspector-general for emergency management's inquiry into the Black Summer bushfire season. ERV is Victoria's dedicated agency that leads state and regional coordination and state relief on behalf of the Victorian government. This means we pull the thread through all recovery activity to form one coherent approach for the event. ERV partners with government and non-government services to respond to recovery needs. As the lead agency for local recovery, councils are supported through ERV funding and direct program delivery. Following the October 2022 floods, ERV supported 14 councils with 6900 secondary impact assessments. The flood recovery hotline was stood up to connect individuals to recovery support, triaging more than 10,000 calls across the state. ERV's clean-up program commenced within days. ERV provided coordination and operational support to councils, collecting and disposing of more than 13,000 tons of flood debris. More than 2500 registrations for clean-up have been received to date, including registrations for all hazards assessments in the program.

ERV's temporary accommodation program housed more than 2080 people in hotels, motels, the Centre for National Resilience and the Elmore village. Each resident had a transition support officer to support them and clear a pathway out of temporary accommodation. The flood recovery support program was launched on 15 October and has provided more than 3800 households with a recovery support worker. Over $24 million in emergency relief payments have been made directly to individuals to help buy essential items such as food and clothing. Strong governance structures were, and continue to be, an integral part of this event, led through ERV and the state recovery committee.

Local governance structures continue to be dynamic in adapting to community need, and regional recovery committees provide overarching support to local councils, committees and working groups, feeding information to the State Recovery Coordination Committee. The state brought together recovery leads from across government to maintain visibility of priority issues and challenges and ensuring the recovery activities were targeted and timely. ERV is seeking to overcome barriers of materials and trade shortages, along with broader repairs and building challenges for communities. ERV is also advocating for property owners with the Insurance Council of Australia to improve the claim processes. The transition to locally managed recovery has already begun through community recovery hubs and community recovery offices. We are still feeling the impacts of the floods, but ERV is committed to providing recovery support that addresses the most pressing needs for people and their communities. Thank you.

**The CHAIR**: Great. Well, thank you very much for those opening remarks. I will now go over to questions. So for anyone on the panel, I want to focus in the first instance on warnings. You talked a lot, Tim, about warnings. I am just wondering, I think you mentioned there is like a national framework and then how Victoria operates within that, but there were, from my mind – and I have read your submission – a lot of warnings. A lot of them were also tailored to individual areas. So could you perhaps unpack that and also talk about how that is

delivered to individuals? Also, what is the response you are finding for people actually taking in the warnings and acting on them? Because it is an area of interest I have, of whether people are actually cognisant of what those warnings mean, especially when they have got to evacuate.

**Tim WIEBUSCH**: Yes. Thank you, Chair, for the question. In Victoria we operate under what is called the Australian Warning System, or AWS, and that was introduced in Victoria in 2021, in December. We were one of the first jurisdictions to adopt that for all our hazards in Victoria, so the flood warning system is part of that.

The Australian Warning System was developed after quite a depth of social research into how people hear and receive those messages. It devised a three-tier warning system, which is advice, watch and act, and emergency warning. With those is then a range of action statements that were undertaken through those community research programs. That is what has now been adopted for flood, fire, storm, et cetera throughout Victoria. We have got the one single VicEmergency website and app to bring that all together so that people have a single place to go, whereas a number of jurisdictions still have multiple websites that people need to visit. But then off the back of that, we build into those warnings I guess tailored information, where available, based on things like flood studies which inform our intelligence cards. In a process sense, the Bureau of Meteorology provides a forecast and prediction and issues a flood warning at a minor, moderate or major level. Off the back of that, SES then, with our partner agencies, through incident management teams, issue those advice, watch and act, and emergency warnings, based on risk, and then insert some of that locally tailored information, whether it is road closures or whether it is areas that may be expected to be impacted along the way.

What I can say, though, is there is no doubt that we are still not getting the cut-through in some cases with the warnings that we would expect for the community to act towards. We still see people driving through floodwaters and needing to be rescued. We still see people taking the risk of not evacuating. So I think there is still a need, Chair, for us to continue to understand those behaviours and refine our approaches even further so that people can understand the risks in their setting better than perhaps they do at the moment.

**Chris STEPHENSON**: Can I add some –

**The CHAIR**: Yes, please.

**Chris STEPHENSON**: If that is okay, Chair. Just to note, during this event we issued 4758 riverine flood warnings, so just the enormity and the scale of it was incredible. Seventeen emergency alert campaigns were put out as well. It is fair to say that I think we had a record-breaking day for issuing of warnings, and if we put that in the context of major bushfires and that in Victoria, it was certainly significant. Also, just to add, with those warnings, in Victoria we always tell the community not to rely on a single source for a warning. There are many ways that we communicate with the community. Obviously with emergency broadcasters, such as the ABC, when we put a warning out, they automatically get notification of that and they can broadcast that as well, and they do a fantastic job of that. We use voice alert messages to landline telephones, roadside signage and things like that, and we also deploy people into the community obviously to warn people through things like doorknocking and that as well.

Just to reiterate Tim's point about the uptake of the advice, it is a challenge for us, and it is something we need to continue to work on. We know in bushfire that while we tell people to leave early, a lot of people tell us still they will not leave until they see the smoke. It is a challenge for us.

**The CHAIR**: It is too late, yes. One of the themes that seems to be coming through when I have asked people who were in flood-affected areas did they have an emergency evacuation plan ready and had they given forethought to an emergency even before the emergency arrived, the resounding answer has been no. Is that your experience as well?

**Chris STEPHENSON**: That is our experience. I think in Victoria we have seen people work on their emergency plans for bushfire. They have been pretty well drilled into them over many years to get that plan ready, and we are encouraging people obviously to extend that and make sure it is for all emergencies.

**The CHAIR**: Yes, it seems that flood is not thought of in the same context as fires. Would that be a fair statement?

**Tim WIEBUSCH**: I think that is a fair statement. We have done a lot of work with Red Cross around the ready plan to try and encourage members of the community to think about their risks – not just flood and storm, but more holistically – and what is their plan. Somebody is going to knock on your door, what are you going to do in terms of evacuation? In the lead-up to these floods, as I mentioned in my opening statement, we had been out in 20 of the high-risk communities talking to them about that. But even when the evacuation messages came, when the doorknocks were being undertaken, there was still some hesitation about 'I am not quite sure that it is going to happen to me. I will wait and see.' I guess that is really that community behaviour piece I referred to before, that we need to continue to understand why people are not perhaps reacting in the way we might expect.

**The CHAIR**: How do you think we could improve? Obviously we are making recommendations to government about this. There is a bit of a psychological phenomenon, as you touched on, like 'Oh, this isn't going to happen to me. There are warnings, but it's not going to happen to me. I'm going to be okay.' But as you mentioned, because people are not taking that seriously, when they do decide to leave it is often too late. I think with floodwaters, people are not appreciating as well that you might be on your roof, but it might take weeks for floodwaters to recede – and floodwaters can often be full of sewage and other nasties – so to get out early would really be the best situation. What sorts of things could we do to perhaps prepare people better psychologically around these sorts of things?

**Tim WIEBUSCH**: Look, I think one of the key things that we need to continue to invest in as a state is around our community risk awareness and really helping communities to understand what those heights translate to in terms of impacts on the ground. Where do the roads start to get cut? Because quite often people do leave it too late, as you have indicated, not realising that the road that they need to access is actually the thing that has been cut. The water might not get there around their house or even in their street, but two streets away, which is the way they are trying to get out, may actually be cut. I guess we saw a lot of that in some of the communities that had a number of days – whether it be in and around Rochester or Shepparton or Echuca – where there was lead time for those floods for people to evacuate. Again, people were leaving that too late, so that risk awareness around understanding that flood risk and being able to really materialise that to an impact.

**Chris STEPHENSON**: I would add that obviously we need to continually communicate this, and we need to educate the community; it is critical. Some of the things that we do around community exercising that I think are really important. We need to continue to do those. I think there are some other challenges that we are taking on, but we have still got some work to do. Things like accessible communications: we know we have got really diverse communities out there and we need to be tailoring our advice to those communities – people act differently. We all know that we have got changing landscapes and people that are moving to regional areas who do not necessarily understand the risk, and we have got to continue as agencies and departments to communicate those.

**Tim WIEBUSCH**: And if I can, Chair, we have got a project underway at the moment. I mentioned earlier there were 140 local flood guides in place during this flood campaign. There is a project underway at the moment doing some social research into what did people find most useful in those, what were they looking for that was not available in that. Our intent is that there will be a revised template by February 2024 and then we will transition some of the existing material across into those new flood guide templates based on that social research. But then as the flood studies continue to be developed, and there are quite a range of those underway at the moment, we can actually improve some of the information that is in those local flood guides, again to really help communities understand the likely impact.

**Chris STEPHENSON**: And I think, Chair, it is also fair to say that we have to balance warning fatigue with communities, to make sure that they understand that when we are publishing warnings or providing advice, that it is to keep them safe.

**The CHAIR**: Yes.

**Chris STEPHENSON**: I lived in a regional area for a long time, and I know people who through the 2019 and 2020 bushfires were saying, 'Yep, we have seen it.' They do not read the information, and it is fatigue. We understand that, so we have got to balance how we issue those warnings very carefully.

**The CHAIR**: Yes. Just to shift gears for a moment, one of the things that people were talking about was about sirens and early warning systems and those sorts of things. Off the back of that, it goes into what you have been talking about when people do need to be rescued. I am always concerned when I hear that people have not left despite being told to leave and then we need rescuers to come in and rescue them, which then puts the rescuers in harm's way. I am just wondering: people are talking about sirens and the like, but could we use drones or other technology to actually – rather than put people in harm's way – give an early warning system. Because people say, 'Why don't we put a siren on a pole?' but these things get vandalised. Could technology like drones and the like act as an early warning? There are always going to be some people that are never going to leave for whatever reason, but could that play a role in an early warning system? Like a siren or something, or a loudspeaker? Are those sorts of things being considered?

**Chris STEPHENSON**: As I mentioned before, we try to use as many mechanisms as we can and manage those effectively, because you have to balance using different mechanisms but also make sure it is consistent information and you have got it all tied in tightly. I will give an example: I know up in the north-west of the state during a total fire ban day we fly a plane with a message behind it to warn people on the rivers where they might not have access to their mobile phone. But absolutely, I think there are opportunities to look at new technologies, and I know the agencies are really keen on that, yes.

**Tim WIEBUSCH**: I think, Chair, there is a project underway nationally about a national messaging service, which is about using a different technology base across mobile devices to be able to enhance messaging. I think one of the things with sirens we need to do some more thinking about is for some communities, particularly our CALD communities, sirens have a totally different relationship to what we are seeing perhaps overseas at the moment. So are sirens the right answer? That is something I think we need to work through with communities and really understand what would be most effective.

**Chris STEPHENSON**: And there are challenges – technology, it is great, but it also changes very rapidly now. Sirens are a great example where, to trigger them, 3G was required, and obviously with the cessation of 3G in many areas now we are going to have to go and retrofit and make sure that they are all up to scratch again.

**The CHAIR**: I think one of the things that also came through, people were saying when warnings were coming on their mobile phones – I know I do it, I have mine on silent after about 9:30, so I am not going to get a warning. And this is one of the challenges, where people are either going to bed or again not appreciating that you are on a watch and act, say, and they have gone to sleep thinking nothing is going to happen and then the warnings come through and they do not get them because they are asleep.

**Chris STEPHENSON**: And that is certainly why we employ things like doorknocks for evacuations and that as well.

**The CHAIR**: I have got about 2½ minutes on my clock left; I just want quickly ask about sandbags. In an event like this, do sandbags actually give people a false sense of security? Because if you have got 2 metres of water coming into your house, sandbags really are not going to help you. I was hearing stories of people running around and trying to get sandbags – sure, if you have got maybe an inch or something coming at your door, maybe. But what role does sandbagging actually play in a massive event like this? Is there a need to relook at that or revisit it so that people understand it is really not going to stop – unless they are done properly, they are really not going to help you that much. Is that a fair assessment?

**Tim WIEBUSCH**: Yes, I think it is, Chair. There is quite a bit of research now that shows that sandbagging is probably most effective in smaller scale flood environments where we are not seeing the volume or the depth that we might have seen in some locations – volume, depth and even the technique used. What we talk about in deploying sandbags is really about 25 for each household is about blocking your drains, those front doors and back doors, but if you are needing to go beyond that, you are probably in a zone where the depth and the volume is going to beat you. I guess a good case study of that was in Rochester, where they deployed 34,000 sandbags. Talking with our team there, they had 27 B-double trucks of sand come in and the community got together, filled 34,000 sandbags, but really, in the main, it was quite a futile effort in the end given the volume and the depth of water that was seen through that community.

**The CHAIR**: Do you think then their efforts would have been better placed in other ways? For example, like I was talking before about having that preplanning done, to say if we are going to be inundated, our first response is to actually get out – get out, get whatever things you want, have your bag packed by the door, your passport, your identity documents, whatever it is, your insurance policy – people forget to have their insurance policy offsite, because if it is flooded, it is gone. Are people better to have their efforts redirected to those sort of efforts as opposed to thinking about sandbagging in this sort of event?

**Tim WIEBUSCH**: Yes. Certainly our advice in the preparedness phase is, in particular, people just lifting things up. Because quite often what we saw in some of these communities is we were only seeing depths of maybe half a metre or the like above floor, so if people had simply lifted things up higher, that would have protected their furniture and belongings. In our teams, talking to some of them in those communities that were impacted, they were even saying, 'Why didn't we just muster all the utes around town and get belongings out, get people out –

**The CHAIR**: I am sorry; my clock has beaten me. I will pass to Mr Ettershank now, thanks.

**David ETTERSHANK**: Thank you, Chair, and thank you to all of you for coming today. Can I also just start out by expressing an appreciation for all of the work that is done by these agencies, particularly the thousands of volunteers who give of their own time and go towards the danger instead of running away from it like the rest of us.

I am from Western Metro Region, so I am interested in what happened in my backyard, and I suppose, if possible, I would like to start by talking about Maribyrnong. We have had hundreds of submissions, a lot of them from Maribyrnong residents as well as local councils and suchlike. It suggests, with the greatest respect, that there was a very high level of confusion and inadequacy. When the water actually started coming up through the Maribyrnong township, I think people did not get a warning until 2 am to 3 am. In fact the afternoon before they had been told that the floods were going down and they were only going to be moderate. Can I just start by asking: in terms of wisdom of hindsight, what happened that saw that level of disorganisation, for want of a better term?

**Tim WIEBUSCH**: Thanks, Mr Ettershank. I am happy to start with that one. We would certainly acknowledge that the flood extent that was seen through Maribyrnong was obviously significantly higher than what was anticipated and modelled in this particular event, and we certainly sympathise with those that have been impacted through the floods. It is fair to say, though, that there were flood warnings that were out from Wednesday 12 October, starting with flood watches on the Tuesday afternoon into advice messages at that level. Then we did do some doorknocking of what we understood to be the at-risk communities, based on the modelling at that time, of around 150 locations in that area, to alert them to the potential for flooding. That was based I guess on the scenarios that were being provided to us.

Just for context, as we lead into a flood response, the Bureau of Meteorology and also Melbourne Water provide what they call flood scenarios, which give a likely scenario based on forecast rainfall and a higher possible forecast as well so that we can be planning in that space. That is what was done in those early phases of the Tuesday and the Wednesday. Obviously as we headed into Thursday there was some refinement of the modelling that was undertaken by Melbourne Water based on refinement of the rainfall that the bureau was forecasting. What then ensued on that Thursday night and into the early hours of Friday morning was obviously quite a significant rainfall event, with just on 100 millimetres to 130 millimetres across the catchment. I think, as you will have heard from Melbourne Water, our understanding is that we then saw streamflows that perhaps had not been seen throughout that catchment in some parts before. That obviously then resulted in them escalating their warnings, the Melbourne Water flood warnings, in the early hours of Friday morning, to which we then had to escalate our response.

The response was around about 2:30 in the morning – that we started to receive that information that what was originally thought to be anticipated as that moderate flooding that you alluded to was actually going to be major flooding. That comes in at a level of about 2.9 metres. We started doorknocking through the Maribyrnong community there from around 3 am with police and SES, basically going through to communities in that space. We were looking at a height of 3.2 metres at that point in time, in terms of what was being anticipated. That forecast or prediction continued to grow as the morning went on. We also then effected an emergency alert, being the phone alerting system, to back up the doorknocking that was underway. But obviously what resulted

was a height much more significant than that. We ended up with a peak at around midday on that day of 4.216 metres. So I guess the response that was mounted during that morning was in response to the escalation that occurred.

**David ETTERSHANK**: How many people did you have actually on the ground once that escalation started at 3 am or whenever? I mean, how many people did you actually have on the ground to do that doorknocking for, what, around 500 households?

**Tim WIEBUSCH**: On that morning we were not doorknocking 500 households, and that is probably a key thing to understand. The advice that we had in those early hours was a prediction of around 3.2 metres, which as I indicated, was then increased again at around 6 am to being around 3.8 metres. So that early doorknocking was more in the vicinity of 200 properties. We had around 60 SES and police resources that had teamed up to go out and doorknock in that community. But it certainly was not doorknocking with what was the eventual outcome, being at that 4.2 level.

**David ETTERSHANK**: Okay. Can I ask: are there other members of the panel that would like to respond to my question with regard to what went wrong or how it went wrong? I guess you are basically saying the response was premised upon the warnings you were given. The warnings you were given were wrong or delayed, and that is the principal driver of the problem. Is that a reasonable description?

**Tim WIEBUSCH**: Yes, I would probably couch it slightly differently in the sense that the warnings that were issued were based on the best modelling and forecasting that were available at that time. I think, as Melbourne Water has also indicated, because of the flows that were seen through the Keilor gauge, they have now updated their rating tables. A rating table basically takes a flow to a height. So we may have seen a different set of arrangements with the warnings if you were to replay that event now based on the fact that there is now intelligence to inform future modelling.

**Chris STEPHENSON**: I would just probably add that in relation our warnings we were resourced to amend those warnings and be as responsive with whatever information we had at the time. The State Control Centre was obviously stood up. So as soon as we had the information, we acted on that.

**David ETTERSHANK**: We have had a lot of submissions from local residents saying that whilst they were literally having water coming up and into their properties they were looking for SES and they were looking for police. They could not find anyone, or when they did find volunteers, in fact they were informing the volunteers of what the status of the water flow was. Were there actually, as far as you are aware, significant coordination and communication issues on the Friday morning?

**Tim WIEBUSCH**: No, that is not my understanding of what transpired. I think the important part here is to understand that our initial resources were deployed to the area that was anticipated to be impacted, which is a group of properties, if you like, that are associated with that height of 3.2 metres. So initially there was a control point that was established in the evacuation zone – both the police and SES and local council talking through about where they needed to doorknock. I guess in this event it was quite rapid and developing, and so our people were seeing exactly what the community was seeing as well, that the water was rising a lot quicker, and that information was being passed back to the incident control centre, who have Melbourne Water as part of their emergency management team, albeit virtually in those early hours. That is what then pushed the button in terms of deploying rescue boat resources into the area, because even though we were doorknocking some of those homes, as I indicated in my earlier response, we did see people that chose not to leave. They were going to sit it out and wait and see. So we ended up having to deploy SES, water police and Fire Rescue Victoria resources to actually rescue them. Our volunteers did an amazing job in those early hours of the morning. They rescued from 31 properties in the floodwaters in that space, and obviously some of those were in the area that we had not necessarily anticipated were going to be impacted by that level of flooding, but others were actually in places that we had doorknocked and people had chosen not to leave.

**Chris STEPHENSON**: From a resourcing perspective too, in my opening statement we talked about the state arrangements. We had met as a state control team locally to make sure that resources were available and we were prepared to respond, so there was a lot of effort that went into that space as well.

**David ETTERSHANK**: Okay. Thank you. You talked about sandbagging. We had a number of submissions where people said – and I think you actually just said about 25 sandbags per household. I believe

from what I have read that a lot of people had to go to Bunnings at Maribyrnong to try and get a sandbag and that they were limited to half a dozen, and that fairly early in the morning Bunnings ran out of sand anyway.

**Tim WIEBUSCH**: Just to give some context to that, Bunnings at Maribyrnong was set up as a sandbag collection point for the community to come to. Where we were pre-filling them was at our Chelsea SES unit as well as Windy Hill. So they were being filled at locations and brought into the Maribyrnong Bunnings site for the community to be able to access. On that morning and even in the lead-up to the event as well, because the sandbag collection point was actually in place on Thursday 13 October, there were just on 7000 sandbags that were provided to the community from that location through emergency services.

**David ETTERSHANK**: Okay. So you reckon if people needed them, they were there. They could have got up to 25 sandbags if they needed them.

**Tim WIEBUSCH**: Yes. I guess by the Friday morning sandbagging was probably not going to be the thing that was going to stop the volume of water coming.

**David ETTERSHANK**: Yes. Fair enough. Good point. Just a couple of issues that have been raised by councils and the volunteer association on the sort of post-incident multiagency review of the response – did that occur? Was there a multiagency review of the response, because councils and the volunteers say that that has not happened and that is a fairly standard practice.

**Chris STEPHENSON**: I am happy to kick off with the response to that one. So what we chose to do in this event – and there are a number of ways we can debrief or undertake reviews – was we implemented what we call real-time monitoring and evaluation, which is a fairly modern way for us now to review how we are going at all tiers. When I talk about tiers, that is at the state, the regional and the incident level. During this event we chose to do the real-time monitoring, so we deployed people to those incident control, regional control and state control centres to actually capture the learnings from those events and to turn those learnings into what we call observations. Just to note during this event there were 4142 observations captured through that exercise. Those observations are turned into insights and then we grab those and we publish those back to the agencies so that they have some sight of what is going on. I can say in this event there were some observations captured around evacuation and water rescue, how our intelligence and information sharing was occurring. There were also comments around some of our relief and recovery arrangements. Resource management came up quite regularly within that and how the State Control Centre's functions were collaborating, and I know we deployed –

**David ETTERSHANK**: Can I just ask, sorry to interrupt, when you say 'real time' and there is all this stuff coming out, what sort of a time frame are you talking about this happening over?

**Chris STEPHENSON**: This is during the whole event. Once we stood up incident control centres, we deployed people out there to capture learnings and information from those centres. They went to Bendigo, Benalla regional control. They were in incident control centres. But we did not just take that information during the event and not do anything with it, we also post the event had a major forum with senior leaders from the regions and the incidents in Essendon and we asked them to validate whether those observations and lessons were the ones that they thought were the most important to carry forward. We did that. We also had a number of what we call 'hot debriefs' at events. There were about 30 of those, I think. That is basically, 'We have had a big day. What did we learn? What could we do better tomorrow?'

This process that we are using really aligns with the Australian Institute for Disaster Resilience framework, so it is actually a well-tested way to capture information and learn from it. But I would also say that we have done things differently in the past, and I will acknowledge that. We have done individual reviews on major events. Sometimes governments have had an IGEM inquiry. We have got a parliamentary inquiry obviously on this one and we have had royal commissions as well, so there are a whole range of ways that we actually learn from these events. But that was the methodology we used, and I know Tim did some more targeted stuff as well.

**Tim WIEBUSCH**: I guess, Mr Ettershank, the agencies also have undertaken a range of debriefing, whether it is Victoria Police or in the case of ourselves, SES. What we have done within the agency for those units that were most significantly impacted is we actually had individual debriefs with each of those units to glean their feedback and hear their stories. I have been back out and spoken with some of those units off the back of those reviews. But what we did on a statewide basis was we held two general response –

**The CHAIR**: I am sorry, Tim, but the clock has beaten you.

**Tim WIEBUSCH**: Okay, thanks, Sonja.

**David ETTERSHANK**: Can I thank you and also thank you for your service. It is appreciated.

**The CHAIR**: Sorry about that. Ms Lovell, a question.

**Wendy LOVELL**: I am not interested in the victim blaming or what residents could have or should have done to better prepare themselves. What I am interested in is what the state and its agencies can do better next time – and there will be a next time; we will have more floods – to make sure that things can be improved. We have been told by a number of groups that there were no multi-agency debriefs and there was no multi-agency review of this flood event, which was a major flood event and the first major one we have really had for about 48 years. So I am interested to know why that decision was made – not to have a multi-agency review of the 2022 flood event.

**Kate FITZGERALD**: I might just add to that, Ms Lovell, in addition to what Tim and Chris have stepped us through. I suppose what we have heard through the evidence before the inquiry is there is more work for us to do, particularly in relation to local councils and communities, in relation to some of the arrangements that Chris and Tim have outlined. As we mentioned, we have undertaken real-time monitoring evaluation throughout the event. It has been very comprehensive. But I think what we have heard through this inquiry is our opportunity to be much more inclusive about that, and I think there is work for us to do with the Municipal Association of Victoria and also Local Government Victoria about how local governments feel that they are a part of that. They are part of that in relation to the incident control centres and so on, because they are situated in that, but in terms of the opportunity for mayors and CEOs to participate in those types of forums, I think we need to continue to work on that.

The other aspect in relation to the other part of our arrangements in Victoria, and as part of the *Emergency Management Act*, is the inspector-general for emergency management. At the same time that this parliamentary inquiry was stood up there was also consideration in relation to whether the inspector-general for emergency management would undertake a review, where, say, for example in the 2019–20 fires the inspector-general did undertake a whole-of-state multi-agency review. Councils were fully participating in that and there were community forums and so on. As the parliamentary inquiry was stood up it was a decision of government to not proceed with the inspector-general for emergency management inquiry because of the requirement, I suppose, for communities to participate in the parliamentary inquiry and that it would be very duplicative and onerous for communities and also agencies to participate in two similar inquiries at the same time.

**Wendy LOVELL**: Okay. We were told it was the decision of Emergency Management Victoria not to have a multi-agency review. Is that correct?

**Chris STEPHENSON**: It was the decision of the agencies to undertake the real-time evaluation and learnings process. So that is the model we elected to use during this event, and then, as I mentioned previously, we went back to those agencies through the forum that we held at Essendon to validate those. My view of that is we did hold a multi-agency review. That does not mean we have captured everyone by any means, so there will be people, I am sure, from agencies that still feel that they have more to add.

**Wendy LOVELL**: This will be the first major emergency event in my 21 years in Parliament that I have not seen a multi-agency review of. Certainly for every bushfire and flood event we have had in the past there has been.

**Mariela DIAZ**: Ms Lovell, could I also add that from a relief and recovery perspective all of the programs that are funded and co-funded by the state and Commonwealth governments come with a process of evaluation of each of the programs that are evaluated. They do include community; they are often conducted by an external third party. The programs from this flood event are yet to be evaluated. It is too early at this point to evaluate them, because most of them are still in train. So usually in year two the evaluation of those programs will commence, and it will include community, local government and state agencies that are responsible for delivering those programs. Many of these programs have been evaluated before, both in the storms and in the bushfires of the Black Summer season. So some of these programs are tried and tested, and we are committed to continuing to evaluate those as the need arises.

**Wendy LOVELL**: That covers relief and recovery, not actually the management of the incident itself.

**Mariela DIAZ**: Of course.

**Wendy LOVELL**: The ICCs – we have heard from a number of communities that they were not particularly happy with the location of their ICCs, particularly Echuca and Rochester. With the ICC being in Bendigo, they felt that was dislocated from their communities and not in touch with their communities. Again, Seymour and the upper catchment of the Goulburn felt that they were very dislocated from Shepparton. I was in the Shepparton ICC on a daily basis, if not multiple times daily, so I know how well the ICC operated itself and how well it served Shepparton – but I do have some empathy for those other communities. In the past in bushfires we have seen ICCs and then we have seen MECCs, municipal emergency control centres, in smaller towns. Why were they not implemented this time, like a MECC in a Seymour or a MECC in a Rochester or Echuca?

**Chris STEPHENSON**: More broadly with the ICCs, it might be worth just touching on, for events of this size, if you tailor them to bushfire, you have small local events and then you have large events. We have got 32 ICCs located across Victoria, and 17 of them have been identified for use in readiness for flood emergencies and response, so they are actually predetermined. We have footprints determining where the ICC will be located. There are reasons why some we do not have for certain events – that is, if an area might be prone to flooding then we will not use that one for flooding, but it might be suitable for bushfire, for example, if we can get our people in and out safely. So sometimes they are quite remote from the actual event, and then we will do things like the MECCs and set up those or divisional command posts.

**Wendy LOVELL**: Yes. But MECCs did not seem to be used this time round.

**Tim WIEBUSCH**: Ms Lovell, if I could, back when the emergency management arrangements were revised, municipal emergency coordination centres, or MECCs, were part of the review of the arrangements and now no longer perform a formal role. That was off the back of feedback, I guess, about having councils more embedded in our incident control centres. So the shift was to now embed local government either physically or virtually into those emergency management teams so they are getting real-time information. What we used to see with an ICC and a MECC was inevitably communication challenges existed because of the incidental conversations that were going on that people were not picking up on. So MECCs are no longer formally part of the arrangements here in Victoria. But if we go to a couple of those examples that you spoke of, Seymour ICC, as Chris has just alluded to, becomes isolated on an island during floods, so that is why it is not one of the designated facilities. And Shepparton, as you would have seen, was linked in back down to Shepparton all the way through –

**Wendy LOVELL**: But Mitchell shire did not give us the impression that they were linked in to Shepparton. They certainly were not in the ICC. I was in there on a daily basis – heaps of people from Greater Shepparton, but no-one from Mitchell or Murrindindi.

**Tim WIEBUSCH**: We have certainly met with both Mitchell and Murrindindi shires post the floods, and that has been some of the feedback that we have received there about how we can strengthen those relationships. I guess the structure that sits underneath an incident control centre is perhaps something that is an opportunity for us to do more with local council to help them understand where they are best placed. If there is not an incident control centre there, then we will have either a sector or a divisional command point set up. So at places like Seymour and Alexandra that was the structure that was sitting underneath the ICC. That is the best place for us to embed that multiagency team that are providing that really tactical service delivery on the ground in terms of understanding what goes on.

**Wendy LOVELL**: But from what we were hearing, that did not happen or did not work in Seymour and Alex.

**Tim WIEBUSCH**: As I said, I think there are some opportunities there for us to strengthen some of that with our players in councils, understanding maybe they were expecting the Seymour ICC to be that place rather than those locations that we were embedding those teams.

**Chris STEPHENSON**: I think there is also an opportunity and a lesson there for us as well about who attends in those centres, because people need to make decisions so we have to have the right people in those centres to make sure that they are authorised to make the kinds of decisions they need to as well.

**Wendy LOVELL**: Okay. Warnings – you talked about, I think, 4078 warnings or something like that. You also talked about warning fatigue, and I have got to say there is warning fatigue. Even yesterday I was sitting here getting warnings about flooding in Shepparton, so there is still a little bit of warning fatigue going on. You go, 'Oh, not again' – that sort of thing. We were getting warnings after the floodwaters had passed Shepparton to say the whole of Shepparton should evacuate. The warning system did not work, and it was not localised enough. The Emergency Victoria app – I think the warnings are at too high a level, because it is just 'Evacuate Shepparton' and there are parts of Shepparton that will never flood. Certainly there were no localised warnings that they were going to close this road or that road and stuff like that. We did not get any doorknocking. I live in what was our family home. We grew up there, so I know what is going on and when I have to get out, but there are a lot of people that have moved into that area that do not know these things. Why was the text messaging not implemented like we use in the bushfires? It seems that it was implemented in Maribyrnong but certainly not in regional Victoria. We did not receive any text messages. We did not have any doorknocking. People in my area will tell you there were no warnings for us, other than these very high-level warnings.

**Tim WIEBUSCH**: Thanks, Ms Lovell. That is not my understanding of what occurred. And, yes, we may not have doorknocked every property that may have experienced –

**Wendy LOVELL**: There was some doorknocking in the south of Shepparton, but you do not have the resources.

**Tim WIEBUSCH**: Yes, there was certainly doorknocking that did occur through those areas that were going to be impacted the most: through Kialla, through Shepparton, Mooroopna and Tatura – on both sides of the rivers. An emergency alert was also used in a targeted way around those communities that needed to move sooner than others.

**Wendy LOVELL**: What do you mean by 'an emergency alert'?

**Tim WIEBUSCH**: Emergency alert is the alerting system, SMS and land-based. It was certainly used throughout parts of Shepparton during this event, particularly for the major flood warnings in and around Mooroopna and also for Kialla West and other locations like that as well.

**Wendy LOVELL**: I have not spoken to anyone in Shepparton that got an emergency alert in that manner, and I speak to a lot of people, so it does need to be better. Also, road closures and the ability for people who are in areas that are flooded who are trying to sandbag during the day: at one stage it was taking us 45 minutes to get into town and out of town – we are 5 minutes from the centre of town – because of the sightseers and things like that. So the local road closures were not happening early enough. I actually went out to the ICC and got the police to put up some signs at one point to get our street closed and also The Boulevard leading out to where we live controlled to local traffic only. So I think there are a lot of learnings that can happen.

Mariela, you talked about community-led recovery, and certainly what we heard in Rochester was a community-led response to the event and also a community-led recovery. Anglicare have been delivering financial counselling into Rochester. That financial counselling funding expires in November. Anglicare tell me that they have delivered these services to every major event since the 2009 bushfires and it needs to be funded for three years. We are now well into October, and we are still waiting to know whether Rochester are going to receive financial counselling beyond November. Can you give us any insight into that?

**Mariela DIAZ**: We are working to resolve that issue with Anglicare. So we are in direct conversations with Anglicare, and an outcome of that will be finalised shortly.

**Wendy LOVELL**: Okay. All right. So it needs to be very shortly.

**Mariela DIAZ**: It will be.

**Wendy LOVELL**: Okay. All right. Terrific. I might keep my time for later.

**The CHAIR**: Okay. At this point – I will just pause your clock, so you have got a minute and 20, Ms Lovell – we might just pause to have a short 5-minute break for everyone, a bit of a comfort break, and then we will come back and continue this session.

Thank you. Ms Lovell with a question.

**Wendy LOVELL**: Thank you. One of the things we have heard from a few people is that they do not think that SES should be the lead agency for these types of events. I am just interested in, perhaps both Tim and Chris, what your responses are to that.

**Tim WIEBUSCH**: I guess my response to that is I think we absolutely should be the control agency for floods, storms, earthquakes and tsunamis, as we are today. Whilst that might sound a little bit biased, the reason I say that is each of the agencies in Victoria brings a particular hazard expertise. That is something that is long ingrained in VICSES but also our other SES agencies across Australia, which we collaborate with regularly to build that knowledge base, to build skills and resources in that space. If you look at the history of what we have been able to do since the 2010–11 floods through to now in terms of taking on board those lessons and improvements in capability building and then what our people were able to effect during the floods, responding to over 20,000 requests for assistance, undertaking 1500 flood rescues and working with such a wide section of our emergency services, I think we have demonstrated we can bring that together when it is needed –

**The CHAIR**: I am sorry, Tim, but the clock has beaten you. All right, Mr Batchelor with a question, please.

**Ryan BATCHELOR**: Thanks very much, Chair. Thanks, everyone, for your presentations so far and for your engagement in the committee process. I might just start with a bit of the interchange between Ms Lovell and you, Mr Wiebusch, about emergency alerts, because it concerns me a little bit that you say they were sent and a good resident of Shepparton says that they were not. Were emergency alerts sent to residents in Shepparton at the time? And maybe you can tell us a bit more about where and to who. And as part of that question, are they to people who have a registered phone or are they to anyone connected to a tower?

**Tim WIEBUSCH**: Yes. The way the emergency alert system works, it is a phone alerting system for mobiles. It will pick up people that are within the geographical footprint of that tower but also those that have mobile phones that have a billing address within the footprint.

**Ryan BATCHELOR**: So both – people who are in the location and also people who are billed at that location?

**Tim WIEBUSCH**: Correct. And then subsequent to that, if your billing address is one of those – let us use Shepparton as an example but I am in Melbourne – you will still get that message while you are in Melbourne because of the billing address. But if you are in the area as a visitor during that period, then that geographical-based alert will be identified if you are connected to that tower. So there are circumstances that we have seen over time where people have perhaps just moved towers or other things like that and they do not get that message. Then there is the landline-based alerting as well that actually goes to the physical fixed phones, of which there are not too many necessarily left these days.

**Ryan BATCHELOR**: That then had reads out a message – a sort of robocall-type thing?

**Tim WIEBUSCH**: Yes. It is certainly a recorded message that gives the alert. Each of those is referring people back to the VicEmergency website, so they are not getting in that text message the full warning. It is alerting you to the fact that there is a warning and that you need to go and seek out further information or listen to your emergency broadcaster. In this event the current emergency alert system can only sustain five campaigns at a time, and that is why the federal government is now investing in a national messaging system – an NMS – which will be more like a phone-based app notification which can get to a much broader number at the same time. So we need to be selective where we use emergency alerts in terms of making sure that if we need to be alerting different communities – quite often an emergency alert will be quite targeted to where we are doing it. We are not doing it on a broad scale necessarily to every person, say, for example, in Shepparton.

**Ryan BATCHELOR**: Maybe on notice you can provide us with the locations and times, I suppose, of when those alerts were provided for the relevant period that is in discussion here. I think that would help clear things up. The other thing that strikes me just more broadly in the interchange about who was asked to review what is

that you might have a difference of nomenclature and proper nouns – of saying there is a capital M, capital A multiagency review versus a process where multiple agencies are engaged in a review process. Also, reflecting on Ms Fitzgerald's comments about certainly some people from councils being engaged and maybe not the important ones at the top, have you given some thought to how you might resolve those issues going forward? Because I am interested here in not blaming for what has happened but figuring out learnings for the future.

**Chris STEPHENSON**: Yes, we have, and as I mentioned before, there are multiple ways that we have engaged. Under the state emergency management planning arrangements, it is the accountability of the lead agency basically to undertake the review. What we have seen, though, is, because of the scale of emergencies and emergencies becoming major emergencies, that becomes almost impracticable for those agencies – like for Tim to have to run one solely because of the flood event and it is a flood. We are saying we probably need to have a bit of a think about, when they do trigger into the major emergency space, what the things are that will trigger certain levels of engagement or major reviews.

**Ryan BATCHELOR**: Sorry to interrupt, but just so I can be clear, basically you are saying, because we are getting more frequent compounding, overlapping emergency events, that we need to kind of shift the mindset from 'There's an emergency. It's over' and then going into a review phase to a continual process of learning as we are going. Is that what you are trying to tell us?

**Chris STEPHENSON**: Yes, absolutely, but also if we are going to do a targeted review, what would trigger that.

**Kate FITZGERALD**: If I can just add to that, I think that, as Chris has outlined, the sort of contemporary nature of how we do reviews is driven also by the decrease in time we now have between major emergencies. So the fulsome, multimonth, multi-agency after-action review lends itself to when you do not have a major emergency every six to 12 months, but the work that we are doing now has both that more real-time aspect but is also trying to solve issues in a real-time way, which prepares us better for the next emergency as well.

**Ryan BATCHELOR**: That would assume that you are learning and you have already done some key lessons and key learnings from the October flooding event rather than just waiting for the glorious work of this committee to report in the middle of next year. Is that right?

**Kate FITZGERALD**: Yes.

**Tim WIEBUSCH**: And I guess a real practical example of that, Mr Batchelor, is we have been out and we have met with a number of the municipalities that have been impacted to really talk through what the things were that they felt worked well one on one in terms of what their issues are, because sometimes in some of those multi-agency forums there is a limited amount of time, like there is in any workshop or process. So I think there is as much value in having those one-on-one conversations about what we need to be thinking about. What has changed in the landscape is another conversation. But also we have got water storages that are full in the main in most parts of Victoria, so we have still got to be alert to the fact, as we have just seen in the last week, that flooding is still a potential, even though we are heading into what might be a fire season as well.

**Ryan BATCHELOR**: It might be useful if on notice you could provide us with a list of the local councils that you have met with post the October 2022 floods who were affected in the context of those conversations.

**Chris STEPHENSON**: Can I just add too one of the things that we do now: if we had another potential major flood next week, we would do what we call a before-action review as well. So we have to go back to look at the lessons. We have a team that will look at the lessons and say, 'In the last event this was an issue for us.'

**Ryan BATCHELOR**: But it is in preparedness. If you think something is coming, you will then look back quickly at what happened last time and try to figure out what to do next.

**Chris STEPHENSON**: Yes, so not an after-action review but a before-action review.

**Ryan BATCHELOR**: Okay. That is really interesting.

**Chris STEPHENSON**: I am sorry, I was not –

**Ryan BATCHELOR**: No, that is okay. I might just change tack a little bit. Almost coming off that theme, I suppose, you mentioned in response to Mr Ettershank that you think one of the key failings out of the Maribyrnong situation was the way that the rating tables that Melbourne Water were using probably were not as up to date as they needed to be, as I understand, between the height and the flow.

**The CHAIR**: Around Keilor.

**Ryan BATCHELOR**: Keilor – that is where it was. Are there other catchments where that could be an issue that you would think that Melbourne Water needed to go and have a look at? We are talking a lot about what happened in Maribyrnong, but are there other places around the state or the city where you would think, in the spirit of learning from what has happened in one place and applying those lessons to other places, that maybe Melbourne Water, if they are the relevant authority – or whoever the relevant authority is – need to go and be a bit proactive in making sure their numbers are up to date?

**Tim WIEBUSCH**: I guess just to put it into context, when we say the rating table was inaccurate maybe in this event, this is all based on historical events. Those models are constantly being updated. Melbourne Water, as do many of the CMAs, put hydrographers out there during the events to capture the latest data and information. Modelling is always an updating and an evolving piece, so that next time round it is informed by the latest events that have occurred and data in that space, whether it is the Maribyrnong or any other catchment across Victoria. That is certainly the purpose of flood studies as well in terms of being able to really get that rich data, and it is quite specific to the catchments. There are some areas that were impacted in this flood where there was not perhaps that richness of intelligence. So there are a range of flood studies that have now been commenced by the Department of Energy, Environment and Climate Action through their CMAs, working with local councils, to actually build that intelligence space, because the models are only as good as the information that can go into them.

**Ryan BATCHELOR**: So not just Maribyrnong, making sure we have got that right, but other places as well?

**Tim WIEBUSCH**: Absolutely.

**Ryan BATCHELOR**: Thanks, Chair. I might save the rest of my time for later if I can.

**The CHAIR**: Sure, no problem. I will just note down that it is 4:55, I believe. Dr Ratnam, question.

**Samantha RATNAM**: Thank you very much, Chair. Thanks, everyone, for your submissions this morning. Firstly, I want to acknowledge that we appreciate that everyone is trying to do their best. Everyone has got different roles and responsibilities. But it is quite concerning now that, through the course of this inquiry, we are likely to see more frequent and intensive climate change disaster-related events, and there is a lot that we as a community are going to have to do differently in the future. So that is the spirit in which I want to ask my questions. Picking up on some of the questions that have been asked before, we have heard evidence quite consistently through this inquiry – and I am sure you have been tuning in as well – that there were some big gaps in notifications and warnings. Some people did not get warnings at all. Some people got the wrong information. Some people got information that was too late that led to considerable risk to their own safety. What has the department done since the October 2022 flooding event to review and audit how that early warning system worked, and how can it be improved for future events?

**Chris STEPHENSON**: I would put it in the context of the lessons, the real-time monitoring that we touched on before, to say that not just with warnings but with all of our activities if we are identifying issues, we will go back and have a look at those issues. One of the things we touched on – I think Ms Lovell mentioned it before – was the areas that the warnings are applying to are too broad, for example. Tim and I are quite actively looking at how you bring that in more closely so that it is a more tailored warning. I must say it is complex. If I could use that as an example, you can have a very targeted warning, and floods are a good example. You do a broad area, and people say, 'Well, my area doesn't flood.' You might not flood, but you might become isolated and you might be a vulnerable person in that isolated spot, so it is still a warning required to evacuate early. It is complex, but we actively look at all of these. If there are errors – we have got dedicated teams to these things at the state level – they will look at them. They will refine even the messages that come out. The messages are typically a tailored message; it is an automatic selection. We are already reviewing whether they are fulsome enough, whether they are giving enough information.

**Samantha RATNAM**: So am I fair to then summarise that as: the ordinary processes of review are being used post that last event? Is there anything different that you are doing in terms of the scale of the event and some of the gaps that have really emerged, particularly from evidence provided to this inquiry, in terms of a wholesale comprehensive review and audit beyond what you would ordinarily do in an ordinary event?

**Tim WIEBUSCH**: In Victoria we have what is called the flood warning consultative committee, which is chaired by the Bureau of Meteorology. That obviously has a key role in providing both the forecast and prediction and warning services for most of the catchments. Melbourne Water participate in that as well. Right now there is a review going on of what is called their SLS, the service level standards, for each of the catchments, and what that is looking at is particularly things like the warning levels of minor, moderate and major. What we have seen is probably on both sides in some areas – if I give an example, out near Orbost – a major flood warning will pop up perhaps a bit sooner than it needs to at the moment in terms of the levels, and that is again all informed by revised flood studies and that intelligence. So that is a continual process of review of those SLSs. Then in Victoria we also have the *Victorian Floodplain Management Strategy*, which is I guess a bringing together of the nine regional flood plain management strategies that are undertaken by the catchment management authorities. They can probably explain it in more detail, but I guess at a conceptual level those regional flood plain management strategies are looking at what the next things are that need attention in terms of the catchments from mitigations, and one of those mitigations might be warning systems in that space.

**Samantha RATNAM**: Following up on the previous comment you made about the real-time monitoring system that was used through the incident control centres, picking up on some of the commentary made before, which I have heard too, that many of those were not located in as close proximity as the community would desire them to be and therefore did not become as functional as they needed to be, given that feedback that you might have had real-time monitoring at the ICCs but then so many people did not get to the ICCs and they did not work for them, how are you capturing all their feedback and the lessons from their own communities if they were not able to use and feed into the ICC real-time monitoring system? For example, there were people involved in the emergency response who said, 'Look, the ICCs just weren't close enough. We couldn't get to them. There were communication issues. We had to be there in person or they wouldn't let us phone into the meetings.' Those people were still involved in the response system in their communities. How are we capturing their lessons if you are only doing real-time monitoring at the ICCs?

**Tim WIEBUSCH**: I can talk about what we have done within SES. We have been out to each of the impacted units and conducted a debrief with those SES units around their lived experience during the event, and obviously that would reflect on their interactions with other agencies, whether it be local council, police, CFA providing fantastic support.

**Samantha RATNAM**: Sorry to interrupt there, but would you be able to provide us on notice the list of those SESs that you have been out to to do that follow-up work with?

**Tim WIEBUSCH**: Yes, we certainly can.

**Samantha RATNAM**: Thank you.

**Tim WIEBUSCH**: Then off the back of that, I guess, having learned out of COVID that we can bring people together without necessarily needing to do that physically, we ran a number of online opportunities for our volunteers, two of those for general response in the east and also in the west. We ran a separate session around community engagement. We ran a separate session around water rescue and then also a debriefing with our regional teams in that manner. Then there have also been separate conversations with the Bureau of Meteorology and also with Melbourne Water about our interactions with them, particularly in terms of our information flows.

**Samantha RATNAM**: Thank you for that. Notwithstanding the number of efforts to review that you will have conducted through the ordinary processes, I hope that through this inquiry particularly and the feedback that we have received particularly in regional Victoria you will heed some of the gaps that have emerged, even if they are anecdotal, and that in future those gaps are actively filled. I just wanted to follow up as well on the point you raised about the inspector-general review, which would be an ordinary process – that it was decided it would not commence because of the parliamentary inquiry. I was just wondering: who ultimately makes that decision? Is it a department secretary, is it a minister? Who makes that decision?

**Kate FITZGERALD**: The inspector-general for emergency management is established under the *Emergency Management Act*. It is not necessarily an ordinary part of after each major emergency. I think what we have tried to demonstrate is how the review process after each major emergency can be quite unique, and we do have royal commissions, parliamentary inquiries, after-action reviews, real-time monitoring and evaluations. Every single really major emergency over the last probably four to five years has had a different type of process following it. In relation to the inspector-general for emergency management, the government is able to request the inspector-general for emergency management to conduct a review into a major emergency. So those arrangements are outlined in the Act.

**Samantha RATNAM**: Thank you. I appreciate that. My concern was whether an active decision was made for the inspector-general not to conduct that review because of a parliamentary inquiry. We established this inquiry five months post the event, so if that was a factor in a government decision around whether to conduct a review, that concerns me. But that is something for the committee to I think deliberate on.

A follow-up question in terms of response models: we have heard a lot of evidence that the emergency response model is actually sound. We have been asking witnesses what happened: is the model correct or does it need improvement, or was the way it was deployed the issue? From some of the evidence I have heard, people are saying the model is sound but it was not necessarily implemented to its maximum effectiveness. Some of this has to do with resources – some of the agencies involved perhaps not having the staff or volunteers to perform the roles they are meant to within that model. So my question then is: in relation to funding for the SES, do you believe the SES currently has the funding that is adequate to deal with future climate disasters? Is the funding enough?

**Tim WIEBUSCH**: Yes, as you have indicated, we are seeing increasing frequency and demand for our services, and as that continues, we are actively talking with the department and the minister's office about those needs. We are always conscious that supporting volunteers needs to be at the forefront of a volunteer organisation in terms of those needs. It is not just about buildings or vehicles; there are other things that are also core to what we deliver.

**Samantha RATNAM**: On the question of volunteers, do you believe you will have the volunteer numbers to be able to be the lead agency in flood events as the climate changes? What are the resources and supports you need to ensure that volunteer workforce is as supported and as expansive as possible?

**Tim WIEBUSCH**: Look, I think there is still a really strong commitment to volunteering in Victoria. If I look at the last 12 months alone, we have had just over 3000 expressions of interest in volunteering. That has converted to around 776 new SES volunteers coming onto the books. But there is also a volunteer life cycle: people do come and go. Lifestyles change – whether it is work patterns, whether it is starting a new family or moving to a different location. But quite often what we see is when people come into our emergency services and they volunteer, they find that camaraderie and they feel that sense of purpose, and whilst they might go away for a number of years, quite often we will see them come back. So we are seeing good numbers express an interest in volunteering, but there is always that opportunity to continue to think about the volunteering model, because the nature of how people volunteer now is changing compared to what we might have seen a decade or even two decades ago in that space.

**Chris STEPHENSON**: Can I just add, Tim, this event was a good example of spontaneous volunteers. People just wanted to give their time for this particular event and their particular community. That is a factor for us at the moment. Also there was the magnificent effort from the Country Fire Authority and their volunteers that supported this as well. So we see it as not just the SES but obviously those other agencies.

**Samantha RATNAM**: Chair, how much time do I have?

**The CHAIR**: You have 3 minutes and 29 seconds.

**Samantha RATNAM**: Perfect. Excellent. A couple more questions. Related to that question then, I have heard there has been some discussion about public servants being the surge force in future disasters given the issues around volunteer numbers. How are you all having those conversations when you think about balancing local knowledge and local interest in taking part in response to a disaster versus the idea of a public sector workforce surge?

**Chris STEPHENSON**: From my experience – I have been in the public sector, or in and out of it, for 32 years – there has always been an element of public sector surge. We have people that might have a day job but really want to contribute to emergency management and response and recovery. So that is a really common practice, and we will continue to build on that to give people the opportunities. I think in reality a lot of our paid people are the community members as well and want to be involved in the response, so that is a really important piece. But it is balanced. Local knowledge has always been acknowledged as critical. At times that can be stretched, because a lot of communities we know are small communities and there is a limit to what people can do. But we try to embed local knowledge into incident management teams and control teams where we can. We think it is very important. We do it in fire; we do it in floods where we can – and that, in my mind, is quite often a volunteer.

**Samantha RATNAM**: Thank you. Just getting back to the incident control centre question and following up from the questions asked before, as you have heard, we have heard reports that they were often too far from flooding sites. Some particular examples: we heard that the centre for Maribyrnong was in Dandenong because the SES was expecting storm damage in the south-eastern suburbs, Murrindindi shire said the centre in Shepparton was too far away to get their staff there and to work remotely and access, Mitchell shire said the Shepparton control centre was busy with preparations for Shepparton when Seymour was already in the recovery phase and Strathbogie shire said that Shepparton was not able to provide much information which was useful to Strathbogie. Do you think there need to be changes to how control centres are sited in the future?

**Tim WIEBUSCH**: Look, I think, as we mentioned earlier, there is a reason why some of the incident control centres have been selected based on risk. I think what is obviously coming out through some of this inquiry as well is the opportunity for a range of agencies to understand that layer that exists underneath an incident control centre, because an incident control centre in and of itself is not delivering the frontline service. So those sectors, those divisions that are being put into place – in the case of Dandenong, there was a field-based control point that was established on the Friday morning to manage and direct resources and pull in that information locally. In the case of the Seymours and others, we had Seymour SES and Alexandra that were set up along that catchment to be able to bring agencies together. That is the model we need to continue to exercise and ensure that people know where they best feed in.

**Samantha RATNAM**: Are you all exploring whether remote participation in future could be enabled, given the feedback that some people felt like they could not participate remotely despite not being able to get to the centre because of the floods?

**Tim WIEBUSCH**: Look, during COVID we needed to operate in those modes. So I think that has been one of the benefits we have seen out of COVID: people have got used to operating differently. Even in this event we saw –

**The CHAIR**: I am sorry, Tim, but the clock has beaten you. Apologies for that. All right, Ms Bath, with a question, please.

**Melina BATH**: Thank you, Chair – and, Chair, if you would be so kind as to give me a '3 minutes left' warning?

**The CHAIR**: Sure.

**Melina BATH**: Thank you so much. Thank you for being here today. I want to acknowledge that every day when you wake up you want to serve the community in the best possible way you can. Particularly to Chris: I know I met you during the 2019–20 fires in East Gippsland that were horrendous, and I thank you for your work there. But I am also going to be quite critical today, because that is our role – to investigate. I want to speak to the flood warning system, and I want to give an example of the floods on 9 June 2021 in Traralgon as a learning opportunity for the previous one, in 2022. There was a flood warning system – so on the VicEmergency app. A moderate flood warning came out on 9 June 2021 for the residents of Traralgon who were logged into their VicEmergency app. On Thursday morning at 4, there was a major flood warning – I am going to round the times. On Thursday morning at 5, it was a moderate flood warning – same app, same house, same person, same street. The Traralgon Creek was flooding. On Thursday at 6:59, it went back to a major flood warning. SES officers were having breakfast in the Mantra at approximately that 7 o'clock time period, when their vehicles were being flooded in the car park below, which is right beside Traralgon Creek. At

10:30 am, the first 'Evacuate now' orders were issued from the VicEmergency app, 4 hours after the Traralgon Creek had flooded and had inundated people's floors, kitchens, garages et cetera. That should have been a learning for the floods that occurred across Victoria in 2022. I feel that many people do not have the confidence that the learnings were made. That was not a good event. It was not a good warning system for normal, everyday Victorians. What can you tell us that has improved since then? I want to understand that on behalf of constituents and Victorians.

**Tim WIEBUSCH**: Thanks, Ms Bath. I guess just in terms of Traralgon, we know that that is a very flashy riverine catchment, and I think we have been on the record in that case around some of the improvements that could have occurred with those particular warnings. I can assure you, whilst there were people perhaps having breakfast, they were not the people that were in the incident control centre managing the event at that time – they were people coming on for another shift.

But I guess off the back of that, what have we learned? We are continuing to refine the way that we issue flood warnings in Victoria. We have moved from what used to be a catchment-based approach to subcatchments, so that is bringing it down to a smaller geographical footprint to again try and introduce more localised information. But we think there is room for that to go even another step with future automation of warning systems and being able to ingest, I guess, the richness of data that comes from things like flood studies and other things to really take that to another level in that space. We continue to train our people in those systems, and I have mentioned a couple of times today already the replacement for the emergency alert that will provide I guess a more enhanced way of getting messaging to people.

But I think the other piece that I have spoken about today as well is how do we actually help the community to be risk aware. When they know that it is raining heavily, do they actually know that they live – using your example of Traralgon Creek – near a creek that comes up very quickly when there is heavy rain? If that bullseye sits over the top of that catchment, they will flood. If it is just a little bit to the left, a little bit to the right, they will not. So how do we get people to understand their risk to know that they need to be alert, start to listen for the information and to act? They should not be waiting necessarily for a knock on the door for that to be the thing to make them act.

**Melina BATH**: Thank you. To be fair, in the past, and I am using that as an example because I know it quite well, Latrobe City Council had responsibility for the whole flood community understanding. They had a protocol; they had a document. It was similar to what we heard, for those on the committee yesterday, from the Victoria SES Volunteers Association. I think that the lady, Faye, spoke about Footscray. They had a working document that went out ahead of time. Now, that does not happen in the Traralgon area, and apparently it is not happening to the same extent in the example I am using – that Maribyrnong, Footscray area. So what can you tell us that you are going to do? I have heard the words 'victim blaming' – that is not from you at all – but what can we understand that you will put in place so that they are warned in advance? So it is not just, 'Well, you should be more aware because you should be looking out the window,' et cetera. We have seen that using the app has not worked for people. If they were sitting inside looking at their app, they had mixed messages back in 2021. What are you going to do for communities? It is very important, and I labour it because people's lives, people's homes are at risk.

**Tim WIEBUSCH**: So I guess there are two parts to the activity that we are doing in that space. Obviously, COVID restricted our ability to get out and engage directly with communities as much as we might have done prior to that and are doing right now. So in the case of Traralgon Creek, we have been back into those communities and doorknocked them, providing them with local flood guides to again make sure they have that risk awareness. That is exactly the process we are now doing with, I mentioned earlier, the local flood guide project that we have underway, where we have got some social research looking at the elements of our flood guides and what people found most useful. What do they think would have been enhanced in those? Now we will be getting that updated modelling from the likes of Melbourne Water, if we use the Maribyrnong catchment as one example, or as flood studies come in, and the intent is to provide that intelligence and richness into those flood guides. But the real opportunity is how we then engage with the communities. At the moment that is largely reliant on grant programs to be able to get those out, and so there is an opportunity to think about how we do that in a more holistic way and how we do it not just for the hazard of flood, because the risk is we have people knocking on doors –

**Melina BATH**: Yes, overfatigue. Sure.

**Tim WIEBUSCH**: with flood this week, fire next week, or something else.

**Melina BATH**: My point being with Footscray SES and Traralgon once upon a time, with emergency management embedded in the council, is that there are also templates that are there. You might have to modernise it, but you do not have to update it from scratch. My other comment is: how will we as a committee, how will we as Victorians, know that you are doing that? What is your time line to say, right, we now have in each region, whether it is an LGA or catchment area, a plan that we will then distribute?

I have got this statement from Leigh Wilson, who is from the community recovery committee from Rochester, who said there is zero confidence in the community:

> … that if we were to experience another event in the near future, there would be any change to this response.

He was saying that there was one government employee on the Sunday after and zero attendance at this, da, da, da. We need to give Leigh and his good community confidence.

**Tim WIEBUSCH**: In the case of Rochester, they are one community that probably has a level of richness of data that quite a number of our other catchments do not. Since the 2011 floods that impacted that community there has been new automated gauging in the town and there have been revised flood studies and flood mapping, and it is actually a community that has flood levels for each of the homes. I know from talking with our SES volunteers they implemented a program called Resilient Rochester, which was a collaboration between the Campaspe shire, the North Central CMA and VICSES, and it actually won an award back in 2021 under the Resilient Australia Awards for the way that they had gone about producing materials, getting them into their communities and raising the risk awareness. It has actually now formed part of the basis of what is called our 'be ready' program, so –

**Melina BATH**: I am just going to hold you up there –

**Tim WIEBUSCH**: Sure.

**Melina BATH**: How are you going to do what you say you are going to do, and how is Victoria going to know about that? How are we going to know that there will be this, you know, advanced information in multiple languages specific to the region? How are we going to know? When are you going to give us a time line? It is not that it has to be done tomorrow, but when will Victorians understand that?

**Tim WIEBUSCH**: I think the way we go about that is through our municipal emergency management planning committees, which bring together our agencies and local government to obviously talk about the hazards that exist and plan for those, and really then leverage the local government networks for being able to get that information out.

**Melina BATH**: Great.

**Tim WIEBUSCH**: There is an opportunity maybe to be able to provide some clarity through those committees back to their communities around what is actually occurring at those levels.

**Melina BATH**: Thank you. And to that point, I have done a bit of a straw poll when we were speaking to the various councils, and we have discussed this a lot in this forum today. Shepparton – I know, Ms Diaz, you came out and spoke to them. Moira shire said they had a good consultation, but Rochester people, Campaspe shire, Loddon, Seymour, Buloke, Pyrenees and Maribyrnong – Maribyrnong were at pains to say they requested an SES meeting, a multi-agency meeting, and were denied it by the regional manager. Now, if you are saying that part of the solution is about providing that information and working with councils – and they are not the be-all and end-all, but they are close to the community – and then these people are either denied or not offered it, I think there is an error there. I will leave that as a comment to go. You can comment on it, by all means, if you want to.

**The CHAIR**: Perhaps they could answer. It is a question, isn't it?

**Melina BATH**: Yes, sure.

**Tim WIEBUSCH**: Just in the case of some of those examples that you have given, we have actually met with CEOs and executive directors of a number of those councils that you have mentioned – so Gannawarra,

Moira, Shepparton, Campaspe, Swan Hill, Mildura, Mitchell, Murrindindi, Maribyrnong, Moonee Valley, Brimbank, Macedon Ranges – since the floods, talking through a range of scenarios but, more importantly, what we are going to do together to make sure that the things that we have identified can be improved and where are the gaps in that space.

**Melina BATH**: Thank you. It is just different to what we have heard, on Hansard, in this committee. Can I just ask: who was the state response controller during the 2022 floods?

**Chris STEPHENSON**: It varies. They are rostered. They come on a roster basically, because it is a big job. It is a huge job.

**Melina BATH**: Could you give us a list of who it was during that flood period, maybe from the start of October through to the – could you give us that?

**Chris STEPHENSON**: We would have to take it on notice.

**Melina BATH**: Yes, that is fine. Absolutely. I appreciate that.

**The CHAIR**: You have got 2½ minutes to follow up.

**Melina BATH**: Thanks very much. Why did the emergency management commissioner disband the volunteer consultative committee? We heard that; we have seen it in a submission. Can you explain why that would have been the case? If you need to take that on notice, you can.

**Chris STEPHENSON**: I am happy to give some context now if you like.

**Melina BATH**: Yes, sure. Lovely. Thank you.

**Chris STEPHENSON**: I just at the outset would say once again: we highly value the incredible work of volunteers. There is no question of that. The previous commissioner has decided with government to take a review of how they engage with volunteers right across Victoria. The review will identify opportunities for enhanced participation from volunteers and will consider the diversity of our communities and how they have changed and also take into context the growing expectations, I suppose, and emphasis that volunteers are needing to contribute to, as I said, consecutive emergencies. We want contemporary opportunities for people to give their time, so we will review things like how spontaneous volunteers can contribute. We really value that forum. Obviously, it was not my decision – I was not the emergency management commissioner – and I am also willing to take on notice and provide more advice about what that review will look like.

**Melina BATH**: Thank you, and I am just a bit confused as to why you would shut something down before you have got a different plan in place, but anyway, if you want to follow up with that. I have only got a couple of minutes, so I just want to raise –

**The CHAIR**: You have got 50 seconds.

**Melina BATH**: Thank you – the rapid impact assessments, and you might like to take this on notice. The Pyrenees council said there was a delay in carrying out rapid impact assessments, which then affected the secondary impact assessments, and I guess that is all about recovery and the ability to respond and recover. That is something that you might be able to respond to on notice. The last one I have that I would like to ask is in relation to – you have heard concerns around Melbourne Water's flood modelling problems due to the table rating. I know you have mentioned table ratings. At Deep Creek and at Darraweit Guim flood warning sites were inaccurate. You might want to just respond from an emergency management point of view –

**The CHAIR**: I am sorry, Ms Bath. The clock has beaten you, so thank you very much for that.

**Melina BATH**: Could you make a response in relation to that?

**The CHAIR**: Ms Tyrrell, over to you for a question. Thank you.

**Rikkie-Lee TYRRELL**: Thank you. During the flood event – I am from north Victoria – did you say you were sending out emergency warnings via text, flood warnings?

**Tim WIEBUSCH**: So right throughout this event, typically when we reached that third tier, which is the emergency warning tier – and again it will depend on the nature of each situation, but typically with an emergency warning tier we are asking people to evacuate. There are two mechanisms that we use. One is the emergency alert, the phone alerting system, but the other one is also SEWS, the standardised emergency warning signal. That is something that emergency broadcasters use, so radio and TV, which is a 'whoop whoop' siren that comes over the radio or TV to, again, bring people's attention to say, 'There's something we need you to pay attention to.' If I took you to some small communities up along the Murray River, we were able to doorknock those communities. If there are only 20 homes, for example, we might go in and doorknock those rather than sending an emergency alert. It is not necessarily that emergency alert is the silver bullet for delivering the alert. There are a range of tools that we will use to get to those communities to try and make sure they are hearing the message.

**Rikkie-Lee TYRRELL**: Okay, so just so I can explain my situation in the event, I live about 20 minutes north–north-east-ish of Shepparton, and I am on a property. The properties surrounding the farm where I live, they were all flooded, especially when Loch Garry burst. Before that happened I drove from my home to Mildura and I was pushed through floodwaters numerous times, and I was very scared, because the road closures were not registering on the maps that I had going, and I had my daughter with me. She was only 12. I was actually being put through floodwaters by local fire brigades that were standing there on the road. They said, 'Look, if you start veering off, we'll rescue you,' and I am thinking, 'You guys are 60 years old. There is no way you are going to rescue us. Thank goodness I can float.' We were lucky. We managed to make it to Mildura, but it was 10 hours. I did not receive one text that entire time, and I had two phones with me, both with the location settings on, so we knew where I was. How come I did not receive a text?

**Tim WIEBUSCH**: It may have been that there were not warnings being issued in those geographical areas that you were travelling in at that time. Without some further detail, I could not give you an exact answer on that. The text message system, as I explained earlier, is based on both a geographic and a billing address, and throughout this event we saw campaign after campaign of issuing those where there were 6000 or 10,000 devices. The system does give you feedback about how many phones it has reached during that and how many that it was not able to reach for one reason or another. I guess without knowing the specifics, it would be difficult to –

**Kate FITZGERALD**: If I can just add, there were 17 emergency alert campaigns throughout the flood emergency, so we are able to provide on notice the detail to the inquiry in relation to where those alerts were issued.

**Rikkie-Lee TYRRELL**: Okay. That would be helpful. Like I said, it was scary, and I was expecting something to come through, because I have been in fire situations before and we get a text really soon. I have lived in a valley where literally the whole summer I had a suitcase ready to go because there was only one way out. But in this situation I did not receive any information. I did not have the VicEmergency app, and that is a really good example, because a lot of people do not still. One of my advisers has the app, so I was ringing her. Then on my way home I took a different route, and 4 minutes before I got home there was water over the road. It still was not closed off or anything. Yet my husband stayed home and did not receive any messages, so it would have been nice to have some form of warnings coming in.

**Kate FITZGERALD**: Ms Tyrrell, we can provide the detail in relation to the emergency alerts and where they were issued. It is important to note that the primary information that is provided to people in Victoria is through the VicEmergency app, so we encourage everyone to download that.

**Rikkie-Lee TYRRELL**: All right, yes. Sorry, I just had to use myself as an example because I know I travelled a long way during that time before the floodwaters hit around home, but when I got back there were still no warnings to me unfortunately. Talking about the texting and whatnot, when we have no signal on our phones, we can make an emergency call. Is it possible for you to send an emergency message in the same circumstances, when people do not have reception?

**Tim WIEBUSCH**: I would have to take that on notice, I think.

**Rikkie-Lee TYRRELL**: Is that something you would consider looking into?

**Tim WIEBUSCH**: Yes.

**Kate FITZGERALD**: I can just add to that. Obviously the VicEmergency app and the emergency alerts are constrained by the technology that we have in terms of what the providers look at. Tim mentioned previously the work the federal government is doing in relation to a national messaging system. Black spots, if you like, and also the range of towers and providers are something of significant consideration. I do not have the detail in front of me, but there has been significant investment by the federal government in relation to black spots in terms of telecommunications. There is a significant national program in that space to try to really decrease the number of black spots for communities with a particular view around the criticality of that for emergency warnings.

**Rikkie-Lee TYRRELL**: Thank you. Chris Stephenson – do you want me to call you Mr Stephenson?

**Chris STEPHENSON**: Chris is fine.

**Rikkie-Lee TYRRELL**: Okay. As Ms Lovell stated earlier, some people have said that they are not sure that the SES should be the lead agency in a flood event. You were jumping in your seat. Would you like to –

**Chris STEPHENSON**: Absolutely.

**Rikkie-Lee TYRRELL**: Yes, go for it.

**Chris STEPHENSON**: I absolutely do believe they are the agency to manage flood and to respond. One of the unique opportunities I get in my job is to see all agencies work and work well together but also to see the lead agency step in and provide the expertise and advice that is required to keep the community safe. While there will be lessons to learn and issues in major emergencies, I think there always will be – it is the nature of major emergencies. From my experience, the expertise and the professionalism that were shown during this emergency, and the leadership that was shown, were exemplary. I am sure that there are not issues – I absolutely get that.

The other unique thing in Victoria is that people like Tim are state response controllers. But not only are they state response controllers, they come in and provide significant advice to other state response controllers who might be from another agency. When you have got a lead agency and you have got someone like Tim there, they operate as a state response controller, but they will also come in on other shifts to provide support to those people that might not be from the SES – they might be from a fire agency. So I think the model is a really good model. From what I saw from not only the paid staff but the volunteers, I just think they know their stuff. They are very good at it. They put significant effort into trying to keep the community safe. Once again, from my experience, the way it was led was really, really pleasing.

**Rikkie-Lee TYRRELL**: Okay. We are going to finish off on a good one with me. What resources do you think were lacking that could improve the SES's response in the next flood event? We are talking about human resources, physical resources like boats, tools.

**Tim WIEBUSCH**: I am happy to start with that one. I guess, as I mentioned earlier, we are seeing this reoccurring, increasing volume of major emergencies in Victoria, so the area that we think has a continued need is around supporting volunteers, particularly with delivery of training and quality training. But also volunteer time is precious these days, so being able to reduce administrative and compliance burdens by resourcing that in other ways so they can actually focus on training exercises and community engagement and response is where we think continued investment is needed. Then obviously these events also provide for where the risk profiles change, so we do need to continue to look at the types of resources that we are utilising, whether it is high-clearance vehicles, boats, all of those sorts of things in these events.

**Kate FITZGERALD**: Ms Tyrrell, if I can just add to that, obviously through the state budget process the department continues to work very closely with VICSES to understand what their requirements are from a state budget perspective in recognition of the increasing demand for VICSES services but also more broadly in relation to the frequent emergencies that we are experiencing. The revenue for VICSES has increased by 21 per cent since 2017, from $64.9 million in 2017–18 through to $78.5 million in 2021–22.

In addition to revenue that VICSES receives through state appropriation, they also receive obviously initiative funding through the state budget as well, and $32.7 million was announced for VICSES through the 2023–24 budget. In addition to the initiative funding through the state budget, we also ensure that during emergencies

VICSES is provided with the resourcing and funding that it requires, and for the 2022 floods they received an additional $20.5 million through supplementation funding during the floods. So we have a number of processes and gateways I suppose throughout major emergencies but also through the normal state budget process to continue to work with VICSES around some of the initiatives that Tim has outlined.

**Rikkie-Lee TYRRELL**: Did anybody else have –

**Chris STEPHENSON**: I could say, like, it is not only VICSES, obviously it is – once again, the model used in Victoria is about all agencies in support, so whatever we can do to continue to support the other agencies too in their training and development is important. This emergency was another example where probably we have diversified in the use of a lot of our equipment as well. Our aircraft would be a good example of that. Where they have typically been utilised for the bushfire-fighting response in Victoria, we actually had a significant contribution from that fleet during these events to provide access for people's supplies, evacuations, those kinds of things. We are constantly looking at how we can make sure that the total picture is fit for purpose.

**Rikkie-Lee TYRRELL**: All right, thank you. I am done.

**The CHAIR**: Do you have any questions to any of the others?

**Rikkie-Lee TYRRELL**: No.

**The CHAIR**: You have 3 minutes left.

**Rikkie-Lee TYRRELL**: I am happy to just hold them for a moment.

**The CHAIR**: Okay. We are going to come to the end of this session, though, pretty soon. Do you want me to come back to you?

**Rikkie-Lee TYRRELL**: Yes, please.

**The CHAIR**: Okay. All right, you have 3 minutes and 23 seconds remaining. Ms Broad with a question.

**Gaelle BROAD**: Thank you very much. Really appreciate your time. I guess I will just repeat what has already been said, but thank you so much for your work. We know that this is a 24/7 job that you are in in times of disaster, so we really appreciate that.

Kate, this is probably a question for you. There has been a lot of confusion, I guess, that we have heard on this panel about who is in charge when it comes to these disasters and what the role of councils is. Is it relief, recovery? They are called on for emergency advice right at the start. You can take it on notice, but can you provide a flowchart of who does what – just a brief kind of review? It can be A3; it probably will not fit on an A4. I think that would be really helpful for us to sort of see all the different parties involved. You mentioned the inspector-general and that sort of thing too, so I guess just everyone involved in that emergency response specifically to floods. That would be really helpful.

Now, I am interested too: residents of Rochester, and we heard from places like Undera – they were left to fend for themselves. There did not seem to be a lot of response, and the warnings were way out – what they were advised was going to happen with the floods. It was much higher than what was anticipated, so any plans that they had were kind of thrown out the window and they were very much caught off guard. But who is ultimately responsible for sending resources to those flood-affected communities?

**Tim WIEBUSCH**: I am happy to start with that one. I think it is important to understand with Rochester that even from the first flood watch on Tuesday 11 October the possibility of major flooding was mentioned in a flood watch, which is quite unusual, in the sense of, indicating that even before the rain is falling we could see major flooding in that community. That indicates really that there was high confidence where that rainfall was likely to fall, and as a result of that there was actually a community meeting held on that Tuesday with the community at the town hall. There was also live streaming by Campaspe shire, and at that first meeting they were saying this could possibly be a 2011 flood – obviously, that being the last most significant flood that had been through that community. Then from there we saw a series of warnings start to be issued, and on that Wednesday there was a second community meeting, where again a height of 115.5 to 115.6 was talked about as potential, which is at that 2011 level. And people were being advised at that meeting that they needed to plan to

leave. I know from talking to our volunteers who went to that meeting, they had taken along, and they have got quite detailed, books about floor levels and other things, so if people had moved into the community and were not sure whether their property would be affected, they could come over to a table and look it up and see what they could expect. Then through Thursday, again, a 'Watch and act' started to move into place. There was a doorknock of almost 900 homes, which is pretty amazing given the resources in that town – a combined effort between police, SES and the CFA. I guess then the emergency warning went out on that Thursday night, which obviously went into Friday, so it was a good 24 hours before the floodwaters were coming into Rochester.

**Gaelle BROAD**: Tim, just on that, you mentioned they were told, 'Expect like 2011.' They were actually much higher levels than 2011. I was there just after the floods. And the locals were there, coordinating the response, doing an incredible job, but who is responsible for getting resources up there to help?

**Tim WIEBUSCH**: Our incident control centres are the location that have a resourcing team but also an operations function looking at the resources. I think it is important to understand that in this particular event there were 64 municipalities, many of those being impacted at a concurrent time. I have certainly heard from our people at Rochester that they felt like they could have done with more resources. I have been and spoken with the team there twice since the impacts. The SES facility was directly impacted as were many, as you know, properties right through that community. So, yes, if we could have provided more resources, we would have, but on the night of Thursday 13 October into Friday morning there were resources coming from as far as Sunbury, with rescue boats, and other places to effect what was nearly 200 rescues that occurred on that night. Again, for a community that had some information, how do we help them really appreciate that risk when the evacuations come and not put themselves in harm's way?

**Gaelle BROAD**: Yes, and I appreciate the work done by the SES and the CFA, because these are people that live in the town whose own homes are being affected whilst they are trying to help others. So it is an incredibly difficult position to be in. But how does the decision-making process work between divisional command and those local control centres?

**Tim WIEBUSCH**: I guess, we train our volunteers in those leadership roles as divisional commanders or sector commanders in this space – in the case of Rochester and also Echuca, putting some of those positions in place. I think there is an opportunity that we heard coming out of Rochester for there to be some more exercising of those arrangements, and whilst there were some that understood them, we even brought in divisional commanders from as far away as Gisborne to go in later in the piece at Echuca, because obviously Echuca had floodwaters around it for quite some time, to relieve the locals in that space. So yes, there is a training program that we put our members through that helps them not only understand the role that they perform but understand how they link into those structures. But I think what we have heard is that there is an opportunity to exercise that more with some of our partner agencies.

**Gaelle BROAD**: That is great. And Chris, you mentioned incident control centres are sort of predetermined. I guess this is a question on notice: are you able to provide a list of those for regional Victoria? That would be super, thank you. And I am interested in the financial delegation as well, because I did hear reports that it is quite different between bushfires and floods. An incident controller has an approval limit of up to $50,000, but in a fire situation it could be half a million. I am not sure of the accuracy of that. Can you comment? Is there a difference between bushfires and floods?

**Tim WIEBUSCH**: There has been. During this event the delegations that were in place financially – we had not seen the sorts of spending levels that we experienced during these floods, which probably goes to the size and complexity of the event that we were in. So there were a number of things that were needing to come through to me or our CEO at SES for approval, and we had an established process in place. But since the floods our board has revised those delegations and they now mirror the fire delegations as well, just making sure it is easier for people to understand how the arrangements work but also in recognition of the types of resources and things that we were needing – the amount of plant and, as Chris mentioned, also aircraft. We had 27 aircraft that were engaged during this event. It was the most significant we have ever seen in a flood campaign.

**Gaelle BROAD**: Okay, so that has been resolved now, but could that have delayed the emergency response required at the time, then, if it had to sort of do that bottleneck?

**Tim WIEBUSCH**: I am not aware of that being the case. As I said, we had a process in place to keep those approvals moving, and I am not aware of any delays necessarily as a result of that.

**Chris STEPHENSON**: And can I just add to that – just on the preparedness, when the bureau was saying this event was likely, there were things that we did straight away, like the engagement of those aircraft and that. We just brought them on. We did that in the preparedness phase, not just in the actual response phase.

**Gaelle BROAD**: That is helpful, thank you. And Chris, you mentioned the real-time monitoring response. You had over 4000 comments compiled, and you were turning those into insights and publishing them. Are you able to table that information for the committee's reference? In the absence, I guess, of a multiagency kind of response, that would be very helpful for us to view.

**Chris STEPHENSON**: Yes. I would have to take it on notice. I have got the high-level information here.

**Gaelle BROAD**: Thank you. It would be wonderful if you could share that. Now, warnings are something that has been talked about so much, because it is just foundational to people's response and reaction, getting that information right. We had Jan Beer, who is an expert in water, appear at the Seymour hearing. She gave the committee a list of flood warning gauges and locations but was not sure which ones had actually been installed. Again, you could take this on notice, but perhaps it is a question for Emergency Management Victoria. If you could provide, in response to that list, which ones have actually been installed as far as flood gauges, because there seem to be a number of areas that are not covered.

**Kate FITZGERALD**: I am happy to discuss that one. Though the responsibilities for the flood gauge network are responsibilities of DEECA, the department of environment, so we would probably have to defer to them on that matter.

**Gaelle BROAD**: Are you able to defer to them in that kind of coordination capacity?

**Kate FITZGERALD**: Yes.

**Gaelle BROAD**: That would be wonderful. Your submission was very comprehensive for the Victorian government, so thank you for the work that you put in there. I did notice on page 101 it talks about the Australian government doing a review of the disaster recovery funding arrangements. I am interested in what advice you are providing to the Australian government about those arrangements. Is that something you could share with the committee?

**Kate FITZGERALD**: Yes. I think the way in which we have been engaging with the federal government in relation to the DRFA is through that review but very actively throughout the flood event and the flood recovery as well. There are a range of issues that we continue to advocate to the federal government on to the DRFA. They include streamlining eligibility and advice in relation to the DRFA arrangements. As you would be aware, those arrangements are set by the federal government, and the state sort of administers those arrangements. We have also continued to advocate to the federal government around streamlining and also developing what are called off-the-shelf packages in relation to more exceptional circumstances programs. There have been a significant amount of those that have been administered by ERV. The other aspects that we continue to advocate to the federal government around are in relation to, in these major emergencies, really looking at where efficiency is around auditing, predisaster evidence, post-disaster evidence and those requirements of councils that can be streamlined and minimised. They are areas that we continue to advocate to the federal government in relation to the DRFA arrangements.

**Gaelle BROAD**: I think we could all agree that local councils would be very appreciative of that because of the intense work requirements, particularly the photographic evidence that is required every 500 metres. Now, you mentioned that the federal government has responsibility for kind of setting the template, if you like, for the disaster recovery funding arrangements. My understanding is states do negotiate with the federal on their own and it does vary between states. Victoria does not seem to have betterment in place whereas other states, my understanding is, do. Can you speak to betterment? What we have heard from councils is that when they are assessing everything immediately after a disaster, they need to look at the options then and there as to what could be built back better. Currently they have had to wait 10 months to access a separate program for betterment. Given that other states have that already in place under the disaster recovery funding arrangements, what is Victoria doing?

**Kate FITZGERALD**: Yes. As you mentioned, we did announce a betterment fund of $9.4 million, which provided funding to 14 of the most impacted councils, and the councils are now currently working through their immediate reconstruction works and also their longer term reconstruction works to consider where they may capitalise on that betterment funding.

In addition, the other component of betterment is around when councils commence immediate reconstruction works in terms of being able to increase the functionality and increase the resilience of that asset aligned with its predisaster function. The DRFA arrangements are very clearly established around the restoration of essential public assets, and it is largely roads, and the experience in this emergency has been about being able to restore that asset to its predisaster functionality and to its predisaster standard. The ability to go above that is where sort of betterment programs come in, but what we are working with – and we have done a lot of work throughout this emergency, and we obviously need to continue to do more – is to be able to qualify and quantify for councils what being able to restore to the predisaster functionality allows them to bring in in terms of modern technology in relation to culverts, depth of treatment of roads and so on, and so that allow them to do what we call a sort of 'light betterment' essentially before you sort of step into those major betterment projects where you may be, say, elevating a road asset or adding significant additional culverts or other sort of major betterment works.

**Gaelle BROAD**: But why is Victoria different to other states? Why don't we permit betterment in that main category of funding?

**Kate FITZGERALD**: I think it is not that we do not permit it, I think it is more the experience. I suppose we have really worked with councils to try to throughout the emergency, but there is a lot of additional work to do, and I really do accept that around the DRFA.

**Gaelle BROAD**: Will you make a commitment to advocating to the federal government to include betterment in future disaster recovery funding arrangements?

**Kate FITZGERALD**: I think betterment is clearly becoming a critical part of the DRFA, both from a community recovery perspective in terms of being able to minimise the number of assets that are damaged in the future because they are more resilient but also from a cost-benefit perspective as well in terms of similar assets just being repeatedly damaged because we are restoring them to that predisaster functionality rather than to a better functionality.

**Gaelle BROAD**: Do you do a bit of work looking at – like, Queensland, I have read their 2021–22 Queensland floods state recovery and resilience plan.

**The CHAIR**: Sorry, Ms Broad, the clock has beaten you.

**Gaelle BROAD**: Can I take someone else's time?

**The CHAIR**: No, sorry. You cannot because I have got people who also have additional time.

**Gaelle BROAD**: That is fine. I will do other questions on notice.

**The CHAIR**: Mr Batchelor, you have 4 minutes and 55 seconds left on the clock. I will come to you first. Thank you.

**Ryan BATCHELOR**: Wonderful. Excellent. I will be targeted. I have raised with a couple of people the issue of helping people understand risk that is confronting them. You mentioned you had been doing some social research on the flood guides that you have been preparing, I assume to figure out what people need to know and the efficacy of the materials you are providing to them. If that has concluded, that research, I was wondering if you would consider on notice providing a summary or a copy of that or some key learnings of that to the committee.

**Tim WIEBUSCH**: It is a piece of work that is active right at the moment, and we expect by February next year that we will have the outcomes of that. But also that will inform the basis of what our future local flood guides will look like and what they will contain.

**Ryan BATCHELOR**: Great. Anything you can provide in assistance would be great. Because it did strike me that your evidence about the information that was provided to the Rochester community – I was quite surprised, to be honest, given some evidence we had from people in Maribyrnong who had 10-year-old sort of laminated material that was not provided anymore; the council did that then – that here you have got in Rochester house-by-house analysis of floor levels and flood level guides. That is pretty significant. Who prepared those?

**Tim WIEBUSCH**: It was a combined project between the catchment management authority and the Campaspe shire doing that sort of detailed modelling through an updated flood study, with supported funding in that space. They did have some external expertise that supported that, but largely it was, I guess, led by the council with the support of the CMA and then the SES bringing that together from a community basis.

**Ryan BATCHELOR**: Are you aware of any other local governments that have taken the proactive step to do that kind of work for residents?

**Tim WIEBUSCH**: Yes, look, there are a number of flood studies that are underway, and in the main those flood studies are led by local governments, supported by their catchment management authority in the majority of cases. The outcomes of those are key for us as SES to then work with local council around the information that comes out of that. Those flood studies also inform other mitigation measures, whether it might be levees or one-way flow valves. There could be a range of things that come out of that.

**Ryan BATCHELOR**: And you think that local government is the best place for that sort of localised information for residents to be prepared?

**Tim WIEBUSCH**: Yes, and I guess under our arrangements in Victoria local government has an accountability for leading the emergency management planning, and our agencies get right behind them and support them in doing that. Particularly for the hazards of flood and storm and those sorts of things, the SES has a key role to play in supporting municipalities.

**Ryan BATCHELOR**: Great. I might just go to the question of engagement with volunteers. I have just got some questions about a particular committee that has been disbanded. You might not have the detail here, but on notice if you could provide us with any other bodies, working groups, fora that volunteers or volunteer organisations are represented in, that would be useful, because obviously as you say it is important that the voices of volunteers are heard in decision-making processes, and I assume, although I would like to have it confirmed, that one committee was not the sum total of your engagement with volunteers. If you could provide to the committee on notice any further details you have got about the way that various parts of the emergency management response deal with and engage with volunteers, that would be exceptionally helpful. That is probably it.

**The CHAIR**: Ms Tyrrell, you have 3 minutes and 23 seconds. Would you like to use that time now, please?

**Rikkie-Lee TYRRELL**: I am happy to cede my time to Ms Bath, please.

**The CHAIR**: Go, Ms Bath.

**Melina BATH**: Thanks, Chair, and thanks, Rikkie. That is very good.

**The CHAIR**: There is a bit of a pattern there, but anyway.

**Melina BATH**: I just want to follow up on the question from my good colleague Gaelle. Sorry, too many words. She mentioned about Queensland being the best practice or the highly regarded practice into DRFA claims and betterment, so if you could take it on notice to undertake your comparison between what you are doing now and what they are doing and maybe come back to us with a commitment from Emergency Recovery Victoria in relation to trying to get Victoria to be at that best standard.

**Kate FITZGERALD**: If I can just add some comments on that, throughout the flood emergency event and following, because a lot of the work on the DRFA obviously occurs significantly after the emergency as well, we have had officers from the Queensland Reconstruction Authority embedded within my team that administers the disaster recovery funding arrangements, so we have actively tried to embed best practice from the QRA. The Queensland Reconstruction Authority and the Queensland disaster recovery arrangements are

quite different to how the Victorian government and the Victorian emergency management arrangements are established, so that is where there are definitely differences in terms of how the QRA works with local councils and provides support to local councils through the Queensland arrangements. But we can definitely provide some more detail about in particular some of those aspects that through that engagement with QRA through our emergency we were able to lift up and embed within our arrangements immediately.

**Melina BATH**: Okay, all right. I appreciate that. It is always good to learn from best practice. You mentioned $9.4 million worth of betterment funding. I can guarantee you that, for example, we heard that Buloke have $32 million worth of roads that they need to improve post flood. They have done six so far. $32 million is basically their whole annual budget. If we went through and we made a comparison with Loddon, Gannawarra, Campaspe and all of the different shires, demand outstrips finances, so I will put it to you that the government could increase that level and put another round of funding for betterment there – $9.4 million is gobbled up. Indeed I know that Rob Amos, the mayor of Campaspe, really was saying, 'Can we please have another round of funding, even just the normal funding in the NDFA?' The need is there. Of course for not only community safety but the transportation of stock and goods, the roads in country Victoria are absolutely vital. You would be cognisant of that, but in order for communities to psychologically recover from these we need roads.

**Kate FITZGERALD**: Yes. I just briefly would say that another significant improvement that we have done through this emergency is provide advances to local councils to assist directly with cash flow. We have already provided more than $50 million in advances to councils to directly help with –

**Melina BATH**: That is not extra, sorry?

**The CHAIR**: I am sorry, but the clock has beaten you, Ms Bath.

**Melina BATH**: That is fine. That is not extra, though, is it?

**Kate FITZGERALD**: No.

**The CHAIR**: Thank you very much for all of those responses. I just want to thank all witnesses for your contributions today. That brings us to the end of the session. I will just note also for the record that you will receive a copy of the transcript for review within about a week's time. Thank you all for your very extensive contributions today.

**Witnesses withdrew.**