

ENVIRONMENT, NATURAL RESOURCES AND REGIONAL DEVELOPMENT COMMITTEE

Inquiry into the management, governance and use of environmental water

Melbourne — 5 December 2017

Members

Mr Josh Bull — Chair

Mr Tim Richardson

Mr Simon Ramsay — Deputy Chair

Mr Richard Riordan

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Mr Daniel Young

Mr Luke O’Sullivan

Witnesses

Dr Amber Clarke, director, waterway programs,

Ms Julia Reed, senior manager, environmental water,

Mr Joe Banks, senior manager, retail entitlements and markets, and

John Lind, senior manager, economic management, Department of Environment, Land, Water and Planning; and

Denis Flett, chairperson,

Trent Wallis, co-executive officer, Victorian Environmental Water Holder.

The DEPUTY CHAIR — Welcome to the Environment, Natural Resources and Regional Development Committee’s public hearing in relation to the inquiry into the management, governance and use of environmental water. I would like to welcome from the Department of Environment, Land, Water and Planning: Dr Amber Clark, director, waterway programs; Julia Reed, senior manager, environmental water; Joe Banks, senior manager, retail entitlements and markets; and John Lind, senior manager, economic management. I also welcome Denis Flett, chairperson of the Victorian Environmental Water Holder, and Trent Wallace, co-executive officer of the Victorian Environmental Water Holder. Welcome to you all.

The committee is hearing evidence in relation to the inquiry into the management, governance and use of environmental water. The evidence is being recorded. The hearings are also being filmed and broadcast live via the Parliament’s website. All evidence taken today is protected by parliamentary privilege; therefore you are protected for what you say here today, but if you go outside and repeat the same things, those comments may not be protected by this privilege. Amber, are you going to make a brief opening statement?

Dr CLARKE — Yes, that is correct.

The DEPUTY CHAIR — Thank you for all your submissions. They are quite detailed and quite bulky and quite large. We only have an hour dedicated to this particular session. What we have done in the past is perhaps allow some opening statements in relation to your submission and then allow the committee members to raise questions, because we are interested in getting on record obviously what we want for our report, which is due to be tabled in the Parliament next year. So if you allow us perhaps just to have short opening statements from those who wish, then we will ask questions.

Dr CLARKE — Thank you for the opportunity to present to the committee today. My name is Dr Amber Clarke, and I am the director, waterway programs, at the Department of Environment, Land, Water and Planning. As part of our opening statement we will make some quick introductory remarks and also Denis Flett, chairperson of the Victorian Environmental Water Holder, will make some statements, and we will provide a very brief response to your terms of reference. I have a range of specialists on the panel here today from both DELWP and VEWH.

Visual presentation.

Dr CLARKE — Water is vital for a healthy environment. It is essential to support the industries and agriculture that in turn support a prosperous and thriving economy. Water is also the lifeblood of our communities and supports social, cultural and recreational values. Victoria has a robust water entitlement framework established under the state’s Water Act 1989. Within this framework held environmental entitlements are considered in the same way as consumptive water entitlements. All users have the flexibility to buy and sell water, and tools like carryover provide additional flexibility for water users. Victoria’s mature system means that individual users have the confidence to invest and make decisions to meet their own individual needs.

The Victorian government has undertaken significant work since 2005 to protect water specifically for the environment. This water is referred to as the environmental water reserve. Environmental entitlements held by the VEWH are only one part of this environmental water reserve but the part that can be actively managed. Considerable effort has been made across the state to achieve a better balance of water between the environment and other users, and our framework for environmental water management is based on adaptive management and continuous learning and improvement.

Mr FLETT — My name is Denis Flett, and I am the chairperson of the Victorian Environmental Water Holder. I head a four-person commission, and we have a small staff.

The water holder is a small, independent body managing Victoria’s environmental water holdings. The success of the watering program depends on many partner organisations working together. Our role is to make decisions about whether to use, carry over or trade and to authorise waterway managers, who do the community engagement, to implement watering decisions. We also coordinate with other environmental water holders and with storage managers to maximise environmental outcomes from the delivery of all water. We commission projects to demonstrate ecological outcomes and to facilitate improvement. Finally, we publicly communicate watering decisions and outcomes.

In relation to communications, we have recently undertaken social research into what Victorians understand, believe and want to know about environmental water. Risk is adaptively managed to ensure water for the environment achieves the best environmental outcomes and, wherever possible, shared community benefits. A risk management framework addresses risk and is operationalised through well-established procedures. We have policies for our decision-making and implementation, and we annually publish an allocation trading strategy.

Dr CLARKE — Blackwater events are a natural phenomenon, and severe blackwater events are initiated by large natural floods. The delivery of held environmental water is not sufficient to completely prevent these severe events but can sometimes lessen the impact. The risk of causing a blackwater event is a key consideration in environmental water planning.

Tools, including carryover and trade, allow all water entitlement holders to be flexible and efficient with their water use. Carryover and trade allow environmental water holders to move water to where it is needed most and give them control over the timing of delivery. There are rules in place that apply to all water entitlement holders, and collectively these tools reduce the need for additional environmental water recovery.

Victoria's framework for environmental water is based on the principle of efficient and effective use, providing the best outcomes possible for the least amount of water. We also prioritise investment to ensure efficient use and delivery of environmental water in a targeted way. There are key commitments in the Victorian government's water plan to further increase the efficient use of environmental water.

Charging arrangements for held environmental water are specified within the relevant entitlement. Fees and charges can also be developed through negotiations with the relevant water corporation. Currently charges for environmental water services vary between different held entitlements and between different Victorian water corporations. They may also vary from the charges applied to other users. *Water for Victoria* commits to ensuring clear and transparent charging arrangements, and our *Environmental Water Charges Information Paper* is the first step in actioning this work. The paper can be found in appendix 1 of our written submission.

To assist the committee, I would be happy to direct your questions to the relevant panel members.

The DEPUTY CHAIR — Thank you, Dr Clarke. I should say that today's evidence is being recorded. You will be provided with proof versions of the transcript at the earliest opportunity. Transcripts will ultimately be made public and posted on the committee's website.

Thank you for your opening statements. I will open the batting order by asking a couple of questions from your submission. If you feel you cannot answer, please feel free to direct it to someone else. In the VEWH submission you outline eight blackwater incidents since 2011, noting the December 2015 event was the result of environmental watering. The question I ask is: can you outline how environmental water contributed to this event and also what lessons you have learned from that event and what changes have been made as a result?

Dr CLARKE — I will ask Denis Flett to speak to that question.

Mr FLETT — The event that I think you are referring to is the Loddon River event in 2015, a small blackwater event caused by a summer fresh, a small pulse flow — people use different language — down the river. In that incident it coincided with the hottest of the weather in that summer, and three dead carp were found. What happened as a result of the learning from that was that the importance of the summer fresh for ecological outcomes was still understood, but we made sure that it does not coincide with the hottest weather — that was the chief learning. It was repeated again in similar circumstances in 2017, and it was held much earlier and probably prevented a similar event that may have occurred. It was really in that case a shift of the timing, mainly — that was the learning. Through the risk management procedures that are in place, that gets reviewed as an incident and the learning goes back in to the procedures and the risk management planning and then it gets shared — not just in that system but across the program.

Mr RICHARDSON — Thank you very much for coming in today. I am interested in the recent rain event that we have just had and the process of the department in working with water management authorities. What is the process undertaken from the incident we had over the weekend, the eastern and north-eastern areas of impact, and how do the learnings flow through to prevent a blackwater event? Maybe you could give us an update in real time on how that is managed.

Dr CLARKE — I will ask Denis to respond to that question.

Mr FLETT — I have specifically asked Trent to prepare for this question, as it is within his management.

Mr WALLIS — The result of the rain event that we had on the weekend in terms of a blackwater event: it is unlikely that we would have a blackwater event following this event, mainly because there was not a lot of low dissolved oxygen water on the flood plains, which was the case in the previous major blackwater event in 2016. The other thing is we have also got cooler weather this week, and one of the other risk factors is warmer weather corresponding with a lot of debris on the flood plain being washed into the river — that is one of the causal factors. In terms of management and coordination in response to a black water event, it is usually the river operator, so in Victorian waterways it would be Goulburn-Murray Water for the northern part of the state and then along the Murray it would be River Murray operations, as part of the Murray-Darling Basin Authority. They would work with local agencies like catchment management authorities to monitor the situation and respond where possible.

For major blackwater events most of the management is focused around communication, because there is little that you can do in a real-time sense in terms of when you get a lot of tributaries contributing flows at the same time. Where it is localised there are some small-scale options, like the example that Denis provided, where you can provide a small-scale fresh based flow event that can alleviate the event. There are other instances where you can provide some refuge habitat, some fresher water, where native fish and other species can actually use that while the blackwater event passes. We do plan for such events. The Victorian Environmental Water Holder works closely with CMAs prior to the water year. Black water is identified as a major risk, and is factored into the planning. Then it is the agencies on the ground — our partners, the CMAs and the water corporations — that work together to provide incident management for such events.

Mr RICHARDSON — So there is an assessment prior, and the conditions leading up to that event were such that it would not be a greater risk. Is that also because it has been flushed through previously or there has been a lesser gap between recent major flooding, less organic material and matter? What is the —

Mr WALLIS — That is likely, but of course we never know exactly where a flood will occur and the magnitude of it, so it depends on where the flood was previously. So if the flood has washed a lot of that previous debris into the flood plain, that is going to lessen the impact next time, but then it depends on the scale and the magnitude of the flood. In this particular case, because this rainfall was fairly widespread and, again, there was not a lot of low dissolved oxygen on the flood plain already, the risk was less. It is also influenced by water temperatures, which are another risk as we lead into summer. So it is a combination of those factors that can lead to a blackwater event.

Mr RICHARDSON — Following on from that, one thing particularly touched on in the submission is that real tension between minor blackwater events and mitigating as you go and the major incidents, where there might have been a 20-year build-up of organic material and decomposition. How do you balance that with community expectations to allow those minor events to occur and better inform the community on some of those challenges and issues?

Mr WALLIS — One of the things that we have determined through some of the research that Denis spoke about is the need to improve overall water literacy, which is a way of better understanding the nature of these events and what causes them so that the communities can be more actively engaged in localised planning and management. But in terms of the overall scale of the event, it is probably something that the department might be better able to comment on.

Dr CLARKE — Sure. Julia, would you like to comment?

Ms REED — Could you clarify —

Mr RICHARDSON — Yes, so in the submission there seems to be a balance or a tension between small blackwater events, which is the release, potentially, of environmental water to mitigate against some of those larger scale events — that tension in informing the community on those actions being taken, I guess, to prevent some of that severe impact if you have a 20-year or 10-year accumulation of organic material that then washes through and you have got a major incident spreading over kilometres.

Ms REED — So as Trent has said and as Denis has said, it really does rely a lot on communication and being clear about what we can do and what we cannot do. We are as clear as we can be that we cannot prevent the large events, but we think we can reduce the risk of the large events. Our CMAs do work closely with the regional communities. They have got excellent contacts in there. At the moment for this event, for example, they are collecting information on the oxygen levels and so on. So we keep in good touch with our communities, particularly through our CMAs, as to what is actually possible.

There are instances where the CMAs have actively managed the waterways to prevent a smaller scale incident. Again, it is really around communication. We have done that in the Loddon; we have done that in the Wimmera. It has probably been done elsewhere, but they are the two I know about.

It is not during a flood; it is when there is not a lot of water in the river, there are predicted high temperatures and we are concerned about the fish. The CMAs and the VEWB will work with the water corps to actually deliver the water. Again it is communication. It is working with the community to say, 'There is a value here; we are releasing our water in order to protect the value'. It is important everywhere, but in the Wimmera one of the concerns is around the fish stocks. There are a couple of really valuable fishing competitions in the Wimmera at Horsham and Jeparit — big fishing competitions on the Labor Day and Easter weekends. It is good to have fish available for those, so it is very important to keep the fish in as good a condition as possible.

It is communication. It is being clear what we can reasonably do and what we cannot do, and we are very careful to make it clear that we cannot prevent these large blackwater events. The other thing that I think Trent was getting to is that this current event is quite widespread, so it is a risk. Also, because there are a lot of thunderstorms it is really patchy as to where the organic material is going to come from. It is not only derived from flood plains; it is also from private land, from paddocks — so if you are washing off where you have got a lot of livestock or a lot of growth. They are hard to predict, and we can only be clear.

Mr O'SULLIVAN — Thank you, everyone, for coming in this morning. I appreciate the time and the effort put into the submission. It was certainly extensive. I want to ask a question and I will start with you, Dr Clarke, and you can answer it or pass it on to someone else. I want to talk about the background in terms of the environmental water and its availability and where it has come from, but I want to bring that forward to current-day events. We have just had another inquiry announced into the Connections program by the minister in October in relation to the way the water is managed, particularly through Goulburn-Murray Water. Can you give me the background as to what this new inquiry is trying to ascertain? We have already had a couple of inquiries more recently and yet it has been announced we will have another one on the back of that again. What is this inquiry actually trying to undertake in terms of its outcomes?

Dr CLARKE — An inquiry into the Goulburn-Murray Water Connections program?

Mr O'SULLIVAN — Yes, the advisory panel that has been set up.

Dr CLARKE — Yes, I am probably not the correct person to answer that. I am not sure if the other panel members are. We do not have a particular specialist on the Connections program with us today, but I could certainly take that question on notice and provide a written answer for the committee.

Mr O'SULLIVAN — Okay, yes. Thank you. I will go down a different path, but it might be a similar situation. In terms of the Murray-Darling Basin plan, we know that one of the elements of the plan is in relation to a further 450 gigalitres of water referred to as up-water, which was an arrangement when former Minister Burke was the commonwealth water minister. There was a side deal with the South Australian government in terms of 450 gigalitres of additional water would be provided down the Murray River if that water could be proven to not have a negative impact on the communities from which it would come, which would essentially be New South Wales and Victoria. We know what the impacts of taking water away from productive consumption are. What is the view or the position in relation to that 450 gigalitres of water? What do you see as the status of that water and its consequences if it leaves?

Dr CLARKE — The Victorian government supports the delivery of a basin plan that balances environmental, social and economic outcomes. I understand that the 450 is a commonwealth legislative requirement as opposed to a specific requirement of the basin plan, but, as you mentioned, there is a requirement if that water is recovered that it has neutral or positive socio-economic outcomes. We certainly know from our own socio-economic studies in Victoria that there are impacts and it is being felt by the

community. The Murray-Darling Basin ministerial council has indeed commissioned EY to do some further work in this area. We have got a strong interest in looking at that EY work when it is completed. I understand it is due in late December, so once that is completed we will need to analyse the report and then make a formal position at that stage.

Mr O'SULLIVAN — So is that the intention, that the department will put a formal position in relation to whether it is possible for that water to leave Victoria and have a neutral or a positive impact?

Dr CLARKE — Well, my understanding is we would need to consider the EY findings prior to making a formal position on that 450.

The DEPUTY CHAIR — All right, thank you. I just confirm that you will provide us with written information in relation to the question.

Dr CLARKE — Regarding the Connections Project, yes.

The DEPUTY CHAIR — Yes, the Connections Project and the advisory board's work.

Mr YOUNG — I just want to start off by saying I do not envy any one of your jobs, because dealing with the governance of water is an absolute pain. So yes, you can keep them!

In terms of carryover, which is something that I have tried to get my head around more recently, I just wanted to ask you a few questions. Forgive me if what I am saying seems somewhat simplistic, but it is difficult to ask questions without having an intricate knowledge of it. I will possibly make an assertion, so feel free to correct it if it is wrong. We have just had this big rain event. We have got a lot of water; possibly a couple of reserves will fill up more than they normally would without a big rain event. A lot of our rivers et cetera have had flows down them that would have been taken by environmental flows, and those environmental flows may not go ahead now because it has already happened through naturally occurring events. As a result the environmental water holder may hold water over for next year as carryover. How do we balance what the environmental water holder holds as carryover with next year's projected use of irrigation water and other forms of water use?

Dr CLARKE — I will ask Joe to respond to that question.

Mr BANKS — If I may just say a little on the carryover rules themselves to start with. Carryover allows entitlement holders to choose not to use the allocation they have in one year and carry it over in the storages for use in the next year. It is allowed subject to rules set by the Minister for Water, and the essence of the rules are to protect the inflows that will come in the following year to protect allocations to all entitlement holders. Hence in the major systems in northern Victoria these rules essentially say that if you choose to carryover water and store more than your entitlement, you will wear the risk of the storages spilling rather than the inflows to support allocations spilling. If those spills occur, it is everyone who is storing more water than their entitlement that spills a share of that. I think that the essence of the protection for all entitlement holders if people choose to carryover is assigning that risk to people who have carried over rather than to inflows that support allocations. Denis may wish to add more about how the environment makes decisions about whether to carryover and whether to use. I guess the framework is what seeks to provide those rules to protect the allocations for everyone else.

Mr FLETT — I think one of the important things in response to your question, Mr Young, as well is that carryover applies to our held or managed environmental water, but the recovery of water for held environmental water sits on the bottom of the foundation that was already in place and that includes the unregulated water — water that could not be captured by the structures and the dams et cetera — and spills from storages as well. That foundation is really important, because it was a basic foundation on which water recovery would occur. I think that is the first important element of it.

What we are basically trying to do with managed environmental water is very simply put back some of the flow regimes that the harvesting of large dams have taken away, typically in the winter and spring periods. As a result of the large dams and the harvesting, which have brought fantastic economic benefit, the spills tend to occur much later. You get those flows later than they would have occurred naturally, and that is really what we are trying to address with managed environmental water. And from the Commonwealth Environmental Water Holder's point of view — and all of their entitlements basically were consumptive entitlements or the

equivalent — the mechanisms that sit with carryover, like the ability to return flows if you put it onto a flood plain site it comes back to release flows into a river that was unregulated, those changing operations and the protection of the natural flows once they are in the river are all incredibly important.

We use the carryover, like other entitlement holders would, to really look ahead at the foreseeable demand to smooth out that discrepancy in supply and demand across wet years, dry years, in the season you are in and in the season thereafter. Sometimes one of the considerations is to actively consider that we want to reduce the risk of spill and the loss of water, like all others. I think there is an important figure in our submission which actually compares the environmental water holder carryover in total with irrigation carryover with water corporations which are representing urban demand. While there will be some variations, particularly in the irrigation sector, which is the biggest, they all actually carry over pretty much exactly to a one percentage point equivalent to the entitlements that they actually hold. The delaying of use to try to create a spill has never been a part of the decision that we have made.

We use carryover particularly to ensure those winter-spring flows. Sometimes if it is extremely dry and the resource is low, we are looking at survival and those aspects. In others, in the case of a wet winter, we are actually trying to build to get what it would look like at a high natural flow during winter or spring and to do that early in the water year so in that sense if the water is used at that time it does create storage space and means that inflow can be allocated across entitlements.

Mr YOUNG — Great. I do have more questions on carryover, but in the interests of time I will move on to something else. With the process for environmental water allocation, obviously you guys sit at a very high level. My understanding is that the catchment management authorities put together proposals, they come to the environmental water holder for approval, you sign off, allocate the water and it flows down from there. Excuse the pun. The information that you guys have and base your decisions on would also be at a very high level. What is the actual criteria that you use to allocate who gets water and where it goes, because we are looking at a number of benefits — there are environmental benefits and, of particular interest to me, recreational benefits. How much of that do you look at? Do you rely on the catchment management authorities' advice or do you actually have information coming up from the bottom, from the local users?

Mr FLETT — Thank you very much for the question. It is a really important one. One of the most important tools that we have used, and it has got much better since the first year of the environmental water holder to now because our partners have really developed, is we collaboratively prepared guidelines for the proposals which the catchment management authorities in Melbourne do. We incorporate learning from the previous year. Then we incorporate those proposals after the local engagement, after the review of what has happened previously, after all that multi-year planning that they have done locally, and we publish it and put it in our seasonal watering plan. This is the basis for all of our decision-making, and what we are trying to do is to envisage every possible decision that we may have to make regardless of what Mother Nature throws at us.

Scenario planning has now become a well-developed standard tool where we look at the technical basis of probability of inflows et cetera so that we are trying to envisage all of what may happen. What we have discovered in recent years is we can go from very wet to very dry and stay that way very quickly, and we can go the opposite way very quickly, sometimes sort of unseasonally by comparison. In terms of the prioritisation, that local planning and prioritisation is done by the managers, and is site-based, or river-reached based out there in the regions, as it should be. Our perspective is to make decisions from a statewide perspective. Most of the time the priorities identified locally get implemented unless, as you said before, natural flows or Mother Nature does the job that we do not, because we can only add to what is already in the river or negotiate with the river operator to change that. Sometimes it is changed by using consumptive water en route and we might underwrite additional losses. There will be a conservative assumption and we might not have known about that until it was proven as to what that was. But sometimes our decision-making is bigger than just in the regions of the CMAs; it is across the four regions of the sustainable water strategies — in the north, where we negotiate into the southern Murray Darling Basin, the western region, central and Gippsland. We have actually taken decisions sometimes in the six full years to set the priorities on that basis. We sold water in northern Victoria and we purchased water and put the first environmental flow over Werribee weir. We actually used water from the Yarra to initiate a flow in Barmah forest, because we can do that by substitution. We have moved water from the Yarra, where demand for the foreseeable future was covered, to support ecological outcomes in the Thomson.

I think we came about and were created as a small organisation, firstly, in response because the commonwealth had a Commonwealth Environmental Water Holder and it would have been very difficult to coordinate with four catchment management authorities versus one, and secondly, because of that statewide perspective. When you think about it, outside the department we are the only statewide body with an operational role in water and catchments in the state. What we can do from a statewide prioritisation — and I think it is one of our strategic initiatives — is to get better at prioritising at that regional landscape scale, because we have got very good bottom-up processes, we are given criteria that we must consider in our decision-making, and then in the northern region and in the basin, the Wimmera part, there is that big top-down overlay of the basin plan with its very descriptive targets and what it wants to do.

Really we think there is improvement which will take quite a while to get through, and we are getting experience every year into how to differentiate between how important particular outcomes are region by region.

Mr YOUNG — Just very quickly, will the particular outcomes attempted to be achieved in each environmental watering action be contained in that document?

Mr FLETT — Yes. In fact if there is a watering action that emerges, and it is not covered in the seasonal water plan, we have to vary the plan before we can authorise that.

Mr YOUNG — But that actually contains the objective?

Mr FLETT — It does indeed. Yes, it does. It is a very objective site-based built up aspect, so the objectives are outlined. I am happy to take you through that.

Ms REED — Could I just add a little bit to this, Denis. I am sure you would have if you had remembered. You mentioned recreational values. So while the view is to make sure the water is delivered to achieve the environmental objective, where it is possible the water will also be adjusted to provide a recreational or a social outcome where it can, with the primary objective still being for the environment, but things like the water can be held in a weir pool to provide the right flows for a rowing regatta or delay a fresh so people can get in for a fishing competition. So that sort of thing is done, and it is reported in the VEWH's document.

Ms HALFPENNY — I think in the opening statement, Mr Flett, you referred to research about what people expect from environmental water. Could you expand a bit on what were the results of that research?

Mr FLETT — Yes. I will explain the purpose, and I will get Trent to just give a brief summary of some of the key findings, which I think will answer that. The purpose for which we undertook the social research was to have a really solid basis of understanding of what Victorians understood, believed and wanted to know about water for the environment. It has resulted in a change of language. I would have said environmental water, but we found that people did not understand what that meant. So water for the environment is better understood. But the purpose that we did it was to update our communication and engagement strategy, which, to pick up on Julia's point, is not just about the ecological outcomes but also about those who benefit from healthy waterways, where the watering program can make a difference, to understand what their interest is and to really fully understand that. It is about empathising and understanding. The findings came back with a few surprises generally and a bit of an insight into water literacy generally, and we want to use that to improve the way we engage with people who have an interest in the program and the broader waterways. Perhaps, Trent, you can focus on just a couple of the key findings.

Mr WALLIS — Yes. It was a statistically relevant and significant survey. It involved about 1344 people surveyed across Victoria, which is one of the largest surveys in relation to community perceptions about environmental water.

Ms HALFPENNY — Sorry, is this public, by the way, as well?

Mr FLETT — We can provide the findings.

Mr WALLIS — Yes, definitely. Importantly it highlighted that to increase acceptance there has to be greater understanding. What it actually found is that there was fairly limited understanding throughout the broader community. There were some slight regional differences, but overall there was a fairly limited understanding. What we found too is that, particularly in relation to language, the complexity of environmental

water jargon and the use of language in terms of how to manage water is potentially a barrier in terms of support and engagement of the community, so it is important that we now look at how we can improve the way that we explain it. We found that changing the language could help — for example, even subtle things like instead of the term environmental water, using water for the environment — because there were certain segments of the community that did not actually readily understand what environmental water is.

Ms HALFPENNY — Were these the surprise outcomes?

Mr FLETT — That was one.

Mr WALLIS — These were some of the surprises, yes. That is a clear example. There was also some information on common terms that we might use that were not readily understood, terms like high flows, concepts that we need to better explain in terms of how we can embrace and get communities more involved. What we also found too is that there was probably a large segment, about 64 per cent, that we essentially call ambivalent. They were not supportive or negative towards the environmental water program, but if they had the right information they could get more involved and more supportive of environmental water and more broadly its management and use.

Mr FLETT — And two-thirds wanted more information, which was interesting.

Mr WALLIS — There were 26 per cent of people that were really positive and supportive of the program. What it has highlighted is that there are some areas where we can look at targeting our communication and engagement to get people more involved, particularly in terms of local communities working with catchment management authorities in terms of the planning of environmental water use, but also at a statewide level as well in terms of how we engage with peak bodies and particularly user groups that will really benefit from environmental water. So it was really important and useful research.

Ms HALFPENNY — Thanks. It would be good if we can get that too.

Mr WALLIS — We will be able to provide a copy, yes.

Ms HALFPENNY — So my next question is not related to that, or I suppose it is in a way. When we were in Shepparton the evidence we heard was still talking about the idea of blackwater and that if you used environmental water in a managed and controlled way, this could then result in something a bit like controlled burning. It stops the big catastrophic event. I think in the submission that you put in you were saying that is not actually the case, that doing this in a controlled way — minor flooding, I suppose — does not necessarily mean that the bigger blackwater events will be avoided. Have I read that right?

Dr CLARKE — I will ask Julia to respond to that.

Ms HALFPENNY — Okay, because if that is the case, I suppose the evidence we received in Shepparton was sort of contrary to that, saying that if we did the controlled blackwater events it would actually help. We also heard that farmers do not agree that you do this on private land because they believe it is going to cause even bigger problems. I guess there is the example of the Loddon River where some stock died. Is there enough evidence now to say exactly what is right and what is wrong? Like climate change, we still have a few people who are sceptics, but overall the science is that climate change is real. Is it the same situation with blackwater and how it works or not?

Dr CLARKE — I will ask Julia and then the water holder to comment on that.

Ms REED — We can always learn more. We know a lot about blackwater. We have, for example, a blackwater predictive model along the Murray flood plains, which our CMAs routinely use to determine risks from applying environmental water. In terms of the big natural events, we do believe that we can reduce the severity of the big natural events by that kind of planned burning approach that you were mentioning. The difficulty of course that we have is that we cannot flood the really high elevations of the flood plain forest. We do not have that volume of environmental water, but also we cannot push it way, way up into the high elevations of Barmah forest. However, we can do a lot, say, with environmental works. For example, at Gunbower forest we have got our environmental works projects, so we can effectively flood the area of forest that would be inundated by a moderate flood — a 30 000 to 40 000 megalitre flood — in the Murray, but we

can do it when the river is at normal regulated conditions. Without flooding regional communities we can inundate the forests and remove the organics, so we do believe we can reduce the severity.

There always will be blackwater though. There is always going to be organic material entrained, and there will be tributaries, for example, where we cannot deliver environmental water. You can only deliver the held environmental entitlements if you have got a storage to deliver it from. So when you have the unregulated tributaries, you cannot just clear the organic stuff off those. When that builds up after a drought it is a problem. That happened in Seven Creeks, for example. There was a big high flow at Seven Creeks a year or so ago. A localised but quite nasty little blackwater event occurred, and the CMA were all over that and looking at mitigation. So we cannot prevent it entirely. We do believe we can reduce the risk. We cannot push environmental water way up into the higher levels of the flood plain, but we can help with our environmental works programs, where we can mimic a flood event without actually requiring a flood in the river.

Ms HALFPENNY — And you can do it in a controlled way, not to the detriment of farmland?

Ms REED — That is correct, where we have the environmental works.

Ms HALFPENNY — Although there has been one where that did occur.

Ms REED — I think that you are referring to the Loddon one. Yes, we have learnt a lot since then. We have got a far better grasp of the relationship with temperature, and also paying a lot more attention to the build-up of organic material. As Denis mentioned earlier, now the releases are made in cooler weather, and the CMAs consider this before ordering. But also, as I mentioned earlier as well, the CMAs have effectively used environmental water — it is not a flood — to freshen up that water so you do not get the blackwater event. The thing with a big blackwater event is we cannot release environmental water anyway when there is a big one occurring because you have already got a flood in the system, and you are not going to put environmental water on top of that and cause more flooding. Just to be clear, we do have a policy in Victoria of not flooding private land without landholders' consent, so we are not going to put our environmental water over paddocks and clean them.

Dr CLARKE — Do you want to add something there?

Mr WALLIS — Yes, I do. I really just wanted to clarify that point that the Loddon incident resulted in the death of three carp. There were no stock involved.

Ms HALFPENNY — Oh carp! I thought you said carbs. Sorry, okay.

Mr WALLIS — No, carp.

The DEPUTY CHAIR — We covered that off in a question to Mr Flett earlier.

Mr RIORDAN — In these submissions and many of the submissions we have heard, the increasing role of science and the data of knowledge that we have and so on are increasingly becoming important in managing all this, particularly with the climate change scenarios factored over the top. Just as an aside, the Bureau of Meteorology on the weekend — we referenced it earlier — put out huge, cataclysmic disaster zone warnings all over the countryside. I was wondering, when we have that level of information going out, are they liaising directly with you and does that further complicate how you might manage at this time of year when obviously irrigation water and other waters are being moved around the system anyway? When that information is not coming through as perhaps accurately as it needs to, does that cause complications and does it have perhaps season-long implications if it gets completely out of whack?

Dr CLARKE — Perhaps I could speak very briefly at the state level and then hand over for an operational comment to VEWH. Our regional agencies are always prepared to respond to a potential flood event, for example. Under the emergency management framework in Victoria there is a very set process that they would go through if they needed to set up —

Mr RIORDAN — You are part of the EMV protocol?

Dr CLARKE — We are part of those arrangements, yes, but not part of EMV itself. The agencies, if they have that information coming through, will put into place some preparedness arrangements: do they need to set

up an incident control centre and start monitoring the actual flood level information as it comes through? We have also invested in new predictive modelling tools that help better predict real-time levels of floodwater. Maybe I will hand over to Denis to talk about the more operational elements.

Mr FLETT — I think the important thing is that the water for the environment program does operate in the context of regulated river systems. The site to be watered is either in the river or is a wetland that can be reached from the river. The prime agency is really with the water corporation assigned as the management of the dams, the management of the structure, the river operator. They importantly have this neutral role of storage or resource manager, where their job is to operate that river system to maintain the integrity of the entitlements for all entitlement holders and to take into account asset integrity, the supply to the entitlement holders and the service they provide their own utility customers. Flood mitigation fits in as one of those after you have looked after the safety of the asset — what is happening downstream you are trying to mitigate. So they are forever watching, and their jobs as operators are to do that. Our catchment partners are doing that and we are doing that because, as an entitlement holder, if you are going to optimise, you need to understand: is your demand going to change, is your supply going to change and does that change our current action? To pick up your point, should we be anticipating this and communicating it and cancelling orders?

The operationalisation of that came out of the risk management framework. We responded to a public policy action in the Victorian waterway strategy. Actually the minister wrote to us and said, ‘We want you to deal with this action and clarify the roles and responsibilities in terms of the risk of delivering environmental water’. So these things now are progressively documented — what the river manager will do and what the catchment manager will do — because the agencies that work together have different staff in different locations. Sometimes a person from Field and Game will be authorised to operate a structure, and that would be captured down there in the roles of who does what.

I think part of the answer to your question is that science and the ability to forecast what might happen are incredibly important. I think this is where a potential area of improvement is. As we get better at anticipating, it is better to be alerted and aware and prepared than to have an event occur that has really bad outcomes and people feel as though they were not alerted. So I think erring —

Mr RIORDAN — I guess I was reflecting on almost the tragedy of Queensland a few years back where there was this debate about letting water go. Obviously there are flood mitigation purposes in our storages, so if you are going through a cycle of quite full storages, then you lose control. So do you let it go? In which case if the rain ends up downstream, you end up making the problem even worse, so I am just wondering how connected you are into that process.

Mr FLETT — We are very connected because the calling and the management of the held environment or the entitlements fits into that context, and for the storage operator there will be certain rules about whether you are passing flows or how you manage flood releases. We have got to understand, as do our partners, whether we should cancel our order, because that is typically what happens in an irrigation system. We are really just trying to irrigate the ecology and get ecological productivity, like irrigated agriculture is pursuing agricultural productivity. So the water in the river is the culmination of all of that and the river has to be managed as a whole, but our part in that, through our partners, is to say, ‘Hang on, if we’ve got natural flow events coming here, we don’t want to be having to manage the environmental water there. Let’s cease that before that happens’.

Then there is a shift from an environmental water outcomes point of view, because it is not just all about timing and how big that is; it is often about duration, which is incredibly important. If you are trying to fledge nesting colonial waterbirds or vegetation that needs inundation, then you need to prolong it. So coming in after the events like that, after the peak has been passed downstream, after waters have probably been cancelled, mitigation has occurred to the extent it has, we may want to prolong some of those things. So our thinking goes from, ‘What are we doing in the absence of the storm?’ to ‘What do we do afterwards’. Is there benefit that we can add in that regard? It is the river operators who are the ones who have their fingers on the pulse. They are the ones managing the assets or making the decisions as to whether a structure does or does not get operated. We fit in in that sense as a customer, as an entitlement holder, wanting a particular use of our water from the storage. We are prominent because when you aggregate us compared to individual consumptive entitlement holders we look big.

Mr RIORDAN — The follow-on question is: as we all know, science is never perfect and it is not without complications with all the best knowledge that is sitting there. There are changes to legislation that is going through Parliament at the moment, which is seeking to create a much stronger Indigenous overlay to the way we manage water and the environment. I am just wondering what complications or further sorts of management issues that will bring about and how the various organisations plan to manage that. What extra is that going to add to the way we manage for environment or manage for ecology and how you see that fitting in.

Dr CLARKE — Perhaps I can make a brief statement at the state level and again hand over for operational to Denis —

The DEPUTY CHAIR — Can we just make it brief if you do not mind because we are going to have to go around the table a couple of times. We have 10 minutes and we just want to get as much on record as we can, so if you would not mind keeping it reasonably brief. Thank you.

Dr CLARKE — Sure. The legislative amendments that you referred to are strengthening the consideration of social, recreational and cultural values under the Water Act, so there will now be a new requirement that those values are considered in both the regional waterway strategies and the sustainable water strategies — so really important water planning documents for the state. Another amendment that will be made to the act is that VEWH, CMAs and water corporations will be required to consider social and recreational opportunities in undertaking their functions. It is not a new function per se, but they need to start considering those values as part of everything they do in their business. I will hand over to Denis.

The DEPUTY CHAIR — Can I just quickly ask: does that mean consultation with the different Indigenous communities where they are located near a waterway? Before any action to be taken does there have to be a consultation process with the Indigenous communities?

Dr CLARKE — There is a combination of things. If, for example, a catchment management authority was going to do some works near a waterway, they would need to look at who was the registered Aboriginal party in that area and potentially do a cultural heritage plan before any work started. But then there is a broader scope as well. We are really saying, ‘Any time the catchment management authority, VEWH or water corporations are going to embark on major planning works or monitoring, traditional owners should have the opportunity right from the beginning to sit at the table and be part of that decision-making’.

Mr FLETT — We ran a statewide stakeholder forum a couple of months before the last state election. It happened to be titled ‘Shared benefits’, and the conversations were dominated by recreational and cultural use of waterways. This relates to environmental water and traditional owner connection to country. The two dominant voices in the room were recreational users, particularly recreational fishers, and traditional owners. Since that time we have been actually planning and reporting on exactly those two aspects and incorporating it into our planning, and the catchment management authorities and Melbourne Water are increasingly incorporating that into the proposals as well.

We realise that water for the environment is water for everyone and we are serious about that, and the government has told us that while we are primarily about ecological outcomes, we must wherever and whenever possible also seek shared benefits, which really is the goal of water resource management — getting the optimal benefits for society, public and private good. So from our point of view, to pick up the question, it is already incorporated but the information on which we can plan and report will increasingly get better the better the engagement occurs, both at local level and then at statewide level, where we can complement that across people who have interests that go well beyond the regional boundaries.

The DEPUTY CHAIR — I am just going to flag that I want to ask a question about the proposed royal commission in South Australia that the Premier is talking about in relation to the 450 gegalitres that Mr O’Sullivan raised. That is going to be my finishing question, so I am just giving you notice that I am wanting a response on that on the record. I will just quickly whiz straight down the list. We have about 7 minutes. If we could have a quick response, just allowing each committee person to raise a question if they wish.

Mr O’SULLIVAN — Just a quick one. In terms of the overall scope of water in Victoria, which obviously has an impact on the issues we are talking about today, there was some work done in about 2012 in relation to

undertaking a complete review of the Water Act for Victoria, which may have had an impact on this space. Can you tell me what the status of that is at the moment?

Dr CLARKE — The government has put forward a range of new amendments to the Water Act and we just spoke briefly about some of those, so stronger consideration of the cultural and social objectives and strengthening some of the requirements around sustainable water strategies and regional waterway strategies.

Mr O'SULLIVAN — What about the rest of the review that is underway?

Dr CLARKE — Those are the amendments that I can speak to that I know the government are pursuing in this round of Water Act amendments.

Mr RICHARDSON — I just have a quick question about fees and charges, and just a light touch on what led to that review and where are we up to in terms of those assessments of fees and charges?

Dr CLARKE — I will ask John to speak to that question.

Mr LIND — I suppose the first piece of work is to put together that information paper that we have attached to the submission. I suppose that is in recognition that the fees and charges arrangements for environmental water are quite complex and they are built into, at least for held environmental water in particular, and very much determined by the entitlements and the clauses and conditions in the entitlements, so they are the main driver of the charges.

The action, I think, is a very important one, though, in recognition that there is a need for greater clarity and transparency around charges. That action in *Water for Victoria* provides for DELWP and water corporations to start working on improving on the clarity and transparency around them.

Mr RICHARDSON — What are the time lines for that consultation with the wider community? Where are we up to in that sequence?

Mr LIND — We do not have a particular time line. The information paper that was prepared was in acknowledgement that work would commence but also with the understanding that this committee's work was proceeding, so we have not commenced consultation. In fact it will be up to the government to decide how that review and the consultation proceeds.

Ms HALFPENNY — Just a follow-on from the fees and charges, the Victorian Farmers Federation say that the water dues and charges are inequitable, that farmers pay more and that environmental water users pay less. What do you say to that? Is that correct? There might be good reason why it should be like that because it is social use, but is that a fair assessment?

Dr CLARKE — I will ask John to speak to that question.

Mr LIND — Sorry, could I have that question again?

Ms HALFPENNY — We have a submission from the farmers federation, and they argue that the charges are inequitable. I guess there seems to be a perception that environmental water users pay less and that that is unfair.

Mr LIND — I think the point about fairness is that it needs to be seen in the context of the conditions that are in the environmental entitlements — the clauses and conditions are there. Most of those have been set really after a period of consultation and I suppose in development of those entitlements over quite a long period of time. So fairness is seen in the context of those negotiations and consultations.

I think the other thing to recognise is that those charges apply to held environmental water and there are other forms of water for the environment for which obligations and so forth are applied and for which investments have been made and funding agreements have been made. Denis or Trent might have additional comments to make about those sorts of arrangements.

Dr CLARKE — I guess the level of service can be very different between users as well, and that is often a key reason why the charges vary between different users. Perhaps Denis might speak about interruptible supply as an example.

Mr FLETT — Yes. Certainly we are not like an irrigator in an irrigation district holding capacity shares to guarantee delivery, as we have a level of service that is called interruptible supply, and sometimes that is because if we are putting water into wetlands, it is not as critical to the day as the irrigation supply onto a crop that needs it at a particular time. If we are filling a wetland, we can usually alter the demand to fit in. In that sense it may mean that if there is congestion in the delivery system for too long, it can affect the level of service, and the same thing can happen with the delivery of water in rivers. I am sure my colleague at the commonwealth level would see that that is something at times that is expected to change if there is congestion. In fact in their own policy initiative — I think they referred to it as ‘good neighbour’ policy — they sometimes say, ‘Can we give so others can get the level of service which is more critical?’. So those considerations do mean that there are different levels of service, and as John indicated —

Ms HALFPENNY — And therefore a different level of charges?

Mr FLETT — Yes. It really sometimes needs clarity around what is the obligation for the planned environmental water so that we can then have the conversation with water corporations about the actual service. We are still really a young discipline learning a lot — six years as an organisation. I think we are learning, but we have realised that if you go back to the journey — and I think Mr O’Sullivan raised the question of the history — it is not that long ago that we did not have well-defined rights to water at all. It has taken a couple of decades to convert and define those. There are a lot of regulatory instruments. It is complicated; Mr Young made that point. One of the actions I think in *Water for Victoria*, 8.1, is that down the track a bit, when the time is really sensible and efficient to do so, to consolidate some of those instruments into one so you do not have to read a dozen instruments to fully understand the rules. So as it grows up, there is a complexity and therefore we get misunderstandings sometimes just because of that complexity.

The DEPUTY CHAIR — Thank you, Mr Flett. Back to the question that I originally proposed to you, a question without notice, or actually a question with notice. I have been involved with the national water plan going back to Howard’s \$10 billion plan, I have been through the Murray-Darling Basin Authority and I have been through the Victorian government’s Water Act 2007, so I have actually been party to a number of changes for separation of land and water. We are doing a regional council inquiry at the same time, which has had a significant impact on dry land farms that originally had water entitlements on them, so we have made some significant changes. But we still have South Australia declaring that it is being robbed of water. So you have got the Commonwealth Environmental Water Holder, you have got the Victorian Environmental Water Holder and there are certain agreements in relation to preserving some environmental water to create the flush to allow some lakes to be replenished down in South Australia. So we have not overcome all those issues that have been with us for a long, long time.

The question I pose is that Jay Weatherill has indicated, ‘Yes, we’re going to have a royal commission’, which probably sounds great in an election campaign, but what does it actually mean with respect to the impact we might have in preserving our own security of water, which is high compared to the other states, and significant preservation of environmental water for a range of uses which we have talked about? What might be the consequence of a significant inquiry into how the Murray-Darling Basin plan distributes its water — to us, Victorians and to the environment? Let us try to keep to the reference in relation to the environmental water holder.

Dr CLARKE — Would you like me to start with the royal commission question?

The DEPUTY CHAIR — Sorry, Dr Clarke, we have 1 minute.

Dr CLARKE — Okay, sure. The Victorian government would look very closely at any proposal that South Australia puts on the table for that royal commission, but without other states taking part, particularly New South Wales and Queensland, there may be a question around how fulsome the answers could be from that commission. We have not yet seen the terms of reference or any of the legal details of how that royal commission would be established, so we would have to make a fuller position at that time. More broadly, for the basin plan, Julia might like to make a comment following the other inquiries. Sorry, could you just clarify the second part of the question?

The DEPUTY CHAIR — I was just wondering whether through that commission process there may be subpoenas — who knows how that investigation or inquiry might go. What impact might that have on the current position that the states have agreed on in managing the basin plan and what impact might it have on our own security of water here in Victoria? I know it is a broad question.

Dr CLARKE — I think we would have to wait to see the terms of reference and the legal details before we could make a position on that.

The DEPUTY CHAIR — Okay. No-one else wants to comment? Can I thank you all very much for your time this morning. We do appreciate the work that went into the whole-of-government response submission. As Mr O’Sullivan said, it is very detailed and we do appreciate it. Thank you.

Dr CLARKE — Thank you for the opportunity.

Witnesses withdrew.