T R A N S C R I P T

LEGISLATIVE ASSEMBLY ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into Tackling Climate Change in Victorian Communities

Melbourne—Thursday, 5 December 2019

MEMBERS

Mr Darren Cheeseman—Chair
Mr David Morris—Deputy Chair
Mr Will Fowles
Ms Danielle Green
Mr Paul Hamer
Mr Tim McCurdy
Mr Tim Smith

WITNESSES

Ms Paula Camenzuli, Statewide Climate Change Coordinator, and

Mr Adam Bester, CEO, Glenelg Hopkins Catchment Management Authority, Vic Catchments.

The CHAIR: Welcome to the hearing today. I just want to run through some important formalities before we begin. All evidence taken today will be recorded by Hansard and is protected by parliamentary privilege. This means that you can speak freely without fear of legal action in relation to the evidence that you give. However, it is important to remember that parliamentary privilege does not apply to comments made outside of the hearing, even if you are restating what you have said during the hearing. You will receive a draft transcript of your evidence in the next week or so that you can check and approve. Corrected transcripts are published on the Committee's website and may be quoted from in our final report. Thank you for making the time to meet with the Committee today. Could each of you please state your full names and titles before beginning your presentation?

Mr BESTER: I am Adam Bester. I am the CEO of Glenelg Hopkins Catchment Management Authority.

Ms CAMENZULI: And Paula Camenzuli, Statewide Climate Change Coordinator on behalf of all 10 CMAs.

The CHAIR: Fantastic. The floor is yours.

Mr BESTER: Great. Thank you for providing Vic Catchments the opportunity to be heard today. We are here on behalf of Vic Catchments. If you do not know, Vic Catchments is an unincorporated body, but it is actually based on a collegiate agreement between all the 10 CMAs. The role of Vic Catchments is to promote natural resource management across Victoria, natural resource management being land, water and biodiversity right across our state. I am going to be talking a bit about the higher level role of CMAs in the climate change space, and then I will hand over to Paula, who has got a lot more of the detail around some of the projects and the programs that we are undertaking. If you have got any curly questions, I might have to refer them through to Paula.

Just a quick outline of the CMAs. We work very closely with the Victorian communities—traditional owners, non-government and government organisations—and our role is to really protect and enhance our land, water and biodiversity across Victoria. I want to talk a little bit about why we exist to start with and then also why we are actually working in the climate change space before I move on to more of the how. As you are probably aware, climate change is impacting on a lot of our communities through increased temperatures and decreased rainfall. We have had prolonged droughts, we have got increased intensity of flooding events, and of course along our coastlines we have got increased storm surges, inundation and sea level rise. Already our communities and the CMAs are dealing with a lot of threats. We have got pest plant and animal issues; fires, floods and habitat loss; soil degradation across our landscapes; land use change; and in terms of the water space reduced flow regimes and water quality issues. The issue with climate change is that it exacerbates those threats and makes them worse. Really, climate change exacerbates those threats, but what it also does is it impacts on all of those assets as well, like the land, water and biodiversity that our communities rely on and depend on. They rely on them for agricultural production, for tourism and for recreational use, and as you just heard before, their wellbeing as well is very important. With the tough times experienced at the moment with the droughts it is becoming increasingly difficult and front and centre. Our communities are already pretty tough and resilient to some extent, but there is only so much they can do alone. That is where the CMAs' role comes into play. For the last 20 years we have been working really closely with our communities—we have forged really close working relationships with our local communities—and we have also been a consistent source of support for those communities. When I say 'support', that is through funding and through advice and education. We are now having more of a role in school education as well and through education in terms of farmers and field days et cetera on the role of natural resource management in the climate change space.

There are three points I wanted to make around climate change in terms of the role of CMAs. Responding to climate change requires increasing the resilience of the natural environment to adverse impacts and maximising the capacity of our ecosystem to adapt to change. But also we have been looking at maximising the storage of

carbon in the landscape—that is consistent with continued productive agricultural use. It is actually fortunate that the actions and the programs that are going to be the most effective at helping our environment and communities adapt and respond to climate change correlate with the best practice approaches that the CMAs have already been undertaking or advocating for, which is quite encouraging. Paula is going to outline those in a bit more detail in a minute. But we plan and deliver projects with our communities to both protect and enhance our land, water and biodiversity, such as trying to increase soil production, controlling pest animals and weeds, improving water quality and delivering environmental water. We are also involved with using water more efficiently through the Sustainable Irrigation Program in certain parts of the state, improving ground cover, preventing erosion and protecting native vegetation and wildlife.

It was great that we came in during that last speaker, because we are actually also playing an increasing role in the mental health space now. So we have partnerships with groups like the National Centre for Farmer Health, which is based in our region—we have got a close relationship there with them. Also we have been involved with a project right across all the NRM regions in Australia with Canberra University that has been looking at a lot of data that has been collected right across Australia. There is a direct correlation that has been shown between farmers' mental health and undertaking natural resource management activities, particularly where we are able to undertake activities to improve ground cover. It has been shown that it has actually had a positive benefit on improving the mental health of farmers.

But our role as a CMA—we do not do that alone, so our role is really to be that broker of partnerships. Because we are based in the regions, we are able to quickly connect the dots. We get our funding from the Australian Government, the Federal Government, bringing partners together to deliver outcomes on the ground. We have found that that model has been quite effective and efficient over the years at getting really good outcomes on the ground. Just a quick example: last year alone we ended up establishing 1300 partnerships right across Victoria—new partnerships, that is—engaging with nearly 100 000 people through various field days and education, planting 5000 hectares of trees right across Victoria and fencing off 720 kilometres of our waterways just in the last year alone. But we could not do that without those partnerships. And what we have actually done some research on has shown that for every dollar of government investment that goes into natural resource management we get a $5 return from our farmers and communities in terms of in-kind and community support, which is pretty good value for money.

The CHAIR: That is very good.

Mr BESTER: Yes, and that was some research we commissioned with Landcare.

But how do we know that we are protecting the right assets or addressing the right threats or that the work that we are undertaking is actually getting the best bang for buck? We do that through a lot of planning and monitoring. The catchment management authorities have been leading the way with planning around NRM and climate change for a number of years now through our regional catchment strategy approach. We coordinate the development of regional catchment strategies, which is a function under the *Catchment and Land Protection Act*, and these are then signed off by the minister for environment and climate change and the Minister for Water every six years. We coordinate their development and implementation. They are developed through a very robust consultation process with the communities, and also they include a lot of the Government's investment priorities as well in those documents. So what we do is we collect the values and aspirations of the communities and embed those within those regional catchment strategies, and then they provide the strategic direction for natural resource management for the six-year period. But when we actually developed the last RCSs, we did not actually have a lot of the tools and climate science information available at that time when they were developed.

Mr FOWLES: So when was the last round of RCSs?

Mr BESTER: I think 2013 it was.

Mr FOWLES: So there is another round that—

Mr BESTER: We are about to do that now.

Mr FOWLES: you are just about to sign off on.

Mr BESTER: Yes. What we are going to do with these new RCSs is really embed a lot of the climate science and information that we actually captured in 2016 when we actually got funding from the Australian Government to develop a regional climate change strategy. Every NRM region across Australia got funding to do that.

The CHAIR: That was in that 10 seconds that Malcolm Turnbull was the Prime Minister, was it?

Mr BESTER: Yes, that is right. We got that funding, which was great. We have now got 10 of those strategies across Victoria. They now complement our current RCSs and regional waterway strategies, which make up the core regional NRM planning framework across Victoria. What these plans do, that the RCSs previously did not do, is they determine what the future climatic impacts may be on our natural assets, like our land, water and biodiversity, and also the impact on communities; how these assets are going to adapt to climate change; and the management actions that may need to be implemented to address that. They have got a really strong social licence because they were developed with key stakeholders like DELWP, Parks Victoria and other agencies, but also with communities. And they offer a really good starting point for us to actually develop projects and strategies that are targeted to help communities respond to climate change. As a good example of this, all the strategies currently identify priority landscapes for carbon sequestration and also strategies to increase the resilience of our agricultural land—so through things like fostering soil health that looks at increasing ground cover and also improving the productivity of degraded landscapes. It also has information on looking at landscape wildlife corridors. A lot of the species further north are going to be more adversely impacted, so we are trying to look at those north–south migration corridors to allow species to adapt and disperse through the landscape with climate change.

Since launching these plans we have continued to have a strong focus and to lead the way with regional climate change adaptation and mitigation work, which Paula is going to outline in more detail. But before I do hand over to her I just wanted to outline two governance arrangements that we have currently got in place to help the CMAs work more effectively with government and communities in the climate change space. The first one is the Victorian CMA climate change forum, which was established back in 2012. This has representation from all the CMAs, and it provides a good opportunity for all the CMAs to share ideas and also learnings around climate change, adaptation work and mitigation work. They have actually developed a list of high-priority adaptation options or projects or programs that are a core focus, which Paula is going to outline in more detail. They include landscape connectivity, shared learning, local climate change adaptation planning, supporting carbon sequestration activities, building the resilience of our soils, protecting and enhancing Victoria's blue carbon and building on partnerships with key research organisations, like universities that are working in that climate science space.

The CHAIR: When you say 'blue carbon', I am assuming that is water-based carbon life.

Mr BESTER: Yes. Paula has got some more details around the work that we have been doing with—

The CHAIR: Stuff we will see.

Mr BESTER: Yes—Deakin University in particular. So that is pretty much it from me at the moment.

Ms CAMENZULI: So I am not sure if you know the history to the role of the Statewide Climate Change Coordinator. This was another initiative that was born out of the 10 CMA CEOs. They felt that in 2015 Vic Catchments—that is the chairs and the CEOs of all of the 10 CMAs—had identified that climate change was a key priority. They felt that it was so much so that they needed to support a 0.4 FT equivalent role that is dedicated purely to climate change. That is where this role was born out of. Essentially the position aims to maintain the capacity of climate change adaptation expertise across all the CMA regions and ensure that CMAs are engaged in discussions with the Victorian and Federal Governments with regard to climate change policy and opportunities for implementation of the key actions of our regional climate change strategies and plans. So that is just a bit of background to what this role is all about. The role is actually supported through funding by the Victorian Government, such as *Our Catchments, Our Communities*, so that is fantastic.

So I guess just following on from that high-level planning picture, I thought I would drill down a little bit more into more specific planning that the CMAs do with regard to climate change and natural resource management

in addition to the RCS and the climate change strategies. I have got quite a few notes because there is a lot of work that we do in this area and I did not want to miss any of it, so I hope you do not mind that I refer to these. We undertake planning activities that help our communities to adapt to the current and future potential impacts of climate change. Our work ensures that regional-scale natural resource management planning for climate change aligns also with state and local planning, so we ensure that there is that congruence there. How we do that is we are currently working with the Victorian Government to implement their *Pilot Water Sector Climate Change Adaptation Action Plan*. We are also involved with the Victorian Government in the development of the new natural environment sector climate change adaptation action plan. There is also another agriculture-focused climate change adaptation action plan, which we will be involved with as well. We are also assisting the Victorian Government with their development of regional adaptation action plans, so there are six of those that are in development around the state at the moment that align with the DELWP regions. CMAs are also engaged there to ensure that our actions also align with the new State Government plans as well.

We work with local community groups, particularly Landcare groups and friends groups, to develop climate change adaptation strategies and actions at the local level. We collaborate with local government regarding planning and flood plain management, so that is a very important area. The coastal CMAs also work with local government authorities. They have ensured they will map and are trying to include in the local planning schemes the 0.8-metre sea level rise in their upcoming planning scheme amendments to ensure that we are looking forward to potential sea level rise impacts on the coastal areas. Just recently under the new 2018 *Marine and Coastal Act* the CMAs have now become the referral authority for coastal erosion advice, so that means that we have to work even closer with local government regarding impacts on the coastal areas. We also provide flood advice under the *Water Act* to individual applicants, and that incorporates consideration of sea level rise as well, so we also refer to the 0.8-metre sea level rise projections. We also undertake local collaborative planning, which embeds climate change knowledge into on-ground actions and adaptive management, including things such as native fish recovery plans and partnering with water corporations to develop integrated catchment management plans which manage the impacts of land use on water supply. We also work with local government and other water authorities to implement best practice water sensitive urban design through their precinct and township structure plans.

Moving on more to talking about the natural environment and landscape resilience, we work with community groups and members to deal with the potential impacts of climate change—including pressure on vulnerable land, biodiversity and water assets. Some of the actions that we undertake in conjunction with community members are planting native vegetation to create biolinks, and that provides corridors of habitat that allow animals and also pollen of plant species to move through the landscape and that then helps to make our landscapes resilient. We do a lot of fencing off, as Adam alluded to—he gave some figures earlier—so fencing off of remnant vegetation, and we do that both inland and along waterways. We do that to protect waterways from stock access because they tend to pollute the waterways. Then what happens as a result of that is that we then have blue-green algae events, which then degrades the water quality and has impacts on farmers and landholders who are reliant on that water. We work with Trust for Nature to permanently protect areas of land for biodiversity, and that is through the use of a formal covenanting process. We are quite proud in the West Gippsland region of some work we are doing with some plantation companies as well around that. We have got some private industry that is now recognising that they have got natural assets within their landscapes of remnant native vegetation that they are willing to covenant, which is a first in Victoria, which is very exciting.

The CHAIR: Congratulations.

Ms CAMENZULI: Thank you. We are hoping to roll it out even further. We also work with landholders to identify and protect drought refuge areas, like areas of wetlands within their properties which are very important for bird migration and bird habitats. So that is going to become an increasing issue under climate change. We work a lot with landholders regarding sustainable irrigation. There is a lot of work that is being done across the state to modernise irrigation infrastructure, and that helps to reduce water consumption at the farm scale. As Adam alluded to as well, pest, animal and weed control is a huge focus of the CMAs and landholders.

I might defer just quickly to Adam now to talk a little bit more about environmental water because it is a passion, and Adam has a strong history in environmental water.

Mr BESTER: Some of the climate projections show that there is going to be about a 50 per cent reduction in streamflows by 2065. So I just think environmental water is a really good example of how it helps communities respond to climate change, because through the use of that regulated water entitlement we are actually making those waterways a lot more resilient and more able to bounce back in the future and respond to prolonged drought events and that sort of thing. I am not quite sure how familiar you are with the environmental water process, but our role as CMAs is to develop a seasonal watering proposal each year, and that proposal outlines the flow requirements for certain species that really rely on that water, like our fish species and plant species within that water system. But what we now do, and I will give an example from my area in the Glenelg region, is that every year we have a consultation process with the community to get their input into what they would like to see as priorities from the community point of view. So that could be: what sort of recreational events are going to be occurring along that waterway at a certain time of year that could benefit from an environmental flow release? What are the cultural values that could be enhanced?

The CHAIR: So that could be Easter because people go camping and want to enjoy the river.

Mr BESTER: Exactly. Yes, Easter. And a really good example, and I know this is coming out in the movies soon—Mullagh. We now release water for an annual cricket match. It is an Indigenous cricket match. Johnny Mullagh was in the first International test team, and he was from Harrow. We now release water there to coincide with that event, so that has cultural values for that community.

Also, it can be used for stock and domestic use. So prior to environmental water in the Glenelg system, back in 2010, that whole system was pretty stuffed really because there was no water for many, many years due to the drought. We had stagnant pools. We had communities up in arms about having no water. The communities of Casterton and Harrow had no water and that was impacting on tourism. Farmers were having to cart water huge distances for their farms, whereas previously they could access it from the river. Since putting the water back in the system, they do not have to cart water anymore when they have got direct access with the free stock and domestic rights. They have now got those cultural values being enhanced. We have now got fish species that have bounced back, and some which have not been seen in over 120 years are now coming back. Lots of recreational fish species are increasing in significant numbers, and rec fishers are really reaping the rewards from that. But also tourism as well, particularly in the towns of Harrow and Casterton. They have now got people coming to those towns and stopping because there is water in the system. I think it is just a really good example of the use of environmental water having those environmental benefits but also having those community benefits. I think in a drying climate these particular waterways are going to become increasingly important, particularly as drought and climate refuges for a lot of species and communities.

The CHAIR: Fantastic.

Ms CAMENZULI: Excellent. So now I might just highlight some of the work that we are doing regarding carbon offsetting. I know that that is sort of becoming more and more the focus of, I guess, industry, insurance companies, banks as well as landholders. We have been really active in the last few years in helping to provide information to landholders about not only the carbon benefits but also the social and economic benefits associated with planting vegetation on their properties and also protecting their soil. We have been working recently with water corporations to help them address their carbon emissions through developing revegetation program options, and that is also helping them to meet their requirements under the statement of obligations.

We have also been undertaking work to protect and increase sequestration in those blue carbon areas, as you asked about earlier. That is both in the coastal and freshwater systems. That includes the protection and restoration of mangroves, seagrasses and salt marshes on the coast, but it is also looking at protecting the inland freshwater wetland systems. So that is the term 'blue carbon'. We are doing a lot of work with Deakin University around blue carbon sequestration. This is also an area that the Emissions Reduction Fund is potentially looking at including in their market in the future.

Mr BESTER: Haven't they estimated that blue carbon can add up to about 30 times the potential carbon storage compared to vegetation?

Ms CAMENZULI: Exactly, so it is quite important, but also for the biodiversity benefits that we are trying to achieve at the same time. Co-benefits are very important to recognise.

We have also been doing some regional carbon sequestration modelling to help us prioritise those areas within Victoria most suitable for carbon offset programs, and as Adam alluded to, there are areas that have been highlighted in the regional climate change strategies.

So then moving on to another area that is very important, and that is around soil. As we know, soil is something that provides us with food, so it is very important that we try to protect it. We work with farmers to train them in regenerative agriculture techniques, which is becoming quite the buzzword at this time, but it is really just best management practice, as you alluded to earlier. It is around conserving soil that is vulnerable to really extreme weather events such as fire and flood. We encourage farmers to reinstate perennial vegetation on vulnerable soils, rather than annual vegetation, to try and hold it together. We also run training workshops to help landholders understand soil management under climate change. We also like to build understanding of those management practices that reduce greenhouse gas emissions and further exacerbate climate change impacts.

Another area that we are really passionate about is working with traditional owners. I know that this is also a very big focus for the current Government. What we do is we work very closely with traditional owners to protect their cultural sites which are vulnerable to impacts of climate change, particularly along the coast because there are a lot of middens and other very important sites that we need to protect, and that will become more important as we have impacts of storm surge and sea level rise. We have also been very proud of some work that we have done with traditional owners in a pilot project that I believe is the first one that has been done anywhere, to my knowledge: we are trying to explore opportunities to partner with traditional owners around carbon sequestration projects. There have been three very innovative landscape-scale ideas that have been born from traditional owners. They actually drove these ideas. I cannot talk too much about it because we are still working through the protection of their intellectual property at the moment, but yes, there are three fantastic ideas that we are hoping to further into the future in partnership with traditional owners.

And then we do a lot of partnerships with researchers as well, such as RMIT, Deakin Uni and CSIRO, just so that we are continually improving our knowledge base so that we can help assist communities to adapt to climate change with the latest techniques and tools that are available. So that is all about adaptation, but then there is also mitigation, so what are we doing as CMAs to help mitigate climate change? Things that we can do as individual CMAs are to undertake activities that reduce our greenhouse gas emissions. Across the state there are practical solutions that community members can also emulate if they have a look at what we are doing ourselves. We have been installing PV cells on CMA-owned buildings so that we are running on solar energy and also purchasing renewable energy, and including hybrid and electric vehicles in our fleet. We are installing energy-efficient equipment and infrastructure, and we also annually monitor our emissions. So they are all practical examples as well, and I think it is important when we are out in the public eye that we are demonstrating best practice ourselves. Rather than saying, 'Thou shalt', we are actually doing it ourselves and people can emulate that as well.

Mr BESTER: And just to add to that, Paula, we have just got a partnership with MLA. Next year in our region we are actually looking at having workshops with farmers to educate them on how they can actually reduce their carbon footprint on farms as well. So it is not just focusing on trees, it is also all about in terms of their energy usage as well.

Mr FOWLES: You are talking about their carbon footprint. You are talking about greenhouse gases generally, but methane is a big part of the story in ag.

Mr BESTER: Yes.

Ms CAMENZULI: A large part of what we do as well obviously is around that exchange of information and knowledge. Some of the things that we have done is we have helped to develop climate scenario tools which can help regional communities and land managers to adapt to climate change by using these tools; identifying climactic extremes that might impact on our local governments; we partner with the ag sector to establish adaptation pathways to mitigate climate change impact, so that is looking at, 'Under this scenario what might happen here? What action might we take now? What is a future scenario beyond that? Okay, what sorts of actions might we need to take at this stage?'. So it is like a stepped planning approach. That is what we mean by adaptation pathways.

We also share information with our community groups, in particular Landcare, climate action and friends of groups through forums, existing partnerships, newsletters and social media. We really pride ourselves, as Adam said, on partnering with all levels of government, universities and research organisations to try and help communities build their capacity.

A really important thing that was also born out of the Victorian Government—did you want to talk to this one, Adam?

Mr BESTER: Yes, you are probably quite familiar with the drought crews—

The CHAIR: Assume we have no knowledge.

Mr BESTER: Okay, no worries. For a number of years CMAs have been coordinating the State Government's drought crew and flood crew programs. This actually involves employing people like farmers and contractors on farm that have been impacted by drought or floods. For example, they may have had to destock or their crops have failed due to drought, so what we do is we employ these people to give them another source of income, so, for example, they do not have to then sell their farm or further assets. Getting back to that mental health conversation earlier, it actually helps in terms of their mental health if we are actually giving them an alternative source of income. The other benefit is that we then put them to work on natural resource management projects; so controlling pest plants and animals, putting up fences, and that gives them that alternative source of income so that when conditions improve they can then go back onto their farm.

The CHAIR: Just around that, I am just sort of thinking about that as a concept. It is a very sound concept to my mind. Obviously at the moment we have got out in your way, Paula, a large number of farmers that are suffering because of the drought. There is, I think, a fair amount of evidence around that it is likely to be a particularly bad fire season. We are going to see farming properties lost, hopefully not too many, but it does occur to me that expanding that program you have just touched on, if there are some farms lost in western Victoria because of a fire, perhaps using other farmers—and it could be from Gippsland or western Victoria or wherever else—to help with refencing and rebuilding farm infrastructure as employees could be an innovative way of supporting farming families other than just sort of a welfare kind of approach.

Mr BESTER: Exactly. I fully agree. When we had our first drought crew we got such an amazing response from our community around it that we actually decided in the future we were just going to permanently have a small works crew within our organisation that was there on hand to help out people and communities. They really came into play when we had significant fires last year in south-west Victoria. The next day after the fires we sent our crew out there on the ground, and they were dealing with a lot of mental health issues at the time and they did not know what to do, so we just had that team out there just to help them put up the fences so the stock did not wander off, that sort of stuff. We had them out there for about a month until the BlazeAid team came in and did more substantial work on the farms.

The CHAIR: Is there a possible way that the State Government could support building that program more generally across the state?

Mr BESTER: I think there could be, yes.

The CHAIR: What might that look like?

Mr BESTER: It depends. At the moment we only seem to get that program when we do get a drought or a flood. So it does take time sometimes to actually get people on the ground, to hit the ground running; there is often a delay.

Mr FOWLES: It is a reasonably safe assumption though that we are going to have a drought or a flood or a fire in any given year.

Mr BESTER: Exactly. Yes. So it could be through some ongoing support to have something like a crew program like that established so you can hit the ground running straightaway.

The CHAIR: So you do not want to see—I am just thinking out loud. This should be about supporting farmers who are on their own farms just having a bit of a challenging patch because of drought or fire or whatever and giving them a sense of employment for a period of time—for a season or six months or so. I would not have thought we would want to see this program just becoming an employee-employer relationship that is long term. I mean, this should be about picking up five farmers from East Gippsland who have had to destock and giving them a sense of some employment on farms—on other people's farms—for three or four or six months or whatever, to tide them over until they can get the next crop in or the next season started. That is what I would have thought.

Mr BESTER: You could do it. You would have to kind of work out the logistics of it—having people come and go all the time through the program—but it would be possible to do. You would have to think about travel and how far away you might actually have to house those crews as well, I would imagine. They might not want to travel significant distances, so you might have to have a number of different crews scattered across the state.

Ms CAMENZULI: I was thinking as well, if landholders are already distressed and then if you are then having to ship them off, say if they are based in Bairnsdale and then you are shifting them off to Harrow, that is a long distance away from their family. And especially if one of the threatening circumstances may be fire, they probably would not want to be that far from home. So that is probably a good point to consider—

Mr BESTER: Anyway, you could do it, but you would just have to work through the logistics, I think.

Ms CAMENZULI: Yes.

The CHAIR: It just occurs to me that it is a good way to use the skills that farmers have whilst they are having a bad season, in an environment that they are going to be very comfortable in.

Ms CAMENZULI: And I think it helped also build the relationship with the CMA as well. For example, when we had drought recovery crews working out of West Gippsland CMA they were based out of our Maffra depot, which is where I work, and it was great because they were in the tearoom and we were all having like lunch together—it is breaking down those barriers and it is having someone for them to talk to and offload to who understands what they are going through, and it just helps to strengthen that relationship with our local community members.

Mr BESTER: And we found that actually, probably not so much the farmers but the actual contractors—often young people go and work on the farm, whether they are shearers or whatever—we have had a few of those through our program, and the benefits that they have got through the program are increasing their skills, which is then improving their chance of getting ongoing employment somewhere else. And we have had one of those actually get full-time employment in our CMA. So it can help them in terms of developing the skills to get future employment.

The CHAIR: Sorry, I interrupted, but it was just an interesting point.

Ms CAMENZULI: So I guess then, some other innovative examples of what CMAs have done. There is a product that is called the south-west climate change portal. That has some really good examples of how a variety of CMAs in the south-west of Victoria are providing information, advice and tools that communities can use to manage or respond to climate change. That has been a great resource.

Mr BESTER: And that is including local government too.

Ms CAMENZULI: Some other initiatives that CMAs are involved in to support our communities include, as we have said, the drought employment programs, regen agriculture training, on-farm water management and irrigation modernisation. One real left-of-centre, innovative, real-world example that we put in our written response as well, which is worth highlighting again, was Goulburn Broken CMA, who helped to develop an irrigation energy decision support tool—that is something a little bit different to our bread-and-butter, on-ground works that we do, so I thought it was worth highlighting.

One thing that we are finding is that irrigators are increasingly switching from those gravity-fed surface water irrigation and flood irrigation systems, which use an awful lot of water and you lose a lot of water to

evaporation, and they are switching now to pressurised irrigation systems to gain those water-use efficiencies, so that is through the modernisation program. So that is great because you have got these water-saving benefits, but the downside to that is that it has led to an increase in energy consumption by using those pressurised systems. Energy, they have identified, is a major operating cost of those pressurised systems. So Goulburn Broken CMA have created an energy decision support tool, which they have called an energy calculator. What the energy calculator does is it allows an extension officer—say, from AgVic—to help that landholder to identify whether their irrigation system is functioning efficiently, what is the likely cost-benefit of improving the energy efficiency of their system overall and what components of that system can be improved to operate more efficiently. So that is quite left of centre, and I believe that is going to be rolled out even further than Goulburn Broken CMA in the future.

The CHAIR: I am just thinking through that. Obviously energy is cheaper at different points during the day, does it also reflect that?

Ms CAMENZULI: I dare say it does, but because I am not 100 per cent across the ins and outs of that energy calculator, I will probably have to take that on notice and to get back to you.

The CHAIR: We might have a bit of a look, I think. The other thing is obviously from an irrigation perspective there are better times to do it. I think doing it at 8 o'clock at night is probably far better than doing it at midday.

Ms CAMENZULI: Yes, definitely. In summary, we recognise that regional solutions are fundamental to our regional communities understanding climate scenarios and how to respond to them. We feel that the Victorian CMAs are really well placed to be that trusted voice, to have those trusted conversations with our local communities, given our long history of working with them.

I know that the main focus though of your Inquiry is around how the Victorian Government can actually help communities to adapt to climate change, so I have summarised all of the work that the CMAs do to help our communities, and to be honest, we would not be able to do that without the support of government. From our perspective the way that the Victorian Government can help is to continue to support state policies and programs such as *Victoria's Climate Change Framework*; *Water for Victoria*; *Our Catchments, Our Communities;* and *Protecting Victoria's Environment—Biodiversity 2037*, because they are all fantastic programs that assist us to do the work that we do.

The CHAIR: Fantastic, thank you for your presentation. I am sure that everyone is going to have questions. We have had quite a bit to do with CMAs as we have gone about our Inquiry in one form or another. We were fortunate enough to visit the Otway Agroforestry Network about three weeks ago now, and through that we learned about some amazing things that they are doing, including taking that landscape over the last 20 years, I think, from about 5 per cent vegetation up to, I think, 22 or 25 per cent or something like that without noticeably changing the agricultural outcomes of properties. Obviously with agroforestry the purpose is that you grow select species that are ideally placed for furniture usually, which locks up carbon and provides a sustainable cash crop down the track; it might take 30 years or something. One particular site that we visited, which literally had very, very little vegetation on it, now has a very high percentage; it is a demonstration site. That then got caught up in the Victorian native regs, which was a problem.

Mr BESTER: Oh, did it?

The CHAIR: This particular individual was able to ultimately resolve it by showing landscape photos from when he first bought the property and what was there now, but it just occurs to me that if we are going to be encouraging farmers and supporting them in taking up agroforestry practices which will see a lot more trees put into the landscape, which is a good thing in terms of locking up carbon, we need to make sure that we are doing it in a way in which in 15 years time after them introducing these trees to their properties that we are not then making it hard or impossible for them to harvest. And it just seems to me that those particular regulations and that particular example—we should find a way to get around that. What is your observation with that? What recommendations would you make to us to further support agroforestry to make sure that we are increasing trees in our landscape without putting in place inappropriate hurdles and barriers for those farmers, in due course, to harvest?

Mr BESTER: I would actually fully agree with that. I think we probably need to be able to provide a clear distinction between what is revegetation for biodiversity benefits versus what is purely for agroforestry. That probably needs to be worked out in terms of that clear distinction. I agree, you need to allow those farmers who are doing agroforestry to be able to use that timber in some shape or form in the future. So it is probably about—I would imagine that would be conversations with the department around the native vegetation regs.

The CHAIR: I do not think he got any grants, by the way, to plant on this particular property. I think he did it himself—the whole lot—and it was a mixture of indigenous natives and exotic species, with the purpose of selective logging so he is not planting and then completely clear-felling; he was selectively logging because these trees mature over different periods. I think all of us that took part in the visit were surprised at what had happened in that landscape. Sugar gliders had come back, and all sorts of wonderful things. Keep going.

Mr BESTER: No, I agree with that. We do not actually currently get a lot of funding through the CMAs for agroforestry. Most of the funding we get for sustainable agricultural work like that is through the Australian Government, through the national Landcare program. At the moment we have got around approximately $22 million across Victoria that has come in for sustainable agricultural projects. However, we do not currently have any funding that comes through the State Government around sustainable agriculture, or around that pest, plant and animal space, so that is probably an area where there could be an increased focus, because we need to do actually look at our focus on agricultural landscapes. I know sometimes there has been a barrier to get farmers on board with native vegetation programs if you do not allow agroforestry, in some cases. I think what we have been trying to do at our CMA is look at opportunities to have certain areas where it might be for native vegetation for biodiversity benefits and then have some parts of the farm set aside for agroforestry, so they continue to use that, because—

The CHAIR: Well, you can put the two together, can't you? Like, if you have got a river course, you might do 5 or 10 metres either side as a native biodiversity corridor, and then you might put rows of trees of any description on either side so you are creating a decent old corridor.

Mr BESTER: Yes. So if we were to get investment at the moment through State Government, through water programs or biodiversity programs, we cannot plant agroforestry. It has to be to a certain standard and meet certain guidelines, so that provides some restrictions around the agroforestry component from that investment source. Whereas previously, about eight years ago or beyond that, we did receive funding from agricultural programs through the State Government to do programs like agroforestry.

The CHAIR: So where we are sitting at the moment, right now, just given what you have just said, is there a bit of either a barrier or a perceived barrier in terms of increasing the percentage of our landscape under tree cover, as you see it right now?

Mr BESTER: There is always going to be—

The CHAIR: The things we can do that might encourage more tree cover.

Mr BESTER: We have got in a lot of partnerships, with a lot of farmers, with Landcare, to do a lot of revegetation, which has been quite successful, but you are always going to have some of those farmers out there where there is still going to be a bit of a barrier, or the amount of land that they have—for example, they might have actually already done a lot of revegetation on their property and do not really want to give away too much more of their land, whereas they might be more amendable to putting some of that land aside for agroforestry if they can find that they can actually get an income from it in the future. Do you have anything to add to that, Paula?

Ms CAMENZULI: I guess I just wanted to mirror what Darren has said as well. I do not think that you would be wanting to make wholesale changes to the regulations that do protect biodiversity outcomes, so I think there is a place for biodiversity as well as farm forestry, and the example you gave is a perfect one.

Mr BESTER: Providing that clear distinction between the two.

Ms CAMENZULI: Yes.

The CHAIR: This will be the last point on this before I throw to my colleagues, but right now as I understand it the Victorian Government pretty much know every single square inch of Victoria in terms of its forestry cover.

Mr BESTER: Yes.

Ms CAMENZULI: It is mapped.

The CHAIR: It is mapped.

Mr BESTER: Mapped, yes.

The CHAIR: We can look at any farm and we know exactly what is there. Is there a way in which farmers could potentially broker—it might through the CMA, or maybe we need some regulation around this—and go to the CMA and say, 'Here's the existing map of my farm. I want to do these other things on the farm. Can I just have it recognised that this is the base; and what I do from here in terms of introducing a species of trees on my property, I want you to recognise that that is all going to be harvestable'?

Mr BESTER: For the agroforestry component, you are talking about?

The CHAIR: Yes. Should the native veg regs allow that sort of capacity where they can say, 'This is what's here now. This is what I want to do, but I'm going to want to also remove it in 20 years time, or parts of it'? Would that provide for farmers some level of confidence that they can introduce agroforestry onto their properties without people then denying them the opportunity to remove that vegetation in future?

Mr BESTER: There is probably some mechanism, I think, through the CMAs. Going back to the whole-farm planning approach, a lot of the CMAs currently work with farmers to actually develop maps like this—so working out and drawing out where your threats and assets are on your property, identifying priority locations for revegetation or fencing off your waterway, for example. That is something that we already do, so I suppose that could be the opportunity through the CMAs to actually sit down, or in combination with Agriculture Victoria, DELWP and local governments, to actually work out areas that might be set aside for agroforestry. There also could be benefits in that in terms of biodiversity value, in terms of dispersal of species through the landscape as well, not just in getting money.

Ms CAMENZULI: Not just production value but also the biodiversity benefits at the same time.

Mr BESTER: Yes.

The CHAIR: You are potentially joining up remnant vegetation areas, you are creating corridors, you are creating all sorts of agricultural productive benefits like windbreaks, soil carbon and all those kinds of things, aren't you?

Mr BESTER: Yes.

Ms CAMENZULI: And even particularly, as you mentioned before in that example about an agroforestry plot that is not just a monoculture of a single species, if there is that mixture of exotics and natives and of the different storeys and ages, even whilst that is growing, that is providing habitat for creatures to live in; and then if you are only selectively thinning, it is still providing some sort of a habitat benefit as well.

Mr MORRIS: I want to go completely away from that and just ask about funding and resources because we have had evidence given without any substantiation. We have had evidence given that some programs that used to be provided are no longer being provided by CMAs, but without particular detail. Without necessarily agreeing or disagreeing with that, I was just looking back, while we were talking, through Glenelg Hopkins's annual reports over the last four or five years and note 2.21 particularly on the State Government. Obviously income from the State Government has gone up enormously in that time period, from $4.6 million and then roughly to $12.2 million. There is obviously significant natural disaster funding in the last couple of years.

Mr BESTER: Yes. We have had nearly $9 million of natural disaster funding.

Mr MORRIS: When I look at the river health subsection in fact funding has gone down over five years, but there is this other state funding of almost $3.6 million. So without getting—no pun intended—too much into the weeds, could you give us a sense of what is core business, what you can expect to be funded each year, what the escalation of those things is and what is outside that? Where are the bumps?

Mr BESTER: Yes, okay. So most of our funding that we get across the state is through Water for Victoria through the EC funding, which—

Mr FOWLES: Through the what, sorry?

Mr BESTER: Environment contribution funding. So that has been over the last 16 years. We are now in what they call the EC4 tranche. So that $222 million across the state through the last EC4 program has funded a lot of our statutory requirements now. It also funds a lot of our on-ground works programs, a lot of our fencing of waterways. It also involves a lot of our environmental water programs as well. We do a lot more work in the angler space now too, so we are doing a lot of work with providing fish habitat and that sort of stuff with our anglers. So in terms of that funding scenario, it has gone up slightly across the board from EC3, but also because we have now got another funding component called *Our Catchments, Our Communities*, which was around $22 million out of that. So $22 million out of the $222 million went to *Our Catchments, Our Communities* programs, and each CMA had one of those programs to operate. You probably want to talk to that, because you were running one, weren't you?

Ms CAMENZULI: Yes, so the focus of those projects, of the *Our Catchments, Our Communities* funding, was around integrated catchment management programs. They were not just single-focused on, 'We're just doing revegetation' or 'We're just doing water quality' or 'We're just doing fencing'; it was to look at a landscape and choose a landscape-scale project and get multiple benefits from Victorian Government funding. It has been a great model and it was a four-year commitment to funding, which has been fantastic because it has allowed us to design a really thorough and robust program for those four years that is borne out of community engagement, so we have actually got community issues and needs that have been identified up-front. Then we have designed programs and implementation plans in year one and then rolled out actions that need to be undertaken to meet the needs of the community over the remaining three years. So that model has been a fantastic tool for us as CMAs to get multiple outcomes in the landscape for communities.

Mr BESTER: So that also includes some funding under *Biodiversity 2037*—not a huge amount, but that has sort of been dispersed across the state to deliver on priorities around biodiversity. I suppose that has been mixed in terms of the amount of funding that has gone through the different regions across the state. Then the Australian Government: overall, although the funding bucket through National Landcare Program has gone down since NLP1, Victoria has done far better than any other state. We ended up with $98 million out of that program, which was a lot more than a lot of the other states, although that has gone down slightly.

The CHAIR: Commonwealth funding is quite lumpy, isn't it? Like there was Telstra money I think at one point when that was privatised, so that was a big flush of cash.

Mr BESTER: Yes, that is right.

The CHAIR: There was something else, I cannot remember. There was another asset that was I think sold which was a second—

Mr BESTER: Yes. I just came on board during the Telstra days. That was the NHT funding, wasn't it—National Heritage Trust?

The CHAIR: I think so, yes.

Mr BESTER: Yes, and there was also national action plan funding for looking at—

Ms CAMENZULI: Salinity.

Mr BESTER: Salinity. I suppose probably where the difference is over the last, say, 10 years in terms of funding is that we only get that sustainable agriculture funding, a lot of our pest, plant and animal funding, from

the Australian Government now, whereas previously that, from the State, came through the CMAs. That is probably the difference.

Mr MORRIS: If we look at this year's annual report, so 2018–19, you have got catchment planning, sustainable irrigation, river health, flood plain management, natural disaster and other state funding. Are there any of those streams that are sort of standard—so every year you know what you are going to get sort of over a decade or whatever—so you know this is going to happen every year so that is just basically locked in and it is something you do?

Mr BESTER: Yes, that has improved over the years. Previously we used to get our funding on 12-monthly funding cycles, which was really difficult, but over the last four years we have got a four-year contract with the Government, particularly from the water and catchments division, through the environment contribution levy. That has enabled us to do a lot of future planning and helps with our staffing. A lot of our funding actually goes out to community groups as well, so they want to have that reliance that they are going to have four years of funding as well. So yes, in terms of what we know, it is basically on a four-year contract with the State Government. With the Federal Government it is a five-year contract.

Mr MORRIS: Right. One final thing—you have got, as I mentioned, that other state funding, which for 18–19 was $3.36 million—more than 25 per cent of the total income from the State. So what is in that bucket?

Mr BESTER: That was advance Treasurer's payment for natural disasters. So that went—

Mr MORRIS: Right, so—

Mr BESTER: So it wasn't actually—

Mr MORRIS So virtually half of the income from the State is for natural disasters—is that right?

Mr BESTER: Just for that year, though. That was not a typical year.

Mr MORRIS: No, I understand. I am just trying to see where the lumps are. You have got natural disasters, which is $3.658 million or $3.659 million, and then you have got other state funding, which is another $3.36 million.

Mr BESTER: Yes, it is just the way that we have—

The CHAIR: Was that a flood year?

Mr BESTER: Yes, 2016 was a flood year. We have had funding over the last three years now, and we are just about to finish that program this year, in December. Part of that funding came through the national disaster funding from the Australian Government.

The CHAIR: That was Skipton flooding—was that that year?

Mr BESTER: No, it was more the other side—in the Glenelg catchments, Coleraine, that sort of area, which had a lot of erosion, heaps of erosion. Those two funding buckets together in our region were about $9 million; that is the biggest flood recovery program we have ever had in our region. There were similar programs in a couple of other areas of the state as well.

Mr MORRIS: Yes, so basically part of it is normal natural disaster funding, if you can ever say that, and the other part is TA—Treasurer's advance.

Mr BESTER: Treasurer's, yes.

Mr HAMER: I have just got a couple of questions. Firstly, on cross-border issues, obviously apart from our northern boundary, the state boundaries cross through catchments, and particularly the boundary passes right through the Glenelg River. Are there any jurisdictional issues in terms of how those catchments are managed? It would apply to a few CMAs, I assume, but particularly the Glenelg Hopkins one.

Mr BESTER: I cannot really talk for the northern CMAs. I would have to take that one on notice. But in terms of our CMA, in terms of the relationship with South Australia, there is probably not really a lot that we have to do in terms of jurisdictional boundaries. Probably the most involvement is really around groundwater management, because a lot of our groundwater systems in that part of the world actually go under the border. There are some differences in how groundwater is managed between the two states. It is going to probably be looked at as part of the sustainable water strategies around that groundwater usage, but there are some different rules that apply to groundwater management on our side of the border and the other side of the border, particularly around licensing in plantations.

Mr HAMER: I know that is just focusing on the Glenelg Hopkins CMA, but would there be areas in which trying to—not combine the regulations but—have consistent regulations would be of benefit, if something like that could occur?

Mr BESTER: Yes, that is something I would have to definitely take on notice. I am trying to think of another example. We are trying to look to work more with the South Australian Government around management of the Glenelg River in particular, because as you know, part of the Glenelg goes into South Australia. The CMAs have a role under the *Water Act* around artificial river mouth openings. So where we get to a point where water is starting to inundate infrastructure, we have to make decisions based on that infrastructure versus the impact that that might have, with a release, on safety but also on potential fish kills. So we have got to weigh up those issues. It is really well understood, particularly on the Glenelg, from the Victorian side and the Victorian community. That is not really well understood on the South Australian side. So we have got to work a lot more closely with the South Australian Government and those communities to get them to understand the importance of the management of artificial river mouth openings, because I do not think it is well understood on that side.

Mr HAMER: I just have another question. You talked earlier about the environmental streamflows and the importance of bringing some of that back, particularly in some of the communities in your catchment area. I guess the flip side of that is the water entitlements to local farming communities. I was just wondering what role, I guess, the CMA plays in that. Obviously at a national level you see the Murray-Darling Basin and there is always a lot of controversy in terms of what may have been provided in the past to farming communities. In particular you have got the irrigation district in your area and there has probably been a build-up of expectation of what they are going to receive and how some of those changes are being dealt with and what other opportunities there might be. You did mention about irrigation—

Ms CAMENZULI: Modernisation.

Mr HAMER: moving to more sustainable irrigation practices. But, yes, I am just wondering what role the CMAs might have to play in that area and what other options or alternatives there might be.

Ms CAMENZULI: Currently I can only speak on behalf of the West Gippsland CMA region, but definitely we engage with Agriculture Victoria as well and we hold forums with irrigator groups so that there is a lot of open communication between the CMA and the irrigator groups around issues regarding irrigation. Whenever we develop an environmental watering management plan we also go out and consult with the community members who may be affected by a release of a flow. So there is quite a bit of engagement that goes on with local landholders who may be impacted by environmental water. With regard to anything around regulation, that is not my area of expertise so I do not know—

Mr BESTER: Are you talking a bit more about irrigation entitlements there, Paul?

Mr HAMER: It may be irrigation entitlements or just general, I suppose, rights in terms of extracting the water. I am assuming that if you are putting down environmental flows, particularly, say, in the western district, that may necessarily mean that you are restricting, or wanting to restrict, the amount of water that can be extracted from the stream. How is that managed given sort of existing rights or just natural rights that would exist for the landholder, particularly in the context of a drying climate? If there is a desire to maintain a certain level of streamflow, that obviously means the rights that they may have now or have had 20 years ago may not be the same rights—

Mr BESTER: The same in the future.

Mr HAMER: that they will have in 20 years time, for example, and how that process is going to be managed—

Mr BESTER: I think that is something we will need to look at in the future around unregulated systems because in a drying climate the environment looks like it might be probably harder hit than diverters, so whether or not as part of the process for sustainable water strategies and that sort of thing we might need to look at: okay, in the future what are the sort of diversion rules, or whatever you might want to have, on our unregulated systems that are not going to significantly adversely impact on the environment? But then, on the other hand, when we talk about the environment, we have also got to think about the communities that rely on those river systems for their benefits.

In terms of the Glenelg, it is probably a unique example there because we also—well, we do not but farmers do—have got compensation flows. That is a stock and domestic water entitlement that was provided to them when Rocklands Reservoir was built. We actually work very closely with farmers to try and maximise the usage for their compensation flows.

The CHAIR: Sorry, just to take us back a bit, there was a proposal to build the Rocklands Reservoir. I am assuming the farmers along the appropriate stream indicated to the Government that that would take water out of the river at periods of time.

Mr BESTER: Correct, when they need it for their stock, yes.

The CHAIR: So they negotiated a permanent compensation arrangement?

Mr BESTER: Correct. I think it was around 3 gigalitres or something, depending on water availability. So to try to maximise that water to get downstream as far as possible we often get them—this is GWM Water—to release the compensation flows at the same time as our environment water entitlement so it can go further down the river and benefit more landholders, yes.

Mr FOWLES: A couple of questions: there have recently been some academic criticisms of VicForests taking out hilly—or allowing clearing of slopes over a particular incline in catchment areas. Do you have any commentary on that or a view on that?

Mr BESTER: I am not aware of that at all. Paula, are you?

Ms CAMENZULI: I guess it would come back to education in best management practice. I can only talk to working with HVP Plantations in West Gippsland, and we have got a really good working relationship with them, and through the likes of programs such as the *Our Catchments, Our Communities* funded ICM project. They are really key partners in that project where they are now recognising environmental assets that are within their managed estate, and they are looking at them differently and managing them differently now as a result of that. Therefore also best management practice would be a part of that, in them recognising that essentially. I am not saying that HVP Plantations are one of those people who are doing the practices in question, but I would envisage if a forestry company—you said VicForests, so that is completely separate to HVP. So I would say anyone who is in land management needs to consider best management practice.

Mr BESTER: There is probably an opportunity there for further partnerships and education around that, I think.

Mr FOWLES: You said that you are the referral authority on coastal erosion advice. That presumably affects about half the CMAs or something in Vic Catchments. To what extent is there technical capability to give expert advice on the efficacy of seawalls and the likely rises in sea levels and stuff? Is that actually something that the CMAs are well-equipped to be the referral authority on?

Mr BESTER: To be honest, not at the moment, and we have identified that through the transition plan arrangements. So part of those transition plan arrangements is to look at an education process and an upskilling

process for CMA staff. There are a few around the state, but we need to get to a point where we feel confident that we can then provide that referral advice. But it has been discussed with DELWP through that transition.

Mr FOWLES: In terms of artesian water, we spend a lot of time talking about what is happening over the surface, I guess. To what extent do you think we—society broadly or government—really understand the limitations of drawing from artesian water or understand the variability to the extent that there is any in the resource and to what extent we are planning properly around it?

Mr BESTER: Well, there has been some work—and I am just speaking for Southern Rural Water, who have done a lot of that work in terms of that groundwater atlas—that actually helped identify locations of groundwater and how they interact with other groundwater systems. It is not totally perfect because it can be quite a complicated system, but that has actually helped in our region to look at releasing—I think we have just released 34—licences in our region to look at tapping into the Dilwyn aquifer. So they are seeing that as an opportunity as a potential opportunity to increase agricultural production in south-west Victoria. So we are working quite closely with Southern Rural Water around that, because we are actually the referral authority for those take and use licences.

Mr FOWLES: Do you think broadly speaking, though, that we manage that like it is a finite resource? Is it managed with truly the understanding of the impacts on drawing out of artesian water supplies?

Mr BESTER: I think we are going to have to make sure we have a strong monitoring program in place. I cannot speak, because we have not technically got a sustainable irrigation district, but I would imagine in some of the other sustainable irrigation districts part of that is actually looking at modernising infrastructure to reduce water usage in those systems, although a lot of those systems do not have huge groundwater extraction. I think there is going to be significant interest in the south-west in terms of tapping into the groundwater system over our way, which I think will have to be closely monitored over time.

Mr FOWLES: Finally, just to pick up on a couple of David's points, is there any aggregate data at Vic Catchments level for how all the CMAs in aggregate—what percentage of income is derived from grants, what percentage is for drought relief and in terms of the expenditures, the amount that is going into particular programs?

Mr BESTER: That is a good point, actually.

Mr FOWLES: Presumably there is no annual report because it is not an incorporated association.

Mr BESTER: Everyone has got their annual reports. We actually produce what they call an actions and achievements report that comes out every year, and we provide those to both ministers. That does not have the amount of income for the different streams in it, but what it does have is what I mentioned before—some of those stats around what has actually been achieved, who we worked with and what are some of the case studies.

Mr FOWLES: We will certainly pick up that actions and achievements report, and we might just put on notice—it would be useful, I think, from my perspective to grab some aggregate data on what the CMAs are doing.

Mr BESTER: Yes, it is probably about two or three weeks away from coming out, actually.

The CHAIR: Just one final question, and we are running well behind. We have heard quite a lot from local government across the state in terms of what they are doing and the level of support that they would like to see in terms of climate change, particularly of course one of the consequences of climate change, which is more intense rainfall events when they occur. It seems to me from the evidence that we have heard from local government to date that the engineering thinking within councils is perhaps still reflecting stormwater movement from a historic perspective rather than a future perspective and that even within well-established communities, if infrastructure is removed because it is old and it needs to be replaced, they are just as likely to be putting in a replica of the infrastructure that served that community for a long time.

Clearly, as I say, climate science is suggesting more intense rainfall events, which is going to see more stormwater in the system when it does occur, which I suspect means we need bigger pipes, bigger drains, more

retention base and those kinds of things. I know that catchment management authorities do play a role around some of this. From your perspective, is there a need for more guidance to local government around the sort of infrastructure that might need to be put in place to make sure that private property and public property is not unnecessarily flooded, recognising that we need to look to a future not to look to a past from an engineering perspective?

Mr BESTER: In terms of the stormwater aspect, I think the best opportunity there—and there has already been some work around this through the integrated water planning process. So each of the regions have established integrated water forums, and that includes CMAs on that, but they are being led largely by water authorities, and they have got all local governments involved within those given regions. I know there have been some projects identified. I am involved with the great south-west integrated water forum, and there are a couple of projects on there that have been identified where, say—I think it might be—Southern Grampians shire want to look at upgrading their stormwater infrastructure. I think those opportunities are possible, but they will need to be working really closely with those water authorities, which may have more of that expertise, particularly around stormwater management. We have been talking to them too about opportunities, particularly in regional areas where they may not have as many skills as they do down in metropolitan areas, where we actually get a lot of these local governments on a bus trip to come down to other regions so they can see where they are actually doing it. There needs to be a lot more of that exchange between local governments and water authorities.

The CHAIR: This will be the very last question: in terms of the planning schemes that are administered by local government, it may well have been recognised that this particular area was subjected to flooding—that is, we should not be building in that particular area—but under future projections it is that same area plus something, and it seems to me that it has been the catchment management authorities that have largely had the expertise around identifying what that is.

Mr BESTER: Yes, that is right.

The CHAIR: Are you confident that there is sufficient State Government support, for want of a better term, to assist local governments in recognising what that additional bit is so that we are recognising that in planning schemes and recognising that in infrastructure plans so that we are not allowing properties to be built in areas that are going to be in harm's way, for want of a better term, without putting in place new infrastructure to ensure that they are not going to get flooded?

Mr BESTER: It is definitely an area where we are getting increased pressure, because there is more and more development that is occurring. The CMAs—and this is right across the board—have found that there is more significant demand around referrals. I think we have got the stats. It was about 10 000 referrals we had right across the state last year, which is a huge amount.

The CHAIR: What is that like in comparison to a decade ago?

Mr BESTER: I have not got the stat with me now, but it has definitely increased, and we provided that information to DELWP recently to try and kind of build a case that into the future we need to actually look at some more resourcing around that statutory water component, because it is not only that, we have got wind farm developments that are now occurring on a large scale as well, and we have to get involved with those, which takes up a lot of time. We do have the skills, but it is about just a bit more capacity in that area.

The planning thing is quite interesting and working quite closely with local governments to get them to understand and appreciate the importance of that planning. I think particularly in sea level rise we need to probably—rock walls are good but they are a short-term solution, but we have got to get to that next point where we are thinking longer term.

The CHAIR: We are talking about building a rock wall now.

Mr BESTER: Yes.

The CHAIR: Clearly over the next 100 years with perhaps a metre sea level rise—it is not like we are talking about the need to build a rock wall in 80 or 100 years; we are talking about now.

Mr BESTER: Yes, that is right. That probably might be your best solution now for a short-term measure, but we have also got to think longer term and that a lot of these areas, for example, with coastal inundation, might not actually exist, so we need to start looking at buffers.

The CHAIR: So this is Port Fairy. It is obviously in your area.

Mr BESTER: Yes, that is right. There are great examples over in Holland where they have actually just taken down the walls and let all the seawater come in. They have actually totally modified their system to have houses that float and things like that, and they have got wetlands established that are basically acting as a buffer between the sea and infrastructure. They are the sorts of things we need to start thinking about in terms of long-term planning.

The CHAIR: Fantastic. Thank you for your time. It is very much appreciated. We have run a long way over time, so we do appreciate your time. Thank you for travelling all the way from the far end of the state to come to Melbourne.

Mr BESTER: No worries.

Ms CAMENZULI: Our pleasure.

Mr BESTER: And we can actually send you last year's actions and achievements report if you like. That is ready to go.

Mr FOWLES: Yes, please. If you can send that to the Secretariat, that would be great.

Mr BESTER: Yes. Thanks.

The CHAIR: Thank you. Enjoy the rest of your day.

Ms CAMENZULI: You too.

Witnesses withdrew.