



COMMONWEALTH OF AUSTRALIA

# Proof Committee Hansard

## SENATE

ENVIRONMENT AND COMMUNICATIONS LEGISLATION  
COMMITTEE

**Water Amendment (Restoring Our Rivers) Bill 2023**

(Public)

TUESDAY, 31 OCTOBER 2023

CANBERRA

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**ENVIRONMENT AND COMMUNICATIONS LEGISLATION COMMITTEE**

**Tuesday, 31 October 2023**

**Members in attendance:** Senators Davey, Grogan, Hanson-Young, Payman and David Pocock

**Terms of Reference for the Inquiry:**

To inquire into and report on the provisions of the Water Amendment (Restoring Our Rivers) Bill 2023

## WITNESSES

AMOS, Councillor Rob, Chair, Murray River Group of Councils.....	87
AURICHT, Ms Rosalie, Chief Executive Officer, Renmark Irrigation Trust; and Member, South Australian Murray Irrigators [by video link] .....	10
BAUMGARTNER, Dr Lee, Private capacity.....	84
BEASLEY, Mr Richard SC, Commissioner for the River Murray, South Australia .....	1
BLACKER, Mr Daniel, Deputy Inspector-General, Inspector-General of Water Compliance.....	26
BREEN, Mr Ryan, Director, Water Policy, Intergovernmental and Governance, .....	
Environment, Planning and Sustainable Development Directorate, .....	
Australian Capital Territory Government .....	65
BRUCE, Mr Ben, Acting Chief Executive, .....	
Department for Environment and Water, South Australia [by video link] .....	72
CHAFFEY, Mr Jamie, Chairperson, Country Mayors Association of New South Wales.....	87
CHRISTESEN, Ms Linda, Water Policy Manager, Ricegrowers Association of Australia .....	78
COOPER, Mr Paul, Secretary, Australian Water Brokers Association [by video link].....	94
CUSACK, Ms Gabrielle, General Manager, .....	
Government Liaison and External Stakeholder Engagement, Murray Irrigation Limited.....	94
CUSH, Mr Ian James (Jim), Chair, New South Wales Irrigators Council .....	10
DEEN, Mr Yuseph, Chief Executive Officer, .....	
New South Wales Aboriginal Land Council [by video link].....	20
DUNCAN, Mr Leslie (Phil), Private capacity [by video link].....	20
FEUERHERDT, Mr Craig, Vice President, .....	
Australian Water Brokers Association [by video link] .....	94
FREAK, Ms Christine, Policy Manager, New South Wales Irrigators Council [by video link].....	10
GRAFTON, Professor Quentin, Private capacity.....	58
GRANT, the Hon. Troy, Inspector-General, .....	
Inspector-General of Water Compliance [by video link].....	26
HOGAN, Ms Natalie, Lawyer, Environmental Justice Australia .....	43
HOLM, Mr Malcolm, Water Committee Chair, National Farmers Federation.....	78
HOOPER, Mr Frederick Arnold, Chairperson, .....	
Murrwarri Peoples Council of the Murrwarri Nation [by video link] .....	20
JONES, Mr Brett, Chief Executive Officer and Managing Director, .....	
Murrumbidgee Irrigation Ltd [by video link] .....	94
JORDAN, Mr Dan, Director, Water Security, Policy and Planning, .....	
Department for Environment and Water, South Australia [by video link] .....	72
KELLY, Rachel, Chair, Basin Community Committee [by audio link].....	39
KINGSFORD, Professor Richard, Member, .....	
Wentworth Group of Concerned Scientists [by video link].....	49
LINDSAY, Dr Bruce, Senior Specialist Lawyer, Environmental Justice Australia.....	43
LOWIEN, Mrs Zara, Interim Chief Executive Officer, .....	
National Irrigators Council [by video link].....	10
MADDOCKS, Professor Simon, Chair, Primary Producers South Australia [by video link] .....	78
MAGIN, Mr Matthew, Chief Executive Officer, .....	
Country Mayors Association of New South Wales [by audio link].....	87
MARTIN, Mr Andrew, President, Australian Water Brokers Association [by video link] .....	94
MARTIN, Ms Caren, Chairperson, South Australian Murray Irrigators [by video link] .....	10

## WITNESSES

<b>McCALMAN, Mr Ron, Chief Executive Officer, Murray Irrigation Limited [by video link] .....</b>	<b>94</b>
<b>McCARRON, Mr Greg, Chief Executive Officer, Central Irrigation Trust [by video link] .....</b>	<b>94</b>
<b>McLEOD, Mrs Jennifer, Policy and Communication Manager, .....</b>	
<b>Coleambally Irrigation Co-operative Limited [by video link] .....</b>	<b>94</b>
<b>MILLER, Ms Claire, Chief Executive Officer, New South Wales Irrigators Council .....</b>	<b>10</b>
<b>MOGGRIDGE, Associate Professor Bradley, Member, .....</b>	
<b>Wentworth Group of Concerned Scientists .....</b>	<b>49</b>
<b>MORTON, Mr Jeremy, Chair, National Irrigators Council [by video link] .....</b>	<b>10</b>
<b>MURRAY, Mr Michael, General Manager, Cotton Australia Limited [by video link] .....</b>	<b>78</b>
<b>O'TOOLE, Mrs Samantha, Mayor, Balonne Shire Council.....</b>	<b>87</b>
<b>OWEN, Mr Peter, Director, The Wilderness Society (South Australia) [by video link].....</b>	<b>33</b>
<b>PITTOCK, Professor Jamie, Member, Wentworth Group of Concerned Scientists .....</b>	<b>49</b>
<b>RAGG, Mr Warwick, General Manager, Natural Resource Management, .....</b>	
<b>National Farmers Federation [by video link] .....</b>	<b>78</b>
<b>RATTENBURY, Mr Shane, MLA, Minister for Water, Energy and Emissions Reductions, .....</b>	
<b>Australian Capital Territory Government .....</b>	<b>65</b>
<b>SPEED, Mr Julian, Chief Executive Officer, .....</b>	
<b>Coleambally Irrigation Co-operative Limited [by video link] .....</b>	<b>94</b>
<b>STEINFELD, Dr Celine, Director, Wentworth Group of Concerned Scientists .....</b>	<b>49</b>
<b>STEWARDSON, Mr Michael, Chief Executive Officer, One Basin CRC .....</b>	<b>84</b>
<b>THOMPSON, Professor Ross, Councillor, Biodiversity Council [by video link] .....</b>	<b>33</b>
<b>VANDERZEE, Mr Michael, Water Policy Analyst, Wentworth Group of Concerned Scientists ..</b>	<b>49</b>
<b>WESTON, Councillor Adrian, Mayor, Campaspe Shire Council.....</b>	<b>87</b>
<b>WHEELER, Professor Sarah, Private capacity [by video link] .....</b>	<b>58</b>
<b>WRIGHT, Ms Fiona, Acting Deputy Director-General, .....</b>	
<b>Environment, Water and Emissions Reduction, Australian Capital Territory Government .....</b>	<b>65</b>

**BEASLEY, Mr Richard SC, Commissioner for the River Murray, South Australia****Committee met at 09:01**

**CHAIR (Senator Grogan):** I declare open this hearing of the Senate Environment and Communications Legislation Committee's inquiry into Water Amendment (Restoring Our Rivers) Bill 2023. I begin by acknowledging the owners of the land upon which we meet and pay my respects to elders past, present and emerging. Before the committee starts taking evidence, I remind all witnesses that in giving evidence to the committee, they are protected by parliamentary privilege. It is unlawful for anyone to threaten or disadvantage a witness on account of evidence given to a committee and such action may be treated as contempt. It is also a contempt to give false or misleading evidence to a committee. The committee prefers evidence to be given in public but, under the Senate's resolution, witnesses have the right to request to be heard in private session. If a witness objects to answering a question, the witness should state the grounds upon which the objection is taken and the committee will determine whether it will insist on an answer, having regard to the ground on which it is claimed. If the committee determines to insist on an answer, a witness may request the answer is given in camera. Such a request may of course be made at any other time. I now would like to welcome Commissioner for the River Murray, South Australia, Mr Richard Beasley. I understand information on parliamentary privilege has been provided to you.

**Mr Beasley:** Yes, it has.

**CHAIR:** I might start off by asking you to give us the headlines of your perspective on the bill.

**Mr Beasley:** What I have suggested in my submission is that the bill needs to be looked at in proper context. There are layers to that context. The first part of context is statutory. The Water Act, unarguably, because it says so, is an environment-first, science-only piece of legislation which requires an environment-first, science-only Basin Plan. In the same context, because this parliament doesn't have legislative powers over our rivers, for the basin plan to be constitutionally valid, it has to be seen to be faithfully implementing various environmental treaty obligations. Having said that, the Basin Plan is still a compromise. The Water Act doesn't require an end to irrigated agriculture or other consumptive uses; it requires that we stop taking water at the point where we start damaging the environment, so it's a compromise between productive use of water and saving our environmental assets.

A core part of the Basin Plan was determining the environmentally sustainable level of take, which feeds into basin wide sustainable diversion limits and the individual sustainable diversion limits for the various water resource plan areas. They were not lawfully determined, and you need to look at the bill in the context of that. You don't need to rely on me saying the Basin Plan wasn't determined unlawfully; you can rely on Bret Walker AO SC. In his royal commission report, if anyone cares to read it, at key findings 5.1 to 5.7 he explains why the Basin Plan wasn't determined lawfully and hence isn't, as we speak, recovering enough water for the environment to be lawful or probably even constitutionally valid. That's the first part of context—that you've got to see this bill.

For the second part of context I'd refer to—and I hate to talk in figures, but we're forced to—we had a 2,750 plus 450 gigalitre plan, which became 2,750 minus 70 because of the northern basin review, which leaves us with a 2,680 on a yearly average gigalitre plan plus 450, of which 26 has been recovered. But it's important to remember, as part of context, of the 2,680, 605 is part of the SDL adjustment for the supply measures. I won't repeat what I've said in paragraph 17 of my submission, but, because of the reviews that the MDBA had done about this SDL adjustment, which relies on environmental equivalency, which relies on an ecological scoring method, there are real doubts about the scientific validity of that part of the plan. What I've said in my submission—what I've been saying for a long time—is there should be a separate independent review about the science about that. I can't see why that wouldn't occur, given what the review findings are on the 605 gigalitre adjustment. It's not as though it's a small amount; it's more than Sydney Harbour every year. Again, you don't need to rely on me; Mr Walker and his royal commission report described this whole part of the plan as a massive 'gamble' with the environment for which there is no statutory warrant under the Water Act.

What does that leave us with, sitting here today? It's a plan that, in round terms, is 2,080 gigalitre plus what's meant to be this extra 450, of which we've recovered 26. If you then—and I've set this out in paragraph 15 of my submission—look at the scientific reports about what that level of water recovery will achieve, 2,080 plus 26 has never even bothered to be modelled. The CSIRO and the MDBA didn't start modelling until 2,400 gigalitres. And, if you actually look at those reports by the CSIRO, the MDBA, the Goyder Institute, take your pick of any defensible science, very few of the ecological targets they set—not what I set; they set—are met at 2,800

gigalitres, and you really don't get what they say are the flow rates to achieve the ecological responses that they say are needed until you get to about 3,200 gigalitres.

That's the context in which you've got to see this plan, in my submission. If this bill gets through, perhaps in some modified form, and actually allows the recovery of an extra 450 gigalitres, then that's a step in the right direction. It's a step towards lawfulness, a step towards constitutional validity and a step towards getting closer to the targets that the scientists tell us are needed for water recovery to meet the bare minimum of what the Water Act requires.

Having said that, I appreciate there's a very controversial part of this bill about what are called 'buybacks'. You shouldn't listen to me about buybacks, save for one thing: it seems odd to me that an Australian that owns a water entitlement should be prohibited from selling that to their government on a volunteer basis for environmental purposes. Having said that, impacts of buybacks are in the germane of best economics, not a mere lawyer like me, but I would encourage you to consider the most recent independent report the MDBA commissioned by Professor Wheeler and others.

What I've set out in paragraph 21 of my submission is a distillation of what I think are the findings of all the good, peer-reviewed, defensible economics about the impacts of buybacks, and in paragraph 22 I've referred to the Wheeler et al report of 23 June 2023, which is called *Identifying the water-related economic values of the Murray-Darling Basin and rating the quality of water economic studies*. This is a peer reviewed report. Professor Wheeler and others have analysed all of the various economics reports done in relation to the impacts of buybacks and have graded them—good, mediocre and very indifferent. But I think a fair summary of the literature is what I've set out in paragraph 21 of my submission. That's all I'd like to say about that. I do concede: I'm not a hydrologist, I'm not an ecologist and I'm certainly not an economics expert.

There's one further important thing I'd like to say in answering your question. The Productivity Commission interim report came down this morning. I commend it to you, and I know you'll all read it. It needs to be read in context as well, but there are a couple of important things in the report that I think make the case for passing this bill irresistible. I'll just mention them briefly and give you some page references. Hopefully, the PDF copy I've got is the same as yours. On page 14 the Productivity Commission deals with the 605 gigalitres. To put this in context, many of the supply measures aren't even finished, some aren't even started and many aren't implemented. The MDBA is estimating, of the 605 gigalitres, about a 315 gigalitre shortfall. What the Productivity Commission is recommending is:

The Australian Government should not wait until reconciliation to progress, develop and implement other options. To do so would further delay Basin Plan implementation, risk increasing costs to taxpayers and prolong uncertainty for Basin communities.

The Australian Government should develop, without delay, a renewed water recovery program which includes staged, voluntarily purchase of water entitlements.

I want to come back to another part of this report, but, stopping there, that's the Productivity Commission saying, 'For the 315 gigs, start buying it.' Put in proper context, that's what should happen for the 450. I say that for this reason: the Productivity Commission—and this is not a criticism—isn't analysing the Basin Plan for lawfulness. It's not part of their remit. The Productivity Commission is not looking at the Basin Plan from the point of view that we're already starting with this unlawful plan, as Walker found. What it recommends for the 605, in terms of staged voluntary acquisitions of water to make up whatever the shortfall is—315 or whatever—should apply to the 450. To make that good, further, page 15 of the Productivity Commission report deals with the 450 and actually references this bill. It says:

The additional 450 GL/y cannot be delivered within the existing budget, and recovering this volume of water by 2027 (the timeframe proposed in the Restoring Our Rivers Bill) ... The Bill proposes that water purchases be allowed to contribute to the target. This is a positive step;

You don't need more, in my submission, to know that that's telling the Australian parliament: pass this bill. It might be in a modified form. There might be some amendments, but it's saying, 'Pass this bill now.' This is a 262-page report. I haven't had time this morning to read through it all. I note, as economists will, it has some warnings about buying water too quickly and affecting the water markets. That's not my domain. I accept all that. It does say, 'Get the 315 first and then worry about the 450.'

**CHAIR:** What's your perspective on that?

**Mr Beasley:** My point about that is that's the Productivity Commission—no criticism—not looking through the context of an unlawful plan. I'm looking at the Basin Plan through the context that it wasn't done according to best science. The water recovery target is too low. The 450 needs to be recovered as quickly as possible because of that unlawfulness context, which is not the lens through which the Productivity Commission will look at

things. It's not remitted to them to address lawfulness. I am. We shouldn't have a statutory instrument of the Commonwealth parliament that is probably unlawful and risks constitutional invalidity. That should be fixed. That's why I say that I completely endorse what the Productivity Commission has said about this bill being a positive step to recover all of the 450, perhaps, through voluntary purchases. I completely endorse what they've said about voluntary purchases to recover the gap in the 605, but my preference is—for reasons I've already outlined—that it be referred off to a truly independent scientific review, because the science looks—I use a layperson's term—'dodgy'—if I can call it science. It's not actually science. That's how I read the Productivity Commission report. Having not considered all of it, at least in the highlights it's a very big endorsement for the bill in some form or another.

**Senator DAVEY:** I'm pleased that you raised the Productivity Commission report because it links to some questions I have for you based on your submission. The Productivity Commission report does recommend pushing recovery of the 450 back to focus on recovering the shortfall of the 605. It acknowledges and it says:

Some of the environmental benefits of this additional water are also contingent on the delivery of constraints easing projects, which are five to 10 years from delivery.

Given these factors, it makes little sense for the Australian Government to rapidly pursue the 450 GL/y target when a significant shortfall in the Bridging the Gap target is expected.

In your submission, particularly at paragraph 15, you mention that all the reports and the focus on flow rates—using your terminology—though other people say flow targets—

**Mr Beasley:** I think it's other people's terminology.

**Senator DAVEY:** However, without relaxing constraints, with those flow targets—and I hark back to the 2012 report on relaxing constraints on the 3,200 gegalitre recovery—only 13 of the 18 ecological targets can be achieved, so how do you justify a dogged pursuit of an extra volume of water that is actually not delivering the environmental objectives or outcomes envisaged?

**Mr Beasley:** I can easily justify it. The reason is that constraints is a red herring. You referred to the 3,200 gegalitre—I don't suggest for a moment we shouldn't be pursuing constraints measures—

**Senator DAVEY:** I would posit that all that of the riparian landholders along the River Murray would be completely offended by your comment that constraints is a red herring. These people have just been flooded out, including across South Australia, and the farmers along the Murray Bridge, next to the South Australian government levy who got flooded out, don't think constraints is a red herring.

**Mr Beasley:** Whether or not they're offended—and if they are offended, of which we don't have a survey yet—that is not my intention. What I was trying to say in my answer was that constraints is a red herring for this reason: you referred to the 3,200 gegalitre constraints-free report. That's just the point. That modelling was done on a 3,200 gegalitre plan. We don't have a 3,200 gegalitre plan. We have a 2,080 gegalitre plan. So 450 extra to the 2,080 has got nothing to do with the modelling that was done in relation to that constraints report you mentioned. Constraints is just used as an excuse for 11 years not to recover the 450, so I disagree.

I'm also slightly offended that you refer to the flooding that's occurred. The flooding that occurred has got nothing to do with the basin plan or me. The flooding that occurred was a natural event. It's very unfortunate that we had such an unregulated river that caused hardship and damage for people. Nobody thinks otherwise, but it has got nothing to do with the Basin Plan when it rains that much.

**Senator DAVEY:** I'm not saying that the Basin Plan contributed to the flooding, but what a lot of people, including a lot of those riparian landholders, are seeing is a series of flow targets that was put into a Basin Plan model prior to 2010. That model has not been revised or reviewed. You talk about using science only, and best science, but we are now using science that is 15 years old.

**Mr Beasley:** But your argument is based on a 3,200-gegalitre plan. We don't have that.

**Senator DAVEY:** But, with the flow targets within that plan, the people living in the basin are very concerned that those flow targets will lead to exacerbated flooding. I know and accept that there are ecologists who say there is a reason for that, but, without dealing with constraints and without protecting landholders' livelihoods and public infrastructure, there are significant concerns.

**Mr Beasley:** I agree entirely, and we will eventually have to deal with constraints, but that will be at the point where we're at a 3,200-gegalitre plan. We are so far away from even getting close to that—

**Senator DAVEY:** I want to bring—

**Mr Beasley:** that we will never—sorry, I'm still finishing my answer. I don't mean to talk across you, but I'm still finishing my answer. We will never get a lawful plan that does any good for the environment if constraints

are held up as a stop sign, always, for recovering extra environmental water. I repeat: I am not challenging, because I'm not qualified to challenge, anything in a scientific report of the kind we've just been debating—the 3,200-gigalitre constraints report. What I'm just pointing out, as a matter of sheer obviousness, is that we have a 2,080-gigalitre Basin Plan at the moment, with no possibility of progressing the extra 450 and with a dodgy 605,. We will never get more water for the environment, which is needed, if constraints are always held up. The point is that the 450 added to 2,080, or some of the 450 added to 2,080, isn't getting within a bull's roar of 3,200.

**Senator DAVEY:** I want to bring you to paragraph 7 of your submission, where you quite rightly say:

... the essential task the Act sets for the drafting of the Basin Plan is the determination of "Environmentally Sustainable Level of Take ...

**Mr Beasley:** Yes.

**Senator DAVEY:** That is also commonly known as the SDL. If all of the valleys and river zones are currently operating within that environmentally sustainable level of take, is there a requirement to pursue continued water recovery? In your legal opinion, which takes primacy: the water recovery target, which is a schedule of the Basin Plan, or the environmentally sustainable level of take, which is a requirement of the Water Act?

**Mr Beasley:** No. What your question is directing me to, essentially, is what's in section 12 of the submission of the New South Wales Irrigators Council. Do the rest of the senators have that? What's been suggested there at section 12 on page 15 is this point. It's asserted that the bill is unnecessary because:

The Basin Plan's objective to implement Sustainable Diversion Limits ... is now already in place and being complied with. This is the result of 98% of water recovery targets completed ...

Just pausing there: you need to do some maths to get to this 98 per cent. What I think is being argued is that we have a 2,680-gigalitre Basin Plan: the 2,750 minus the 70 for the Northern Basin Review. If you go back to page 5 of this submission, what's suggested is that we are only under-recovered by 46 gigalitres of the 2,680. What's suggested is, looking at SDLs, we've recovered 2,634 of 2,680, which equals 98 per cent. There are a couple of problems with that.

**Senator DAVEY:** Can—

**Mr Beasley:** I'm still answering. I'm allowed to.

**Senator DAVEY:** I know you're still answering, but you're straining to—

**CHAIR:** Senator Davey!

**Mr Beasley:** No, this is your question.

**CHAIR:** Just let him answer the question, and then we'll go to your next question. You've got another good five minutes left.

**Senator DAVEY:** Okay.

**Mr Beasley:** The argument about 98 per cent is based on this—that the 605 is a done deal. It's a big tick, when we know that many of these projects aren't even commenced let alone implemented, and there's a 315 gigalitre shortfall. The next problem with the argument is that it assumes 2680 is the right figure anyway. I don't want to go back to Mr Walker and what I said about his royal commission report and that being a woefully inadequate figure and not done according to science. I'm sorry, the argument about 98 per cent makes no sense to me, and it shouldn't be accepted.

**Senator DAVEY:** I wasn't talking about the water recovery and the water recovery target. I was talking about the environmentally sustainable level of take, which under the modelling in the Basin Plan was determined to be, I think, off the top of my head, about 10,033 gigalitres per year. If all of the basin states are operating within that 10,033 gigalitres per year—they're not exceeding extractions above that—are they operating within the law under the Water Act and the Basin Plan as it stands, notwithstanding your argument that the Basin Plan is illegal?

**Mr Beasley:** I have no direct knowledge of anything you're saying to me. The figures I've been mentioning about the environmentally sustainable level of take are, first of all, a determination about how much water has got to go back into the system for environmental purposes. As a matter of the statute—that is, the law—section 23(1) of the Water Act says the long-term average SDLs must reflect that ESLT. That's the point of view I'm coming from.

**Senator DAVEY:** That's right. The SDLs are the sustainable diversion limits—

**Mr Beasley:** Yes.

**Senator DAVEY:** as in, how much water can be taken from a valley or from the whole basin in any given year. There are formulas that go to how that's calculated.



**Mr Beasley:** Yes.

**Senator DAVEY:** If the valleys or if the states are not exceeding that sustainable diversion limit they are operating within the Water Act and, potentially, further water recovery, which was an assumed difference which is in a schedule of the Basin Plan, doesn't need to be pursued, because the states are not exceeding their sustainable diversion limits.

**Mr Beasley:** I think we're at cross purposes, but in the end none of this is of central relevance to me, because I take the view—I can't say it again—that the plan itself was determined unlawfully, so all of the figures about the ESLT in my view aren't accurate. They're not done according to the Water Act, so we're still in unlawfulness territory no matter what else is happening.

**Senator DAVEY:** On that proviso, are you advising the government that employs you, the South Australian government, that they should be challenging this?

**Mr Beasley:** I'm not sure I'm employed by the South Australian government. I have a contract. The advice I've given to the South Australian government is that—I'm just repeating what I've already said—the Basin Plan wasn't determined lawfully for the reasons that I've expressed in my submission, that this bill needs to be seen in that context and that's why recovering this 450 gigalitres through the means provided for in this bill is a good thing and a step in the right direction.

**Senator DAVEY:** I am happy to hand the call over.

**Senator HANSON-YOUNG:** Mr Beasley, thanks for being with us today and for your strong defence of the need for us to understand the context by which the original plan was put together. You talk about it being a compromise.

**Mr Beasley:** Yes.

**Senator HANSON-YOUNG:** I put it to you that this amendment bill is a further compromise.

**Mr Beasley:** It's not perfect. Firstly, it doesn't have a target for the 450. Secondly, for the reasons I've explained in my submission, I'm a bit worried about some of the wording changes about relating the recovery of the 450 to the objects of the act overall rather than the objects of the part that the 450 is in, which is—

**Senator HANSON-YOUNG:** That's 86AA?

**Mr Beasley:** 86AA(2). As the law stands, and there's no proposal to amend this, the 450 is designed to achieve all of those environmental aims in 86AA(2), which are the salinity levels in the Coorong, for flow rates discharging salt out of the Murray mouth et cetera. It worries me when you start altering words back to the objects. The objects of the act of course talk about environment, social, economic, as you'd understand. But the ESLT is defined only by environmental criteria, which is why 86AA(2) is only about environmental criteria, because, if the 450 is part of the overall sustainable level of take, then it has to relate to environmental criteria. So I'm worried a bit about that and I'd recommend against changing that wording. I think, in relation to a guarantee about acquiring the 450, it should be done relatively quickly, because, as I've been at pains to say, we've got this unlawful plan at the moment. Australia is better than that. We shouldn't have an unlawful plan.

I'm not suggesting for a moment in saying that economists in the Productivity Commission shouldn't be listened to about any negative impacts from buying water too quickly. But, again, that's a matter for them and not for me.

This bill says nothing about where the 450 will be recovered. Again, ultimately, that is a matter for science, as to where the water is recovered, but it has to be targeted at achieving those 86AA(2) enhanced environmental outcomes we discussed. I haven't seen anything that gives me comfort, for example, that you could recover some or all of the 450 in the northern basin and achieve those aims. If there was some robust, defensible, peer-reviewed report that said, 'Yes, Richard, we can recover a certain amount of this water from the northern basin and it will still be playing its role in achieving the 86AA(2) aims,' I'd go, 'Fine.' I'm a lawyer, not an ecologist or hydrologist et cetera, but I haven't seen anything that gives me that comfort.

That's not to say, though, as a separate matter, that recovering environmental water in the northern basin isn't a good idea for the environment of the northern basin. We've all seen what's happened to the Darling-Baaka River, which has been treated like a gutter to be pumped from. I don't want that to happen to the Murray. I'm very sympathetic to people who made submissions about the ecological condition of the northern basin. I don't disregard them. To people that have witnessed or lived on the Darling/Baaka River and seen those fish kills and, leaving aside the fish kills, the ongoing degradation of that river, I'm totally sympathetic.

**Senator HANSON-YOUNG:** In relation to that particular point, the original plan was a compromise. We then had real environmental flows—real water recovery—cut. There was The Northern Basin Review, which cut the environmental flows to be recovered by 70 gigalitres. Is that something we should be trying to —

**Mr Beasley:** Yes, totally.

**Senator HANSON-YOUNG:** reverse in order to deal with the issue you've just mentioned in terms of the northern basin?

**Mr Beasley:** Bret Walker, in relation to The Northern Basin Review, made many similar findings. It's chapter 10 of the royal commission report. In the key findings, it's on pages 62-63—10.1 to 10. 6. I think Mr Walker's main concern about the northern basin review is that it was done in such a non-transparent fashion that it can't possibly amount to science, science being something that is transparent and can be tested, where other scientists can look at it and say, 'You're right,' 'You're wrong,' 'You might be right,' 'You might be wrong.' It was done in such a strange and non-transparent way that he had no faith in it. I'd better be accurate in terms of what his findings are; he said all of what I just said. He said, the reduction of the SDL by 70 gigalitres is unlawful, so that's pretty definitive.

**Senator HANSON-YOUNG:** Here we are amending a bill, a plan. Surely as we've been presented with that, we should be at least trying to make that part less unlawful.

**Mr Beasley:** We should. Sorry—you should!

**Senator HANSON-YOUNG:** Then we go to the 605 gigalitres. You've talked a lot about that. When you look at a bunch of the submissions we've received for this inquiry, most of those SDLAM projects that are to contribute to the 605 are non-existent or not on track, the reason being—

**Mr Beasley:** Some of them, yes.

**Senator HANSON-YOUNG:** The whole reason for the bill is because they're not.

**Mr Beasley:** Yes.

**Senator HANSON-YOUNG:** I'm not making that up. The whole reason for the bill is that we're not going to reach the—

**Mr Beasley:** No rational argument against that.

**Senator HANSON-YOUNG:** No. We have submission after submission, from irrigators, council, even the New South Wales government, saying that even the blown-out deadline as supported in this bill is not enough.

**Mr Beasley:** Yes.

**Senator HANSON-YOUNG:** So aren't they just doing what they've done for the last decade?

**Mr Beasley:** Yes. Well, I think it's worse than that.

**Senator HANSON-YOUNG:** They're saying: 'Oh well, we didn't meet the 30 June 2024 deadline. We've done everything we can not to meet that,' and now they're already flagging, in the debate about this bill, that they're not going to meet the new deadlines. They're not going to work towards it and they're not going to be prepared to meet it.

**Mr Beasley:** Sure. Can I make a further observation about that, though? I've been at pains to say I'm not an economist or a hydrologist or an ecologist et cetera. But, by the nature of my job, I've obviously read more expert reports than I care to mention. I have had to cross-examine experts, pretending that I'm as expert as they are in their field. I do know that particularly ecological climate science based experts are incredibly conservative in the language they use. When science reviewers have reviewed this 605-gig part of the plan, they've used wordings like 'large aerospace', 'significant uncertainty and risks', 'lack of robust providence'. That is a scientist's way of saying, 'This stinks.' That's a scientist's way; not a layperson's way. If those words were used about the Saturn 5 rocket to get to the moon, there's no way those astronauts would be getting in there because that's saying that rocket's going to blow up before you even finish the countdown. That's the polite language of scientists that are calling for an independent review, so, yes. But we've pretended for 11 years that this 605 is in the bag. It's crazy.

**Senator HANSON-YOUNG:** Yes, in the bag and now we're being told in the bag well past the dates this piece of legislation is even proposing. That brings me back to the Productivity Commission's report today. The Productivity Commission is saying that, even under these new rules, it doesn't feel as though these objectives are going to be met, unless we actually buy back the water.

**Mr Beasley:** It's certainly recommending a water recovery program for voluntary purchases of water entitlements for the 605 and also—

**Senator HANSON-YOUNG:** For the 450.

**Mr Beasley:** as I read before, saying it's a step in the right direction for this bill to have that capability for the 450.

**Senator HANSON-YOUNG:** When we look at the need to make some of these things a bit more robust, we see what's happened over the last decade. We tried to find every which way not to recover the water. I am worried that the legislation as we have it now does not give those guarantees by 2026-27—2026 for the 605, 2027 for the 450—that we're not going to get there and that we're going to be confronted with exactly the same proposition. Surely we need some guarantee in this legislation that we're not just going to see history repeat itself.

**Mr Beasley:** I think the South Australian government in its submission has asked for a guarantee of recovering the 450. I don't disagree with that, but all I would say about that is that I acknowledge that I don't want to be heard to be suggesting I'm an expert in what can happen to water markets if you recover 450 immediately. Now, say this bill gets passed and there are four years to recover the 450; I don't know what happens to water markets if you take four years to get the 450, but obviously it would be a different impact than if 450 were recovered in a week, if that were possible. The other thing I have no knowledge of and so won't pretend that I do is how many willing vendors there are out there. Someone probably knows, but I don't. No doubt there are some, and I know there are, but what that amounts to in terms of a volume of water, I don't know.

**Senator HANSON-YOUNG:** I suspect no-one does.

**Mr Beasley:** I think there is a register—

**Senator HANSON-YOUNG:** of interest?

**Mr Beasley:** Yes. But I haven't seen it and haven't talked to anyone about it.

**Senator HANSON-YOUNG:** You've said to us from the beginning that we need to put this in context and this was a compromise. That's a polite way of saying the science is shoddy. It was a political compromise.

**Mr Beasley:** Oh, I see what you mean. Yes. When I said 'compromise', I meant that the Water Act calls for what I'd call a 'proper compromise' between environmental recovery and growing food and fibre in the basin et cetera. You're talking about, I think, the compromise that ended up with 2,750, which was totally wrong and unlawful. That's the compromise that Mr Walker has referred to, where, whatever else happened, the figure had to start with a '2' regardless of the science.

**Senator HANSON-YOUNG:** Yes.

**Mr Beasley:** That's, in layman's terms, a 'dodgy compromise'. The can the Water Act, beautiful piece of legislation, calls for a 'proper compromise'.

**Senator HANSON-YOUNG:** Yes. The context of all of this, of course, was that this was off the back of the millennial drought. Communities either were living through or had just experienced some of the harshest elements of low inflows. We're about to sign off on a piece of legislation without guarantees in it, and we're heading back to El Nino. As parliamentarians, there must be some way that we take some responsibility for making sure there is an adaptation or review mechanism for this, because who is to say in four years' time we won't be back where we were, where the salinity levels in the lower lakes are hyper, where below lock 1 there's no flow?

**Mr Beasley:** I might be being brave in saying this, but I think that, ultimately, when we get to the pointy end of climate change, we might all end up on the same page. But, before we get there, one of the criticisms Mr Walker had of the MDBA when it originally put the Basin Plan together was that the CSIRO told you that you had to incorporate climate change projections into it and actually said that, if you didn't do that, it wouldn't be scientifically defensible as a plan or a choice, and they didn't do that. That should have been done. That's another reason he found the Basin Plan to be unlawful. With or without a Basin Plan, if the climate scientists are right, all of us, but particularly the parliament, are going to have to do a hell of a lot of work about structural adjustments, adaptation and making what will be, if the projections are right for 2050 or 2070, some pretty difficult decisions about whether towns can be saved or parts of the environment have to be sacrificed. It's going to be pretty horrible. I assume that work's being done. It's not really part of the Basin Plan. The Basin Plan should incorporate climate change science into its determination of the environmentally sustainable level of take because, for a long-term plan, it makes no sense not to do that, right? But as to the other aspects of what Australia is facing, if the people that know what they're talking about are right—that is, we face a hotter, drier future—I don't have the answers for that, but, hopefully, other people do.

**CHAIR:** For a point of clarity, do you think the federal government should act unilaterally, or do you feel that staying connected with the states provides greater stability?

**Mr Beasley:** I think, as a matter of obviousness, it's better if we're all acting together, isn't it? In the end, the Water Act is a federal piece of legislation, and the Basin Plan is a Commonwealth statutory instrument. If one or more states are irritated by this bill, that's the way it goes, but—

**CHAIR:** It is complex in terms of the interface, right?

**Mr Beasley:** The Basin Plan is best served by cooperative federalism as a matter of obviousness, but, in the end, the responsibility, under the Water Act for the Basin Plan, has been given to Canberra, so Canberra has to take the lead.

**CHAIR:** But, obviously, there's going to be a more positive outcome if we have the states playing along.

**Mr Beasley:** Victoria has its position. Victoria's position, as best I understand it, is, 'We're against this because buybacks do tremendous damage.' They assert that and they rely on economic evidence that other economists have doubts about. In the end, you've got to make your decisions about the impacts of buybacks on data and economic analysis. That's not me saying that people that actually live in the basin and that are fearful or have seen negative outcomes from the purchase of water—of which, undoubtedly, there were some—shouldn't be heard. I don't live in the Murray-Darling Basin, and I don't blithely say, 'We've got to recover this water; if it impacts you, it's bad luck.' That's not how I feel. If there are any proven substantial negative outcomes from the recovery of water, the governments should step in and have adjustment compensation measures. I've always thought that. But, having said that, the Water Act Basin Plan is a massive environmental economic reform. It's going to have positives and it's going to have negatives; it's for government to manage that, not me.

**CHAIR:** To find the balance. I will just reference that ABARES have done some work on the comparison between buybacks and on-farm efficiency type measures, and their findings, as an independent organisation, in the sense they don't have a vested interest, come out quite differently.

**Mr Beasley:** Pure dollars, though—I do reject the idea that this is only about dollars. Yes, money from productive use of water is important. It's jobs, it's money et cetera. So too is money from tourism. No-one goes to look at algal blooms or dead fish as a tourist in the Murray-Darling Basin Plan. The other thing that never gets factored in is what is the value of a river. What is the value of ensuring that the Murray River has environmental integrity not just now, but in 50 years or 100 years time. What do we say, in terms of intergenerational equity, to people who aren't born yet? 'Well, sorry, we killed the Coorong.' You can't do that.

**CHAIR:** No; I would agree. Senator Payman, this is hopefully a short question because we are out of time.

**Senator PAYMAN:** Yes. Good morning, Mr Beasley. If we leave the unlawful nature of the bill to one side, what are the benefits of the bill?

**Mr Beasley:** That's a very good question. I don't have the expertise to give direct evidence about that, but I am told by people who do have that expertise, and I've been told by bureaucrats that have expertise and follow these things, that even the imperfect unlawful Basin Plan has had some real ecological, environmental benefits and has been particularly important. Water that has been recovered so far has been very important at times of low flow or dry times. That's what I'm told, and I'm just repeating what I'm told. As I've said many times, I'm a mere lawyer.

**Senator PAYMAN:** Thank you, Mr Beasley.

**CHAIR:** Thank you, Mr Beasley. I really appreciate your time. While you didn't take any questions on notice, if you do have any further commentary you want to provide to us on the Productivity Commission report, which you referenced—

**Mr Beasley:** I did just on what's asserted to have been the socioeconomic rules back in 2012. There seems to be a confusion between what was originally in the Basin Plan and what was agreed in December 2018 by MINCO. The point being that in 2012, when the Basin Plan—which in its current form remains as it was in 2012—was looking at socioeconomic considerations for efficiency programs, they were considered to be neutral just through mere participation. I've noticed that those two subparagraphs don't find their way into the New South Wales irrigators submission, but in 2012 the neutral or improved socioeconomic outcomes were established by participation in these programs. What was agreed in 2018 was this long list of gobbledygook, which is invalid because it doesn't comply with the Basin Plan, which I've set out in my submission. I don't want to say anything more about it. Thank you so much to all of you.

**Senator DAVEY:** One follow-up question, because Mr Beasley introduced it: taking the Basin Plan as it's currently written, what if you run out of voluntary participants and you haven't got the full 450? Does that mean the full 450 is not actually a fixed target because it is subject to voluntary participation?

**Mr Beasley:** I don't think it means it's not a fixed target; it just means, in terms of what's currently available, you can't get there. But as I said, I have no knowledge about any of that. But, once again, thank you to all of you for the invitation. I appreciate being given the opportunity to say what I've said.

**CHAIR:** Thank you very much, Mr Beasley; we do appreciate your time.

**AURICHT, Ms Rosalie, Chief Executive Officer, Renmark Irrigation Trust; and Member, South Australian Murray Irrigators [by video link]**

**CUSH, Mr Ian James (Jim), Chair, New South Wales Irrigators Council**

**FREAK, Ms Christine, Policy Manager, New South Wales Irrigators Council [by video link]**

**LOWIEN, Mrs Zara, Interim Chief Executive Officer, National Irrigators Council [by video link]**

**MARTIN, Ms Caren, Chairperson, South Australian Murray Irrigators [by video link]**

**MILLER, Ms Claire, Chief Executive Officer, New South Wales Irrigators Council**

**MORTON, Mr Jeremy, Chair, National Irrigators Council [by video link]**

[09:54]

**CHAIR:** Welcome. I understand that information on parliamentary privilege has been provided to you. We have the written opening statements from the National Irrigators Council and the NSW Irrigators Council, which will be published, so we will go directly to questions.

**Senator HANSON-YOUNG:** Good morning, everyone. Thanks for being here. Firstly, I want to ask about the National Irrigators Council's submission. You talk about the need for even further delay in reaching the water recovery targets, further than what this bill actually proposes. This bill is all about giving an extension for those recovery targets to be reached, and yet you're arguing for even more time. What is your justification for that?

**Mrs Lowien:** We are asking for more time. We're supporting the states in their request for more time for the sustainable diversion limits adjustment process, and we've just agreed to the time that's been given as part of the bill.

**Senator HANSON-YOUNG:** Sorry, those two things are inconsistent.

**Mrs Lowien:** We've agreed and support the time frames that have been asked for by the states and that are represented in the bill as we speak, and we support the extension of the time frames listed in the bill.

**Senator HANSON-YOUNG:** In your submission, when you say that even by the 2026 deadline it's going to be hard to have met those commitments and that water recovery, you're saying that you don't actually accept that and you're happy to stick by the 2026 deadline; you think it can all be done by then?

**Mrs Lowien:** As we raised, there are limitations we think can further work that the basin states and the agency should do to ensure the maximum opportunity to achieve projects in that time frame. But we have not asked for an extension of the time frame. I apologise if there was confusion there. We've just supported the time frames that they all proposed.

**Senator HANSON-YOUNG:** Have you been able to get your head around the Productivity Commission report released today? You've obviously seen bits of it. I'm sure you haven't read the whole thing. I don't expect that.

**Mrs Lowien:** I have glanced over it in preparation for today. Yes, we are still yet to read through the full detailed report; we've only read the summary.

**Senator HANSON-YOUNG:** Yes, understood. Of course, the Productivity Commission has previously been on the record that buybacks be the most economically efficient means of water recovery, so you wouldn't be surprised that they've reiterated that today. What's your response to the Productivity Commission's call this morning that the remainder of the bridging the gap water, the 315-odd gigalitres, be recovered through buybacks rather than an extension of the SDLAM projects in the hope that that will deliver some type of recovery?

**Mrs Lowien:** There are a couple of things in the Productivity Commission report that we think are kind of oversimplifying the process that needs to happen. I would be very concerned if we started going and starting a staged water recovery process for the 605 now without a full assessment of the likelihood of the new projects that are on the table. You would be aware, Senator, that earlier this year the government asked for ideas to finalise the Basin Plan, and we are still yet to see the assessment of which of those ideas are likely to be able to be implemented by 2026. So I think we need to have a look at that information. This goes to the National Irrigators Council's larger point that there is a lot of missing information even after having an assessment of this bill and with some of the information from the Productivity Commission on the costs and the benefits of the changes proposed. They are quite material changes and we think there's more work for government to assess that regulatory impact and the likelihood of those projects going ahead. That is key.

So we support further governance and accountability of the rollout of the sustainable diversion limit adjustment projects. Just like we have a constraints road map, we think there should be an SDL adjustment road map and reporting to government on that because we have seen throughout the implementation some significant governance barriers with the basin jurisdictions as well as the agencies.

**Senator HANSON-YOUNG:** Which of the existing SDLAM projects do you think will actually achieve water recovery?

**Mrs Lowien:** I think there is some of that detail in the Productivity Commission report. I didn't go into the significance of it. As far as I'm aware, there's a gap of up to 315 as we currently stand. But, as I said, the federal government has asked for new ideas to finalise the Basin Plan. Some of those are near shovel-ready, but we need an assessment of that and we need those fast-tracked.

**Senator HANSON-YOUNG:** Do you think any of the existing proposed SDLAM projects should be canned because they're never going to actually give an environmental benefit of recovery?

**Mrs Lowien:** The Productivity Commission definitely highlighted the risks around one of the major New South Wales projects. Maybe the NSW Irrigators Council would like to talk about those further.

**Senator HANSON-YOUNG:** I'm happy for them to comment on that if they would like.

**Ms Martin:** The Menindee project is probably not going to go ahead for very good cultural, environmental and other reasons. But other projects are in the pipeline. There's one at Murray Irrigation which promises a very large offset towards the environment. That's progressing to a feasibility business case. So we're fairly confident that this and other projects, now that the legislation allows new projects to be considered, will more than cover that gap.

**Senator HANSON-YOUNG:** Our job as politicians is to look at legislation and try and ensure that whatever passes is as robust as possible and that the public can have faith and trust in the process. Why would anyone believe that we should just accept there will be new projects coming down the line when one of the biggest ones, as you've highlighted—the Menindee one—is clearly not going to happen and needs to be scrapped? Why wouldn't we assume that, in three or four years time, we are going to be back here arguing over the same problem with another set of projects?

**Mr Cush:** Senator, can I just jump in? The most frustrating thing at the moment is this. Since the extension was announced, wouldn't you think there would be projects that were shovel-ready and proceeding and happening? At the moment, I don't think there's anything happening. Nothing has changed. So, once again, we have a state government that's not ready. That is an absolute frustration. The rule are in place and we have the projects, but nothing is happening. I'm as frustrated as you.

**Ms Miller:** We are very frustrated that over the last 10 years states have been dragging their heels on these SDLAM projects, because they are so vital to the Basin Plan. We've been asking them to get moving on them, but they have been dragging their heels.

The other thing is that, as it currently is, the Basin Plan is so restrictive it doesn't allow new projects to come in. That's why, even though it's been fairly obvious for years Menindee is not a goer, there was no capacity in the Basin Plan to bring in new projects and get progress on those until now with this bill.

**Mrs Lowien:** Senator, can I add one thing on that? Your question is very important in the sense that obviously we're frustrated as well, but I feel like there's a lack of urgency from the governments and the agencies on this as well. They've had the finalising the Basin Plan ideas for some time. I believe they're getting assessed. We feel that there's a lack of information out in the public arena about the material impacts of the changes being proposed. A bit like you, we feel like they're telling us, 'Just trust us. We've got a plan,' but we don't see any evidence of that plan. I think we are on the same page with some needed recommendations and further information from government on how they plan to progress this framework.

**Mr Morton:** You asked why they would proceed when projects like Menindee haven't. Clearly, Menindee always struggled to have community support. Ms Miller commented on Murray Irrigation's project, which has been something they have been working on for a number of years and discussing with government. That does have community support. It could provide significant environmental outcomes that were never envisaged under the original Basin Plan and certainly couldn't be achieved under even the full relaxation of constraints getting water into ephemeral creeks that you would never get any other way. It's an example of a project that can jump forward, can provide significant environmental outcomes and has community support.

**Mrs Lowien:** And they haven't had an answer on the project from the department.

**Senator HANSON-YOUNG:** National Irrigators Council, maybe this is in your purview. I know the Chair wants to hand the call to somebody else, if we could be quick. I was interested, in reading the Cotton Australia submission, in the claim there are 10,000 direct jobs as a result of the cotton industry. Is that the National Irrigators Council's view, that its 10,000 jobs?

**Mrs Lowien:** We would support the commodity groups in their own analysis. They've got that information themselves. Cotton Australia are a member of ours, and they're appearing later today. I'm sure you'll get an opportunity to ask them.

**Senator HANSON-YOUNG:** You don't have any of your own analysis in terms of job impacts?

**Mrs Lowien:** We definitely have job impact analysis, and we use the information that was used as part of the evaluation of the Basin Plan in 2017 for the southern basin, and in the northern basin we have the information done by the Murray-Darling Basin Authority that informed the northern review. We do have information on job impacts. Some of that is definitely in our submission. We can highlight that and forward that through to you as well.

**Senator HANSON-YOUNG:** It would be helpful if we could have that. Perhaps this is a question for all three of you: which of the SDLAM projects do you think should be scrapped and which do you think will actually deliver the recovered water within the time frame? If you could take that on notice.

**Mrs Lowien:** We will take that on notice.

**Ms Miller:** I will take that on notice.

**CHAIR:** I will just highlight that the return of questions on notice is 2 November, which is a nice tight deadline for you.

**Ms Miller:** We're used to those!

**CHAIR:** We will go to Senator Davey.

**Senator DAVEY:** Thank you all for attending and giving your time today. When we're talking about potential additional SDLAM projects, there has been a project which has received federal funding in South Australia—maybe this is a question for Ms Martin—the Healthy Coorong, Healthy Basin project. Are you aware of the project? I don't think that is a SDLAM project, but do you think that it could be put forward as a potential SDLAM project given where we're at and given that this bill now proposes introducing new projects?

**Ms Martin:** Yes, I do agree that that's something that could come forward. The Healthy Coorong, Healthy Basin initiative couples with the CLLMM—Coorong, Lower Lakes, Murray Mouth—Recovery Project. Also we've had a works infrastructure assessment project go ahead that Dean Brown headed up. That looked at five different infrastructure projects. They shortlisted it to three, and then they went into hiatus, and they're sitting in limbo. The three that got into the list were the Coorong connector, as we call it, which goes through Lake Albert and connects to the upper-middle part of the Coorong; barrage—

**Ms Auricht:** The pipeline from the sea.

**Ms Martin:** The pipeline from the sea—that's more of a southern Coorong. The River Murray itself will not affect the health of the southern Coorong. They have to look at south-east drains and reconfiguring dynamited limestone, and how they're going to deal with that with innovation because the Murray waters will never reach down that far or alleviate any type of the briny salinity they got in the millennium drought. I think barrage mechanisation and remote control was relatively cheap in the face of planning zero factor standards, to manage flows for less salt intrusion from wind coming up from the ocean, so you could therefore offset flows. That's a 'no new water' project. They've been looked at—and there is lot zero, which is very controversial; I won't go into that one! There are options; they're just not being politically pursued because the impetus is on the 450.

**Senator DAVEY:** We've got what is essentially a 3,200-gig plan before us, notwithstanding the evidence we just heard from Mr Beasley about whether it's legal or not. I'm willing to take answers from everyone but I am really interested in hearing from the South Australians: in your interpretation, is that 3,200 gigs in transferred water licences equivalent, or can it include things like complementary measures, incidental water savings—which are savings that don't have a licence attachment but they keep water in the river—and other mechanisms such as the Healthy Coorong concepts or mechanisation of the barrages?

**Ms Auricht:** We see the 32 as 3,200 equivalent environmental outcomes. Anything that can be done to reduce the take from the productive pool is fantastic, but we also see it has potential for on-farm efficiency and things like that. That, to me and to our community here, answered the socioeconomic problems or addressed that neutrality. The social economic neutrality is important for our community. We had a very successful on-farm and



off-farm efficiency program in South Australia, called SARMS, which allowed our communities to remain viable even though we handed back a considerable amount of water; it was 23 per cent on our licence alone.

**Ms Martin:** Can I address the unlawfulness that you mentioned Mr Beasley mentioned. In my opinion, with the Basin Plan, when it was drafted in 2012, the 2,750 reduction in the sustainable diversion limit was to equate to a 3,200 equivalent environmental outcome. There are two very different things that Mr Beasley is referring to, and the legalities of which one has precedence over the other is semantics. We want the environmental outcomes, and that's the legal premise for the Basin Plan and the Water Act. Previous to that in 2012, when Turnbull was our Prime Minister, the politics at the time was debating whether or not the Water Act should be enforced at all—whether it was legal at all. That came up for different reasons. I agree with Mr Beasley that it's illegal but for very different reasons and very different attacks. I think there's a lot of ambiguity in the legalness of all of it. I think everything you're hearing is speculative opinion in the legal world. I think the 'triple bottom line' outcome was a legal move by the politics; it was legal to rebuff some of the legalities that were brought up about the Water Act in 2012. That's not new to the government; they know about it. That sort of information was covered by the QC at the time, but we've got new legal stuff with the case. I would personally, as an irrigator in the basin, like to know that legal stuff. I don't think anybody knows; I think it's opinion on all levels.

**Mr Morton:** Senator, I'll touch on your question about complementary measures. I think it's the part that's missing out of the whole Basin Plan process. If you go back, there are 20 years of reports—till as recently as the report of the Chief Scientist from New South Wales around the fish that died out at Menindee—about dealing with issues other than just water. Water's critically important, but you must deal with issues that impact on water quality, on the ability of fish to move through our river systems and on cold-water pollution out of our dams—from Lake Eildon down to the Goulburn Weir, there are no native fish because the water is so cold. Those issues need to be addressed, and in the current legislation they're not, which is extremely disappointing. It is touched on in the PC report, but it is clearly the missing part of getting a healthy Murray-Darling Basin.

**Ms Freak:** If I could jump in as well, our peak industry groups have sought legal advice on that question around whether the bill will actually enable enhanced environmental outcomes to be sought through any other method than just buybacks. We have tabled that advice with this committee, and it quite clearly says that buybacks are the only option on the table, despite what government is saying. That's something that we find concerning from an industry perspective, because we know that 450 gigalitres is a very large amount of what's remaining in the productive pool, particularly in the southern connected valleys. It represents close to 40 per cent of the high-security water that's left in those systems, so it's very concerning from our industry's perspective. But, as Jeremy was saying, from an environmental perspective it's also rather concerning because what the environment needs most at the moment, which are things that Jeremy spoke to, including carp control, habitat restoration and addressing fish passageways—a lot of those contributing drivers to the recent Menindee fish kills—are all things that this bill doesn't allow, and we'll just see a further neglect of these complementary measures, depriving the ecosystems in the basin of what they actually need whilst also really damaging our communities and our industries.

**Senator DAVEY:** I have a final question. It keeps getting put to me that, if farmers want to sell their water, why should we stop them? Ms Miller, it is not a doroxy dixer. I'm putting it out there, though.

**Ms Miller:** We do hear that one often. The fact is, if farmers are looking to raise capital for various reasons—because they wish to retire or whatever they want to do—they already have a water market in which they can sell their water. They don't need the Commonwealth to come and buy it from them to do that. But the thing is that, if the government buys that water, it's gone out of the consumptive pool forever. And it's not the farmers that suffer those impacts, actually; it's the community that's left behind. The farmers leave or they change what they're producing and go to dry land, which has much fewer jobs and fewer services associated with it. Whatever they do with that money, the farmer is alright, it's the community that gets left behind. It's the towns that lose the jobs and lose the families. For example, if the rice industry start producing less rice, which they will as a consequence of any further water being taken out—they've already reduced their production because of the past recovery—the farmers are mixed farmers: they'll do something else. But what do you do about that rice mill in Deniliquin when that closes and 200 jobs go? It's the community that suffers the lasting impacts. I haven't seen any structural adjustment programs, either in the basin or anywhere else in Australia, that have actually worked and have come to grips, when there are major reforms like this, with providing any genuine and lasting structural adjustment to those communities and towns. The Productivity Commission has picked that up as well and has said there are very few examples of successful adjustment programs in the basin or anywhere else in Australia. We get these promises: 'It's okay; there's going to be community assistance.' That community assistance is vague. As we always talk about, whatever the good intentions are, it always seems to just end up as a bunch of grant programs. Maybe

the council gets \$200,000 to do an economic diversity and development strategy, but there is no money or assistance. The government is not there in the long term for the actual doing part of it.

**Mr Cush:** But also the former minister, Tony Burke, 11 years ago put the neutrality test in there. Why did he do that? Because he knew it was the right thing to do. He knew there were damaging consequences for the cheap buybacks. So, what's changed in 11 years? We've got a new minister. That's the only thing that's changed. But the former minister for water, Minister Burke, put it all there. I quoted in my opening statement what he said 11 years ago, so you all have that. But nothing has changed except that we've got a new minister. That's the only difference.

**Ms Miller:** Perhaps I could just add to that. Mr Beasley referred to the original socio-economic test in the 2012 Basin Plan as if all that that required was willing participation. It was actually willing participation only in efficiency projects—on- and off-farm efficiency projects. That was all. And, very specifically, the act had a note included in it under that saying that buybacks are excluded from that. So, that original socio-economic test was not there for buybacks. Buybacks were excluded quite specifically, because Tony Burke said at the time that the rules were that the recovery of this was to have only neutral or positive socio-economic impacts. And the MDBA's advice to him was that buybacks would have downsides. Therefore, the rules were 'no buybacks towards the 450 gegalitres'. So, as Jim said, what's changed?

**CHAIR:** Yes. I think we've got your point, and we're going to need to move on. And I think one of the challenges we face here is this black-or-white, all-or-nothing experience, whereas the reality of what we've seen is that people aren't necessarily selling the town. They may be looking to hand off part of their licence, whatever the size might be, to change their usage. But we're going to get more data on that over the next couple of days. Senator Hanson-Young has one follow-up question, and then we'll need to go to Senator Pocock.

**Ms Martin:** Perhaps I could just make a quick comment. We talked about the socio-economic effects from losing economies within towns, and I fully support everything said there. But what you haven't heard is: if the market has a pressure of 400 gegalitres to be recovered over four years by a government, that's going to have an impact on the water price, and that's going to have an impact on economic capital investment in towns, the ability for young people to get into farming and land management issues because you can't do a lot of that if you're putting your money in capital towards buying overexpensive water. So, I think it's naive to think you could slash and burn into the market and buy that kind of volume in a four-year period without having financial impacts.

**Ms Miller:** And perhaps I could add very quickly to that that the volume of water that's being traded annually, the water entitlement, in the southern basin is less than 100 gegalitres a year now. So, the idea that you can just sweep in and start buying back all the 450 or the shortfall to the SDLAM in the space of four years—even if you buy all the water, all the entitlement, you're still not going to make it. You would also go right against all the changes that are in this legislation to prevent other market players from manipulating the market or capturing the market, all of which has been delayed for two years—and I suppose a cynic would say perhaps delayed for two years so the government can capture the market, free of its own rules that apply to everybody else.

**Senator HANSON-YOUNG:** I'm interested in the commentary in a number of your submissions, but particularly National Irrigators, and the phrase 'over-recovery', coupled with the pitch that you've all put to us today, which is complementary measures instead of buying back actual water. I struggle to accept that there has been over-recovery when the entire purpose of the Murray-Darling Basin Plan and these targets was for a minimum recovery to keep the river alive. There's no such thing as overrecovery. This was a minimum target to keep the river alive. I find it extraordinary that, on one hand, there is the argument, 'Let's just go with complementary measures.' The whole purpose of complementary measures is that they are complementary. Are you asking for us to believe that they should be primary? They're complementary measures because they're complementary—complementary to water recovery.

**Mr Cush:** Zara, do you want to answer that, about the overrecovery job?

**Mrs Lowien:** I'll break it down if I can. There are a couple of things. The overrecovery language comes from the fact that it's with regard to the in-stream or local requirements that are legislated by the Basin Plan for those particular valleys. In our submission you'll see that there are three major valleys that are overrecovered because they've had more water purchased, or recovered, over the last 10 years than what is legally required by the Basin Plan for that valley. That is because the 450 efficiency measures are a separate process over and above the original setting of the sustainable diversion limits.

For those valleys, our point in that is that there needs to be engagement with those communities about what to do with that overrecovery across those legal amounts, because, at the moment, this bill proposes to just shift it from the sustainable diversion limit target and move it across to the 450 efficiency measures target. I believe that

those communities deserve consultation on what is best for them with that water, and we haven't had any of that to date. I can say, from experience, that the Gwydir has written to the ministers about this. We met with the New South Wales water minister last week, and they're saying, 'The Commonwealth will do what they do,' but we have not had engagement on what to do with that legally overrecovered amount. On the other parts of complementary measures, I absolutely agree that they are complementary to the water that has already been purchased. So we had—

**Senator HANSON-YOUNG:** No—complementary to the water that is required to be recovered for the environment.

**Mr Cush:** Could I just jump in—

**Mrs Lowien:** So—

**Senator HANSON-YOUNG:** You're arguing for us to incorporate incidental water. If this were a plan to upgrade and fix a crisis in our health system, it would be absolutely irresponsible for politicians to accept incidental health outcomes as the primary driver of fixing the system.

**Mr Cush:** Senator, if you ended up with too many hospital beds and not enough doctors, you'd be in the same position.

**CHAIR:** Okay, enough! Mr Cush, can you just hold a minute. Mrs Lowien, would you like to finish your answer? Then we'll go to Mr Cush.

**Mrs Lowien:** I think the difference is that the 450 efficiency measures were linked to a number of key outcomes occurring. The first of those is the constraints program. They are meant to be efficiency-enhanced environmental measures and add on to the water that is recovered under the sustainable diversion limits target. That is where we think the missed opportunity is to add value to the water that has already been recovered across the basin and to directly target environmental issues—the enhancement of complementary measures and some specific programs that address that, which we've seen rolled out in the northern basin, with likely great results in terms of fish passage, fish retention and native fish populations.

I think that is the difference. If we want to talk about other investments in other forms and things, we can, but I think what frustrates industry is that we are still applying the same approach to fixing the problem even though we are now more than 10 years into addressing it—and we have had significant benefits. Rosalie is sitting here with some great ideas in South Australia about direct water in wetlands, which are not included in the current framework. Why not? We've moved so much further now in the last 10 years, yet we're applying the same strategies to fix the environmental problems.

**CHAIR:** Mr Cush, could you keep it short.

**Mr Cush:** That's the point, senators: it's a number. We have the Gwydir valley, which is supposedly 5,000 megalitres overrecovered, yet we have the Macintyre River—the Border Rivers—5,000 or 6,000 underrecovered. Is there a difference? I can't see it. But the point is that it's a number. That is probably the problem with this entire plan. This is a world-class plan. I do not know of anywhere else in the world that is doing this. We're all so negative about this last little bit we have to get, but we have to absolutely celebrate the chunk that's been done. But the point is, it's not about—

**Senator HANSON-YOUNG:** You're arguing for us to actually give that water back.

*Senator Davey interjecting—*

**CHAIR:** Senator Hanson-Young.

**Mr Cush:** Why is there an underrecovery because it's a rule; it's a number. If we have the same rule and it's supposedly overrecovered, it's exactly the same as underrecovered, so I take offence to that because the presumption is we have rules. If we have a rule that means it's overrecovered, it's the same as being underrecovered.

**Senator HANSON-YOUNG:** We wouldn't be having to argue for an extension if people stuck to the rules.

**CHAIR:** We are now going to rotate the call to Senator Pocock.

**Senator DAVID POCOCK:** Ms Miller, in your submission you speak about the decoupling of water recovery from environmental outcomes. Please expand on what you mean by that.

**Ms Miller:** I will throw to Christine to answer that question.

**Ms Freak:** I think the important thing to acknowledge is that we now have sustainable diversion limits in place, which was the centrepiece of the Basin Plan, and they came into place in 2019. The annual reports for those show that they are being complied with as well, so it's a really big step forward. That's been made possible with

98 per cent of surface water recovery already completed towards that bridging the gap target. Then the open tender round is in place for the rest, so that lever of water recovery will come a long way in. Now when we look at what the actual opportunity is and what the needs are of the environment, there's an enormous amount of what needs to happen now that has to go beyond just adding more water to the system. There are the things we spoke about before like addressing invasive carp, getting fish passageways in place and restoring habitats. These are really important for the environment, but to date have not really been included in basin water legislation, which is a missed opportunity, including with this bill.

The other thing I would add is that constraints management is very important to enabling water to get delivered throughout the system and reach the flood plains and areas it needs to go to. What the reports and the evidence are showing is that that's going to take a lot of time. The Productivity Commission has warned in a number of reports now that we can recover more water now, but if we can't deliver that to maximised effect then that is not a very good use of taxpayer money and it is missing that environmental opportunity as well. The other point I would add is that what we have learned throughout the course of the implementation of the Basin Plan is that there's a lot of opportunity to tighten up with irrigation infrastructure operators and private landholders to get environmental water through the system, using the private landholders to reach wetlands on private property. We know that 93 per cent of the wetlands in the basin are on private property, so this isn't just a nicety but is truly looking after the basin as a landscape, and it requires partnering with our landholders and farmers.

To look at it from an environmental perspective, we could be doing much better if we took some new approaches and adaptive management from what we've learned throughout the course of the implementation of the plan and adapt some of that. But at the moment all we're seeing is one lever of adding more water. It's not what is going to best address the environmental needs while not harming communities on the other side.

**Ms Miller:** If I can add to that, under the current legislation—section 86AA, from memory—the 450 is the means to achieving enhanced environmental outcomes set out in schedule 5. There's a clause there where it says that it's linked to constraints management and to achieving those environmental outcomes. This new bill removes that, so the recovery of the 450 through buybacks sits alone; it's no longer linked to the constraints management that is absolutely essential if you're going to deliver the environmental outcomes associated with it. If you do recover the water, it removes it from those environmental outcomes. Again, the Productivity Commission report today, which we have gone through in quite a lot of detail already, very specifically spells out that the absence of a credible delivery pathway for the 450 means the government risks being seen as just chasing a volumetric target. That's pretty bad. It should be linked. There is no certainty the basin communities are water market participants. I can raise other things. It's quite a nuanced Productivity Commission interim report. It doesn't just say, 'Yes, you beaut, go for buybacks to cover the SDLAM shortfall and the 450.' That's not what it says at all. I'm happy to provide more detail on that if you would like.

**Senator DAVID POCOCK:** Related to that, your submission talks about the removal of all options except buybacks. I'm keen for you to explain what you mean by this. I understand you've tabled legal advice.

**Ms Miller:** We have, yes.

**Senator DAVID POCOCK:** Maybe you can give us a brief overview of what that advice is.

**Ms Miller:** We sought legal advice because we constantly hear the minister and the department say, 'All options are on the table. Buybacks is not the only tool in the toolbox and not the first one we will reach for.' The problem with that is the way they've defined additional HEW in the bill is as a water access entitlement and that's it. Our legal advice is very clear: that just means water buybacks. There are various ways you can dress that up and say 'land and water packages' or 'on-farm efficiency packages' or just outright 'buybacks', but, in the end, buybacks is all it allows. The government and the department say that's not their intent. Well, intent means nothing. What matters is what's in the law in black and white. If their intent is to actually allow other options to count towards the 450 gigalitres, then the legislation needs to be amended with an expanded definition.

**Senator DAVID POCOCK:** Mrs Lowien, your submission is clear that you are concerned about the socioeconomic impact of buybacks. Can you talk me through some of the research that's been done into this?

**Mrs Lowien:** Yes. We pointed to some of the research as part of the review of the Basin Plan in 2017 where it looked at the impacts of water recovery in the southern basin, and we summarised some of the impacts—thanks to NSW Irrigators Council for collating that on the industry's behalf. And we also pointed to the northern basin review, which was the only option that looked at scenario testing what would happen at different levels of water recovery for communities. That was very clear—that there were impacts that flow through, and take time to flow through, a community. In our experience, coming from up in the north near Moree, it took the first flood after the purchase of water in 2008 for the impacts to be very much felt, because our recovery level, in terms of

production, was 25 per cent lower. That meant there was less of that peak of jobs once water returned into the community, and that slowly flowed through to a loss of indirect jobs within the community. In his opening statement, the chair of NSW Irrigators Council pointed out some of those impacts to that community.

Another piece of work that we used was the work by ABARE where they did some research on the effects of water recovery. It was quite clear in their assessment that there are material impacts. You don't often know what they are, and they take some time to be present in a community, but there are significant changes. What we're seeing is we're changing the types of crops we're growing, we're changing our demand patterns and we're changing our labour resources, and that flows through a community. What we're concerned about is that we haven't looked back over some of that known information about some of those socioeconomic impacts and put in a program that takes them into consideration if we're going into a purchase program, whether that's for the shortfall on 605 or the 450. We're seeking more information from government on their strategy on that, and we're not seeing any of that, let alone the cost-benefit analysis of going out into the market.

**Mr Morton:** If we think about water as a proxy for production, which is a pretty easy argument to make, in 2001 the Australian rice industry grew 1.7 million tonnes of rice. In 2008, in the second year of the millennium drought, it grew 19,000 tonnes. That's 1.7 million to 19,000 tonnes, and there was 100 per cent water availability. So, if you remove water from production, you will have less production. Back then, the rice mill in Deniliquin was closed, and all the people there lost their jobs.

We do see some academics talk about the impact of buybacks being overstated. Well, they can probably swing that any way they like; they can do some modelling to determine it doesn't have any impact. The reality is that water availability is a proxy for production. If you've got less production then you've got less economic activity and less people being employed. It impacts on the communities and it impacts on the whole nation. We ran out of Australian rice in 2019. That was the last time we had a severe drought. You risk locking this in permanently by removing water from productive agriculture.

**Senator Davey:** I will note that we ran out of rice, but the Coorong and the Lower Lakes remained connected in 2019, so there is success in the Basin plan, as well, environmentally.

**CHAIR:** Do you think there are more options in the bill before us than there are in the status quo?

**Ms Miller:** No.

**CHAIR:** You don't?

**Ms Miller:** No, because it doesn't allow more options to be considered. It doesn't allow for options towards the 450 that deliver the environmental outcomes and address the degradation drivers. You can keep on adding more water, but that's not going to fix your water quality problem while you still have nine out of 10 fish—European carp—muddying up the bottom, wrecking the habitat for the native fish and destroying water quality. When you've got poor water quality you'll continue to have algal blooms and fish deaths. Unless you do something about that—you can take more off the farmers and put it back in the river, or keep it in the river, but you're not going to fix that key degradation driver. If you don't put in fish passageways so the fish can escape the poor water quality—that's what we saw happen in March. Fish deaths occur in severe drought, but they also occurred in that very severe flood. Clearly water availability wasn't the only thing going on there. It was that the fish couldn't escape, because they couldn't get past the weir. Also, they can't migrate to breed and feed. Then there's cold water pollution, which is harder to describe, but that's also—

**CHAIR:** I'm just going to shorten you up there because you have been through those steps already. We do have that all there. So you believe that this bill provides fewer options than the status quo, than what we have right now, even though it's removing a whole bunch of constraints within the current bill?

**Ms Miller:** The constraints that it's removing are all the constraints on buybacks towards the 450. It's not removing constraints on opening up the Basin Plan to deliver the equivalent environmental outcomes to 3,200 by being really smart about how we manage what is a highly regulated system. The Basin Plan has delivered some fabulous environmental outcomes. As was just touched on, during the worst of the 2019 drought, that desperate drought, the KPIs were still being met down in the Lower Lakes because of the additional water that had been recovered. That is a huge success. Even as communities upstream were suffering terribly—they hadn't had water for three years, and all the rest of it. What we're saying is that this bill relaxes the constraints on one thing only, and that's just this very blunt, sledgehammer: 'Just buy back more water, the 450, and that's going to fix it.' It does not open up the full suite of options, measures, rules changes and all the things that we can do that are going to build on the successes that we've already had. We're not going to get much further than what we've already achieved unless we have that full suite, enabled, properly funded and properly resourced. All we've got right now is buybacks, in one name or another, and billions of dollars being spent just on that.

**CHAIR:** You and I are obviously reading a different bill. What if we just threw the whole plan out the window?

**Ms Miller:** No.

**Mr Cush:** No.

**CHAIR:** Okay. Fair enough.

**Ms Miller:** We support the Basin Plan. We just think there's a much better way of doing it than the way we've been going about it for the last 12 years and certainly what's being proposed now.

**Senator HANSON-YOUNG:** But do you support this piece of legislation?

**Ms Miller:** No.

**Mr Cush:** No.

**CHAIR:** You prefer the status quo?

**Ms Miller:** No. Let me be clear: we would like to see—

**CHAIR:** Without giving us excessive detail, you would prefer us to—

**Ms Miller:** This bill could be amended—

**CHAIR:** If I could just finish my question, Ms Miller, that would be lovely! Would you prefer to just leave everything as it stands today—

**Ms Miller:** No.

**CHAIR:** and then wake up in June and go, 'Whoops! We haven't got there'?

**Ms Miller:** No. We've been quite clear. We think that this bill could be amended in ways that will open up that full suite of measures, with money and resources, to deliver those environmental outcomes. We are not saying the status quo is great, because it certainly isn't, and we're not saying that this bill, without amendment, is the silver bullet to fix it, because it's very far from that. What we're saying is that the basin plan is a good thing, and we support it, but we need to do a lot better on its implementation. Again, the Productivity Commission highlights this in its interim report.

**CHAIR:** They also support staged voluntary buybacks.

**Ms Miller:** What they say is that they—

**CHAIR:** I haven't read it in full—

**Ms Miller:** I have.

**CHAIR:** but I wonder if we might get some questions on notice for you. Well done. I'm very conscious that we're way over time. We might put some questions on notice for you in terms of your review of the Productivity Commission so we can get your perspective.

**Ms Miller:** Yes. We're certainly happy to provide that to you.

**CHAIR:** Thanks.

**Ms Miller:** But can I just say very quickly: Mr Beasley went over time, and he had the benefit of being here on his own.

**CHAIR:** He didn't go over by 15 minutes.

**Ms Miller:** You've got three different groups here, and we've been a bit squeezed for time. Quickly, though, the Productivity Commission does basically say that all of the effort should be going into meeting that benchmark recovery target equivalent to 2,750 gigalitres, and it says there should be buybacks, yes, and there could be staged buybacks towards that, but it also says—

**Senator HANSON-YOUNG:** It says the 315 gigalitres should be bought back. That's what it says.

**Ms Miller:** It also says that the water recovery strategy should include all options, including industry- and community-developed proposals. So it doesn't just say, 'Buy it all back.' Then it says, given these factors, that it makes little sense for the government to pursue the 450 gigalitre target rapidly when that shortfall in bridging the gap to those 2,750 gigalitres is still there. It suggests that instead the 2026 basin plan review is an opportunity to assess how best to deliver the environmental outcomes that the 450 gigalitres are designed to meet.

**Mr Cush:** We just have to have a community left at the end of this basin plan. We just need the community taken into account. We live it and breathe it. Mr Beasley said that he's not in the basin. I am in the basin. I understand what it means to our local community when we lose a high school, or when we lose all our doctors. We live it and breathe it, because that's where we are. We're for all this stuff to happen—the basin plan—where

we are. We can't go back in time and change it, so we're stuck with it. The outcome is—we're almost there. But the point is: it's not up to us to hold to account the state to get things done. For the last 10 or 11 years, not a lot has happened, I'll admit that. But it's not our fault. So don't hold us to account for—

**CHAIR:** But surely we should all be held to account, Mr Cush.

**Mr Cush:** But, when you have a state that implements these projects, wouldn't you hold those to account?

**CHAIR:** Thank you very much for your evidence, and thank you so much for your time today. We really do appreciate it. For the items that you have taken on notice, the return date is 2 November.

**DEEN, Mr Yuseph, Chief Executive Officer, New South Wales Aboriginal Land Council [by video link]**

**DUNCAN, Mr Leslie (Phil), Private capacity [by video link]**

**HOOPER, Mr Frederick Arnold, Chairperson, Murrawarri Peoples Council of the Murrawarri Nation [by video link]**

[10:48]

**CHAIR:** Thank you very much for appearing here today. I understand that information on parliamentary privilege has been provided to you regarding the protection of witnesses and evidence. Do you have any comments about the capacity in which you are appearing here today?

**Mr Duncan:** I'm here in my capacity as a BCC member. I'm the inaugural Indigenous chair of the Basin Community Committee, which I am still a member of.

**CHAIR:** We have a written opening statement from the New South Wales Aboriginal Land Council which will be published on the committee's website. We will go directly to questions, bearing in mind that the committee members have your opening statement and hopefully will have read it.

**Senator PAYMAN:** My questions are to Mr Hooper. Referring to the \$40 million that was allocated in 2018, I'm curious to know what decision-making forums you think First Nations should have greater access to and how representation should be determined.

**Mr Hooper:** I was instrumental in negotiating the \$40 million. Throughout that time Mr Tony Burke was the opposition water spokesman. It's taken too long. I was the chair of the Northern Basin Aboriginal Nations at the time. We were asked to put a submission to the department in terms of how we felt that \$40 million could be disbursed throughout the northern basin—or the \$20 million in the northern basin—and I believe the Murray Lower Darling Rivers Indigenous Nations did the same thing.

We've had seven years of consultation. I'm going to another meeting in November in Canberra to work out how this money is going to be rolled out in the Murray-Darling Basin. Certainly, when we had a meeting in Dubbo, one of the proposals I put forward was that, and I believe that, with all of the negotiations or all of the consultations that are going on, there should be a provision in this amendment for the establishment of a First Nations cultural water holder in the Murray-Darling Basin with similar powers to buy water. Similar amendments to that would be to gift water to First Nations once the First Nations have the ability to manage and own that water licence.

I also believe that the \$40 million has devalued over the years, so there should be an increase in the \$40 million to at least double—or to at least \$100 million. Along with that should come the mechanisms to support that purchase of cultural water, which we call cultural economic water, within a system that has the professionals to advise the First Nations water holder, similar to the Commonwealth environmental water holder. Mechanisms I believe would be—we're looking at a trust model. The Northern Basin Aboriginal Nations put up a trust model to the department which was rejected by the government of the day. I firmly believe that there should be a First Nations water holder for the Murray-Darling Basin with all of the administrative support similar to the Commonwealth environmental water holder.

**Senator PAYMAN:** You just mentioned the cultural economic water. If we were to consider the differences between cultural economic water, environmental water and water for First Nations economic independence, how would you manage tensions between those categories?

**Mr Hooper:** I'll refer to NBAN and MLDRIN, which are the Northern Basin Aboriginal Nations and Murray Lower Darling Rivers Indigenous Nations. During the last, I suppose, 10 years that we've been working with water, we've come up with this concept of Aboriginal environmental outcomes. Aboriginal environmental outcomes are First Nations outcomes that can be achieved by environmental water. It's different to First Nations economic outcomes and First Nations cultural outcomes. It's what we call cultural flow, which is defined by the Echuca declaration. Also, the National Cultural Flows Research Project put out a number of booklets in terms of how they feel that First Nations water should be bought and used within the Murray-Darling Basin. Also, they looked at the legal rights of First Nations people in terms of water throughout Australia and in the Murray-Darling Basin. There is a distinct difference between environmental water and First Nations cultural water, and they're outlined in the national cultural flows research.

I'm actually working on a project at the moment with the New South Wales Department of Planning and Environment to look at the allocated water in the Barwon-Darling for Aboriginal environmental water. There's an amount of water that's allocated in the water sharing plan for the Barwon-Darling, so we're looking at a project to



use that water which hasn't been used the whole time it's been in the water sharing plan by any organisation or any First Nations person in the Barwon-Darling, and we're hoping we can get Commonwealth support for that as well.

**Senator PAYMAN:** Will that project take into consideration how to manage the tensions, because obviously environmental water is not able to be sold? How do you come to terms with that when we're talking about cultural economic water?

**Mr Hooper:** We accept the fact that Aboriginal environmental outcomes can be achieved by environmental water. By working with the Commonwealth Environmental Water Holder and the New South Wales government and the Queensland government in the northern basin—it might be different in the southern basin—we believe that those outcomes don't conflict. We believe that there's no conflict with Aboriginal economic water, which is used for Aboriginal economic purposes. The New South Wales government has what they call a cultural water allocation that can only be used for cultural purposes. There are no provisions within any of the water acts for cultural economics or First Nations economics. We would have to buy the water with a willing-seller willing-buyer process. I don't believe there is any conflict between them both because you can work with the Commonwealth Environmental Water Holder to achieve those Aboriginal environmental outcomes. There is a graph of how that would work in terms of the environmental water, but there's certainly no conflict. I don't see any conflict between that.

The only conflict I would see is with the irrigators in terms of buying water for First Nations people. I think that we have a legal right in this country, through our international obligations for First Nations, to own water and to manage that water themselves for the purposes that First Nations believe they want to do it and they want to use that water for.

**Senator PAYMAN:** Thank you, Mr Hooper. Mr Deen or Mr Duncan, do you have any comments to add to that?

**Mr Duncan:** Is it okay if I go first?

**Mr Deen:** Absolutely, Phil.

**Mr Duncan:** Thanks, brother. With whatever mechanism is set up, there's got to be equity of access so it's not monopolised for the interests of a few. I'm delighted that the New South Wales Aboriginal Land Council is actually joining today because, in 2012, I wrote the submission towards the Murray-Darling Basin Plan when I was with the strategic policy planning unit. I want to be quite succinct with this: it needs to have a positive impact on people of country and it needs to be transferred and accountable. So whatever mechanism is implemented to deliver that amount of money is important.

There are 64 local Aboriginal land councils that have a legislative and legal requirement and they own land tenure. There are another seven Aboriginal land councils in New South Wales that, under the New South Wales 1983 Aboriginal Land Rights Act, have jurisdictions that come into the MDB jurisdiction of New South Wales. That's 27,500 members and rising. They have a legal and legislative responsibility to represent the rights and interests of Aboriginal people and they have not been included in any dialogue.

I want to clearly state that back in, I think, 2000 when the first ever Aboriginal water trust was established in this country and, to my knowledge, in the world for Indigenous benefits the NSW Aboriginal Land Council actually led that. Yes, we were employed by the department of land and water conservation. They assisted us in establishing that. Current senior counsel Tony McAvoy and I were at those negotiations with the backing of the native title corporation back then and the NSW Aboriginal Land Council. So, whatever mechanism is established, there has to be equity in access.

If you're looking at a framework for it, the former National Water Commission's First People's Water Engagement Council, which I was the inaugural chair of, adopted a policy framework in 2012. It was signed off on 29 and 30 April 2012 in Hindley Street in Adelaide, and 250 people signed often on that policy framework. The National Water Commission also engaged Ian Perkins of Lawlab to do an Indigenous economic paper. Victoria adopted that same framework and it is working successfully. So we've got frameworks that can be explored and customised to look at how we can establish this framework for the basin, not to be confused with the national focus and the three per cent of the inland targets. This is about the Murray-Darling Basin. So we can explore that.

I also want to applaud MLDRIN and NBAN for the heavy lifting in the early stages. That was very much appreciated by a lot of people. We've got a mechanism in New South Wales. Our nine councillors are elected by the people to represent the rights and interests of the people, and that election is being run by the NSW Electoral Commission. So what I'm getting at is, if we are going to go down this path, we have to widen our gaze and widen the inclusion of Indigenous interests to be involved in the dialogue.

If you are talking inclusivity, I would 100 per cent support the NSW Aboriginal Land Council. I would also look at the Yarkuwa Aboriginal corporation down at Deniliquin. I would look at a very inclusive and transparent approach to ensure the voices of the many people in the basin are heard and that people have the opportunity to table their thoughts in a safe environment where we can have the necessary courageous conversations to get a result.

**Senator PAYMAN:** Thank you, Mr Duncan.

**Mr Hooper:** Senator, can I make a quick comment?

**Senator PAYMAN:** Sure. We will just need to wrap it up quickly as the chair wants to rotate the call and I still have to give Mr Deen a quick opportunity.

**Mr Hooper:** I will wait until after Mr Deen.

**Mr Deen:** Thank you. I will just feed off Phil's comments generally. From a NSW Aboriginal Land Council perspective, we consistently advocate that Aboriginal peoples and communities be afforded full participation in the design, delivery and implementation of policy, services and projects relating to water rights, environmental conservation, culture and heritage. Circling back around to Fred's comments on our environmental flows and cultural flows: it's our view that governments must go beyond reliance on cultural flows as a means of increasing Aboriginal people's access to and ownership of water and recognise that it is Aboriginal people's inherent right as First Peoples to have water entitlements of a sufficient and adequate quality to enable cultural, social, environmental and economic outcomes, as outlined—as mentioned by Fred—in the Echuca declaration.

**Senator PAYMAN:** Thank you, Mr Deen.

**CHAIR:** Mr Hooper, do you want to make one final comment?

**Mr Hooper:** Just very quickly. The National Cultural Flows Research Project undertook a pilot program on Gooraman Swamp, which is on the Culgoa River, and they found that, prior to development upstream, the swamp would fill at least 85 times in 100 years. Currently it's 29 times in 100 years. With the full implementation of the Basin Plan, we can get that up to 50.

On the \$40 million, there has been a lot of consultation on the mechanism that's going to roll out that \$40 million, and that's currently with the department. We're meeting in Canberra on the 28th to further progress the consultation and make the decision on how that water is going to be dispersed as well.

**CHAIR:** Great. Thank you very much.

**Mr Duncan:** Madam Chair, I would encourage the Senate to ensure there is an invitation to the NSW Aboriginal Land Council, given the significance of their land tenure and their legislative and legal responsibilities.

**CHAIR:** Thank you. We'll go to Senator Davey.

**Senator DAVEY:** Thank you very much for appearing. Thank you—this is to the NSW Aboriginal Land Council—for your very comprehensive submission. It's very informative reading. I have so many questions, but I will try to keep it brief. I have seen firsthand some very good examples of when we work together with our Indigenous knowledge holders to deliver, as you said, Mr Hooper, Aboriginal environmental outcomes using existing environmental water. One example is Pollack Swamp, west of Deniliquin, which involves five nations working together with landholders and with the Environmental Water Holder. There's also the Billabong Restoration Project in some of the northern rivers. There are really good outcomes, but I accept, Mr Hooper, your differentiation—that is, that Aboriginal environmental outcomes are separate from cultural or economic outcomes that may be sought, particularly through the \$40 million. I note that there is nothing in this bill before us that mentions cultural flows or cultural economic development or even an Indigenous or First Nations water holder. There's nothing in this bill before us that mentions any of that. I am aware of—you used it, Mr Deen, in your submission as a case study—the Nari Nari cultural Aboriginal water licence, which is a New South Wales licence that has quite significant limitations on its use. Am I right, when I look at that licence and the provisions around it, to think that it can be used for cultural flows and can be used at a timing advised by the Indigenous peoples but cannot give them any economic benefit whatsoever? They can water their wetlands or they can have a cultural bird-breeding event or whatever, but, if they then go onto the wetlands and collect native herbs and produce a native medicine or tonic and then go and sell it, they're actually in breach of their licence conditions. Am I interpreting that correctly?

**Mr Deen:** I think you're spot on, Senator, in terms of the limitations of the licence. The unfortunate challenge that First Peoples always face is that when water entitlements are looked at through a cultural lens there's no appreciation that the cultural and the economic coexist as part of I guess our customs and laws that have existed

for more than 60,000 years. So, when it's instituted in legislation or an instrument, it limits the expression and the capabilities of First Nations peoples to actually derive intrinsic, inclusive benefits beyond what others might just view as cultural objectives.

**Mr Duncan:** If I could take the liberty of adding to that, you are both correct. There are a couple of things. The 2009 report by Altman and Arthur is a comprehensive and detailed paper that highlighted all the water holdings across this country. A significant outcome from that through recognition was that the New South Wales Land Council and the local Aboriginal land councils collectively were the largest Indigenous Aboriginal water holders, First Nations water holders, in the country. For instance, Mungindi Local Aboriginal Land Council used to have a 2,200-megalitre licence. Moree, where I come from, had a 2,200-megalitre licence. They're gone. So, you can have a look at that report and then refer to the Harper report in 2018, which shows a significant decrease of 17 per cent of those water holders.

I also led the Murrumbidgee 2,150 megalitres for the New South Wales government. In there we talked about having that 2,150 to be able to be mobile and adaptable and to be modified to incorporate economic values. Now, the Nari Nari and a whole range of land councils were on that. I also led the cultural watering plans for Deniliquin and Cumeragunja, which they love. The other opportunity—and I'm not pumping up my tyres; I'm just talking about reports—in my former position I led the development of a traditional owners framework, which is a cultural flows framework, outside the basin, deliberately—with then DELWP, now DEECA. There was Wadawurrung, Wurundjeri, Gunaikurnai—with their two gigalitres of environmental water—and Bunurong. The Wadawurrung are just about ready to sign off on that report, and I would encourage the Senate to reach out and look at the value of that report. It talks about the quadruple bottom line. I believe, from my time, from my perspective, that that framework can be picked up and parachuted into any system, because it includes, as Fred was saying, results of the National Cultural Flows Research Project in there.

But we believe it can be parachuted—and there are people who are far more academically switched on than me—into systems and optimised to suit that system to deliver an outcome. They are some things that I want you to think about. But I also believe that we've got to look at inclusivity in dialogue and have those discussions in the most respectful and forthright manner, to allow the voices of people who have not been connected, and institutions, bodies that have not been connected to the water debate in the Murray-Darling Basin. And I go back to when it started, in 1999, and the development in 2000. And I support Mr Hooper's position that it can't be all about the economics of it.

Before I leave, I want to wrap up by saying that we need to start changing our language. We don't need to compromise things. That means you've got to give up something. We need to find balance. And when you're looking at finding balance and how we find balance, in those conversations, let's think about it through the eyes of our next generations, because they are the ones who are going to be going into the state of the environment and the state of the society that we leave them. I've got now 11 grandkids. I want them running and jumping in the Gwydir, the Namoi, the Macintyre like I did. I want them fishing and camping, and I want them to be doing it with the whole community as well, so I want you to think about that.

I want to give my profound apologies to you, Fred and Yuseph as well. Unfortunately, I also apologise about my carrier—and I'm not going to name my carrier. I really value and appreciate the opportunity to talk, and I believe that we are like-minded in a lot of the outcomes we aspire to achieve through a cultural lens. But we have to have inclusivity in bringing those key stakeholders, those key decision-makers and the legal mechanisms to the table together in respectful conversations. I thank you so much for being patient with me, and I apologise for leaving early. But as the first Indigenous chair of the Basin Communities Committee, it has been a wonderful journey, but we still have more to do, together—together, collaboration.

**Senator DAVEY:** Before you disappear, I have one more question. But I also want to note, Mr Duncan, that you were appointed Basin Communities Committee chair based on your expertise, not because you are an Indigenous person. Is that correct?

**Mr Duncan:** Yes, thank you so much. I don't want to be remembered as the first Indigenous chair; I want to be remembered as someone who cared, someone who was a collaborator, someone who brought people, industry and stakeholders together, someone who cares about the future of country and looking at that, like many of us, through the eyes of our kids and our grandkids. It's an honour to be the Indigenous chair, but I hope people recognise my time over 5½ years as me being a collaborator, a partner, a relationship builder and a knowledge broker. I thank you very much for being patient with me.

**Senator DAVEY:** Thank you. I have one final question, if you don't mind being brief. It might be a bit of a curveball, so you can take anything on notice as well. The concept of a First Nation water holder akin to the Commonwealth Environmental Water Holder to pay due respect to the Echuca declaration would need to be able

to get economic benefit out of the water holdings it manages. How do you create such an entity while giving due respect to the sovereignty of the 64 local Aboriginal land councils with land tenure? I think there are 40 nations within the Murray-Darling Basin, and in certain times and certain years one area under one land council might be best off temporarily selling their water allocation that year for the economic benefit, whereas another area or another land council or another nation might say, 'We've got significant cultural flows we want to achieve.' How do we do it to ensure that all of those nations and their desired outcomes are respected and, as Mr Duncan said, 'Noting we need equity of access and positive, transparent and accountable outcomes'?

**Mr Duncan:** I will be very brief. It has got to be a safe environment to bring the key stakeholders together. I don't apologise for saying that there is too much conflict within the Indigenous debate amongst ourselves, and yet we share the same vision and aspirations. But we need to come together and codesign what this mechanism may look like. I believe it's amending part 6 of the act, and I also want to make a distinction. We're talking about the Murray-Darling Basin \$40 million here; we're not talking about the national. There are other things we have to think about: do we have one mechanism that looks after the basin and the national, or do we have them separately, or do we duplicate that? There is so much dialogue and so much more deep diving into the future direction that we take to get the outcomes for Indigenous people of this country and of the basin. But we need to do it together and we need to be more respectful of one another's opinions and views and what we bring to the table because the many options give us a greater thinking opportunity about what direction we need to take together. Fred and Yuseph, I'm sorry I've got to jump off. I know that you will be brilliant with continuing. Senators, thank you for the time. It's very much valued and appreciated. All the best with the ongoing dialogue in this significant inquiry that you are leading.

**CHAIR:** Thank you very much, Dr Duncan. We appreciate your time. Mr Deen and Mr Hooper, in relation to Senator Davey's question, if you could be very brief and, as she has suggested, maybe take on notice any more detailed aspects to that final question, that would be excellent, thank you.

**Mr Hooper:** Very briefly, there's only an allocation of 10 megalitres per person in the New South Wales cultural water process. When we negotiated the \$40 million for the Murray-Darling Basin, we also negotiated \$1.2 million for the Northern Murray-Darling Basin Aboriginal Nations and MLDRIN. When I was the chair of the northern basin, we went through a nation planning process. We've developed what we call nation planning: this is the Murrawarri nation plan, as I'm appearing as chairperson of the Murrawarri Peoples Council. In our plan, we have aspirations around environmental, cultural, economic, spiritual and governance processes. Our aspiration is a healthy environment is good for the country and the people. We have lived with and cared for the environment for thousands of years. I won't go through all of it. We had to pick five sites within our nation to look at how we wanted to develop those sites around water. There are environmental objectives for each site. For example, for North Bourke, which is on the Barwon river just north of Burke, one of the environmental objectives is:

- To develop a program which will provide for the regeneration and re-vegetation of the area with native flora and fauna over the next ten years.
- To establish the site as a Murrawarri interpretation garden ...

So not only can we get environmental outcomes from environmental water; we can also get some site economic outcomes, which could be tourism, cultural tourism, or raising plants and then onselling those as well. That's the objective of the project that we're undertaking at the moment for the environmental side of it.

In terms of the question, I would recommend that the Senate look at amending the act to include a new part called a special First Nations cultural account. Also, within the environmental section of the act we would add a new item around Aboriginal environmental outcomes that need to be achieved, even though it's within the Murray-Darling Basin Plan and the long-term watering strategies for New South Wales. On the environmental side of it, we need to be able to get those Aboriginal environmental outcomes as well. One other note: we only own 1.2 per cent of water within the basin.

**Senator DAVEY:** I note you negotiated that funding for NBAN. You were chair of NBAN, Mr Hooper, but since you left the chair's position we've learnt through the estimates process that the MDBA has ceased funding NBAN.

**Mr Hooper:** Yes.

**Senator DAVEY:** I won't ask for comment today—it's not the time—but I will just put that on record.

**CHAIR:** No. We really are running behind.

**Mr Hooper:** Sorry; I'll just note on that that we put in a submission to the department to hold a summit within the Barwon-Darling, which was rejected by the department. It was going to bring over 100 people together to talk about the amendment to the Water Act and the Basin Plan, and that was rejected by the department.

**Senator DAVEY:** Thank you.

**CHAIR:** Thank you. Senator Hanson-Young.

**Senator HANSON-YOUNG:** In the interests of time, most of my questions have been asked already, so I'm happy to go with the questions that have been asked.

**CHAIR:** Fantastic. I would like to thank you for your time today. We really do appreciate it. There have been a couple of questions taken on notice. The return date for those answers is 2 November, which is a pretty tight turnaround I'm afraid. I would also ask: for any of the reports you've referred to—particularly you, Mr Hooper—if you wanted to send the links to us by email, that would be great as well, just so we have the full body of evidence that you've referred to.

**Mr Hooper:** Sure.

**CHAIR:** Great. Thank you so much. On that, we will now take a short break.

**Proceedings suspended from 11:25 to 11:40**

**BLACKER, Mr Daniel, Deputy Inspector-General, Inspector-General of Water Compliance****GRANT, the Hon. Troy, Inspector-General, Inspector-General of Water Compliance [by video link]**

**CHAIR:** I now welcome the Inspector-General of Water Compliance, the Hon. Troy Grant, via videoconference, and the Deputy Inspector-General of Water Compliance Mr Daniel Blacker. I am assured that you've received information on parliamentary privilege and the protection of witnesses. We have a written opening statement from you, which will be published, and the senators have that.

**Senator HANSON-YOUNG:** Thanks, gentlemen, for joining us today and for your submission. I understand you have had some consultation with the department and the government prior to the legislation we are inquiring into being tabled. Obviously they didn't take all your recommendations, because you're still suggesting some changes. For the sake of our process, could you outline your key concerns with what hasn't been dealt with in this bill? I've got some questions around more powers and auditing, particularly of the SDL part of the program. If there are other issues, I'd like to get a sense of them. It's your job, whatever it is that we pass, to make sure it's adhered to. What do we need to do to make sure you have the powers to do that?

**Mr Grant:** I'll give a quick introduction to that and then Daniel Blacker, who was my representative at all the meetings, can go to the details. We have three key issues we want to bring to your attention today, given the limited time. We'd need a couple of hours to take you through a holistic level of concerns about a number of missing parts to the bill. Not all bills are perfect, as I said in my opening statement, but we've been concerned with some of the processes and been very disappointed with some of the consultation components of the bill. Notwithstanding that, there are a lot of good things and improvements in the bill that we've fought hard for. They all relate to integrity, accountability and transparency, which are the themes of what we're all about. As you rightly say, whatever the parliament dishes up, it's our job to make sure that the plan works, utilising our powers and functions. Daniel Blacker will take you through the three critical issues I referred to. We are happy to answer any and all other questions.

**Mr Blacker:** The first issue we'll pick up, which we outlined in our submission, is about the sustainable diversion limit compliance. I'll talk briefly about what's in the bill and then briefly about what we'd like to see in addition. At the moment there are a range of amendments or provisions in the bill which go to strengthening the inspector-general's role in relation to SDL compliance. That's about providing role clarity and real construction around where the decisions are made on SDL compliance and who makes those decisions. There is some ambiguity in the current plan around how that works. A lot of these amendments are about providing clarity about what the inspector-general does and how we will do it. It also provides some clearer pathways around what happens when there's noncompliance with a sustainable diversion limit. It provides for action plans—and for those action plans to be brought forward from the states to the inspector-general—about how to get back into compliance, if there is an excess of take over those limits. It puts guardrails around the process for that and the ability of the inspector-general to provide statutory guidance material on how that will operate. Just yesterday we published an SDL compliance framework, which outlines how we'll be applying a set of principles to SDL compliance. We think it's important that we give that clarity, while the bill is being debated, about how we intend to approach SDL compliance as well. That's what the bill does in terms of the provisions that are in it.

Our submission talks about the opportunity to go further. We're nothing if not pragmatists and opportunists. When we see an opportunity like this bill, we want to maximise the amount of integrity, accountability and transparency in there. One of the operational issues that we've come across in our first two years relates to water resource plans and sustainable diversion limits. At the moment, the Basin Plan has a provision which says, 'Once a water resource plan is accredited, the register of take must commence with a cumulative balance of zero.' That means that, every time a water resource plan is accredited, that area or valley starts with a zero balance. At the moment, water resource plans are still coming through for New South Wales. They're starting at different times to other states, so we've got a difference in timing and fairness around the start date for SDLs.

There are also some perverse incentives. For example, New South Wales doesn't have accredited WRPs, particularly for the surface water areas. If they are over that limit when that comes in, they'll get a benefit from that. If they're under the limit, they'll be disadvantaged. That's not the case just in New South Wales; that's happening in other jurisdictions as well. For example, South Australia and Victoria had their water resource plans accredited after 1 July 2019, so there's a whole water accounting year there where they start in the 2020-21 water year, instead of the 2019-20 year. Any of the credits that have accumulated for underuse are lost through the process. We're advocating for a change to that rule. It's been our practical experience that it doesn't seem to be able to be implemented in the way that it was intended. As the regulator, we have the choice between pursuing what we would consider to be a rule that's not fit for purpose, and its lawfulness, versus what we consider to be a

good outcome for the Basin Plan and for water management. That's the basis on which we've made some propositions in our submission.

I'll pause there in case there are any questions on that one in particular, but I'm happy to go through the other two matters that the inspector-general referred to.

**Senator HANSON-YOUNG:** We may come back to that, but I'd be keen to have you outline the other two so we can see how they perhaps intersect.

**Mr Blacker:** The second one we raise in our submission is about SDLAM, particularly about notifications. There are some changes proposed in the bill to the notification provisions. We are the compliance agency for those notification provisions, and we have looked at potential noncompliance in relation to those notification provisions to date. We've got some concerns about how they're currently constructed in the Basin Plan. For instance, missing definitions and undefined terms—things like 'as soon as practicable' and those sorts of terms—make the compliance and enforcement part of that particularly challenging. There are some proposed changes to those provisions, and it takes out the 'as soon as practicable' and extends the deadline for those.

We've really highlighted that we don't look at this issue as a notifications issue or a compliance issue; we look at this as a transparency issue. Putting aside the notification provisions, what we want to see is transparency around progress on SDLAM projects, however that's achieved. Notifications are one way to achieve that. Public reporting is another way. So there's a range of things that can come together to get that outcome.

We've noted the amendment—I think in the lower house—that brings in some annual reporting requirements around SDLAM. We would note that the Productivity Commission in their report have picked up on that as well and produced what I would say is some additional detail around what would be required in that sort of annual reporting. For example, I think recommendation 2.1 in the Productivity Commission report also suggests that there should be a Commonwealth trigger in relation to that so that, if a state doesn't bring forward a notification, the Commonwealth can make that change to that notified project or measure. So there's a range of things there that need to come together to give clear public transparency on projects like Menindee—where is it up to? If it's not viable, as the Productivity Commission says, and it's not viable by the extended deadline, then there needs to be a conversation about Commonwealth progression of the funding of that. Those are the sorts of issues we'd like to see considered around that notification clause.

**CHAIR:** Do you support what's in the Productivity Commission report? I note it's come out today, so I am quite happy for you to say you'll take it on notice, but do you support what they're saying in terms of those measures?

**Senator HANSON-YOUNG:** The Commonwealth trigger—

**CHAIR:** And the additional reporting and notifications.

**Mr Blacker:** I can see the inspector-general about to jump in there, so I'll let him go first and then I'll jump in.

**Mr Grant:** Yes, we do.

**CHAIR:** Great. Excellent. Thank you.

**Senator HANSON-YOUNG:** And the third element—the third issue—that you wanted to talk to?

**Mr Blacker:** I think we just wanted to highlight a couple of things that we found in relation to the Water for the Environment Special Account. We've done some work looking at the overall funding envelope for the basin Plan around the \$13 billion. What stood out in that process was that the WESA was a really good example of being able to very clearly see what's happening with the expenditure, particularly the Water for the Environment Special Account statutory review, which is in, I think, section 86AJ of the Water Act. The bill brings in a third statutory review which we wanted to highlight. We think that's a really important accountability and transparency mechanism which, from the contents of the second WESA review, proves very valuable from a transparency point of view.

**Senator HANSON-YOUNG:** Of course, we know the \$13 billion figure. The whole point of this piece of legislation is that, despite \$13 billion, we're not going to meet the outcomes of the plan, which is why we're asking for people to have an extended due date on their homework. Of course, the government has said to us and the department is saying to us that they can't even tell us how much money they've put aside for this next extended phase, because of commercial sensitivities and impacts on the water market—all things that are understandable. But, when we can't even see exactly where that existing \$13 billion went, I find it really hard to swallow that we're being asked to pass a piece of legislation that does not include proper transparency of how much taxpayers' money is going to be spent on these things. Mr Grant, have you got something to add there? I can be a bit more specific with my question, but I feel like it's obvious.

**Mr Grant:** Yes, we share similar concerns and have done a body of work to try and give the Australian public a little bit more confidence, from what's publicly available, in what has been spent to date. There is some legitimacy from what the department is saying around aspects of forecasting finances for the legitimate commercial reasons, but I am with you: it only reduces confidence across the Australia public when there is more of the same lack of detail about the spend of taxpayers' money into the never-ending story that the Basin Plan seems to be tracking on. There is some good progress being made in this law reform, but we're far from satisfied that it's as good as it could be.

**Senator HANSON-YOUNG:** You mentioned the WESA account and the processes around that as being more transparent than the bulk of the remaining \$13 billion we've spent. Are there specifics that you would like to see us work or change or implement that would mirror what you think has worked in terms of WESA?

**Mr Grant:** I'll let the deputy answer that, but the large part of that answer is also contained in my opening statement, which I've provided to you, and that goes to our review—that we're out of sequence in relation to our abilities and functions and powers and resourcing now. It should have been addressed before this bill came forward so that we can more adequately answer the question you just asked. Our bigger ask is that we need to depoliticise the role that we play going forward, and there needs to be the ability to bring forward accountability and transparency legislation without getting into the politics of the basin and [inaudible] water recovery and all the important aspects, the things that we don't need to be provided with to ensure that success in the Basin Plan can be achieved. That's a generalisation, but that's why we can't answer your question in full—because we're a bit out of sequence. But I'll let Deputy Blacker elaborate.

**Mr Blacker:** The third WESA review that's provided for in the bill will be really important to understand whether things are on track towards the revised deadlines or not. We were established in August 2021. The deadline for the second WESA review was 30 September 2021, so just after we were established. We had quite a few interactions where we put people on notice about late homework in that regard. That report wasn't delivered on time, and I note the first WESA review wasn't delivered on time either. So we've made it very clear to people that our expectations are that those independent reviews are delivered on time. With the introduction of the inspector-general, there's that additional compliance element to those aspects.

Now, that comes into a whole series of other questions: Where is our role? Where does it start and stop? What are our functions? What are our powers? We've essentially got two hats that we wear. One is the regulator hat, and the other one is the integrity and oversight hat. Often when we're playing in that space, a lot of our work is trying to work out what area we're playing in and therefore which powers we have to pursue those things. We've got what I would call quite extensive powers in the compliance and regulatory space, but our powers are quite limited in the oversight space. So, when we're looking at performance and performance monitoring and the exercise of functions by Commonwealth and other state agencies, our tool is effectively the inquiry tool. Short of the inquiry tool, we're quite limited. We have the administrative tools, like public voice, and we use those, but we are talking, through the independent review, about our preferences around the ability to do performance audits in the same way that we can do compliance audits and the ability to require information on performance issues in the same way we can require information on compliance issues. Those are the sorts of options that have been considered in the independent review of the inspector-general.

**Senator HANSON-YOUNG:** Can I ask specifically in relation not just to auditing of money spent and value for money for the taxpayer—all of those elements—but to auditing of the SDLs themselves. A number of submissions to this inquiry have called for an independent audit. Do you think it's appropriate for the Murray-Darling Basin Authority to effectively have unilateral deciding powers over the method of assessing the additional supply projects and the final SDL reconciliation? We've been presented with two very polar opposite opinions. You have scientists, the South Australian government and Richard Beasley saying: 'These projects are shams, and they've been shams. They need to be audited before you start throwing any more money after them or creating any new ones.' Then you've got various irrigator councils saying: 'No, they're going fine, and we'll come up with some new ones. It's all going fine.'

**Senator DAVEY:** I don't think anyone is saying that it is going fine.

**Senator HANSON-YOUNG:** That's fair. We all knew Menindee was a basket case from the beginning, and no-one stopped it—for years. It has been a rort. We've got polar opposites. How do we bridge that?

**Mr Grant:** Using Menindee as the specific example, you're right in saying that it's been publicly named, whether it's been in the Productivity Commission report, WESA reports or general commentary. It's about the notification and it's about the lack of oomph in the legislation that we currently have, which is mirrored somewhat in the legislation before the parliament now. Things aren't clearly defined. I told Senate estimates this: there are too many get-out-of-jail cards in the legislation. It's words like 'should have regard to' or 'may consider'.



We've done a body of work. We can't even tell you what defines a notification of a project that needs to be withdrawn. There's been commentary at BOC and there's been commentary in the media that Menindee's not going to make targets, yet there has not been a notification under our assessment—as best we can articulate with legal advice—that that project is not going to proceed and needs to be withdrawn, as the legislation requires. So we can't take compliance action on the lack of notification because we can't define under law what a notification is.

There needs to be a lot more rigour around definitions. If we have that ability, we have far more scope and ability to enforce, compel or get compliance there. There's a big difference in the Murray-Darling Basin Plan and the associated acts between what is a 'commitment' or an 'intent' and what's an obligation under law that you can be held accountable to. That's where the tidying up, the clarification and a little bit more consequence needs to come into all legislation and arrangements with regard to the Basin Plan and the Water Act. Daniel?

**Mr Blacker:** There are a couple of things there. As Troy mentioned, we do quite a bit of work trying to work out what an enforceable obligation is. We have lists including 'recognise', 'note', 'encourage' and 'agree that'. They're all words that can't be enforced. So there is quite a lot of that in the Water Act, in the Basin Plan and, indeed, in water resource plans as well. We have to work our way through that. In terms of your specific question about SDLAM and accounting for SDLAM and the MDBA, there is an additional provision in the bill, I think. I can't remember if it came in with the bill when it was introduced or if it was an amendment in the lower house, but section 7.27 in the Basin Plan provides that the MDBA can seek an independent body to undertake an audit of its calculations of SDLAM. That would include, for example, reconciliation. The bill, as it stands, adds the inspector-general there so that the inspector-general can commission an audit of the MDBA's calculations. It provides that distance from the MDBA and provides an independent option around auditing those calculations.

**Senator HANSON-YOUNG:** This is my final question as I know the chair wants to hand over to others. You talked about how part of the issue here is dealing with excess of take. At the end of the day, this is what we're trying to deal with. The whole problem is overallocation. We're trying to recover water, which means you ultimately butt up against people who are still taking too much. Are there still examples and are you being made aware of incidents where take is still over and above what it should be?

**Mr Blacker:** The inspector-general produces an annual sustainable diversion limit compliance statement. We've done that for the first two years of operation. We released our second one in I think August this year. That highlights that Queensland, Victoria, South Australia and the ACT are all operating within all of their sustainable diversion limits. The gap there is still New South Wales, where water resource plans are not yet all accredited. SDL compliance doesn't commence until water resource plans are introduced, because the rules for how to account for SDL sit within the water resource plans. Indeed, if there's an excess, the first thing the legislation requires us to do is check if the state has followed its water resource plan. If it's not there, we can't do that.

Our second compliance statement has highlighted that, under the bilateral arrangement between the MDBA and New South Wales departments, they do do accounting, which is good because it gives us a sense, from a monitoring point of view, of how things are going, irrespective of the fact that the legal framework hasn't commenced yet. It's problematic because which version of a WRP do you base that accounting on when they're coming in, being withdrawn and resubmitted. It's challenging. But that highlights that there are some areas that are of specific concern in New South Wales that don't yet have water resource plans—the Barwon-Darling, for example. It highlights that for the last three years that has been in excess, and I think the cumulative balance for Barwon-Darling is now up to 40 per cent over the sustainable limit. The Gwyder is, I think, just over 20 per cent for the first time in the last water accounting year. There are a number of others that haven't reached the compliance trigger yet, so there's a buffer, if you like, between the limit and a 20 per cent trigger for compliance considerations. So, yes, there are some areas.

The reason we're highlighting the SDL compliance and accounting issue with resetting things to zero is that those valleys then would be reset to zero upon commencement of a water resource plan. There is the possibility that as those water resource plans go through the MDBA's assessment process that some of those accounting requirements—what is permitted, what is actually being taken—may change through that process. We have to wait and see, and we don't know what that looks like. But what we'd like to do is consider the whole time line from 2019 onwards, rather than starting from when the water resource plan is accredited.

**Senator HANSON-YOUNG:** Because there's that unfairness, as you say.

**CHAIR:** What's your sense of what that looks like? Is it a zeroing out, a changing the data, having an indicative piece? What is the solution?

**Mr Blacker:** We think it's practically viable. This advice is probably best coming from the MDBA as the water accounting agency, but we've obviously discussed these issues with the MDBA to see if they're viable. We would be proposing that water accounting, SDL accounting, commence from 1 July 2019 for all jurisdictions and that that be the baseline. Now, that's not a particularly controversial position. It was actually agreed by the ministerial council in 2018. It just hasn't been implemented.

**CHAIR:** Excellent. Thank you very much. We'll go to Senator Davey.

**Senator DAVEY:** Thank you for attending today. I take on board and totally acknowledge and share everyone's frustration that New South Wales still has not yet got water resource plans in place—particularly when we have had advice over successive estimates that, in some cases, it's a matter of there being too many typographical or formatting errors in water sharing or water resource plans. I don't know why it takes five iterations to correct what are typographical errors. Certainly, New South Wales has held has not held up its end of the bargain. When it is just a matter of typos, I don't know why they can't use track change, send it back to New South Wales and hit accept all—job done. I don't think there has been transparency in the process for everyone involved. So I completely share your frustration.

On that, there has been a bilateral agreement. You've provided the data about actual extractions each year. So you're collecting the data from New South Wales, even though you can't assess it against a water resource plan. When they do finalise the water resource plans, will you be able to take a retrospective look at: 'Have these been in place in 2019?' because you've got the data?

**Mr Blacker:** My understanding is that that would be a function of the MDBA, as the water accounting agency. They produce the register of take, and that comes to us for compliance considerations and any enforcement action as necessary. My understanding is that it's technically possible to do that. It does run into some challenging areas. Take, for example, flood-plain harvesting in New South Wales. How do you account for something that wasn't a thing at a point in time at which you're accounting for it? Those are challenges that I understand can be overcome technically. For example, in the Barwon-Darling, as I've spoken about, it appears that, for three years, there's an excess of 40 per cent cumulatively across those three years. New South Wales, if they were here—and New South Wales DPE, as the agency responsible—would argue that that's actually a modelling issue, not a take issue. So a lot of what sits in the accounting in the actual take is modelled take, not measured take, not metered take—

**Senator DAVEY:** Right. But we've now had new laws introduced in New South Wales in the Barwon-Darling. So now all take, technically, should be measured.

**Mr Blacker:** We are definitely advocating very strongly for a transition: wherever there is modelled take in the accounts and it can be measured take, we think that's a must-do.

**Senator DAVEY:** I note that, in the bill that we're currently looking at, there are obligations such that, when the SDLs are adjusted—and at the moment it's got to be through notification—that leads to an adjustment in the water resource plans. Given that we've seen how long it takes to draft the water resource plans, my concern is that in this bill, particularly where it says, 'SDLs can be adjusted from time to time'—so there's no time line and the minister can determine to change the SDLs from time to time—that then has to lead to an adjustment of water resource plans. To me, that rings alarm bells, if there are no clear deadlines of: 'It has to be done by this date to enable a sort of a process to be undertaken.' Have you got an opinion about that sort of vagueness in the bill?

**Mr Blacker:** There are probably two things. Firstly, there's the bill, and then there are some general observations about the issue. We haven't been involved in the construction of those particular elements of the bill. My understanding is that those were conversations between the policy agencies, being DCCEE and the MDBA, as the water accounting agency, who would have to implement them. So the answer to that question would need to come from the MDBA. But, in terms of some general observations about the issue you're raising, we would observe that there's a maturity journey to go on here with water resource plans. At the moment, the goal has been moving from absent to present. You've got to get to the point where you've got some plans in place. That's been the goal for a number of years now, and we're not quite there yet. Once they're in place, the job is not done. What we see when we audit existing accredited water resource plans in Victoria, Queensland and other places is that they can be adequate, sometimes they can be compliant, and sometimes they're fit for purpose, but sometimes they're not effective.

There's a journey to go on here where we'll need to update water resource plans to get from absent to present and from present to effective. For example, we've audited one water resource plan where we found it was fully compliant, but we observed that it wasn't really managing the issue that the rules were there to manage. There is a process there to move from present to effective, but we're still trying to get over the absent-to-present problem in

New South Wales. An uplift will need to happen. At the moment, the basin plan doesn't accommodate that. It's not administratively efficient. We can see minor issues where we would like to see a water resource plan update occur, but the threshold for recommending that is so high that it doesn't appear to be a sensible proposition in minor instances. We need a way to do that mechanically much more efficiently than is current. I think that's an area that's really got to be looked at in the 2026 basin plan review. I think we've got to grapple with, 'Right, if we've got water resource plans which are all present, how do we get an efficient process to continuously improve them?' They're not going to be perfect the first time.

**Senator DAVEY:** That's a very interesting observation. Finally, because I know we're tight on time, under the water reform measures in schedule 3 of this bill, there is a lot for the Inspector-General. There is also a lot that is being pushed back to regulations. I'm just wanting to get your perspective on whether you were involved in the construction. You weren't involved in the construction of the other sections of the bill, but were you involved in the water market reform sections? Have you had good insight into that? And are you comfortable with the amount that has been pushed off to regulations, or would you rather see that in primary legislation?

**Mr Blacker:** Yes, we have been involved. It depends on the issue as to how the policy agency engages with us. On water markets, we've been providing advice on things like enforceability. For example, the Inspector-General provided comments at the last Senate estimates about trade price reporting and some of the legislative gaps in the trade price reporting arrangements. We just published an investigation report yesterday. That puts our findings of 59 investigations on that element of water market compliance in the public domain, and it highlights that there are some pretty clear deficiencies in the current legislative construct. The bill does a lot to address those. That's the sort of practical feedback that we provide to the policy agency as we're working through those investigations. We're able to say, 'Look, we're seeing a big problem here.' There's no requirement to keep records, and we think there needs to be a requirement to keep records. Those are the sorts of things that are in the bill. Yes, we're involved; no, we're not the decision-maker in that process. The policy agency may or may not take our advice on particular issues, but that's perfectly valid. In terms of what we see in the bill, we're generally quite comfortable. But for the difference between water markets and the Basin Plan implementation parts of the bill, a lot of the policy was set in the ACCC's inquiry, which highlighted all of the issues, and government's response to that in a road map set the policy 12 months ago, so a lot of that is quite well-established, and we're to work out how to implement that.

In terms of regulations, there is a lot that's going to come through in regulations. The bill creates a lot of elements; for example, the code of conduct, which the ACCC will administer, the water market data standards, which the bureau will develop, and it will be the enforcement agency for the water market data standard. Until they are developed, it's very difficult for us to give advice on its enforceability or its effectiveness. A lot of the important elements in relation to water market reform are yet to come, so we would observe that we are at the start of that reform process.

**Senator DAVEY:** There is already a provision for Chinese walls to an extent. My reading of it is that this bill will strengthen that provision. This is a bit of a cheeky one: do you think that the provisions in this bill will increase the obligations not just on water market participants but also on governments who might hold knowledge about, for instance, pending expressions of interest tenders coming up and how they communicate that to the broader market?

**Mr Blacker:** Yes. At the moment we are the enforcement agency for those provisions—I think it is 1248 of the Basin Plan, which is all about water announcements—and then there are some provisions stating that, if you have Chinese walls, that can be a defence against those conflicts of interests. We're the current enforcement agency. Those things will be uplifted out of the Basin Plan by this and put in the Water Act, which will be strengthened quite significantly. The ACCC will pick those up as part of the broader conduct regulations, but we will be administering the current arrangements through to the transition. I think the transition is a couple of years off, so we're still active in thinking about those things. We are currently auditing the Department of Climate Change, Energy, the Environment and Water on that issue, so we're looking at the arrangements between different parts of the department and the management of those conflicts.

**Senator DAVEY:** Thank you.

**CHAIR:** I have one clarification point before we let you go, and it's about the federal trigger that you referred to that is in the Productivity Commission report. I'm aware that the report only came out this morning, so feel free to take this on notice. Do you feel that that trigger would be a necessary step, or, if compliance and transparency are increased as is intended, that that would still be required?

**Mr Blacker:** I would say we are not as prescriptive as the PC on that. We've outlined the outcome that we would like to see, which is that there is clear transparency in the public about where projects are up to, what the

challenges are, what the funding arrangements are. The provisions that were introduced in the lower House around annual reporting provide the opportunity for that, but the devil will be in the detail about what is in the report, how it is presented and how deeply that report goes into the detail. In part we are agnostic as to how you get there. Strong notifications plus reporting give you a more robust accountability integrity arrangement. The trigger is an interesting one because at the moment the obligation was with the proponent of the project, which is almost always if not always the states, and if a state chooses not to notify, there is an interesting question about whether the Commonwealth should have control over something where it's ultimately responsible for delivering the program. So I think we're more focused on the outcome than on the prescription about how you get there. But the PC, I think, are going in exactly the same direction we are; they've just sought to prescribe how to get there.

**CHAIR:** Thank you very much. We appreciate you taking the time to provide us with your views. If you have taken any questions on notice, we ask to have the responses back by 2 November, which is a lovely tight time frame—

**Mr Blacker:** No problem.

**CHAIR:** due to the reporting date for this committee. We will let you go. Thank you so much for your time.

**OWEN, Mr Peter, Director, The Wilderness Society (South Australia) [by video link]**

**THOMPSON, Professor Ross, Councillor, Biodiversity Council [by video link]**

[12:25]

**CHAIR:** I call representatives from the Biodiversity Council and the Wilderness Society, who are both online. I understand that you've been provided with information on parliamentary privilege. Do you have anything to say about the capacity in which you are appearing here today?

**Prof. Thompson:** I am a water scientist and leading councillor of the Biodiversity Council, and today I am presenting on the submission that came from the Biodiversity Council, produced in collaboration with Richard Kingsford and Bradley Moggridge.

**Mr Owen:** I'm the director of the Wilderness Society in South Australia, and I'll speak to the submission that we put into the process.

**CHAIR:** Excellent. We had requested opening statements in writing as opposed to verbally, and my understanding is you have chosen not to provide an opening statement, so we will just go straight to questions. We will go to Senator Davey.

**Senator DAVEY:** Thank you for attending today and for your written submissions, which help us in our work as the committee. I understand that both of your organisations are very supportive of the additional 450 gegalitres, which, under the original Basin Plan, schedule 5, was tied to very key environmental outcomes. Can you point us to which of those core outcomes are still not being achieved to date with the existing water that has been recovered?

**Prof. Thompson:** I can certainly refer to some of those. The particular ones that I would highlight are the ones that have required water to be getting onto the flood plain. In terms of objectives around flood plain fish, for example, we're still struggling to reach those because we lack the volumes of water in some cases, and then that interacts with constraints and the ability to deliver that water.

The second major issue really is around the ability to maintain water for periods of time. In managing both fish-breeding events and waterbird-breeding events, that additional volume of water is quite important to being able to prolong the amount of water that sits on the flood plain to allow those species to complete their life cycles.

So there are a couple of issues there around that, and, as I said, one of them interacts with constraints in our ability to deliver water to particular places as well.

**Senator DAVEY:** I'm glad you raised constraints. As we've seen in the Productivity Commission's interim report today, they recommend that recovery of the 450 should actually wait until we know exactly what we can achieve through constraints, because, as I mentioned earlier this morning, the 3,200 relaxed-constraints model actually identifies that, without relaxing constraints, you're only achieving 13 of 18 ecological targets. Given that, and given that constraints are such a key issue but also that the communities are very engaged and frustrated, have we got the priorities upside down, with the dogged pursuit of 450 gegalitres that may not be achieving the additional environmental outcomes envisaged? Should we be focusing on getting constraints management sorted first and then seeing how much of the 450 we actually require to get the outcomes?

**Prof. Thompson:** I think it's an important question, and there are very few examples of virtuous cycles in water policy but here's one: the reality is that constraints removal and the 450 gegalitres are utterly related to one another. The issue with constraints is that the time involved in implementing removal of constraints is going to be substantive, and on the time lines that we're operating to at the moment we really can't afford to wait around the volumes of water because we can get value out of that volume of water even without the constraints being relaxed. Constraints will be relaxed through a period of time. It won't be a day where we flick a switch and it's done. I don't think we can afford to wait on either.

**Senator DAVEY:** The original relaxed-constraints modelling was based on flow targets that were assumed could be achieved. Since then, through a lot of community consultation, the communities have asked that the flow targets in the mid-Murray and in the lower-Goulburn be reduced. My understanding was that has provisionally been acknowledged and accepted by the Murray-Darling Basin Authority, but the model has never been adjusted. Do you think we should adjust the model and re-run that model to see what can be achieved? That would reveal how much is required rather than, as you say, seeking the 450 at all costs, even though it's trickling water down an already stressed channel if we don't deal with constraints.

**Prof. Thompson:** Everything in this space needs to be done with as many checks and balances as we can get away with. The modelling is part of that. I'm aware that adjusting the models is by no means a trivial matter, but I would be favouring us working with those models and making sure they are as close to a version of our current

reality as we can. My suspicion would be that it's going to tell you how to spend the 450 gigalitres better rather than saying that it's not going to be needed, but that's my suspicion based on working with this system for a while. I'd like to see the models tweaked so they can accommodate that.

**Senator DAVEY:** A hydrological outcomes report was commissioned by the Victorian state government, which only landed on my desk this week, though it's dated 27 April 2022. It has utilised DEECA and MDBA hydrological models, fit for purpose, looking at relaxing constraints. This report says: 'The beneficial environmental impacts of relaxing constraints in the mid-Murray and the Goulburn tend to decrease with increasing distance downstream of Barmah Choke. The modelling suggests relaxing constraints will result in no change in the frequency of environmentally desirable higher flow rates in the Murray River at the South Australian border under all relaxed constraints scenarios tested in this stage.'

That raises a lot of concerns to me that we're in this dogged pursuit and we're imagining that we're going to miraculously get flows of a significant duration and a significant volume of between 60-80,000 megalitres a day at the South Australian border through constraints relaxation, but this modelling shows that you won't be able to achieve that. Do we need to have a bit of a reality check? Modelling is all good as a guide, but we still need a reality check.

**Prof. Thompson:** It's been a while since I read that report and so I won't speak to the detail.

**Senator DAVEY:** I'm glad you read it. I only just got it. How do you get these reports? I've got people telling me they were forced to sign non-disclosure agreements regarding it.

**Prof. Thompson:** Unfortunately, we're at opposite ends of the scale. You just received it, while I received it long ago, but it's lost in my hazy memory. The modelling of what happens when we relax constraints is really challenging because to model that, you've got no real-world thing to compare it to. I do think the modelling of what happens when we relax constraints is really challenging because, to actually model that, you've got no real-world thing to compare it to. We've never done it. I think all of the models that were in that report have really high uncertainties around them—uncertainties that are about hundreds of kilometres for a problem fixed downstream—so we shouldn't take anything for granted in terms of relaxing constraints. I think there's plenty of science to be done, and I'm not saying that just because I'm a scientist, I promise.

**Senator DAVEY:** I appreciate the levels of uncertainty. What many of my communities are concerned about is that we are pursuing a goal based on highly uncertain models. At what cost? No-one argues the benefits. As a final question, I would just like your opinion of the more than 13 years—because we started water recovery back in 2007. Now, under the Basin Plan, we've got just under 2,100 gigs, but we've also got the Victorian environmental water, the New South Wales environmental water, and the Living Murray environmental water, so there are about 4,000 gigs of environmental water being actively managed through the system. Are we achieving results with that water?

**Prof. Thompson:** We are achieving results. It's clear that we're achieving environmental results, particularly for some of the target outcomes, if I look at things like triggering native fish-breeding events, recruitment of native fish and waterbird-breeding events. I think one of the problems you have is that people treat this as a restoration exercise. You think you're going to put water back in the river and restore it back to the way it was before irrigation. That was never the objective. The objective was always to restore for a set of outcomes that society agreed were important. So I think we sometimes need to moderate people's expectations of what you're going to see from environmental water. It's relatively small amounts of water—except in the very high economic cost of that water, but they are relatively small amounts of water—that we're delivering to the system, so we're only going to see relatively muted environmental responses, and that's with optimal delivery of the water in the most effective and efficient way. That's going to be important on the basin scale, but, nonetheless, there will not be incredibly dramatic environmental responses.

The other thing that I would say on the environmental response is that we have been measuring these systems for a long time now but they're also hypervariable. We're getting better and better at predicting what happens, but, if I look at the 10 years that we've been working on the Lachlan catchment, in that time we had the two driest years on record and the two wettest years on record. So the realities of being able to model for a future in that scenario—and you're always going to be recovering from a drought or leading into the next one—are really challenging.

In the environmental water space, we've got some excellent knowledge which is allowing us to manage it better and better, and we're getting good outcomes on the ground, but there is a set of outcomes that I'm really worried about, particularly on the flood plains. Of course, I'm also concerned about the fact that, if we are in a drying climate, even some of the environmental responses we've got to date will start to be eroded if we go into periods

that are progressively drier. It's a little bit of an unsatisfying answer for everybody, but nonetheless I think we are starting to see the response, given all that variability that we're operating against.

**Senator DAVEY:** Finally, really quickly, it is not only the idea of complementary measures. There is a proposal in the Edward-Wakool system—which is a very ephemeral system but also completely covered by productive and private farmland—to use existing infrastructure to target wetlands. It doesn't give the flood plain the whole-of-flood-plain connectivity that I know natural events do, but it will build up targeted resilience within that natural flood plain region. What are your thoughts on those concepts that have been put forward by many proponents through the consultations?

**Prof. Thompson:** It's exactly what we need to be doing. We need to be spatially targeting things. We need to be targeting particular species that are of concern, agree that those are our objectives and manage them in the sense that we are managing a place, using the minimum amount of water possible to generate the maximum environmental return possible. I think that way of management is an inevitable way that we will move forward. As I've said before, we're not trying to restore the system to its natural state; we're trying to focus and use a small amount of water to generate environmental values in particular places.

**Senator DAVEY:** Thank you.

**Senator HANSON-YOUNG:** We've seen the Productivity Commission's report today reiterating their existing position and understanding of the economics of these issues—that water buybacks are the most efficient way of delivering water recovery. Both of you have recommendations and concerns about the sustainable diversion limit adjustment mechanism and extending that program to allow new projects. Could you talk specifically to that? Also, we've heard every witness so far today say that the Menindee project is a disaster, is never going to happen and is not going to deliver any water. I would put to you that simply allowing it to be on the books is throwing more money after bad. I'll get you comment on those two elements.

**Mr Owen:** There's a lot of discussion in the public space around value for money. Obviously, water buybacks are by far the cheapest way to restore water to the system. There's a lot of uncertainty around the different types of infrastructure projects. There are phenomenal costs with some of them, with uncertainty around what they're actually delivering in real time. I've no doubt that we need to focus on the direct recovery and the direct purchase of water as a priority over any new offset-style projects.

**Prof. Thompson:** I would add the point that I think, in terms of those offset projects, it would have been an absolute miracle if all of them had performed as was modelled. The reality is they were trying to model what the outcomes would be of really large-scale infrastructure investments. There were some that were no-brainers, and there were an awful lot where you thought, 'Gee, that might work, but it might not.' I think Menindee is a good example of one that hasn't worked as we would wish it to work. It is one of those things where we do need to make sure that any decisions we're making about additional investments use all of the knowledge we've gained from those infrastructure investments over the last decade, apply it going forward, and make sure that's done in a way which is really transparent such that people are confident in those outcomes, because it's public money and to some extent the failure of some of these projects has been a relatively high-profile issue.

**Senator HANSON-YOUNG:** So you don't think there should be any new offset projects under the SDLAM program. Do you think that projects that haven't yet started but have been promised should be shelved as well?

**Prof. Thompson:** My feeling is that we should go back to those projects on a project-by-project basis and assess them. Some of them are really strong projects, and I don't think you should step away from them and all of the investment of people's time and effort that's gone into doing the modelling, for example, around those things. I wouldn't step away from them as one. I do think it's perfectly reasonable, given the scale of investment and public money, to audit those as they stand and make sure that they are all fit for purpose going forward.

**Senator HANSON-YOUNG:** Do you think that should be an independent audit, done separately from the Murray-Darling Basin Authority?

**Prof. Thompson:** Given the history and the high-profile cases of a couple of the ones that haven't worked well, I think it's going to give more confidence to people if it's an independent review or independent audit.

**Senator HANSON-YOUNG:** Do you think that should occur before any more money is spent on any of these projects?

**Prof. Thompson:** I think, where that's feasible, that is not an unreasonable thing to do—just to really draw a line under the current SDLAM works and look forward based on what we know now. I don't think in some cases those audits would be particularly difficult. I just think they need to be done to create confidence.

**Senator HANSON-YOUNG:** Mr Owen, as somebody from South Australia in particular, do you have concerns that the 450 gigalitres of additional environmental water won't ever actually be recovered, even under this amended plan?

**Mr Owen:** Yes, most definitely. I think one of the things we need to keep in mind here as well is that even when we go back 10 or 12 years—whenever it was that the Basin Plan came into being—even that was a major compromise in terms of the volumes of water that the best science of the day was saying needed to be delivered to the system to have any chance of a sustainable river system, so we're already massively compromised. Then over the top of that, we've really failed to deliver a great deal since the Murray-Darling Basin Plan came into place. So, in that context and in the context of this now, when we consider that the advice from the Bureau of Meteorology and climate scientists suggests we're moving into a drier period for the foreseeable future, we're going to be faced with a fairly stark reality around the fact that the river is in a very, very unhealthy state.

I would really emphasise the need to move quickly here and to buy water. I think, to have any chance of restoring this river system to health—and I acknowledge we're not trying to restore it to a pre food bowl scenario; we're trying to make sure that this river system is in a healthy enough state to maintain the biodiversity and the food bowl status that it has—we have to move quickly. And I think when we hear about 'more and more modelling and more and more this and more and more that', a lot of that is the language of delay. We know, largely, what we've got to do. We've got to reduce the amount of water we're taking out of this river, and we've got to do it quickly. And, as I said, if we are moving into a drier period now for the foreseeable future, alarm bells should be ringing.

**Senator HANSON-YOUNG:** Is the 450 crucial for the South Australian river environment?

**Mr Owen:** I would argue that more flows into the South Australian river environment full stop are critical. Pretty much since the plan came into place, we've had dredgers keeping the Murray mouth open and keeping a connection of this river to the sea. That surely is a sign that something is wrong. I don't know what else to say on that.

**Senator HANSON-YOUNG:** Some—not many, but some—have argued that the 450 should just be seen as water recovery that's important for other areas. There have been concerns raised around the broadening out of the objectives of the 450, so we move away from those environmental trigger outcomes, such as the salinity of the Lower Lakes, the health of the Coorong—all of those elements that are in that particular part of the plan to date. Are you concerned that, unless those objectives remain key, South Australia will just never get that 450, even if it's recovered from elsewhere?

**Mr Owen:** Yes, I think those objectives need to remain key. I think that we need to remember that there are international obligations to maintain the health of that Ramsar site of the Lower Murray lakes and the Coorong—what was once the estuary of the Murray-Darling Basin. That is critical. A river dies from its mouth up, and, unless we can maintain the health of that estuary region—the Lower Lakes and Coorong, which is a Ramsar site that we have international obligations to protect—we're failing in our duties here.

**Senator HANSON-YOUNG:** Would you see that it would have political consequences? The Labor Party went to the election promising that they would deliver the 450 for South Australia.

**Mr Owen:** It may, but I think we've got to rise above that. We've got to rise above the politics of this. I think it's critical that we do everything that we can, recognising that we're a long way behind the eight ball because of all of these different restraints and restrictions that have been put in place by the previous government. But we need to act now; there's no doubt about it. I think we need to move very quickly toward the purchase of water. Like I said, it's by far the cheapest and most direct way of addressing some of these key issues.

**Senator HANSON-YOUNG:** Do either of you have a view on the Victorian government's attitude to all of this? They've plainly said they're not interested in this new plan. Do you take from that they're happy to see the reconciliation of the existing bridging the water gap happen and then the government be forced to go in and buy water? The Victorian government are offering no alternative except the status quo.

**Prof. Thompson:** I can comment on that to some extent. I won't speculate on the motivations of state governments in Australia. I'm a New Zealander, and it's left me befuddled for the entire time I've lived here. I think we do need to be really concerned about states choosing to opt out of aspects of this. The single reason the Commonwealth became involved in managing the Murray-Darling Basin was to really bring the states together around a shared solution. If Victoria has the ability to say, 'No, we don't like that; we're not going to play,' well then New South Wales could do that about something else down the track. So I'm really concerned that the Victorian government has stepped back from this, and I worry that it creates a precedent. As for their motivations



for doing so, I won't speculate on them, but a consensus solution across all of the Murray-Darling Basin states is essential in order to make sure that we have a lasting solution.

**Senator HANSON-YOUNG:** What provisions do you think need to be put into this bill as it is to ensure that all of the things that you've talked about, the concerns that you have, are dealt with? How do we stop a situation where we get to 2027 and none of this water has still been recovered, or very little of it has been recovered? We've heard from New South Wales, and they're not interested in even sticking by the time frames as outlined; they don't want buybacks. The irrigators, councils and various lobbyists are saying that they don't even think that these projects will be done in time. They want more money. No-one wants, from their perspective, to prioritise the buying back of actual environmental water. What is in this plan that will stop us being in exactly the same position in 2027, and what can we do about it?

**Prof. Thompson:** There are some excellent provisions in the act that's before us in terms of audit provisions, SDL audit and review, the role of the ACCC and things like the federal trigger. I think there are some really good things in there. But there were some really good original measures placed into the plan, and we just did not follow them with sufficient energy and enthusiasm in making sure that things were done in a timely and effective way. So I think, yes, there are some great things in here that would actually improve transparency and oversight—I think that's a good thing, and it generates confidence—but there is going to have to be sheer political will to make sure that they happen.

**Mr Owen:** Prioritising water purchase with very clear time lines is one way of getting things moving. Like I flagged before, one way of doing it is having no new offset projects and really focusing on water recovery with clear time lines and targets to be met.

**Senator HANSON-YOUNG:** Thanks, Chair.

**CHAIR:** Senator Payman.

**Senator PAYMAN:** Environment groups have highlighted the delay of recovering the 450 gigalitres of environmental water promised in the plan under the former government. I'll start with Professor Thompson. Is the 450 gigalitres necessary to achieve environmental outcomes?

**Prof. Thompson:** The most simple answer to that is yes. We actually do need it delivered in full if we're going to meet the environmental expectations that were created in original plan.

**Senator PAYMAN:** Mr Owen, in your submission you highlight that this water amendment bill 2023 is a step towards achieving the goal to fulfil our commitment to safeguard the Murray-Darling Basin Plan. How important is it to the long-term health of the basin that we pass this legislation?

**Mr Owen:** It's important in the context that we're a long way behind where we need to be. But it's only one step and, like I said, it misses a few opportunities. We need to be far more prescriptive in the bill around water recovery and time lines and things. In some ways it's a bit of a shame that the bill, at this point—and I fear in the future we'll have to address this—is not addressing some of the flaws of the plan from the outset, which include water return figures that are simply not in line with the scientific advice at all. In fact they're a long way below what the scientific advice was at the time and continue to fail to build in the impacts of climate change, which is very clearly suggesting longer, hotter, drier periods across this area. They're really fundamental issues that need to be addressed.

**Senator PAYMAN:** Thank you very much.

**Senator DAVEY:** Just on the time frames and the delays that have gone on, do you acknowledge that during COVID in the regions—particularly in Victoria and to a lesser extent in SA and an even lesser extent in New South Wales—there were lockdowns that prevented any construction or any physical work on the ground being undertaken? So you had two years of COVID lockdowns, then you had pretty much a year of continual floods. Do you accept that is a reasonable excuse for why some of these projects may have been delayed? I acknowledge and I totally accept Senator Hanson-Young's comments regarding Menindee. Let's put that to one side. But some of the other projects were caught up in COVID and floods—do you accept that?

**Prof. Thompson:** I think we were concerned about progress well before COVID and floods, and then of course the COVID and flooding situation has then compounded those concerns. There has been an emerging concern for the last five or six years, and even before that, around the ability to deliver some of these projects because they're really big-scale projects. They have a real complexity to them. But I certainly think the COVID lockdowns situation combined with the weather immediately afterwards has made it even more difficult. That alone justifies the extension to some of these projects.

**Senator HANSON-YOUNG:** I'd like to know from both of you what you think happens if the Senate doesn't pass this bill. Is that a problem?

**Prof. Thompson:** I think it is a problem. At the end of the day we've built the foundations to actually achieve some benefit, and if we don't continue to push through this then a lot of the pain that has been experienced by a whole lot of people across the basin will actually have been somewhat to waste. I would be really concerned, if we don't push through this last barrier and try and get this delivered as best we can, there are no guarantees in the future that we will be able to achieve the level of bilateral agreement that generated the Murray-Darling Basin Plan. At this point it would be a pity to essentially waste that moment in time that let us actually get people together and agree on something.

**Senator HANSON-YOUNG:** If the government doesn't agree to fix the glaring omissions in this piece of legislation—which is actually guaranteeing this stuff, not just kicking the can down the road with a hope and a prayer—if it won't come to the party, then why should the Senate accept it?

**Prof. Thompson:** That's a question for the Senate. But, to me, this process is about ensuring that there are as many checks and balances placed into this piece of legislation that will allow us to be confident that it will be delivered. I continue to share your concern here that there will be a lack of will to implement. That concern, I think, is shared by all of us. But, to me, this is an improvement on the current situation, and it would allow us, in realistic time scales, particularly if we're able to do buybacks of water from willing sellers, to actually be able to add value to the environmental returns we've already seen over the last five or six years.

**Mr Owen:** I would agree with Ross's comments there. I would hope that the government will take note of the advice that's come forward through this inquiry and that the amendments will be made.

**CHAIR:** Thank you very much for your time. We really appreciate it. We will let you go. I don't believe you've taken any questions on notice, but, if you have, they're due by 2 November. It's a very generous time line.

**KELLY, Rachel, Chair, Basin Community Committee [by audio link]**

[13:00]

**CHAIR:** I now welcome representatives from the Basin Community Committee. I believe that you have received information on parliamentary privilege. I understand that you don't have an opening statement, so we can go straight to questions.

**Rachel Kelly:** I do have an opening statement, if that's okay.

**CHAIR:** We had asked for them to be tabled because we are tight on time. If you could give us the swiftest overview and provide it to the secretariat, that would be great.

**Rachel Kelly:** Sure. First of all, I'd like to thank you for having me. I'm sorry I'm unable to be there in person today. I want to introduce the BCC to the Senate committee. The Basin Community Committee is a statutory and independent advisory committee to both the Murray-Darling Basin Authority and the Murray-Darling Basin Ministerial Council. We were established under the Water Act 2007, and we're made up of 16 members who represent all regions and interest groups across the basin. In that way, we are a unique committee. We have a deep understanding and connection with our local communities. Our role is to ensure that communities across the basin are given a voice in water management within the basin.

I would like to provide a bit of an overview of the context of the basin at the moment.

**CHAIR:** I'll interrupt you there, Ms Kelly. We have your Basin Community Committee principles to improve transparency and the letter that you sent us this morning. We have that information in front of us already, just for your information.

**Rachel Kelly:** Thank you. One of the key roles of the BCC is to outline to government the state of play for the basin. At the moment, many communities are still recovering from flooding. Communities such as Rochester, which is about 30 minutes from where I live, have been severely impacted and recovery will take many years. In addition, we have communities in the northern basin, in particular, that are now entering the drought phase.

The basin communities are also dealing with concerns around access to basic services such as health care, housing, workforces and, like other parts of Australia, cost-of-living pressures. From an economic perspective, many of the basin commodities are doing quite well, although we've seen steep declines in commodities such as livestock and horticulture. From an environmental perspective, the basin's ecosystems are flourishing after a number of wet years. From a community sentiment perspective, people are generally feeling frustrated and anxious about the proposed bill.

We have tabled our letter that was provided to both Minister Plibersek and Sir Angus Houston, the chair of the Murray-Darling Basin Authority, in response to Minister Plibersek's advice around a pathway forward for delivering the Basin Plan back in August. We have also tabled another piece of work that we have worked on over the last 12 months, which is some transparency principles that we've developed in partnership with the Commonwealth department and the Basin Officials Committee. In relation to the first—the letter to Minister Plibersek—I'd like to outline a few things that we've highlighted in that letter. We think something that has been missing from this discussion to date is a reflection on where we've come to. Over the past 10 years or so, 2,100 gigalitres of water has been returned to the environment, enabling the Commonwealth Environmental Water Holder to achieve incredible outcomes for basin health.

**CHAIR:** Ms Kelly, I will stop you again. We do have all of that in front of us and the members of the committee would like to ask some questions, if you could wrap it up.

**Rachel Kelly:** Okay. I'll talk about some other points. I'll quickly speak to some of the things that have been highlighted in the drafting of the bill since the letter was submitted. We support an extension of the time lines for the delivery of the SDL projects. We think there have been two missed opportunities in the drafting of this legislation.

The first is around advancing the interests of First Nations people. We think that a greater focus is needed on First Nations cultural and environmental self-determination and social values and to provide First Nations people the space and opportunity to determine how we can better provide cultural outcomes for them in the basin. The second is complementary measures, and we can talk about those a little bit later.

The BCC is concerned about the social and economic impacts that would result from a large-scale and non-targeted water recovery program. We've long called for a better understanding of social and economic conditions in the basin and would like to see water recovery decisions made in a way that mitigates social and economic impacts.

We also want to see communities in all their shapes and sizes be at the heart of designing and implementing water reform in the basin. I would like to have the opportunity to speak about that further today. We think there's a fantastic opportunity for the community to work in partnership with government in designing water reform solutions going forward.

**CHAIR:** Senator Davey.

**Senator DAVEY:** Firstly, have you had a response from the minister to your open letter?

**Rachel Kelly:** No, we haven't at this point. We have had the opportunity to engage with the minister's office and with the department around the bill, but we haven't had a response directly from the minister to our letter.

**Senator DAVEY:** When did you engage with the department and her office about the bill?

**Rachel Kelly:** We had an engagement with the department early on, about five or six weeks ago, and we had an engagement with the minister's office today.

**Senator DAVEY:** Engagement with the department would have been about when the states and the minister put out their joint statement saying that they had reached an agreement on how to progress. Is that about the same time frame?

**Rachel Kelly:** It was when the bill was first tabled in the parliament—

**Senator DAVEY:** The bill was drafted. You weren't consulted prior to the bill's drafting or asked for input to this bill?

**Rachel Kelly:** The Basin Community Committee has had opportunities in the past to provide advice at a high level on a pathway forward for Basin Plan implementation to the Basin Officials Committee and to the department. Those things that I've just spoken to are a summary of some of the key themes that the Basin Community Committee has highlighted to the Basin Officials Committee and to the department.

In particular, we've highlighted that there is a need for more time to deliver the supply measure projects. We think they're really important projects—in particular, the constraint measures; without those constraint measures we can't get the full benefit of the environmental water that has been recovered to date. In addition, we have highlighted that there are concerns around large-scale water recovery programs because of potential social and economic impacts, and we would like to see that these impacts are well understood and factored into decision-making processes going forward.

Those two missed opportunities that I highlighted earlier have been a theme that the BCC has been advising on for a number of years now, for the whole time that I've been involved in the BCC. We would like to see First Nations access to and use of water prioritised in government decision-making, and we'd also like to see complementary measures as a means to achieve improved environmental outcomes in the basin also prioritised in government decision-making. And we want to see that that water reform decisions are made in partnership with the community. We want to see that solutions are developed with local communities and led from the ground up rather than from the top down. That is something that we feel needs to be prioritised going forward with water reform in the basin. There are some fantastic local solutions out there that achieve good environmental outcomes and also achieve good people outcomes, and these solutions need to be given the opportunity and to be adequately resourced so they can be pursued and form part of the solution to environmental health and basin health.

There are some really good examples of these projects, and I want to touch on them quickly. I think one good example that we've seen recently is the River Rangers program. There's one in my local region. It's a pilot program, but there are a number of these programs being run right across the basin at the moment. They allow for really good environmental outcomes through more resources being employed to assist with managing and maintaining, in particular, riparian systems. They also provide good people outcomes, and we want to see that program extended and expanded.

Another example of how government has empowered local communities to take control of their own destiny is the Healthy Rivers program, which was a government grants program a few years back where grants were provided to local community groups to do good environmental projects in their local systems—looking at how we better manage some of the key environmental concerns, like pest and weed management, provision of habitat for species, fencing off of riparian systems, management of erosion and all these types of things that provide very good outcomes but at the same time engage local community and empower local community to take control of their own systems. These are the kinds of things we would like to see prioritised going forward.

**Senator DAVEY:** And that's quite consistent with a number of submissions that were put to the government during the process where the government consulted on ideas and ways to finalise the delivery of the basin plan, which, at the time, the minister said was 'all options on the table'. She wanted to consider novel ideas. Do you see

that reflected in this current bill at all? If not, how would you amend the bill to reflect those sorts of proposals that have come forward from myriad different community groups and stakeholders?

**Rachel Kelly:** At the BCC we continue to support that consultation program. In our letter that we sent to Minister Plibersek we encouraged the minister and her department to take account of the ideas that were put forward and to investigate those ideas and look at the feasibility of those ideas. As the BCC, we believe the pathway forward for Basin Plan implementation should prioritise water recovery methods that mitigate social and economic impacts for communities. The pathway forward should take account of the quadruple bottom line. It's about achieving not only good environmental outcomes but also good social, economic and cultural outcomes. If we can prioritise those options first, that will ensure that we have a more healthy basin going forward. One of the themes the BCC has provided advice on in the past is that basin health should take account of the quadruple bottom line—so we should be measuring impacts and outcomes for the environment and for the social fabric, the economic outcomes and cultural outcomes.

The other thing I'd say on that is we don't think there is necessarily one solution that is the right solution for all regions of the basin. This is why we recommend to government that they take a ground-up approach to finding solutions to basin health going forward, because each region is different, their needs are different, the make-up of communities is different and their environmental requirements are different. Solutions that are developed from the ground up are much more likely to achieve acute, good outcomes in those local regions. That's one thing we would definitely encourage. We understood that part of the intent of the consultation program that was run earlier in the year was to investigate and understand what some of those local solutions are. We would like to see those prioritised going forward.

**Senator DAVEY:** In your opening statement, you explained that the BCC is a statutory independent body and that you advise the board of the MDBA as well as the ministerial council. I note the Productivity Commission interim report that was released overnight—and I haven't had a chance to read 250 pages yet but I've read the overview, and you probably haven't—recommends:

The Basin Community Committee should have a standing agenda item at Basin Officials Committee meetings to provide input and advice on matters from a community perspective. The Basin Officials Committee should publicly report on how this input and advice has been considered and has influenced decision-making.

Do you currently get an agenda item at the BOC, or is it only the occasional MINCO and the board, and would you welcome that recommendation being adopted?

**Rachel Kelly:** On the first question: we generally present to the ministerial council meetings. I've been in the chair's role for a number of months now. My understanding is we haven't presented directly to the BOC meetings in the past, but I'll take that on notice.

On the second question: I haven't had a chance to review the PC report yet either, but we would welcome the opportunity for the voice of the community to be provided through those BOC meetings so it can be factored into the BOC's decision-making. As I spoke to earlier, one of the key things the BCC has been working on over the last 12 to 18 months, in partnership with the BOC and with the federal department, is the transparency principles. Some of those principles relate to having a clear structure around how communities' voices are factored into not only decision-making but also systems of reporting against how governments have made decisions, and reporting back to communities about how governments have made decisions. That isn't necessarily saying that they have to decide in favour of what the community advice is, but we think it's important that they respond to the advice provided and outline the decision either way.

**Senator DAVEY:** I noticed in your open letter that you said, 'Whilst we support the continued commitment to reach Basin Plan targets, the BCC emphasises that this should not be in an at-all-costs mindset'. You've said there are missed opportunities in the failure to recognise complementary measures in this and also First Nations programs, and you used the example of Indigenous river rangers. That's a program which I know quite well and it's achieving really good things. How should water be recovered if we're going to achieve the targets, but not at all costs? Are you talking about licence recovery not being the only way? What would you recommend?

**Rachel Kelly:** I think that's something where we should have all options; I don't necessarily have a position about what the best option is. The BCC hasn't come to a conclusion about what the best option is, or which options should be prioritised. Our advice has been that there's a real need to review all options, to make sure that all options are on the table and that we do understand both the positive and negative implications of all the options.

For our transparency principles, we would encourage that conversation to happen with the community as well. That's so community can have input into that conversation. I think it's really important that when governments

consider the pros and cons of different options available that they do actually go through a process of ground-truthing in their understanding of those pros and cons—all the benefits and disbenefits. We encourage government to take the time required to do that analysis of the various options available, and to do it in consultation with communities.

**Senator DAVEY:** Thank you very much. I'll hand over the call.

**CHAIR:** What's the general perspective in the basin communities of the Basin Plan? Are they supportive in general?

**Rachel Kelly:** Yes. The Basin Community Committee's view is that basin communities are supportive of having a plan to manage water resources across the basin.

**CHAIR:** In terms of the consultation opportunities, you referenced a few engagements. How would you gauge the level of consultation with your organisation?

**Rachel Kelly:** Obviously, the BCC has had a close relationship with the Murray-Darling Basin Authority, and we continue to have a close relationship with the MDBA. Over the last few years our relationship with the BOC, in particular, has been developing. We now have annual engagement with the BOC, and our previous chair has presented to ministerial council meetings when those meetings were held. It's important to emphasise that we're an advisory body; we aren't a lobby organisation as such. Our role is to be an advisory body to government.

**CHAIR:** Thank you. Senator Hanson-Young, did you have anything?

**Senator HANSON-YOUNG:** The only other thing to add is that there seems to be quite a gap in representation on the BCC; there's a whole section of the river where you don't have representatives. Is that because you haven't sought them out, or you've had them before and you haven't—there isn't anyone down to Wentworth. I'm just wondering why there's such a gap in the overall representation? I've looked up the membership of the organisation and the representatives.

**Rachel Kelly:** The membership of the BCC is determined by the ministerial council. The BCC is appointed by the water ministers across the basin. So, as the chair, I don't have a say in the committee make-up. Each state government is responsible for nominating their BCC representatives.

**Senator HANSON-YOUNG:** That's interesting. Thank you. There is concern around the Darling/Baaka. We've heard a lot of concerns about the state of the river. We've had concerns about what a failure Menindee has been. There have been the fish kills, of course. You've got no-one from that region on this committee. Is that because the New South Wales government didn't want to nominate anybody from that particular area?

**Rachel Kelly:** I can't comment on the motivations of the New South Wales government in their appointment process. I can't comment on the appointment process because I'm not part of that process at all. I think that our membership does a very good job of connecting with the communities and their regions. We have some people from lower down in the northern basin system and some people who are based in the Mildura region who are very good advocates of supporting measures and water management decisions around what happens in the Darling/Baaka.

**Senator HANSON-YOUNG:** I just find it extraordinary. I'm not saying it's your responsibility, but you are here as the chair representing this Basin Community Committee and a big part of the basin. The health of the river and the issues we have heard about the federal minister herself references as to why we need this piece of legislation, and this committee doesn't even have a rep from between Bourke and Mildura.

**CHAIR:** I wonder if the question is more appropriate for someone who can answer it. Ms Kelly has laid out that she doesn't have any involvement in that process.

**Senator HANSON-YOUNG:** No, but the committee itself is purporting to represent the full basin. So I think it's a reasonable point to be raised.

**CHAIR:** Fair enough. Do you have further questions?

**Senator HANSON-YOUNG:** No, that's it.

**CHAIR:** Thank you very much for your time today, Ms Kelly. We appreciate it. If you have taken anything on notice, we have a joyous time frame of needing it returned by 2 November! Thank you. We really appreciate you taking the time.

**Proceedings suspended from 13:27 to 14:13**

**HOGAN, Ms Natalie, Lawyer, Environmental Justice Australia**

**LINDSAY, Dr Bruce, Senior Specialist Lawyer, Environmental Justice Australia**

**CHAIR:** I welcome representatives from Environmental Justice Australia. I believe that information has been provided to you on parliamentary privilege?

**Dr Lindsay:** Yes, that's correct.

**CHAIR:** We've received your opening statement. It will be published, and the committee members all have it. We might, if it's okay with you, go straight to questions.

**Dr Lindsay:** Yes, of course.

**Senator HANSON-YOUNG:** Thanks for being with us today. I can imagine you feel as frustrated as the rest of us, in that we could all see this coming. This inevitable deadline being missed has been—it wasn't like we just woke up in June and realised, did we? We can see that it's been on its way. This morning we heard from Richard Beasley that the plan itself is not legal because it's not actually based on science. We heard from the inspector-general that even the improved powers within this amendment bill actually won't help them be able to hold states to account. We've heard, from the environment perspective, the legal perspective and the irrigator perspective, that big SDLAM projects like Menindee Lakes have been a sham and yet they still exist, but there's seemingly no way of calling that in, unless the minister does it herself. What do we need to do to fix this piece of legislation so that we're not back in this same position in three or four years time?

**Dr Lindsay:** I'll have a crack at that one. You're right. I think our view accords with that of Mr Beasley. I think the royal commission into the Murray-Darling Basin that South Australia had was the most comprehensive forensic analysis of the situation of the Murray-Darling Basin, including this bill and the Basin Plan. There's probably no need to rehash a lot of what's in there. You'd be quite familiar with it. There are clearly a lot of missing deadlines. I agree with you that there is a very real prospect that, as it were, the can gets kicked down the road on a number of fronts. We don't see a great deal of improvement in the situation, in terms of implementation of this bill and outcomes for the environment in particular, when the next series of the proposed statutory deadlines are put in place. That is a real risk, and a lot of people have talked to that. I suspect it would be useful for the committee to have some discussion from us about how we avoid or minimise those risks and try to achieve what, on the face of it, is supposed to be achieved here.

I think context is important, and Mr Beasley and others would've spoken to this. Ultimately, this bill, which underpins all of the issues that we're talking about today, is primarily an environmental law. It is underpinned by international environmental treaties, primarily, and we do have views on adding some of that treaties base to the bill as well. There are ways in which the ordinary proceedings of law can enforce provisions under this bill. For good reason, the commission suggested there are probably better ways to do that, especially political ones, and I think this is one of the key opportunities to do that.

The issue of using law to achieve what, on the face of it, this bill is intended to achieve goes to two things. One is: what are the legally binding obligations or provisions in the law itself? It's clear that there are statutory obligations that need to achieve certain things and that they are attached to certain offices or institutions. That certainly makes enforcing the law, and knowing what the law is, a lot more straightforward. I think that's one important principle here. Secondly, what is the machinery or the mechanisms to enforce the law or to make sure that what, on the face of it, is in the law is actually achieved? There are a lot of ways in which that occurs here, and the introduction of institutions like the inspector-general has been quite important in that exercise.

I was interested to hear the inspector-general's opinions this morning about their lack of clarity even about what their role is. I would see the inspector-general as, obviously, a key institution in this whole exercise, but it is an institution with certain constraints, limits and purposes. They don't seem to know precisely what they are, so clarifying them would no doubt help. Their view, from what I could tell—and I think it's a valid one—is that there are broadly two. One is that they are a regulator or an enforcement agency, and, secondly, they are something analogous to an auditor general. Both of those are important functions. In addition, the other key institutions here are the MDBA—it has a fundamental role in the exercise, as an administrator of the whole scheme under the act—and of course the minister. The minister has key obligations here as well—accreditation of water resource plans, for example. So I think a certain amount of clarity around the powers and obligations attached to those offices, what they're going to do and how they progress from where we are, is particularly important.

The other thing—I know other groups like the Wentworth group will probably speak to this after us—is putting in place, in statutory form, mechanisms to ensure that there are stepping stones and mechanisms to progressively achieve what is intended to be achieved: statutory milestones, indicators and measures that have to be undertaken

and implemented in a time-bound fashion. They're perhaps analogous to things like SMART indicators: specific, measurable, attributable and so forth. Putting those in statutory form is obviously quite useful.

The last thing I'll say in response to your comment and question is that one of the challenges that's always been in place here is that we're dealing with the federal system, where we're trying to get the Commonwealth, in the national interest, to undertake and achieve certain things in support of our international obligations, bringing the states along with it—I suspect, I would euphemistically say, somewhat reluctantly in some instances. I think that there's been far too great a deference to the states, especially the recalcitrant ones—I would put Victoria and New South Wales, in particular, in that boat. In my view there is probably a need, in order to make this happen, for either the prospect or the actuality of the Commonwealth being more prepared to step in.

We might come to this later but, for example, I'll give the proposition of constraints relaxation, which we've heard about this morning. I agree with other commentators from this morning: it's an integral mechanism to actually achieving greater water outcomes and using them effectively. If the states are not prepared—my state, Victoria, has not been prepared—to step in and to organise or acquire rights over land in order to achieve constraints relaxation, then there's no reason why the Commonwealth or Commonwealth agencies can't do that. For example, the Commonwealth acquisition powers seem to me, on the face of it, readily established to do this; it's about taking urgent measures for public purposes. They're used for infrastructure projects all the time, and the Commonwealth steps in for those purposes. If they want to build an airport, they'll compulsorily acquire interests in land all the time. This is infrastructure. It's just environmental infrastructure, but it's for a public purpose. In response to your question, I think they're some of the mechanisms that are useful or important.

**Senator HANSON-YOUNG:** They're the types of legislative amendments that would build some confidence of a guarantee that what is being proposed will actually happen, and, if it doesn't happen, there is at least a stick. At the moment, it seems like the only things on the table are carrots—billions of carrots. We have heard from the minister that she has enough money, even though we don't know what the quantum is, to do all this. So there are lots of carrots out there, but no stick. We've had \$13 billion worth of carrots, and we're being asked to just accept another, 'We'll just extend all these time frames out, because no-one's actually met them.'

Can we tease out this issue of the Commonwealth stepping in. Are there constitutional elements of concern here? If there were amendments in this piece of legislation that clearly identified where the Commonwealth would step in if states continue to drag the chain, would that be able to happen?

**Dr Lindsay:** The issue of constitutionality probably depends on precisely what you're asking the Commonwealth to do and how and so forth, noting that the constitutional basis for this act now is primarily the external affairs power and international treaties, which is a pretty broad base. There is a pretty broad scope for the Commonwealth to enact laws now that would probably give it greater sway and greater power—more than just persuasion. Constitutional lawyers would need to look at particular mechanisms, but it depends on what we're seeking to do and what we would seek to do in terms of further amendments to this act. The example I gave about acquisition of easements in land could be done now. There's a separate Commonwealth law that could permit that to happen now.

**Senator HANSON-YOUNG:** What about elements in terms of stepping stones? Are you talking time limits by which a certain amount of water needs to be recovered or statutory reviews that, in and of themselves, create political pressure because people know what is going on? Are you talking actual triggers or political triggers?

**Dr Lindsay:** Potentially, a combination of both. There are mechanisms already proposed in the bill that are administrative mechanisms, such as audits, reports, reviews and those kinds of things. What I understand the Wentworth Group, for example, has proposed is more hard triggers, so certain time frames come around and either something has been done or it hasn't been done. If it hasn't been done then you need consequences. That then goes to who steps in or who's required to do what. Maybe the minister is required to step in or the MDBA is required to step in. It probably depends a bit on the precise circumstances. I imagine if it's about things like acquiring further water rights—and I don't have a firm view on it—there's always more force in the minister doing things because the minister is the overarching officer here.

**Senator HANSON-YOUNG:** In relation to guaranteeing that the 450 will be delivered, of which we know only seven per cent has been contracted, is that an area where you think we could have some stepping stones and some hard triggers?

**Dr Lindsay:** Yes, I think that's advisable.

**CHAIR:** Dr Lindsay, can you set out—for the purposes of people who may not know the answer to this question—what constitutional power the Commonwealth have over water?



**Dr Lindsay:** For the purposes of this act, it is primarily through the external affairs power. I'm not a constitutional lawyer, for a start, but once you do environmental law you have to step into that space to some degree. There are a number of international agreements that Australia is a signatory to or a party to which effectively permit the parliament to make laws for the purposes of implementing those obligations. That includes the Biological Diversity Convention, the Ramsar Convention and the Convention to Combat Desertification.

The Ramsar and biological diversity conventions are the big ones for present purposes, and because they're quite broad treaties and conventions themselves, they do give quite a broad base for the Commonwealth to legislate in this space. But it goes to the way the Commonwealth has legislated in this space, which is the notion of water being primarily about water ecosystems. There is really an environmental imperative to the question of how water resources are understood under this law. That partly goes to the constitutional basis of how the act was passed in the first place.

**CHAIR:** If the Commonwealth was to effectively ride roughshod over the states, what do you think that would do to the sometimes tenuous consensus sufficiently that it still holds together. What are the risks to the implementation of the plan and the future of the plan if the Commonwealth were to be too heavy handed?

**Dr Lindsay:** To step in?

**CHAIR:** I guess it's that balance. We have had an awful lot of very distinct black-and-white approaches, with no grey areas, from people so far today and I'm sure that's what we'll see this afternoon and tomorrow. Regarding that piece about playing in the consensus space, or the near consensus space, how do we hold it together so everybody does the right thing, as opposed to just legislating every single hook? Do you have a sense?

**Dr Lindsay:** I understand what you're saying. Obviously, we have a federal system and there's a role for both the polities: the Commonwealth and the states. It's going to be inherent to how this whole scheme and regime plays out. Perhaps a useful analogy is how the US does it, for instance. In the US, where there's a federal system, their environmental laws are often constructed in a similar way, where there is, as Senator Hanson-Young put it, a carrot-and-stick kind of approach. There's typically funding from the Commonwealth to do things, but then, if states are recalcitrant and don't do certain things that are obligations under Commonwealth law, there are also the means for the federal government to step in and do things that need to be done. Usually, what needs to lawfully be done is to make sure that the federal law, in this case the Commonwealth law, is actually implemented according to its letter. I think that's probably the ultimate question. There are, obviously, legal and constitutional constraints on what the Commonwealth can do in stepping in to curb or affect state legal powers, but I don't think that's a real issue here. I think the question really comes down to the Commonwealth enforcing its own law. How is that going to occur, and, ultimately, is it going to occur at all?

**Senator DAVEY:** It is a very complex issue, particularly when you're talking about constraints, where one of the key areas that needs to be addressed is the issue of easements and accessibility. Public infrastructure is also at play here. I am also interested in the constitutionality. My understanding is that, when it comes to land, that is the jurisdiction of the states, so any easements or agreements or any Commonwealth land purchase has to be facilitated by the states. I might be wrong because I'm not a lawyer, but is that the case? We're looking at it in all sorts of aspects; we've got transmission lines at the moment, which are another contentious issue, where there is the requirement for easement agreements to be entered into. I think Victoria has determined to compulsorily acquire those easements. But it is being delivered through the states. I'm just wondering if the Commonwealth could say, 'States, you're taking too long; we're going to do the easements and we're going to do it compulsorily.'

**Dr Lindsay:** At the risk of having some specialist land valuation lawyer stepping in and saying that I'm wrong—land acquisition is not my area of expertise—the point that I was making before is that the preference is to do things by agreement. If you're building a freeway or federal infrastructure like an airport, or something like that, it's not necessarily going to happen, or happen fast, or happen in a manner that is going to fit the public purpose if you do it always by agreement. Clearly that's the preference, and that may well be the way in which you can deal with the question of easements, but it may not be. That's why there are powers that governments have. As I was saying before, the Commonwealth itself has powers to step in and do it compulsorily.

As to the specifics of the intersection between state and federal law in respect of interest in land, it would probably be too detailed to give you a view on it right here. I'm not sure I could give it on notice by the 2nd, either. I'm happy to take it on notice and see what we can do to follow it up, if it helps.

**Senator DAVEY:** I'd appreciate that. We heard from the Basin Communities Committee that one of the key pieces of advice they provided to the MDBA and the ministerial council was the importance of bringing communities along with them so that communities have buy-in and ownership of projects. They say that's critical

to the success of the plan. What you're proposing is, if the communities aren't willing to be brought along, to just ride roughshod over them.

**Dr Lindsay:** No. I don't think I'm proposing anything, Senator. I'm saying that this is what the powers of the Commonwealth are or may be. That, ultimately, is what we're talking about here. Is it sufficiently imperative that that needs to occur or that that needs to occur in certain places? The point I am making, and it is my view, is that these things occur all the time in other contexts, and, frequently, I suspect, people don't like them in other contexts, and probably in contexts that are far more onerous on communities in many ways than enabling seasonal flooding of part of someone's farm, with airports being a good example.

**Senator DAVEY:** Airports would also require the permanent acquisition of land, rather than—

**Dr Lindsay:** Indeed, and we may not be talking about permanent acquisition of land.

**Senator DAVEY:** One of the complexities is that we keep getting told that this is a plan about balance to ensure that we have continued production and productive systems. It's always been called the working river system, particularly in the context of the southern basin, so meeting the two objectives is where I think there is some conflict. We've heard at length from Mr Beasley about his interpretation of the legalities and from others that there's still some conjecture. In his submission, Mr Beasley stated that the primary part of the Basin Plan is to develop environmentally sustainable levels of take, which is converted for the purposes of the Basin Plan into sustainable diversion limits. If those are being complied with, is there an objective, a legal imperative, to recover the arbitrary targets that came out of models, which has primacy? Is it keeping water in the system by not taking too much out or is it that we've got to achieve that level of equivalent held environmental licences at all costs? So it doesn't matter whether we're operating within the sustainable diversion limits or the ESLT or not?

**Dr Lindsay:** If I understand your question correctly and if I understand Mr Beasley's submissions correctly—which I've read and which is based essentially on the findings of the royal commission—there's a legal question here, which is: how are SDLs constructed? They have to be based on an environmentally sustainable level of take, which is, in turn, dependent on certain other ecological premises, and the other limit has to be scientifically based. Putting those things together comes out with certain volumes of recovery, or that's how it works. I agree with that premise. The view that the commissioner came up with—and Mr Beasley's views reflect it—I think is legally correct, too. I don't know if that answers your question, but—

**Senator DAVEY:** So, therefore, the primacy is on the recovery target, not the environmentally sustainable level of take. I thought that the science determined what can be sustainably taken from the system—through a long-term average—that then, once that was determined, an assessment was made as to what the difference would be between what is currently taken and what that sustainable level would be and that that produced the recovery targets. There are two schools of thought about that. There is the thought that the primacy is the SDLs and you do not exceed those at any cost. The alternative is that you must achieve the water recovery targets regardless of whether you're operating within the SDLs or not.

**Dr Lindsay:** I think the setting of SDLs presumes a certain amount of recovery. That's the point of the exercise from a baseline, which, from memory, is 2009. The SDLs were intended by law to be set according to science, and I think the point the commission made is that they weren't set according to science. They should be higher, and recovery processes are intended to achieve the scientifically set threshold—however achieved—in effect.

**Senator DAVEY:** I have a final question, because I know that we're out of time. In your interpretation of the Water Act as it currently stands, can any of the water recovered for the Basin Plan, whether it be under the existing or the 450 measures, be used to underpin Adelaide or South Australia's water use?

**Dr Lindsay:** What do you mean by 'water use'? Do you mean drinking-water supply in Adelaide?

**Senator DAVEY:** One thing that we heard, particularly in the debate in the lower house, was that this water is needed to secure Adelaide's water supply.

**Dr Lindsay:** I don't know the answer to that question. I can take it on notice. I think the primary proposition, really, around recovery and the operation of the act is to achieve environmental outcomes. As far as South Australia is concerned, there are certain key indicators in this exercise, such as Ramsar sites like the Coorong and the Riverland. I would have thought that they would be the primary focus. As to the question of South Australia's drinking-water supply, I don't really have a view on it.

**Senator PAYMAN:** I'll be brief. How would you enhance the participation of First Nations people?

**Dr Lindsay:** I think that's a very important question. We've obviously put forward a few views on this issue. We've worked quite closely with Indigenous organisations like MLDRIN for some time in respect of

implementation of the Basin Plan. You have our views on the record there about how inadequate we think that has been. I will also note that proceedings have been commenced against the minister around precisely this question of Indigenous consultation—that it's been inadequate in relation to one particular water resource plan. I think that is indicative of the broader failures and limitations in the way in which consultation provisions were constructed in the Basin Plan in the first place.

So the procedural justice requirements, if we can put it like that—that is, what the rights of Indigenous people are in participating in decision-making around waters, basic water resources and, ultimately, rivers and water ecosystems—are very weak and, certainly in my experience, have not really served Indigenous peoples at all. Consultation has been, at best, pyrrhic and tokenistic. There is a real need to do some serious amendments around this area, and I think this is an opportunity to do that. Others are also making that point, including Indigenous organisations themselves. I think the starting point—as I understand, it's a common starting point with Indigenous organisations, and we would certainly back it—is that we commence from the international provisions themselves, the key one being the United Nations Declaration on the Rights of Indigenous Peoples. The act can be amended to include that as a relevant agreement. That can flow through in the way in which certain outcomes and decisions and mechanisms under the act work.

Given we're constrained for time, I would say there are key provisions within UNDRIP that go precisely to the question of Indigenous participation in land and resources and territories, such as article 32 and article 29. The content of those is very useful and informative in terms of those procedural rights. People will talk a lot about the right of free, prior and informed consent of Indigenous people. Article 32 is a precise form of consultation right that is about consultation and cooperation in good faith by states, being governments, in order to achieve free, prior and informed consent with representative institutions. That kind of mechanism needs to be closely looked at for inclusion in the act.

In terms of applying those procedural rights to what the act actually sets in place in the Basin Plan, presently Indigenous consultation applies solely to the preparation of water resource plans. It doesn't, for instance, apply to implementation of water resource plans. In my view it should. In addition, it should apply to things like the preparation implementation of SDLAM mechanisms—if we're going to continue with that kind of mechanism. It should extend to things like the targeting of water recovery and how and when that occurs, and also things like constraints relaxation measures. What I'm saying is: we should attach much stronger Indigenous authority and rights to certain discrete types of actions and outcomes that are intended under the act.

Just before I go off this topic, Senator, because I think it is a very important topic, I note the issue of Indigenous water-holding institutions was raised this morning. Cultural flow is part of that proposition as well. I understand there is some discussion within the Commonwealth or the department about this. Again, development of those kinds of institutions is going to be a very important path forward in achieving real outcomes for Indigenous communities. I would note Indigenous communities are, I think, around 10 per cent of people in the basin and probably the most disadvantaged communities. They will probably get more out of water recovery than anyone, in my view. I think all of those things need to be on the table and progressed through this process.

**Senator PAYMAN:** Absolutely. On that point, we've heard quite a lot from a number of irrigators and groups that rely on the river for their crops. How would you balance that need with the environmental flows?

**Dr Lindsay:** Obviously, as I was saying before, in the context of the act in part it's a question of what the science says is needed for the environmental and ecological health of the river. There are other submitters who have gone into this in a great deal more length and have greater expertise in some of these questions than I do, such as around the economics and the distribution of benefits and costs here, and probably Mr Beasley made the same point—that is, substantial reform is not without benefit and cost. This is an exercise in structural adjustment, and it always has been. I just think it hasn't been followed through. It's going to happen one way or another: climate change will compel structural adjustments to some degree. We could have done it earlier, but we have to do it now.

**Senator PAYMAN:** In your submission you mentioned the independent panel. Could you elaborate on what that would look like?

**Ms Hogan:** Senator, can I clarify: is that the independent panel to oversee negotiations with landowners?

**Senator PAYMAN:** Yes.

**Ms Hogan:** The submission, to the extent that it deals with constraints relaxation measures, largely aligns with the recommendations and the findings of the South Australian royal commission report. We don't necessarily suggest that there should be specific amendments to the Water Act that would provide for compulsory acquisition of land for flood easements. As we noted earlier, those powers already exist in current legislation. Given that

those powers are in existence already and that they are utilised in the context of other developments, including the expansion of airports, for example, we suggest accountability measures that could be introduced in the bill, such as the appointment of an independent panel to oversee negotiations that have to date stalled. Basin states have failed to progress those negotiations. Of course, our preference would be for that acquisition to happen on a voluntary basis by agreement with landowners; however, given the extensive delays in delivering constraints relaxation projects and the fact that they are essential to achieving the environmental outcomes that the Basin Plan and the Water Act seek to achieve, we suggest that compulsory acquisition is an appropriate exercise of powers in this context. There's a clear public purpose in delivering the Basin Plan. Given the delays, an independent panel with deadlines and deliverables that are enshrined in legislation, as suggested by the Wentworth group and other submitters, would be entirely appropriate and is essential.

**Senator PAYMAN:** Thank you both.

**CHAIR:** Thank you so much for coming and hanging out with us. We really appreciate your time and your expertise.

**Senator HANSON-YOUNG:** Could I put a question on notice?

**CHAIR:** Yes, certainly.

**Senator HANSON-YOUNG:** Dr Lindsay, have you managed to have a look at the Law Council's submission to this?

**Dr Lindsay:** I have briefly, yes.

**Senator HANSON-YOUNG:** Could I ask you to take on notice your view on their suggestion in relation to this Commonwealth issue. They've suggested that, if states are still missing water under their SDLs, the projects are running ridiculously late and we're staring down the barrel of being back here in three or four years time, there be a reduction in water entitlements within the state. Could you have a look at that suggestion from the Law Council and give us your feedback?

**Dr Lindsay:** Yes.

**CHAIR:** Thank you very much.

**KINGSFORD, Professor Richard, Member, Wentworth Group of Concerned Scientists [by video link]**

**MOGGRIDGE, Associate Professor Bradley, Member, Wentworth Group of Concerned Scientists**

**PITTOCK, Professor Jamie, Member, Wentworth Group of Concerned Scientists**

**STEINFELD, Dr Celine, Director, Wentworth Group of Concerned Scientists**

**VANDERZEE, Mr Michael, Water Policy Analyst, Wentworth Group of Concerned Scientists**

[14:52]

**CHAIR:** Welcome. I understand that you have been provided information on parliamentary privilege.

**Prof. Pittock:** Indeed we have.

**CHAIR:** Excellent. Do you have any comments to make on the capacity in which you appear?

**Prof. Pittock:** I'm a professor at the Australian National University.

**Prof. Moggridge:** I'm an associate professor of Indigenous water science at the University of Canberra.

**Prof. Kingsford:** I'm a professor of ecological science at the University of New South Wales.

**CHAIR:** Thank you very much and welcome to all of you. We'll go straight to questions. I understand you've not provided an opening statement. Thank you for your submission, though. Senator Hanson-Young.

**Senator HANSON-YOUNG:** Thanks for joining us this afternoon and for your submission. I found it very insightful. Could we get some of the key issues on the table here? The whole purpose of the Murray-Darling Basin Plan is to recover water that has been overallocated. Too much water is going out of the system. We need to make sure we reduce that so that the river has a fighting chance of survival. We've known right from the beginning that this was a bare minimum. In fact, as Richard Beasley reminded us today, it's less than even the Wentworth Group—your organisation—proposed should be the bare minimum a decade or so ago. Do you think that what is being presented in front of us now as what is to be recovered for the river is based on science?

**Prof. Pittock:** The current Basin Plan is obviously a compromise. We do support the thrust of the restoring our rivers bill in terms of reallocating more water for sustainability of the environment and other values and industries that depend on that, as well as providing more time to achieve that, and measures to improve socioeconomic outcomes.

You ask whether this is based on science. No, the Basin Plan targets were not based on sound science to begin with. Since then we have the added complication—the acceptance—that the amount of water available in the rivers is declining significantly due to climate change and due to other changes in the way land is managed in the catchment that are simply not reflected in the current Basin Plan.

That's why in our submission we are arguing that there needs to be additional work—quickly—to identify those primary environmental values and socioeconomic values that should receive primacy for water allocations, in a situation where everybody is going to have to lose some elements of what they cherish.

**Senator HANSON-YOUNG:** Are you concerned that, given all that, what we're being presented with is an even further reduced recovery plan? The 605 is a further compromise. Environmental water was cut by 70 gegalitres in the northern basin when the Northern Basin Review was passed by, actually, both the Labor and Liberal parties here in parliament. What was already not enough is even less. It feels to me that there's still not commitment across the board to recovering what is remaining of the gap—that 315 of the bridge-the-gap water or, indeed, the full 450.

**Prof. Pittock:** Yes. The Wentworth Group is very concerned that the initial recovery targets have been reduced step by step over the past decade. We welcome the government's proposal now to recover the full 450 billion litres. We are concerned that the recovery of other water—for example, the 605 billion litres—is based on poor-quality monitoring and programs.

That's why in our submission we set out a number of recommendations to provide greater certainty that the recovery targets would be delivered. We're suggesting that those recovery targets be strengthened in legislation: that there be measures if water is not recovered on time; that there is much improved modelling of water, because we don't believe the current models are monitoring the available water as accurately as they should; and that the very poor water accounting that's undertaken be strengthened, to move, for example, from a single entry accounting water model to a double-entry accounting water model. At the moment, the governments are essentially only counting the water withdrawn; they're not comparing it to see what's left in the system and whether that adds up to what the governments' models say is supposed to be in the system. That is really

concerning if we are to track trends in water availability and losses from things like climate change or tree planting. We as a society need to do a much better job.

**Senator HANSON-YOUNG:** At the end of the day, when you're counting up the till in retail, you don't just look at the printout of what was meant to go in there, do you? You count what's actually in the till to see if anyone's been taking an extra pineapple or not.

**Prof. Pittock:** Indeed. If I might build on Senator Davey's earlier question to EJA: one of our concerns as scientists is that, when the Basin Plan was adopted, the state governments withdrew their funding for the sustainable rivers audit that was the whole-of-basin monitoring program. We would say that all stakeholders should rightly be concerned about whether they are achieving the environmental outcomes that were intended. We're hoping that the Senate will recommend reinstating some form of audit that focuses on the environmental outcomes that are intended to be achieved.

**Senator HANSON-YOUNG:** How often do you think that audit should occur?

**Prof. Pittock:** That's a good question. I might defer to Professor Kingsford in terms of his expertise in monitoring these outcomes.

**Prof. Kingsford:** Apologies for not being there in person; I've been doing surveys of water birds on the Lower Lakes in the Coorong. We've been doing that now since 2007 and monitoring water birds for the last 40 years across the basin. We've seen about a 70 per cent decline in water bird numbers. They integrate right across the ecosystems. In terms of your specific question about auditing: I think there should be an audit at least every five years but in the same way we had an independent audit group assess the Murray-Darling Basin Commission use of water. I believe we need more of that transparency within the governance structures currently operating.

**Senator HANSON-YOUNG:** In relation to the 450 gigalitres: is there a role for milestones for that? At the moment we're presented with, 'Let's blow the time line out to 2027, and we might be able to buy some of it but there are no guarantees how much that's going to be.' There's no compulsion of the minister to do that. You've already got New South Wales saying no and the irrigators industry group saying, 'No way.' How do we make sure that, by 2027, 450 gigalitres has been recovered?

**Prof. Pittock:** I will defer to Dr Steinfeld on that.

**Dr Steinfeld:** It's our understanding the 450 gigalitres is not currently a legally binding target in the Water Act and the Basin Plan. It is important that it becomes legally binding and that there are incentives for its delivery as well as consequences for lack of delivery. With the 450 gigalitres creating a legally binding requirement in the Water Act, our initial legal advice has been it needs to be its own binding, standalone, substantive provision in the Water Act outside of the part 2AA special account. That would allow the 450 gigalitres to be dealt with in the same way as the 2,750 gigalitres, flow through the water resource plans and be part of the compliance mechanism. There are ways to create annual milestones to ensure progress on that 450 gigalitres is made every year from next year to 2027. In doing so, you create more certainty about the expectations on water recovery and reduce the risk that the 450 gigalitres may not be recovered by the end of the four years and that we end up in the same place we are in now.

**Senator HANSON-YOUNG:** Professor Kingsford, you've just been down at the Lower Lakes in the Coorong. What will be the impact if we don't get the 450 gigalitres as promised?

**Prof. Kingsford:** I was here during the millennium drought. We almost had a collapse of this system. We had acidification happening. Lime had to be put out to neutralise those soils. I think one of the big concerns is that, with the more extreme droughts that we are going to get, making sure that we have enough water to get down to the bottom of the system is going to be really important. I think people forget that there are also very important wetlands all the way through the basin. Certainly in the past few years New South Wales has not taken account of those. I think discussion about the water needs to be within the context of all of the major wetlands, including those Ramsar sites which the Water Act hinged on.

**Senator HANSON-YOUNG:** Can I ask you about the SDLAM program in particular. In your submission you highlight concerns about lawfulness. We've heard from Richard Beasley about that today as well. You have already raised that you are concerned that the method for determining the SDL adjustment volume is not scientifically valid. It's the one thing that continues to be pushed out and pushed out. What do we need to do to stop history repeating itself in that space? Not only are we blowing out the time frame but the minister is telling states that she's got a bucket of money that's so big she can do anything she wants with it in order to have more of these bogus programs.

**Prof. Pittock:** The SDLAM project is very concerning. As you will see in our submission, we consider that there is no sound scientific validity to the SDLAM determination method. We have proposed an alternative

method and have had the opportunity to present that to the basin officials, commission and authority. Their response at the time was that there was insufficient time between then and the reconciliation that is currently scheduled in 2024 to adopt a new method. Fortunately, with the proposed extension of time enabled by this act, in our view, there would be opportunity for a more rigorous, scientifically based reconciliation method to be adopted so we as a society can be assured that the billions being spent on these proposed projects are warranted.

**Senator HANSON-YOUNG:** Would you argue that, without a change of that method, there shouldn't be any new projects funded?

**Prof. Pittock:** We find it hard to believe that the proposed new projects are a serious proposition. After all, the existing projects have been proposed for more than a decade and at least half of them have not been delivered. It's inconceivable that the state governments can put up new works and measures projects and have them properly assessed and go through approval processes, by the end of 2026.

The other point we would make is that a number of the projects that have not proceeded, particularly those to date in New South Wales in places like Menindee Lakes and Yanco, were so poorly conceived and planned to begin with it is hard to see how anything could be salvaged from them. I do think the government and the Senate could usefully look at cutting losses and focusing on more meaningful interventions.

**Senator HANSON-YOUNG:** One was Menindee Lakes. What was the other one that you mentioned?

**Prof. Pittock:** Two projects in the Yanco Creek region of New South Wales.

**Senator HANSON-YOUNG:** And you think we should just cut our losses and say: 'They were never sound. They're not working. Let's stop throwing good money after bad'?

**Prof. Pittock:** Indeed. There are some interventions in places like Menindee Lakes that could deliver environmental and cultural benefits. They would not necessarily save water to any great extent.

**Senator HANSON-YOUNG:** To be clear, the water promised to be recovered from, say, Menindee Lakes, was over 100 gegalitres, wasn't it? It was more like 180. That water would need to be found somewhere else. The Productivity Commission today suggested we should be buying that water instead. Would you agree?

**Prof. Pittock:** We would. We note the comments of the chief executive officer of the authority, Andrew McConville, in November, that there's something like a 300-gegalitre shortfall in supposed savings from the SDLAM projects. We think the governments need to consider how to recover any volume that is not achieved.

**Senator DAVEY:** I've been watching your work over a number of years now. Is Professor Grafton still a member of the Wentworth Group?

**Prof. Pittock:** No, he's not. I understand he will be speaking in his own capacity later from ANU.

**Senator DAVEY:** But he was a member for—

**Prof. Pittock:** He was a member for a period of time. I don't recall the exact dates offhand.

**Senator DAVEY:** You say in your submission we need to track 'whether water recovery under the Basin Plan is delivering the additional volumes expected in the river systems'. I note you've got a really good map in your submission that shows where the environmental water requirements are being met or not, and there's a lot of red there. This comes back to one of the fundamental issues, that the Basin Plan was designed to address overallocation—that's the terminology consistently used. However, does it, when no-one has done anything to address the overallocation? They've just transferred the ownership from one water user to another water user. Admittedly this one's interests are environmental, but because they're not changing or destroying those licences they're still, effectively, managed licences.

The only way to achieve the environmental water requirements or river flows is if the Commonwealth Environmental Water Holder picks up the phone and puts the order in—the same as if an irrigator picks up the phone. We could recover all the entitlements in the basin, but unless DCCEEW is picking up the phone to meet what you and others have modelled as environmental water requirements, we're never going to achieve that objective, are we?

**Prof. Pittock:** It's true that there's a lot of rules based environmental water that delivers some benefits. The water required by the Commonwealth, and held by the Commonwealth Environmental Water Holder, that has to be actively managed, has a different character. It requires much more intensive management. We think that the watering plans developed by CEWH in consultation with other stakeholders has made the best of a bad lot. The bad lot is that the use of that water has been considerably constrained for a number of reasons.

As a society, we spent billions of dollars buying water and are not able to use it to get the best environmental bang for buck, and one of the key reasons is that constraints have not been relaxed. Our assessment is that

tracking every parcel of CEWH environmental water that was released over a seven-year period—only two per cent by area of the flood-plain wetlands in the basin have been watered on average each year. That's a pretty poor return on a very significant investment. That's one reason why relaxing constraints is mission critical if the basin reform process is to achieve what we hope for.

**CHAIR:** A quick follow-up on that: what would be a constructive way to speed up that delivery?

**Prof. Pittock:** I actually think the governments have made a mistake in mischaracterising constraints relaxation as some sort of expensive impost on rural communities rather than what it also is, which is a way of better managing flood risk from wild floods. When we tallied up the business cases that the states prepared for the constraints projects from 2016, it amounted to \$864 million. That is potentially a billion-dollar investment in regional Australia that would be going into the pockets of landholders for easements, and into upgrading rural infrastructure, roads, bridges, levee banks and shifting the odd thing that's been put in a silly place. For most landholders, we have great faith in the intelligence of the Australian farming community. They're not silly enough to put things on low-lying flood plain areas in harm's way. In most cases, purchasing these constraint easements is really paying landholders to manage the land as they already do. We think that there's a good opportunity for the governments to work with regional communities, realise the benefits and reduce some of the damaging impacts that we saw from the flooding down the Murray system late last year.

**CHAIR:** Thank you.

**Senator DAVEY:** I think constraints management is a key issue, and certainly it's one that we've discussed several times today, in that the 3,200 relaxed constraints modelling that was done back in 2012 highlighted that, even if you get the full 450, the additional environmental benefits are only minimal. Thirteen out of 18 ecological indicators will be achieved without relaxing constraints, whereas, if you relax constraints, you hit 17 out of 18, which is a marked improvement. The question then has to be which comes first: the full 50 or the constraints? Without achieving constraints, is the 450 just going to potentially exacerbate some environmental issues that are already occurring on the Goulburn and through the Barmah Choke where you've got riverbank scouring occurring? People are saying to do it concurrently, but, if you can only achieve incremental constraints—I know the 2016 constraints report from the mid-Murray region said, 'Yes, we're happy to work with the government to address constraints but only up to a level half of what the government was originally proposing'—readjust the model to reflect what the community will realistically tolerate and then adjust the recovery target.

**Prof. Pittock:** We need constraints now because our state and federal governments can't use the existing environmental water to maximum benefit. The additional 450 gegalitres will certainly provide additional environmental benefits now. What is often poorly appreciated is that the water flowing out of the River Murray into Encounter Bay and the Southern Ocean is, for example, the basis of a large portion of the fishing industry in South Australia. This isn't water that's wasted even if it stays in the river channel and goes out to sea. There are many reasons for doing both concurrently, in our view.

**Senator DAVEY:** I note in your submission you've got some principles and assurances needed to deliver the Constraints Management Strategy. A lot of those are co-design, bringing the community along with you, which is what we heard from the Basin Community Committee as well. I thought I read elsewhere in your submission that, if the community won't come, compulsory acquirement should be considered. You can't have both.

**Prof. Pittock:** Indeed

**Senator DAVEY:** You either have community buy-in and participation or you compulsorily acquire.

**Prof. Pittock:** Our strong desire and recommendation to government is to seek to co-design these programs and to have voluntary agreement by landholders and with communities. I understand that quite a bit of that has occurred in places that you would be familiar with, Senator, in the Riverina, negotiating things like building bridges to keep roads open. That is certainly the preferred way forward. There are around 3,300 landholders who would need to be involved in a constraints relaxation program for it to succeed. In our wildest dreams I'm not sure that all 3,300 landholders would sign up voluntarily, and so we do think, as a measure of last resort, it's essential, to protect the public interest, that the bill is amended to enable compulsory acquisition of easements after reasonable attempts for a voluntary agreement fail.

**Senator DAVEY:** I note that you referenced the Hume to Yarrawonga process that occurred 20-odd years ago. Not all landholders in that reach have signed up to that level.

**Prof. Pittock:** Indeed.

**Senator DAVEY:** I want to focus on what we have achieved under the Basin Plan. My understanding is that some of the schedule 5 targets that were linked to the 450 were already achieving, including maximum daily salinity levels in the north Coorong and maximum daily salinity levels in Lake Alexandrina. Keeping the water



levels in the lakes over a minimum is already being met. There is concern that the southern lagoon is not being met, but we heard this morning from South Australians that the issues in the southern lagoon will be virtually impossible to meet if you're trying to feed the water through the north. And there is the healthy Coorong project—I've forgotten the name of it!—in South Australia that has received federal funding but seems to have hit a brick wall. It hasn't progressed for some time. I'd be interested to hear your thoughts on that.

Professor Kingsford mentioned the millennium drought and how severe it was, particularly around the Lower Lakes and the exposure of the soil and having to lime the soil, but I note that in the last very significant drought of 2018 to 2020 we didn't have the same issues. The Coorong remained connected to the Lower Lakes, despite having inflows at almost millennium drought levels. Can we acknowledge that we're actually ticking some really heavy boxes through the Basin Plan with the water that we've already got?

**Prof. Pittock:** I admire your glass half-full view, Senator. I'll hand to Professor Kingston to respond and then I might add the glass half-empty view.

**Prof. Kingsford:** Those of us who are working on the ecological side have certainly appreciated what the Basin Plan is trying to do and has done, particularly with the buybacks. Environmental flow management, which you talked about, is difficult because those dams essentially capture so much of a river's flow, so we have to manage it. But we're getting much better at managing that at both Commonwealth and state levels. It's becoming more sophisticated. We're understanding more the responses of different organisms. I feel we still have some challenges in terms of extreme droughts. You mentioned the 2018-19 drought and the Coorong and the Lower Lakes being connected. However, we saw the Macquarie River, for example, completely dry down the bottom end, so there are some real challenges. We've had things like platypus die in these extreme droughts. I do think the environmental water portfolio is a really important part, and the other part is the policies and regulations to ensure we don't get growth in diversions.

**Senator DAVEY:** But in those unregulated systems, particularly Macquarie and Northern Rivers, if it doesn't rain it doesn't rain. We could take out every flood-plain harvesting structure in the north of the basin and, when it floods and the water flows, it would all flow into the river system. It would continue and it would do all the environmental good, but if, like we saw in the millennium drought and then in 2016—I think it was January 2017 that it just stopped raining, for three years. You could have all the entitlements from the north—

**CHAIR:** I'll get you to speed it up there.

**Senator DAVEY:** But it's not going to help if it doesn't rain.

**Prof. Kingsford:** Absolutely, and I think that's the big challenge. We have to get better at managing those extreme droughts and, if there is water in the dam, how we manage that dam to get through some of those really tough times, particularly for long-lived animals in those waterholes.

**Senator DAVEY:** Just an observation, Professor Kingsford: your bird counts are fascinating every year. You've been doing it for 40 years. I admire your persistence. I do notice, though, that some of your best results are in years where there are 100 per cent irrigation allocations and the rice bays are full and the flood harvest dams are full. So we do our bit for the birds as well.

**Prof. Pittock:** I wonder if I could invite Dr Steinfeld to respond to your point about connectivity and northern river flows and some of the propositions that we have for the government and the Senate to consider.

**Dr Steinfeld:** The connectivity of flows in the northern basin is a real key priority for the outcomes for the environment and also the people who live along the river. We think that there's a big opportunity within the context of this bill to provide for rule changes, for example, that would improve the connectivity by allowing water that has been recovered from some of those tributaries in the northern parts of the basin to reach down through the Barwon-Darling, through Menindee and into the Lower Darling and River Murray, and also better link the different water sharing plans and water resource plans so that what is playing out in one downstream water sharing plan has an effect on the decisions that are being made and the allocation and access rules in the upper water sharing plans and water resource plans. What we would like to see is an opportunity within this bill to provide for rules based changes that would increase connectivity but also potentially contribute to the water recovery targets that are being sought under the plan towards the 3,200 gigalitre plan. We think some of those rule changes could also result in reductions in long-term take. If properly done, you could measure that and ensure that that also provides the benefit for connectivity.

**Senator DAVEY:** Is that for this bill, or is that for water resource plans? They are addressing first flush rules now, if they ever get approved. That's it; I promise I won't say another word.

**CHAIR:** Excellent idea. Did you want to briefly respond to that, Dr Steinfeld? I'm just very aware that other senators have questions and we're over time already.

**Dr Steinfeld:** My very brief response is that we think that all options should be on the table in terms of looking for water recovery measures, and this is one that is worth pursuing—finding the evidence and the measures that would guarantee that any change would result in a long-term reduction of take that could count towards the kinds of measures that are being sought by this bill.

**CHAIR:** Following up on some of the things that have been discussed so far, are you proposing that we should have an option to compulsorily acquire water entitlements for the 450?

**Dr Steinfeld:** No, we're not proposing that in our submission. In our submission we recommend that voluntary purchase of entitlements is the preferred approach.

**CHAIR:** On that, obviously the balance between what we can achieve and what we want—they're not always the same thing. There's been a fair bit of conversation today around the idea of the Commonwealth stepping in if the states don't do what they are supposed to be doing, and what that balance point is. Do have you any commentary on that? I'll put it in context. The concern, of course, is that, if we just ride roughshod over the states and intervene, what then happens to the plan and the implementation thereof?

**Senator HANSON-YOUNG:** This is after they've been bad actors.

**CHAIR:** I'm interested in your perspective. This conversation has railed on through the day and I'm just really interested in your perspective on it.

**Dr Steinfeld:** The Basin Plan and the Water Act were bipartisan agreements, and they had the cooperation of all states and territories. That's an amazing starting point. Within a decade, we've got to a point where the bipartisanship has been questionable and the agreement on the delivery of the plan hasn't included states like Victoria, with water reform cooperative arrangements by far preferred. However, the need to ensure that the river system is healthy for the benefit of the environment, the people and industry who live along the river is paramount. The statement that Minister Plibersek made when this government was elected around needing to deliver the plan and being open to how it could be delivered—the flexibility—was a really important approach. It's clear that flexible, cooperative approaches have been sought. The Commonwealth government needs to be commended for taking the decisive step in pursuing the delivery of the plan and reaching agreement and proposing this bill even without Victoria. I do hope that Victoria comes on board to again be part of a cooperative arrangement.

**Senator DAVID POCOCK:** You're calling for guaranteed water for the environment special account funding to deliver the 450 gigalitres of environment water and the constraints management strategy. What do you believe a guarantee should look like?

**Dr Steinfeld:** There are different guarantees. There's a need to make the 450 a legally binding target so that there are both incentives and clarity for its delivery in terms of the money and funding available and also consequences for failure to deliver. We think that clear annual milestones that are linked to that funding payment pathway would be a way to ensure that. Secondly, having the 450, for example, given effect through water resource plans and compliance would be another way to ensure that that 450 is a target that is enforceable. With regard to constraints, obviously the bill proposes the road map, but, within that, we think there is also a need to have clear milestones on progress to ensure that we don't have another decade of uncertain and unclear progress on constraints. That would enable both clear milestones to be defined but also the annual tracking of progress against those milestones.

We've also recommended in our submission that, because of the likely further delays upon what we had already anticipated, the need to make up for those delays through temporary measures—for example, the purchase of temporary allocations or lease back of entitlements—that would give states time to figure out projects like constraints but wouldn't jeopardise the health of the river system at the same time.

**Senator DAVID POCOCK:** Professor Moggridge, I've been hearing that there are real concerns that this bill doesn't in any substantial way address Indigenous water rights. I note that in your submission you've made a series of recommendations, and we've heard about the potential for an Indigenous water holder to be established. Do you have a view on what such a body should look like or the best way to manage allocations if that's the way they go?

**Prof. Moggridge:** Thanks for that question. I think it's an important one. It's going to be a missed opportunity again, I think, if we don't have real impacts in this bill for Indigenous people, because obviously we're missed out. Then, when you look at perspective, the Productivity Commission just released its implementation interim report, and we look at a Basin Plan review in 2026 and then we're looking at a Water Act review in 2027—now pushed back. So we're going to miss this opportunity. If it doesn't happen now then potentially our voice again will be silenced.

There are a lot of things: just seeing Indigenous people in the objects of the act—their right to exist and have access to water that's equitable, with the same rules as every other water holder. We know the numbers aren't good. We have a percentage in the basin. We have a long connection. We have 40-odd nations in the basin that connects to the Murray-Darling, and surface water is at around 0.2 per cent and groundwater's at 0.2 per cent. So we're looking at seriously low numbers. We can't even make a full number as a percentage of water entitlements. We also look at the \$40 million that's been promised for so many years. I don't think it's earned a cent of interest. That makes me question: is that money real? I suppose it's: can the Indigenous water holder be party to that? Then, obviously, with water savings, can they go into the Indigenous water holder bucket, for example? Another model is individual nations having the capacity to deal with water purchases. If they get access to funds to actually start purchasing water, they can start using the water or doing temporary trading of the water to generate revenue.

So there are great opportunities. We've seen state acts have strong objects and principles, but the states don't act on those, and there's no accountability. I suppose that's the other bit that's missing around implementation: who is accountable? No-one's accountable. We've seen people getting away. We've just seen the MILDRN taking on the federal minister. It's just a failure. There are other plans that do that and have been accredited, like the border rivers alluvium. It has no Gamilaraay information in it. With fractured rock and porous rock, we've got four plans, potentially—or two withdrawn. The Namoi surface and alluvium is Gamilaraay only, the same as the Gwydir—Gamilaraay only. Information is not in there, and New South Wales are so cocky they've asked for two years without doing anything. Even as it is, they were due in 2019.

So I suppose there are a lot of things that could happen, but I think, if we have a basic start of acknowledging Aboriginal people in the objects of the act and the implementation of the United Nations Declaration on the Rights of Indigenous Peoples, that's a good start.

**Senator DAVID POCOCK:** That's a start. Thank you. Do I have time for one more?

**CHAIR:** You can go one more.

**Senator DAVID POCOCK:** One of the things I've been hearing about—we had some irrigators this morning who talked about this—is the disconnection between water for the environment and the environmental outcomes, with the focus being on just more water. I'm interested in your view on more water versus quality of the water in our rivers and the other measures that need to be taken to ensure that it's working for the environment.

**Prof. Pittock:** In our submission, we propose a number of measures we think would begin to address this question of defining real environmental outcomes and monitoring to ensure that we get there. We largely agree with the critics who say that to date the basin reforms have done a poor job of defining exactly what it is we're trying to achieve and monitoring how to get there. You will see, for example, that, following the Australian government's commitment last December to the Convention on Biological Diversity's global biodiversity framework targets, we've proposed a number of measures to define what those targets would mean in practice Australia wide but particularly in the basin. We have proposed that there be much more rigorous accounting of where the environmental water is going and why and that there be something akin to a sustainable rivers audit reinstated so that all stakeholders can see year by year and have confidence that we're actually delivering and so that we don't have to rely on poor old Professor Kingsford, on his stomach-churning flights around the Murray-Darling BASIN to provide us with the sole independent, reliable data on whether we're getting there or not.

**Dr Steinfeld:** I'd like to add to that that there's a large body of science that shows that river flows are a prerequisite for river health, so you need that fundamental minimum volume of flows to keep the river healthy. In addition, having other measures like riparian health measures, fish measures and an integrated catchment approach are sorely needed. They shouldn't be a substitute for each other. They need to be done together. You can't have a healthy river if you don't have sufficient minimum flows in the system.

**Prof. Pittock:** Professor Kingsford might have something else to add.

**Prof. Kingsford:** We forget we have these rivers that aren't just channels. They are these huge wetland systems, which are like deltas, that used to be on all of the river systems. Trying to work out exactly how much water we need for those is a challenge. The Wentworth Group analysed the environmental water requirements, and there is a real opportunity to find those indicator sites that tell you how much water is going past those gauges and to assess what the environmental water requirements are there. The states have done quite a bit of work on that, and there's an opportunity to further improve that and really target the science to that.

**Prof. Pittock:** Some have suggested to us that this bill should only be about the minimum necessary amendments to rescue the current failures to implement the Basin Plan and that those with an interest in more effective environmental measures should wait until a new Basin Plan in 2026 or a review of the act in 2027. Our

view is that the government should act on the Prime Minister's election commitments last March, which was to take substantial steps to address the environmental gap in implementation to address climate change and to address the rights of Indigenous nations to water. This is a key opportunity, and we believe that the sorts of measures we've recommended are practical and tractable ways to achieve that.

**Senator PAYMAN:** How do you respond to the claims that more water recovery isn't required and that complementary measures get better outcomes?

**Prof. Pittock:** I've been a great proponent of the so-called complementary measures throughout my career—things like building fish ladders and fixing the cold water pollution from dams. They are essential elements of what we need to do to achieve good environmental outcomes, but they're not an alternative to water. One of the key problems we're facing is declining water availability with climate change. Two years ago the authority reported that inflows into the basin rivers were 39 per cent below the long-term average over the past two decades.

The Wentworth Group's assessment of how much water has been flowing into South Australia suggests that there's 22 per cent less water than the Murray-Darling Basin Authority's models. That suggests to us that we need to move beyond some of the Basin Plan measures and start to ask questions about how we're going to manage greater water scarcity. If we are to sustain the health of key environmental assets that Australians value in the basin, then they will need more water. We will need to prioritise things like drinking water for towns. The quality of water that people in many rural towns have to put up with is a disgraceful situation. We're going to have to start taking triage decisions around environmental assets and economics assets.

**Senator PAYMAN:** Do you think it's possible to have both healthy rivers and prosperous basin communities? What would it look like to place those basin communities at the centre of reforms?

**Prof. Pittock:** Yes, we do think that's possible, and, indeed, many basin communities have absolutely thrived since the adoption of the Basin Plan. You look at regional centres like Griffith or Shepparton. They have significantly greater economic output and jobs that have occurred since then, and that's occurred through things like targeted investment. For example, the transport hub in Griffith has boosted many of the regional industries there. In our submission we suggest a number of ways forward. For example, many of the irrigation districts coincide with state and federal government priority renewable energy zones, so there's an opportunity to bring in a new industry and diversify some regional economies. We also make some important suggestions about investing in Indigenous nations as important managers of river systems.

**Senator PAYMAN:** Thank you very much.

**Senator HANSON-YOUNG:** What was that report you referenced in terms of the 22 per cent less water flowing into South Australia?

**Dr Steinfeld:** That is our 2019 report on observed versus expected river flows. We looked at what we would expect if we ran the models out, over the period that we've got actual river flow gauges for, and compared the two, and we found that there was 22 per cent less water in the river than what the models would have told us would have flowed in the river for that period of time.

**Prof. Pittock:** The question there is why, and our study couldn't point to the reason, but there are a number of potential reasons why. One is that the current basin models a kind of a railway gauge problem, where the state ones are bolted together at the border and they don't really talk to each other very well. That's why in our submission we're really emphasising the need for the new 'one basin' model and to ensure that it's updated on a five yearly basis and that the authority is checking its accuracy every year and identifying discrepancies to work out why. There might be a couple of other reasons. One is that the behaviour of the land in the river catchments is changing with the climate. For example, there can be a growing disconnect between surface and ground water that diminishes surface water flows. For example, tree planting programs can increase transpiration and reduce river inflow. There are a whole lot of factors that our governments should be tracking and monitoring—and haven't been—and that's why we are proposing these additional monitoring, transparency and accountability measures.

**Senator HANSON-YOUNG:** What about the impact of a lot of these taxpayer-funded farm efficiency programs? The promise was that the taxpayer would fund irrigators to be more efficient with their water, with some hope that there'd be less water taken out of the river, but actually what we're seeing is bumper crops and big profits. They're taking the same amount of water and they're using it more efficiently, but there's little return to the river, isn't there?

**Prof. Pittock:** Yes. Professor Grafton, who's one of the authors of that work, will be talking to you next, I believe. But it's a globally known problem—the so-called double-counting of return flows—that water purportedly saved through efficiency measures might have actually been flowing through groundwater back into

the rivers, and if that water is then allocated to extend irrigation it can be double-counted. I think Professor Grafton can elaborate further when he appears.

**Senator HANSON-YOUNG:** I guess that lends more weight, again, to your call for independent auditing.

**Prof. Pittock:** Indeed.

**CHAIR:** I just have one last question. In your submission, you have WESA money into First Nations—so being able to utilise that. Can you step out how you think that would work. We've had some commentary through the day about the challenge in how you bring all of the different First Nations in the basin system to a sense of agreement. Can you step out for us how you think that would work.

**Prof. Moggridge:** That's the million-dollar question—the \$40 million question!

**CHAIR:** If you can answer that, that'd be great.

**Prof. Moggridge:** It is a challenging space, Indigenous engagement, because those 40-odd nations that connect to the Murray-Darling are all independent and have their own ways of doing business, connection, laws, governance, roles, status and things like that—so there's that challenge to start with. One of the potential aspects is the Indigenous water holder, as a start, and then the states would have to consider how they would create opportunities for that. At the moment Victoria is gifting Indigenous groups entitlements, and it's happening only on very sporadic occasions. Whether that's an opportunity at a basin scale is a tricky one. If we look at the way water has been managed and, to a point, definitely mismanaged—a bit of truth-telling in water management.

My mum's generation weren't even considered human, and when we became human we lost access to land and water. Then in the early 2000s we had the separation of land and water, so we were further disenfranchised. Some land councils in New South Wales were part of the opportunity to get land that had water attached to it—so they're benefiting, which is fantastic—and some of those land councils are temporarily trading and building opportunity. But some of those land councils who don't have land or water have got to go to the market and buy it. There is no new water; we know that. Whether these savings or part of these programs can be part of that Indigenous bucket—that could be the opportunity. At the moment we don't have an opportunity to do that. If we're in the objects of the act, at a basin level there is an obligation to do it. We'll have more than regard, which is all we have at the moment.

**CHAIR:** What would you draft that as?

**Prof. Moggridge:** That is happening within the department right now. There's a group committee on Aboriginal water interests and also a new group it has created within the department that is looking at that right now. They've run some consultations around the basin to do that. I haven't been part of those but I think there is an opportunity to get feedback from those consultations. There are groups like MLDRIN. There are land councils in jurisdictions that have land and title that would be very keen to have water. Is it an opportunity that we see missed in this review? The time is now, yes.

**CHAIR:** Thank you so much for your time. We really appreciate it. It's lovely to see you all. We will now let you go. If you have taken any questions on notice—I'm not sure that you did—or you have any follow-up points that you may need to make, we will need them by 2 November.

**GRAFTON, Professor Quentin, Private capacity**

**WHEELER, Professor Sarah, Private capacity [by video link]**

[15:53]

**CHAIR:** Thank you for appearing today. I am assured you've been provided with information on parliamentary privilege; is that correct?

**Prof. Grafton:** I have indeed.

**CHAIR:** Do you have any comments to make on the capacity in which you appear?

**Prof. Grafton:** I'm a professor of economics at the Australian National University but I'm appearing in a private capacity.

**Prof. Wheeler:** I'm a professor of water economics at the University of Adelaide, and I'm appearing in a personal capacity.

**CHAIR:** Thank you very much. I understand you do not have an opening statement, which is totally fine because we had asked for them to be provided in writing.

**Prof. Grafton:** I did provide the submission that was led by Professor Wheeler, but I'm happy to highlight some points if senators wish me to.

**CHAIR:** We might go straight into questions, if that's alright.

**Prof. Grafton:** Whatever you wish.

**CHAIR:** We did receive that submission.

**Prof. Grafton:** I'm at your service, senators.

**CHAIR:** We might start with Senator Davey.

**Senator DAVEY:** Yes, we've got your submission and I have read it; therefore, I have lots of questions relating to your submission. The table on page 3 quite clearly breaks down gap bridging purchases and gap bridging infrastructure recovery. One is just outright open tender buyback. The other is where we've funded farmers or irrigators to upgrade infrastructure through programs like the Sustainable Rural Water Use and Infrastructure Program. Does that recovery also include the Private Irrigation Infrastructure Operators Program, which is off farm?

**Prof. Grafton:** Yes, I believe it does for those latter periods. Many of the voluntary purchases or voluntary sales by water entitlement holders were taken up until the 2013-14 calendar year, and many of those small items I believe are for those individual negotiated entitlements that were purchased through the government. Professor Wheeler might want to add to that point.

**Prof. Wheeler:** It includes everything. That was provided by the Commonwealth department, DCCEEW. It would be great to have specific breakdowns of all the different programs, but that wasn't provided. So it's just of every megalitre that's been returned, either by irrigation on-farm programs or by buyback.

**Senator DAVEY:** I agree. I will actually put to the department, 'Can we have a breakdown?' Then it will be on the public record, if they provide it, and you can have it then. Under the Sustainable Rural Water Use and Infrastructure Program, there were also funds provided to the South Australian desalination plant, the South Australian Lower Lakes pipelines project, the ACT government—I think for the Tuggeranong wetlands; I know the ACT government got funding. There was money for the National Water Market System and funding to DCCEEW for management of water holdings. None of these programs, where there were hundreds of millions of dollars spent, had any megalitre return attached to them. Did the department mix that in as well, or did they break down the separation of money that returned megalitres and the other spending through that program?

**Prof. Grafton:** Again, that's a question that you'd need to address to the Commonwealth department, since they developed the table. I will, however, say that there is other evidence, other than this table, that's provided in the supplementary information we provided to the Senate and this inquiry. Grafton and Wheeler, for example, looks at the differences between supply projects, SRWUIP and voluntary buybacks, and you can see a very substantial difference between them. So, whichever way you slice or dice it, it clearly is much more expensive. I don't think there's any argument about how much more expensive in the detail of that table. I think it's best addressed to the Commonwealth. It's also worth saying—please, cut me off if I'm going too far—that this sort of evidence was available back in 2010. I certainly wrote to it, and the Productivity Commission made this point in 2010. So we're getting on to 14 years ago, before the Basin Plan was even implemented—that this sort of difference in costs would be highly likely. In fact, it has already happened.

**Senator DAVEY:** I agree. I acknowledge that you've been working in this space for a very long time. I feel that I have too. Sometimes it feels like groundhog day. Given a lot of the work that you've done, professors, when we think in terms of strictly dollar for megalitre, I think everyone can agree that, on that simple equation, it is cheaper to purchase water.

I note, Professor Wheeler, you've looked at all of the economic studies and you've identified some that are—how did you put it?—low on assessment criteria and quality assessment. You have done a quality assessment of some of the economic studies. But, in your work, have you also looked at, over time, the cost of permanent water recovery on entitlements left in the water market? I know ACER did some work where they estimated there was a 25 per cent increase in all market trades under all water scenarios as a result of water recovery. That was back in 2017. I think Frontier Economics did a piece of work for the Victorian government that estimated that entitlements have gone up, on average, \$72 dollars per entitlement. Have you done any of that sort of work to look at the long-term costs of water recovery irrespective of whether that recovery's straight buyback or infrastructure projects?

**Prof. Grafton:** I believe Professor Wheeler has done some work in that space. I'll let her talk to it.

**Prof. Wheeler:** When you're talking about water markets, there are lots of different water markets across the Murray-Darling Basin, both in the south and in the north. On the work you're referring to by ACER and Frontier, my memory of it is it used very few observations. It used averages of annuals over time. It had a number of assumptions. It missed out on a number of confounders. So in terms of the actual reliability of those results I would classify those studies as low quality with little internal or external validity. The robustness of the results is in question.

In terms of our own work, we have done a number of studies, particularly one in Goulburn which was published in a very high-quality economic journal. One of the objectives of that study was to say, 'Can we see any impact of water recovery on water market outcomes?' By 'outcomes' we mean prices traded or volumes traded. We couldn't actually distinguish a statistical impact of water recovery on prices, although we found it had impacted the volumes traded within the market. However, that's just one market at a particular point in time. I personally believe there needs to be much more sophisticated water market modelling done, running across the whole southern and northern basin, to try and look at some more impacts of water recovery.

**Senator DAVEY:** One of the arguments that is put that, is while water recovery has occurred, nothing has actually occurred to address the demand side. So you're restricting the supply side by taking water out of the market. I do note in your submission you talk about how the 'widespread belief that water recovery has "decimated" local communities is exaggerated' because farmers can sell their water already and it can leave a community already. I will acknowledge that. That is absolutely correct. However, that water stays within the fluid water market—pardon the pun—and is used somewhere. So it's still in the productive pool and could be brought back temporarily, whereas water sold to the government for the environment is out of the market. Meanwhile, nothing—

**Senator HANSON-YOUNG:** Because the whole point of this is that—

**Senator DAVEY:** Sarah, can I finish my question?

**Senator HANSON-YOUNG:** At least base it on the actual fact of what the plan is for.

**Senator DAVEY:** Yes, I know—

**Senator HANSON-YOUNG:** It's not to help irrigators be more efficient—

**Senator DAVEY:** The water is not coming out of the system—

**CHAIR:** Order! Let's not argue amongst ourselves. Senator Hanson-Young, if you would wait until Senator Davey has finished, you can redirect from there.

**Senator HANSON-YOUNG:** Sure.

**CHAIR:** Senator Davey, please go ahead.

**Senator DAVEY:** When nothing has happened to address the demand side, what can we do about that?

**Prof. Wheeler:** Demand and supply in the water market fluctuate over time. They're driven by a number of factors. Seasonal conditions are the biggest, No. 1 driver of how much water is available within a market and the demand within a market. Water recovery is something that's happening on top of that. Something that occurred in Australian water markets over time is that, as farmers have adopted water trading and different innovations—and we still have lots of farmers who have never traded anything—the supply of water has increased over time within a market. So it's not a fixed capacity. Often, the assumption is that we've got a static level of water, water recovery is taking a percentage out of that and that's impacting water markets. But it's not the case. The claims of

water recovery having a huge impact within the market are generally completely overblown and ignore the huge impact of both seasonal conditions and the changing behaviour of farmers over time.

**Senator DAVEY:** I have one more topic of questions that comes from your submission. I saw that, and I thought, 'You're absolutely right.' It's about buying temporary water allocations and enabling the Commonwealth Environmental Water Holder, because, as you say, seasonal conditions are the No. 1 factor here. Sometimes, though not always, the environment is countercyclical to other uses of water. Do you think that, potentially, we should be looking at the temporary trade of water and the buying and selling of it, allowing the Commonwealth Environmental Water Holder to enter the temporary market in years where it suits and it might be good year for them to buy? Could that offset some of the need to purchase permanent entitlements in this way?

**Prof. Wheeler:** Yes; I completely agree. I am a big supporter of the Commonwealth entering the temporary market, and I think another thing they could do is think about long-term leasing—buying permanent entitlements from farmers but then providing a long-term lease back to that farmer. Whether it's three or five years, that is another way I think could be quite effective. If we're only concentrating on voluntary sales, that would bring in additional irrigators who would be willing to do that. We know from our surveys—we've surveyed thousands of irrigators—they're much more willing to sell temporary water to the Commonwealth than permanent water.

**Senator HANSON-YOUNG:** Obviously, you've touched on a little bit of this already, but your submission really does expose the lie that buybacks in and of themselves decimate communities. You also make the point that buybacks are the most economically efficient means of achieving environmental water. Of course, the Productivity Commission has been saying this all the way through, as well. Yes, Professor Grafton; I remember you sitting across this very table when we were inquiring into the introduction of the first iteration of this plan. Under these amendments that have been put forward to the Senate from the government today, what is to stop any of this happening and us being in the same situation in three or four years time?

**Prof. Grafton:** The critical factor is to ensure that the Commonwealth Environmental Water Holder has sufficient volumes of water to be able to use those volumes of water to ensure stream flows and environmental outcomes. We can talk about the extra bits about constraint, management and et cetera, but that's the critical bottom line. If we go back to the Water Act and look in the basin plan, that's what it's about—getting those environmental, sustainable levels of extractions and good outcomes. That is related to stream flow, and that's why we've been doing all that we've been doing—or have been trying to do—since November 2012 and, of course, before that in terms of the purchases and the infrastructure programs that were announced by Prime Minister John Howard in January 2007. That's the bottom line. How we get there is the next question.

**Senator HANSON-YOUNG:** And guarantee we get there.

**Prof. Grafton:** And guarantee we get there. So the guarantee is if it's in the hands of the Commonwealth Environmental Water Holder, not in the hands of somebody else. That's the biggest guarantee.

We're all taxpayers here—some of us pay a lot of taxes—and the point about it is that we want to do this in the most cost-effective way. That's what voluntary purchases do. We're proposing the continuation of something that was highly successful. We're not contemplating some theoretical science fiction exercise; we're proposing the continuation of what was a highly successful exercise up until 2015, in terms of the purchase from voluntary sellers. We know it works. We know how much it costs. Let's do it. We know it's extremely cost-effective relative to the other options available, including infrastructure, so let's do that.

If we look at the numbers from the Productivity Commission document that was made public last night, there is an anomaly of over \$2 billion available. We could spend \$2 billion to purchase a lot of water. That would go a long way to delivering not only the 450 gigalitres under the efficiency measures, but it would also potentially correct some of the issues around the SDLAM. That is the bottom line: make sure we've got the water entitlements in the Commonwealth Environmental Water Holder to deliver that water for environmental outcomes. How can we do that? The most cost-effective way is by the purchase of water entitlements from willing sellers. It's as simple as that.

If I were to use an analogy, if you'd permit me, it's like going into a used car lot. Let's say you wanted to travel from Melbourne to Sydney. One car over here is three times the price and it's a lemon. The salesman's saying: 'Buy this. It's three to four times more expensive and, by the way, it's not going to get you to Sydney.' The alternative is a Ferrari; it's a cheaper price and it will get you there. Why wouldn't we do it? That's the bottom line. That's the analogy that I would give in this context. And it's not out of some modelling context; it's out of observed facts over the last so many years. We can do models. We can look at the quality of the work, which is really important. We need the best available science—that was part of what we needed to deliver on—but we can



also look at observations as well. Whichever way you slice or dice this, this is a good outcome for taxpayers and a good outcome for the basin. It had bipartisan support when the act went through, as did the Basin Plan. Let's do it!

**Senator HANSON-YOUNG:** I asked the witnesses from the Wentworth group earlier about the impact of the on-farm efficiency programs—again, billions of dollars of taxpayers' money spent on cash handouts, effectively, to private corporations, to individual landholders and to irrigators to enable them to use water more efficiently. Has it actually resulted in more water being returned to the river?

**Prof. Grafton:** This is a big question mark, and it gets to the issue of data, monitoring and evaluation. Unfortunately, when we spent over \$3 billion, as you said, we didn't actually do the monitoring as to what the implications were for return flows. That's the water that would have gone back from the farmers' fields into groundwater or as run-off back into streams. That needed to be measured. It was estimated, but it needs to be measured so we know what the implications are.

We know for a fact—there's a huge literature on this—it does affect return flows. Increasing irrigation efficiency, by definition, is going to have an impact on return flows. How big an impact we don't know. I did work with Professor John Williams. We published a paper a few years ago looking at the implications of return flows. If you take the SRWUI Program and all of the supply projects out there—approximately 700 gigalitres a year, which was acquired, or close to that—and you look at the best-case scenario, instead of 700 we got 420. That's best-case scenario. If we take the average utilisation rate at the time—in terms of how much entitlements were being used, on average—which was about 80 per cent at the time, we get less than 300. It was 200 and something or other. I can give you the precise numbers out of the paper if you wish. Those were the best-case scenarios.

The point is we get much less, net, than is claimed in the accounts we have, so it's a big issue and it needs to be responded to. One of the ways to respond to it—we can't undo history—outlined in this submission with my colleagues is to get much better data about what's happening at a postcode level, but also a whole set of issues in terms of water auditing and actual physical amounts of water in real time. The issues around the models that are being used, the acceptance of them and the transparency around them—all of those are in everybody's interests. It's in the interests of irrigators, the environment and taxpayers.

Let's make the step forward rather than going back and saying, 'X should have happened,' or, 'Y should have happened,' which I did and others did at the time. Restoring our rivers is a step forward in doing that—removing the 1,500-gigalitre cap, which should never have been legislated, and allowing for voluntary sales and therefore purchases to achieve the efficiency target of 450. I would add on top of that some of those sustainable SDLAMs. We could think about the 350 gigalitres that remain in terms of purchases as well. That can't happen this year or next year, but it can happen over a two- to three-year period. I think it's eminently feasible and it would be good value for money for the taxpayer.

**Senator HANSON-YOUNG:** What about the SDLAM projects? You talk about a lemon—

**Prof. Grafton:** It depends on how big the lemon is. Is it a small lemon, a big lemon or a pumpkin sized lemon?

**Senator HANSON-YOUNG:** These are just shams, aren't they?

**Prof. Grafton:** Multiple projects have been proposed, and the Wentworth Group have, I think, 12 criteria to make evaluations of the SDLAM. I think that's a good way forward. We need to have proper criteria to make judgements about them and we need to be clear on what they do and don't deliver in relation to those criteria and, indeed, additional criteria. Whatever the number was originally—36, I think—clearly some are lemons, but I don't have enough knowledge to talk to all 36. I would leave that to those who have more expertise than I do, such as the Wentworth Group in their submission.

**Senator HANSON-YOUNG:** What about the ones that were clearly never going to work, aren't working and aren't going to be done? Several times today we've been told, 'Everyone knew the Menindee project was a sham.' Well, what the hell are we doing with it still on the books?

**Prof. Grafton:** If we tried to talk about a pumpkin sized lemon, that would be it. This needs to be directed to the New South Wales government regarding how they want to proceed with that, but it doesn't make any sense from an economic perspective or an environmental perspective. Certainly, from the objects required of the act, that should never have been there, but that's for the New South Wales government to make final determinations on regarding what it's going to do in that space—and, of course, the MDBA in terms of its accreditation.

**Senator HANSON-YOUNG:** It was proposed that it would recover the equivalent of 180 gigalitres. I think it would be laughable if we got to the end of this process of inquiring into this bill and the government is still saying, 'We'll wait and see.' It clearly has to be scrapped. We've got the department here tomorrow, and I hope

they come in and say it will be, because then we can move on and start talking about real things, real water. If we can't have projects like that, should the Commonwealth say, 'Okay, we'll go and recover that 180 gigalitres through purchases,' even though it's part of the 605?

**Prof. Grafton:** Personally speaking, I would say yes. But keep in mind that what I'm saying is that we need to have proper criteria to make judgements.

**Senator HANSON-YOUNG:** Yes.

**Prof. Grafton:** And based on proper criteria, the Menindee Lakes project is not going to get up. Then, if it doesn't get up and there aren't other alternatives offered by New South Wales, then yes, why not? We're already past due. The expiry date has already passed when it comes to the Basin Plan and what we said we were going to do. We've got a couple of years now to fix this up. These projects do take time. So why not go out and do voluntary purchases? We know it's the most cost-effective way of doing it. So I would say yes. But, again, I'm not saying all those 36 or—

**Senator HANSON-YOUNG:** No, I hear you.

**Prof. Grafton:** We just need proper criteria and transparency. That's what we need. We don't want to hide things away in closets and pretend things are good when they're not. That's the whole point of this committee process, of course, and all the processes the Australian government has set up.

**Senator HANSON-YOUNG:** Thank you.

**Senator PAYMAN:** I'll be brief, knowing there are time constraints. On page 4 of your submission you talk about how voluntary buybacks can provide benefits for farmers. I was wondering whether you could elaborate on that. You did mention voluntary buybacks earlier, answering questions from other senators.

**Prof. Grafton:** Yes, and I think it's a really important point. These are voluntary buybacks, so there are obviously willing sellers. Prior to the 1,500-gigalitre cap that was legislated it was done through a series of tenders—reverse tenders. Farmers are entitlement holders. They provide a price at which they want to get it, and if it's sufficiently low then they get it, depending on a number of factors. When the water entitlement holders, and they're essentially irrigators, get those funds they can use them as they see fit. They can pay down debt. They can do investments in multiple different ways. They can change farming practices. That gives them flexibility to increase their bottom line, basically. They can also do more dry-land farming. There are a lot of options available, and farmers have taken those options.

In work that was led by Professor Wheeler—I'll ask her to talk to that—in terms of those buybacks, those tender processes that we had up until 2015, I believe about 60 per cent of those who sold remained in irrigation farming. But Professor Wheeler could answer that. That is what I recall the numbers as being. I think it's important to stress that it doesn't mean that because you've sold you're not necessarily going to be an irrigator. Compare that—the buy approach—with the lemon approach, where actually yes, some entitlements are provided to the Commonwealth Environmental Water Holder, which is part of the package deal, but you are constrained in terms of what you do. Also with those constraints obviously you are doing some activity that's increasing your irrigation efficiency. That encourages you. There's certainly an economic incentive to use more if you can, and that can happen through higher utilisation rates through your existing water entitlements. That rebound effect has also been identified in the literature. The extent of that at an individual level will depend on the particular circumstances. But yes, water entitlement holders have much more flexibility in a buyback situation. And remember, of course, that they sell only if they want to sell. It's not as if anyone's forcing them to sell in that sense.

**Prof. Wheeler:** I would just echo Quentin's comments there. The most important thing to remember about buyback versus subsidising irrigation infrastructure is that buyback allows completely adaptable behaviour. Farmers can spend that money on anything they want within the farm, whether it's reinvesting, whether it's paying down debt or whether it's leaving the farm. It is also a way for farmers to leave the farm more gracefully. And in a climate change world we have to enhance adaptability and the ability to leave irrigated farming as well as we can. Irrigation efficiency is basically locking farmers into upgrading very expensive equipment. They're then going to have increased power costs. They have increased incentives to change both their crop and their water use, and we know that it incentivises permanent agriculture a lot more, which in a climate change world can be incredibly damaging for them in the future and allows less adaptation. Those are just some general points.

**Senator PAYMAN:** Thank you, Professor Wheeler. I reference your report entitled *Identifying the water-related economic values of the Murray-Darling Basin and rating the quality of water economic studies*. You make a number of criticisms of the 2022 Frontier Economics report on the socioeconomic effects of water

recovery in Victoria, and you describe it as 'low quality'. I was just wondering if you could run us through some of those criticisms.

**Prof. Wheeler:** Sure. We were asked to do a literature review on all the economic values related to water in the Murray-Darling Basin for the Murray-Darling Basin Authority. Part of the dilemma I had when we went to do this literature review was that it's very easy for me, as a professor of water economics, to understand what makes up quality—what study is robust and what study is not. So, if I was to do a proper literature review, I had to work out a way of showing a high-quality study versus a low-quality study. We've been working in the health field, and rating quality assessments of studies is standard in the health field—not so much in any other field. So we decided to adapt medical literature for rating quality and apply it to economic studies, and that gave us a consistent way of rating quality. One person of my team went through 106 studies. All were rated on an index of quality—which I won't go into here, but there are almost 16 different questions that build up quality. From that you get an index, and from that you can rate: this study is low quality; this study is medium quality; this study is high-quality.

The Frontier study in particular was rated low quality simply because data is not provided, very broad assumptions are made, it does not have proper modelling and it wasn't peer-reviewed. A whole heap of factors make up why it's low quality. In particular, it uses input-output modelling as one way to predict job losses, and this is a form of methodology that's been criticised by Treasury, by ABS and by multiple economists. It's something that could not get published in a high-quality economics journal. It's just not robust. Those are all reasons why, for the Frontier study, the results are unreliable.

**Senator PAYMAN:** Thank you, Professor Wheeler and Professor Grafton.

**Senator DAVEY:** Could I ask a follow-up question, please?

**CHAIR:** We're going to break at 4.30.

**Senator DAVEY:** Okay. I'll be very quick. On the back of that, I note—it has disappeared off the MDBA website, but I think it was circa 2015 or 2016—that the MDBA published an impact assessment of water recovery broken down into local government areas. It had an interactive map on the website. Phil Townsend, the author of it, had spent an awful lot of time in basin communities assessing what could be linked to the Basin Plan and what could be considered just the run of the mill of what's happening in the regions. That work showed a significant loss of employment. Even overnight, in the Productivity Commission interim report, they've noted:

Some Basin communities saw agricultural employment fall rapidly, without offsetting growth in other employment areas (the negative effects have only been slightly tempered ...

You talk about farmers being okay when they sell their water because they can use that money as they see fit and they can evolve their farming practices, which everyone acknowledges. I don't think anyone's saying that that doesn't happen. But, even converting to dryland farming, usually they require fewer workers.

**CHAIR:** Senator Davey, can you get to the point, please?

**Senator DAVEY:** Have you looked at the flow-on impacts of fewer truckies being required to move produce, or less on-farm employment because they're all turning to dryland farming or of farmers retiring and, therefore, there being fewer processing jobs? Those flow-on impacts are where the community would have concerns.

**Prof. Grafton:** I think there are a couple of things to say.

**CHAIR:** Could I ask that you try to keep your answers as short as possible. We're running behind and we have lots of people waiting.

**Prof. Grafton:** The first thing I would say is that there were a lot of confounding effects. This is the issue around low-quality, medium-quality and high-quality studies. A confounding effect is, of course, a drought. Drought is bad for everybody, including the environment and the irrigators and communities. When there's a drought and you're undertaking buyback, the confounding effect is to work out what's what. But we do have—

**Senator DAVEY:** The Productivity Commission is low quality and the MDBA is low quality?

**Prof. Grafton:** No. I never said that, Senator. That's not what I said. What I'm saying is that in low-quality studies they failed to account of confounding effects. Those confounding effects have existed in other studies—I can't quote them; Professor Wheeler may be able to, but I think we're out of time. There is the issue around employment. If we say that in community X employment has declined over this period of time and at the same time we have this amount of water recovery, that is simplistic. In fact, it can lead to a false understanding of what actually happened, if that coincides, for example, with other factors, including changes in commodity prices and changes in the amount of water available because of a drought.

Those are the sorts of things that have to be accounted for. That's why we have the high-quality, medium-quality and low-quality. It's why you need to be able to make the right determinations and decisions at the authority level or at a government level, wherever it might be. That would be my response to you, Senator.

**CHAIR:** Thank you. I'm again going to make a point I've made a couple of times today: if you have anything else that you want to provide to us regarding this specific issue that everyone's raised, do so on notice. It is obviously something that we're all vexed by from various perspectives. We are suffering a bit from seeing a lot of this from the perspective of 'only black and only white and nothing grey'. I'm coming to the understanding that there perhaps is the scenario that neither is right and that more of a grey area through the middle is the answer to this. It's like: do we end up with complete and utter economic destruction if we use buybacks, or is it utopia?

**Prof. Grafton:** It's in the middle. Clearly, it's in between. But we already have the evidence. It's not like looking into science fiction. We know what happened when we went and did voluntary buybacks. The basin did not end. Irrigation did not end. We know that. That's a matter of fact. It's a matter of record. You don't even have to look at any studies. I'd make that point. But I would also make the point, and this is taking the other side to some extent, that you can't do an adjustment of more than 2,000 gegalitres—and, hopefully, 3,250 gegalitres—a year in the basin without costs and benefits. We can't pretend that there's not going to be an effect. That's not the case, and that's not what our submission says. What we do say, however, is that the best way to do it, the cost-effective way to do it, in terms of environmental outcomes and, of course, taxpayers, is to go and do voluntary buybacks, notwithstanding the fact that there will, of course, be costs and benefits.

**CHAIR:** We will now suspend. Thank you so much for your time. We really appreciate your submission and your expertise on this. As I've said, if you do have some further clarification points you would like to provide to us, we would like them by 2 November.

**Prof. Grafton:** We would certainly like to do it. Thank you for the opportunity.

**CHAIR:** Thank you so much.

**Proceedings suspended from 16:33 to 16:51**

**BREEN, Mr Ryan, Director, Water Policy, Intergovernmental and Governance, Environment, Planning and Sustainable Development Directorate, Australian Capital Territory Government**

**RATTENBURY, Mr Shane, MLA, Minister for Water, Energy and Emissions Reductions, Australian Capital Territory Government**

**WRIGHT, Ms Fiona, Acting Deputy Director-General, Environment, Water and Emissions Reduction, Australian Capital Territory Government**

**CHAIR:** Welcome. I believe that you have been provided with information on parliamentary privilege.

**Mr Rattenbury:** Yes, thank you.

**CHAIR:** Excellent. We will go straight to questions. Senator Davey.

**Senator DAVEY:** Thank you for appearing and thank you for your submission. Can I honestly thank you for appearing. I'm a bit frustrated that the New South Wales, Victorian and even the South Australian governments didn't appear.

**CHAIR:** SA is coming later tonight.

**Senator DAVEY:** Oh, SA is coming? Thank you to SA. I thought they were meant to be on this morning.

**Senator HANSON-YOUNG:** They're going to be here. I agree with you: New South Wales and Victoria should have turned up as well.

**Senator DAVEY:** It is disappointing. I welcome the fact that you have made the time to come and talk to us. I'll get straight to the chase. How much funding has the ACT received from the Commonwealth under the Basin Plan to date?

**Mr Rattenbury:** Do you mean specifically in relation to water returns or just generally?

**Senator DAVEY:** Generally, under all of the programs under the Basin Plan and Commonwealth.

**Mr Rattenbury:** I'll have to take that on notice so I can give you an accurate answer. What I can tell you is that under our obligation to return 4.9 gegalitres we are currently negotiating with the Commonwealth to come to an agreement on that. As you've noted before, the ACT has not met its obligation yet, but we are fully committed to. We did come to an agreement with the Commonwealth in 2014 to return water. At that time we agreed to return water security entitlements from the Murrumbidgee. We signed that agreement with the Commonwealth, and then in 2019 the Commonwealth received legal advice that that approach could not be accepted. Five years down the track we had to backtrack. We've been negotiating with the Commonwealth since.

With the commitment in February 2023, the Commonwealth announced it would seek to finalise all the Bridging the Gap commitments. Under that there is a proposal that has been put to us, but that is still being negotiated between the ACT and the Commonwealth. We have received \$85 million separately but that was not MDBA funding; that was a separate pool of money. That was used for water quality projects rather than water return projects, if that distinction is clear.

**Senator DAVEY:** The distinction is very clear. My understanding is it was under the sustainable water use and infrastructure program, SRWUIP, which is under the auspices of achieving targets under the Basin Plan. Was the 2014 agreement the proposal to purchase New South Wales Murrumbidgee water and then hand that back to the Commonwealth as your water recovery target contribution?

**Mr Breen:** That was water that was held by ActewAGL, now Icon Water. That water entitlement held by Actew was then sold to the Commonwealth, and that was general security entitlements in the regulated Murrumbidgee.

**Senator DAVEY:** So it was New South Wales water?

**Mr Breen:** Held by ActewAGL; that's correct.

**Senator DAVEY:** Prior to that agreement, how was ActewAGL using that water—or did they purchase it in anticipation of that agreement?

**Mr Breen:** My understanding is it was held for water security. We don't have details on how they intend to use it at the moment.

**Senator DAVEY:** But it was held prior to that agreement?

**Mr Breen:** That's correct; it was held prior to that and prior to the Basin Plan.

**Senator DAVEY:** With the legal advice, I know you're in negotiations and there are potentially commercialities—if you can't answer, I accept that. Are the negotiations now looking at finding 4.9 gigs of ACT water?

**Mr Rattenbury:** Yes. It's actually our intent to return more than that. We believe we can return 6.36 gigalitres, and that will be achieved through urban water efficiency projects.

**Senator DAVEY:** Great. Can you outline what that sort of project might look to. I'm sure there might be other opportunities throughout the basin for urban water security and modernisation that could help some of our towns with their water reliability.

**Mr Breen:** The program will deliver the water under the new strategic purchase framework. The water has been identified within the ACT resource. To offset that, to ensure it doesn't have an impact on urban water security, there is a package of water efficiency measures that have been previously identified. Some of these go to improving efficiency of irrigation of ovals—so the green spaces; smart meters to look at water savings and identify where there may be leakages in the system; and looking at changes to how irrigation occurs on not just ovals but also golf courses et cetera. There is a range of different things like looking at potable water and non-potable water use. Some of these are quite small measures but, in their totality against the population, they add up to be a sizeable volume.

**Senator DAVEY:** Recently the ACT undertook a project to raise the Cotter Dam wall; is that correct?

**Mr Rattenbury:** Correct—relatively recently; it was finished nearly a decade ago!

**Senator DAVEY:** I'm showing my age!

**Mr Rattenbury:** I was there at the same time, so it feels recent! But it's been there a while.

**Senator DAVEY:** Has that lead to the capture and any increased interception of water in the ACT catchment?

**Mr Breen:** It has. When you increase a dam it captures more resource. The resource is within the ACT's paramount right—so it is ACT resource. How much you capture comes down to rainfall run-off, and that's going to vary over time. Yes, it does capture more ACT resource.

**Senator DAVEY:** Just comparing different jurisdictions: the ACT has increased its capture capacity but other jurisdictions have projects where they would like to raise dam walls and they keep getting told, as one of the answers to them, 'You can't because you will increase interceptions, and, under the Basin Plan, that's not allowed.'

**Mr Breen:** I think a big difference with the ACT is that increasingly the dam capacity does not change, I suppose, the SDL. The ACT is generally described as underutilised, in terms of its resource. As to other areas of the basin which are generally described as overutilised or overrecovered, I suppose the idea of capturing additional water is going to have an effect. There is only so much water in the system. There are trade-offs within the ACT's situation. The water use is not being fully allocated or fully utilised, and therefore it enables the increased storage and capture, but specifically for urban water use.

**Senator DAVEY:** This is my last question, because I know Senator Pocock will have lots of questions too and I don't want to cut into his time. Is it also the case that the ACT is looking at securing water for its future growth? You mentioned potentially recycling water, but is that recycled water currently returned to the Murrumbidgee system—as in, the returned baseline flow? So, if you are recycling the water and you're using that to contribute, are you not taking that water out of a downstream system?

**Mr Breen:** It would reduce the volume of water downstream. I suppose, in many other situations, that water is not returned. In the case of the ACT, we have a net water-counting arrangement, so that is counted as a return and offsets the take within the ACT. As to the amount of water that could be taken from there, I suppose those investigations are yet to be undertaken. But, yes, it does reduce the volume of water that would be leaving the ACT. I think, in the context of the total volume of water that leaves the ACT, it is a relatively small component.

**Senator DAVEY:** On notice: if I'm interpreting it right, you have the flows into the ACT and the flows out, and the net use is sort of in the middle. Do you capture those reports anywhere? Could you send us a link, on notice?

**Mr Breen:** We'd have to take that on notice.

**Senator DAVEY:** That's fine.

**CHAIR:** Senator Pocock.

**Senator DAVID POCOCK:** Thanks for your time here this afternoon. I'm interested to learn how the current Water Act and Basin Plan have improved the upper Murrumbidgee River.

**Mr Rattenbury:** I think it would be fair to reflect that we have significant concerns about the upper Murrumbidgee River at the moment. We have seen declined flows. In 2019, the ACT experienced, at Tharwa, the first recorded or first known event of the river actually ceasing to flow. We've also seen declining water quality, including increased algae infestations. So we have significant concerns. We're very keen to work with both New South Wales and the Commonwealth to look at ways to improve the flow through the upper Murrumbidgee, certainly from an environmental impact point of view.

**Senator DAVID POCOCK:** Does this restoring our rivers bill, as it's currently drafted, change the situation for the upper Murrumbidgee and the ACT?

**Mr Breen:** No, it wouldn't. The amendments to the bill focus on, largely, the SDL adjustment mechanism. None of those projects are within the upper Murrumbidgee. There is potential, perhaps, to turn some focus to the upper Murrumbidgee and identify a project. The difficulty is—and I suppose some of those projects would have to be almost in partnership with Snowy Hydro and certainly led by the New South Wales government. Constraints, again, are not part of the upper Murrumbidgee.

**Senator DAVID POCOCK:** Am I right to say that the Murrumbidgee is a backup water source for Canberrans? How does it feature in terms of where we get our water and water security?

**Mr Breen:** The Upper Murrumbidgee is largely a back-up source. The development of the Murrumbidgee-to-Googong pipeline was designed to take water during those moderate to high flows to top up Googong Dam—to top up the water source—but it's not the primary source.

**Senator DAVID POCOCK:** Maybe this one is for you, Minister. What's the ACT government's view on the exclusion of the Upper Murrumbidgee from the Basin Plan?

**Mr Rattenbury:** It is problematic in the sense that, as I said, we have concerns about the Upper Murrumbidgee. We think that it's time we did put more focus on it. It has probably been a bit of a blind spot in the discussions overall. It's probably a different place of negotiation. So much of the plan is focused amongst the basin states, whereas this one does require the Commonwealth and Snowy Hydro, as the instrument of the Commonwealth, to play a role in terms of the release of water from Tantangara Dam in particular. Overall, in terms of this bill, we think it is a positive step forward. Clearly, the existing plan was not going to be met. In our submission we've flagged that we welcome this overall because the time lines were not going to be achieved for the overall basin. But we do think there is scope for improvements in this bill, and accountability and transparency are a really important part of that. Certainly, the Upper Murrumbidgee could be part of that equation.

**Senator DAVID POCOCK:** One of the things we've heard a lot from witnesses is the need to be looking at environmental, social and cultural flows and water within the Murray-Darling Basin. I'm wondering if that's something that maybe needs to be looked at for the Upper Murrumbidgee, given how important it is for all three of those areas.

**Mr Rattenbury:** I'd absolutely agree. I think it is important. It's been a blind spot; that's how I'd best describe it. But it is clear, from the research that's been done and the identification of the issues by a number of non-government organisations, that it is time we put more focus on that part of it. I've been engaging with both the New South Wales government and the responsible federal ministers to try and draw their attention to this and to seek to work together. I think there's an ideal opportunity there to reconsider the impact that the Snowy hydro scheme is having on the Upper Murrumbidgee.

**Senator DAVID POCOCK:** As I understand it, this bill doesn't do a huge amount to address that blind spot. That would need to be brought in separately for it to happen.

**Mr Rattenbury:** Yes. I guess my view would be: it doesn't have to happen through this bill. This bill could be one mechanism, or we could do it in other ways—through changes to the statement of expectations for the Snowy hydro scheme, for example. The Commonwealth shareholder ministers are Minister Bowen and Minister Gallagher, in their roles as energy minister and finance minister. There are also other mechanisms, so it could be done in this bill or it could be done elsewhere. I think that's probably a matter for discussions around whether you want to try and put it into this bill, and what the time lines are, or whether we think about other channels.

**Senator DAVID POCOCK:** Just finally, one of the things that's been brought up is not just flows but water quality. You mentioned water quality. One of the things I hear from farmers is the need to deal with carp. I understand that there is potential, through releasing a strain of herpes or whatever it might be, but that takes resourcing. I'm interested in the ACT's views on that.

**Mr Breen:** Certainly, carp and, more recently, redfin were discovered in the Upper Murrumbidgee as well, which is unfortunate. I think there's a range of issues that are impacting water quality. That's certainly one of them. Not just algal blooms but also bacteria and faecal contaminations have been a driving problem for water

quality. To address those issues, it's not just what's happening in-stream but also what's happening on the farms. It's going back to grassroots farming activities—riparian restoration, fencing et cetera. It really requires a full package of work to be focused in the region.

**Senator DAVID POCOCK:** Thank you, Chair.

**CHAIR:** Senator Hanson-Young.

**Senator HANSON-YOUNG:** You've got a number of recommendations about how to make this piece of legislation a bit more robust. We've heard, specifically in relation to the SDMs and those various water efficiency projects, that so many of them—we know this—are not meeting the deadline of 30 June. But many of them are never going to meet the deadline, even this extended deadline. You point out specifically in your submission that the bill risks perpetuating the longstanding issues with the SDLAMs, and you talk about that if we're going to extend it then we need to invest a bit more time in making it robust. Can I get you to outline some of the specifics that you'd like to see? I'm worried that, unless we do make changes to the bill as it is, we're going to get to 2026 and be in the exact same situation.

**Mr Rattenbury:** I think one of the significant challenges for all of the governments involved in this project is a loss of public confidence around the delivery of the Basin Plan. And better transparency, better monitoring and better accountability will go a long way to restoring that public confidence. We believe there are mechanisms available and we've outlined some of those in the submission. I think there are obviously a broad range of perspectives on the future of this, but, for all the parties, having that greater level of transparency and a shared understanding of the facts, the state of play, is actually really important. For example, one of the things we've been focused on is getting better auditing of the state of the basin.

**Senator HANSON-YOUNG:** The current state of the basin?

**Mr Rattenbury:** Yes, because so much of the debate we're having is premised on modelling that's been done around, 'If we make this change, this will be the consequence.' To me it is not clear whether the measures implemented so far have delivered what's expected, and so one of the reasons we propose an audit, for example, of the on-ground impact of the measures that have been taken is that then all parties will have a better basis on which to assess how much progress we've made since the start of the agreement; whether we're getting to where we need to be; and, certainly as we think about the next round of the agreement, what measures we need to take and how hard we need to work to get these social, environmental and economic outcomes we're after.

**Senator HANSON-YOUNG:** What type of audit are we talking about? Who should do this audit?

**Mr Breen:** I think we'd be looking across a range of different skill sets, from perhaps the ANAO to individuals who understand water accounting and who can look at the modelled information and the accounted information and compare the differences between what's been accounted and the reality, with almost an audit-style approach. What I mean by that is someone who can look at what's been released from the dam, what's travelled to point X and what's made it to point Y. There are a lot of assumptions made in the current water accounting that are not as evident, I suppose, in the annual reports that we do see. In terms of your question of the skill sets, I think it has to be more of a panel-style arrangement, where you do have the audit-type skills, those who understand the water environment and water accounting and those who understand the modelling and can look at a range of different pieces of evidence to validate what's actually being reported in the various—

**Senator HANSON-YOUNG:** Do you think it has to be independent of the Murray-Darling Basin Authority so it sits outside of them? They can feed into it obviously—it'd be crucial to have information from the authority—but what I'm hearing is that an audit would need to be at arm's length.

**Mr Breen:** That's correct.

**Senator HANSON-YOUNG:** I totally understand the point. In this piece of legislation we're being asked to make significant concessions around blowing out time frames. Billions of extra dollars are being put on the table to make it happen, but we don't know the exact figure because the minister won't tell us. But we know there are billions there and the time frames have been extended. It's hard to understand if that is actually going to work if, as you say, we don't understand the current state of play. What's the benchmark? Where are we actually at right now?

**Mr Rattenbury:** The observation I would make is that clearly the existing deadlines that were previously agreed are not going to be met. I think that's clearly understood by all the parties. Everyone knows it's true. And so the proposal to extend the deadlines is a regrettable but necessary action. But, if we're going to have that extension, what I think we have to do is—and this is the point we seek to make both in our discussions with the minister and in our submission—toughen up the accountability mechanisms to make sure we don't get to the same point in two years' time, at the two-year extension, where we're just in the same position we're in now. That's why



we argue for a range of improved transparency and accountability mechanisms, potentially including a stronger role for the inspector-general, who's, in our view, underutilised and could be an important part of that, to make sure that as we renew our commitment to the plan we are actually genuinely renewing the commitment and not just kicking the can down the road.

**Senator HANSON-YOUNG:** Otherwise, we're going to be back here in three or four years' time having the same argument.

**Mr Rattenbury:** That's the risk.

**Senator HANSON-YOUNG:** In terms of when an independent audit would need to happen, am I correct in understanding that what you're saying is that that needs to happen now or as part of these new deadline extensions, instead of waiting till 2026 or 2027?

**Mr Rattenbury:** Our view would be that now is the time to start. It's going to take a bit of time to get it set up to work through. Once you've done it once, it's also replicable, so you can think about where you'd need to do it again in the future. But the work will also be beginning soon on the next plan because, as this legislation proposes, even if we extend by a couple of years, we're into the zone where we need to start thinking about the next plan as well. That kind of work would inform future policy considerations.

**Senator HANSON-YOUNG:** What is your understanding as to where the review of the existing plan is up to?

**Mr Breen:** Our understanding is that it's at a very early stage. There has been a commitment to undertake the sustainable yields audit and sustainable rivers audit, and they'll be key pieces of work that will inform that review. At the moment it appears to be at more of an evidence-gathering stage, as well as the model development. The integrated river modelling uplift project aims to tie together all of the existing hydrological models. That's essential to being able to conduct the review and look at the environmental or sustainable level of take, what we've achieved to date and the climate impact going forward. So there are a number of key pieces of work that have commenced and are progressing. In terms how much of this is evident in the public domain, I suppose that's a reasonable point.

**Senator HANSON-YOUNG:** Should we be looking at other methods to recover the water that's still outstanding? The whole reason of having to blow out the due dates on this is that there's a shortfall of around 750 gegalitres between the closing the gap water and the 450. If we're just going to use the same methods that we've been relying on for the last seven or eight years, I don't see what difference we're going to get.

**Mr Rattenbury:** It's probably not an area that the ACT government has a major focus on, but certainly we are supportive of the element that's been put in the legislation to remove the 1,500-gegalitre cap on water purchasing. We certainly see that as one pathway, but that's not to say that there aren't others. But that's an element of the bill that are supportive of. We think it's an effective mechanism and can in be done in a way that is sensitive to the needs of communities but will ensure actual recovery of water.

**Senator HANSON-YOUNG:** As a minister in a government, you would understand the need to be responsible with the use of taxpayers' money. If you're being presented with evidence that says this over here is a much cheaper, much more effective and much more efficient way of spending money to get the outcome and then here's this much more expensive and dubious way—we don't know whether the science really backs it up, but it's got a lot of friends—where's the ministerial responsibility as to how to spend that money?

**Mr Rattenbury:** It probably depends on which minister you ask: the Treasurer or a different minister. On a serious note, clearly you want to find the most cost-effective way. Efficacy is a key measure in that equation as well. Also, certainly in the cabinet discussions I sit in, you'd be weighing up a range of social and environmental considerations. The hard part in a question like that is making sure you're getting some sort of apples-and-apples comparison. Clearly, if I understand the intent of your question, that is why we are supportive of raising the purchasing cap, because we think that is an effective and efficient pathway at least for some of the water to be recovered.

**Senator HANSON-YOUNG:** In the absence of an independent audit—understanding what the facts are, knowing what water has actually been recovered and whether the models that were relied on a decade ago should still underpin this process—do you think that we should have new SDLAM projects approved in the absence of that information?

**Mr Breen:** The SDLAM program or the process that went on in 2016, 2017 and 2018 flushed out a lot of projects, good or bad. In terms of whether other projects exist that would genuinely contribute to equivalent environmental outcomes or recovery towards the 450, there would need to be a bit of a relook at the criteria that were used to assess those projects in the first instance and a look at the modelling approach as to how the contribution from those projects was determined as well. There has been a bit of a shift from assessing them as a

package, as it was once, to now considering them as individual projects and individual contributions, thereby uncoupling them somewhat. I don't think that stands true to the original method, but going forward, given the success rate to date, there probably does need to be a fairly thorough rethink of how these projects are assessed, the risks of those assessed and a consideration, I suppose, of how genuine a contribution these projects make.

**Senator HANSON-YOUNG:** You talked a little bit about the inspector-general's role being underutilised. What changes would you like to see in relation to the inspector-general's roles, responsibilities and powers so that they can be helpful?

**Mr Breen:** The original intent of the inspector-general was to provide oversight of program delivery. It appears that we aren't seeing that in practice yet. Some of that is just by virtue of the legislation having been put through prior to the establishment of the inspector-general. There are some fairly simple amendments that could be made that would broaden the powers of the inspector-general within its original intent—for example, having oversight of the funding agreements. There's a prescribed set of funding agreements within the act; however, that prescribed set doesn't extend right across all funding agreements within jurisdictions on the implementation of the Basin Plan. So a simple—I say 'simple'—regulation that captures all funding agreements that have occurred as well as future funding agreements would provide the inspector-general with oversight of how jurisdictions are assessed in terms of their progress and therefore the funding against that. There are other things, such as having a register of projects, with the inspector-general having oversight and assessing progress against those projects. The audit function of the inspector-general, for example, doesn't extend to those types of projects either. At this stage, in terms of how the legislation has been drafted, it focuses only on SDL compliance not on broader oversight and program delivery. By making some amendments that ensure that those powers extend across one of the oversight roles would strengthen the delivery of those projects.

**Senator HANSON-YOUNG:** This is my final question, because I know the chair wants to share the call. You've identified some of the loopholes—I think it's fair to say that—in the roles and responsibilities of the inspector-general. You express concerns about whether the modelled information reported by agencies matches the reality of water recovery. I'm wondering: is that purely in relation to your call for an independent audit—that you want this fact-checked, effectively—or are there perverse incentives that are stopping or influencing the way models are being reported against?

**Mr Breen:** There are a couple of things there. I would probably say yes to both parts of your question. There's always uncertainty and questions in terms of the models—how they've been developed for different purposes and are trying to be used for a different purpose again. Given there are always assumptions going into those models, there are bound to be differences between the modelled information and the reality. The point of the audit would be to provide a validation that what we're seeing reported, which is often modelled information, is actually occurring in practice. It would also help to validate whether or not a range of other policies and practices have actually been implemented. Some of these go to the prerequisite policy measures or unimplemented policy measures in the Basin Plan as well. There are a number of things that have been committed to over time, and we're all waiting for the SDL reconciliation to verify these things. An audit that happens either annually or every two years would provide some check along the way to ensure that what's being reported is what we're getting.

The other thing is that different agencies report water use for different purposes. For example, you'll see differences in what is reported by ABARES or the Bureau of Meteorology or MDBA, again for the purpose they're reporting on, but the assumptions underpinning that reporting are never fully disclosed. I suppose that creates some differences, and quite substantial differences, in the numbers and therefore generates some distrust as well by virtue of that. Some of that can be a several-thousand-gigalitre difference within a single water year.

**Senator DAVEY:** I couldn't agree more about the discrepancy in reporting. It would be much better if everyone used the same language and the same reporting frameworks so that we could look at all the different reports and go: 'Oh, I get it. I see that.'

You're on the ministerial council. I note that it hasn't met since February. I also note in your submission that you make quite strong recommendations about constraints. I don't believe the ACT has any constraints, under the constraints management strategy, within its boundaries, so you're making recommendations that constraints should potentially be compulsorily required and that there be a legislated mandate for the Commonwealth Environmental Water Holder to inundate private land for jurisdictions outside your own. Do you think that's fair?

**Mr Rattenbury:** As a party to the agreement, we go to the meetings, we are involved in the discussions, and we participate fully in the program. So, yes, we are putting forward our views, just as the other jurisdictions put forward their views.

**Senator DAVEY:** Finally, you said that you're on track to deliver 6.36 gigalitres.

**Mr Rattenbury:** That's our proposal that we're seeking to finalise with the Commonwealth at the moment.

**Senator DAVEY:** And by the 2024 deadline, the original deadline. That is over and above the 4.9 gigalitres. Does that include your contribution to the 450 gigalitres?

**Mr Rattenbury:** We are obliged to deliver 4.9 gigalitres. We're proposing to add an additional 1.46 gigalitres to that. Does that answer your question?

**Senator DAVEY:** Which could go towards the 450 gigalitres. If the Commonwealth then chose to put it towards the 450 gigalitres, it would require this bill to go through so that its strategic purchase could be accepted for that.

**Mr Breen:** It could contribute to the other water recovery targets, including the 450 gigalitres.

**Senator DAVEY:** Thank you.

**CHAIR:** Thank you so much. We really appreciate your time. Sorry for having kept you, because we are indeed running late, and apologies to everyone else who is waiting as well. If you have taken any questions on notice, 2 November is our generous deadline for that. Thank you so much for your time.

**BRUCE, Mr Ben, Acting Chief Executive, Department for Environment and Water, South Australia [by video link]**

**JORDAN, Mr Dan, Director, Water Security, Policy and Planning, Department for Environment and Water, South Australia [by video link]**

[17:31]

**CHAIR:** I will now call the representatives of the South Australian Department for Environment and Water. I will just remind senators that the Senate has resolved that an officer of a department of the Commonwealth or of a state shall not be asked to give opinions on matters of policy and should be given reasonable opportunity to refer questions asked of the officer to a superior officer or to a minister. This resolution prohibits only questions asking for opinions on matters of policy and does not preclude question asking for explanations of policies or factual questions about when and how policies were adopted. I understand you do not have an opening statement, which is totally fine. We will go directly to questions. Senator Hanson-Young.

**Senator HANSON-YOUNG:** How important is making sure we get the 450 gigalitres delivered by the new time frame if it's actually ever going to happen?

**Mr Bruce:** It's of fundamental importance, as part of the conditions on which the original Basin Plan was established. It's the basis on which the interjurisdictional agreements were decided on with the action plan. Certainly in terms of getting the value through the system, we saw that the original science was looking at much higher volumes of water required. You do need a certain amount of volume, or people will focus on outcomes all the time. Of course, outcomes are incredibly important—it's what we're interested in—but you do need a certain volume of water to be able to achieve that before you can even look at a range of flexibility around that.

In order to get flows through the system, one of the issues with the 450 gigalitres is that people focus just on the Lower Lakes and Coorong, which of course it is vital for, but the 450 gigalitres delivers benefits throughout the system, throughout the flood plains up in the Riverland in South Australia but also to the flood plains up in New South Wales and Victoria, and that's often overlooked. A lot of the environmental water that's provided through these processes are actually delivering environmental outcomes in New South Wales and Victoria. As the return flows from that water delivery that ends up making it to South Australia, people often get confused and think water is just being shunted down the tubes straight to South Australia. That's not how it works. It delivers benefits to environments right throughout the system on its way down.

**Senator HANSON-YOUNG:** How important is it to make sure there's a guarantee? All we've got in this piece of legislation is a blown-out time frame and the possibility that some of it could be brought through water buybacks as opposed to through these bogus efficiency programs. I'm worried that we're going to get to 2027 and be in the exact same position that we are today, and we're going to be told: 'Oh, sorry. Can we have another deadline? Can you extend our homework for a bit longer?'

**Mr Bruce:** It is fundamentally important. The premise of the action plan is that you have an environmentally sustainable level of take. If you look at the 3,200 gigalitres, which is the 2,750 gigalitres plus the 450 gigalitres, that only delivers 94 per cent of flow targets in any case. So it's arguable that that is an ESLT in and of itself. As the original negotiation was, 94 per cent was close, so it was agreed to move ahead on that basis. You need the full amount to actually even have a hope of delivering the minimum requirements of the plan, and that's without even taking into account climate change. So it's of fundamental importance that that's delivered to enable the system to have any chance of recovering and also to withstand future serious drought events.

**Senator HANSON-YOUNG:** What should the consequences be if the 450 gigalitres is not recovered?

**Mr Bruce:** It's terribly difficult in these situations to have full consequences. We can't send people to jail. It's really about the Commonwealth having the power to go in and make it happen potentially straightaway.

**Senator HANSON-YOUNG:** The lack of delivery should trigger a deliberate action from the minister, so to speak.

**Mr Bruce:** Yes.

**Senator HANSON-YOUNG:** Are you concerned that, under these new negotiated changes to the plan, Victoria has not signed up to this? Does that have implications for the delivery of the 450 gigalitres?

**Mr Bruce:** Our preference would be that everyone signed up to it, just like they did originally, but that's Victoria's decision. They can do what they wish. Hopefully, this will give the Commonwealth the power to move forward and deliver the plan irrespective of that. It's always best if we can work together and achieve the best possible outcomes right throughout the basin for all communities, but we've had lots of time to work on this, and we just need to get on and actually deliver it.

**Senator HANSON-YOUNG:** Have you had a chance to look at the Productivity Commission's report released today?

**Mr Bruce:** No, I haven't.

**Senator HANSON-YOUNG:** Perhaps you could take this on notice. We don't have long, but there are some key recommendations in there about the use of purchasing water, including not just for the 450 gigalitres but that outstanding gap of 315 gigalitres of the bridge-the-gap water. If you could have a look at their recommendations and give us the South Australian government's position, that would be very helpful.

**Mr Bruce:** Yes, no problem.

**Senator HANSON-YOUNG:** Could I ask you about the importance of where the 450 gigalitres of water is actually recovered from? Does that make a difference in order to achieve those crucial environmental outcomes that you've noted already?

**Mr Bruce:** Yes, it does. Basically, the fundamental integrity of the plan depends on where it has come from. The modelling that was done to work out what the impacts would be from the water recovery was done based on that water coming from the southern basin, so any time water reduces from the southern basin you reduce the ability to achieve the objectives and outcomes required under the plan. It's a fundamental shift if you don't.

Where the debate gets caught up a little bit is that there is a lot of demonstrated need for additional water recovery in the northern basin. We would support that, but not at the expense of the southern basin. The reality of the science is that both areas of the basin require further recovery. The Wentworth group report recently demonstrated that as well. It actually demonstrated that the requirement was greater in the south than in the north. Ignoring the recent La Nina events, I think people have got a little caught up in the serious drought that was in the northern basin, which was very serious. I went there myself and had a look. It was terrible. It certainly underpins the need for further work there, but people seem to forget about the millennium drought and what that meant in the southern basin, particularly at this end of the system. It was absolutely dire for those who were able to witness it.

Drought happens in different areas at different times, and it's easy to focus on the last one, but we've had a history of very serious droughts. We need our ecosystems to be able to withstand them and have the resilience to do that.

**Mr Jordan:** Certainly, the regional commitment by the Commonwealth was to recover that water in the southern basin as outlined in schedule 5 of the Basin Plan. All the outcomes in that schedule are southern basin outcomes.

**Senator HANSON-YOUNG:** Is it then the view of the South Australian government that, if the water is not recovered within the southern basin, that is not fulfilling the commitment that was undertaken?

**Mr Bruce:** Correct.

**Senator HANSON-YOUNG:** We were talking about the impact in some of those areas in the north, and I think you're absolutely correct: there is huge environmental decline, particularly in the Darling/Baaka. We know that. We've seen that. We've seen the fish kills. We've seen the dry riverbeds. Do you think that the Menindee SDLAM project should be scrapped?

**Mr Bruce:** We would say that in its current form it would need to be, because it can't be delivered. When the project was first nominated, it was done very much on the basis of a concept, and there was a deadline by which projects had to be submitted. There was certainly no approval for the project to proceed, because the project itself wasn't defined fully at that time and hadn't undergone proper environmental impact assessments and other things. As time has progressed, there's been no detail about that. In New South Wales they've done what appears to be some quite good work in terms of turning it into a better project; however, that is in terms of overall delivery of environmental works in the basin itself, not in terms of meeting the objectives of the Basin Plan in terms of water recovery and the downstream impacts of that. There is some really good work engaging Aboriginal communities with delivering some environmental works, but those complementary measure approaches are different from what's required in the Basin Plan.

**Senator HANSON-YOUNG:** That project in particular was meant to recover about 180 gigalitres. I'd argue that the Commonwealth needs to go and buy on 180 gigalitres, surely, if that's what's needed for that environment in that area.

**Mr Bruce:** One way or another, that water needs to be returned to the system.

**Senator HANSON-YOUNG:** I will ask about the role of the inspector-general and whether the South Australian government has a view on that. We heard directly from the inspector-general today. He believes he

doesn't have enough clarity over the role of office, let alone the power to carry out the role properly. We've just heard from the ACT government that they're concerned that that clarity and role are still not significant enough. There are obviously some changes through this legislation, but it doesn't go to ensuring enough integrity over the compliance issues and delivery. Of course, as South Australians, you would understand how cynical we are that there is a commitment to deliver this plan in full and on time. That is something South Australians have been very frustrated with. Is there a role for improving the powers and the scope of the inspector-general to try to reinvest some trust in the system?

**Mr Bruce:** There's always scope to improve. I think having a review and working through what's sensible is a good idea. In terms of the issues you've raised, it's more about the inspector-general's current powers, where you have a range of areas that don't have accredited water resource plans. Even though he would have the power to come into South Australia, Victoria, ACT, Queensland and a couple of areas in New South Wales that don't have accredited plans, he can't do anything about—I think that's the issue in terms of trust as well. Interestingly enough, you would have seen our submission, but the ministerial council agreed that they would have compliance as if water resource plans were in place from the deadline of 1 July 2019, which hasn't been pushed through. I think this bill is an opportunity to make an amendment to rectify that, and New South Wales agreed to that as well. They understood that building trust was important even though they weren't able to get the plans in place. I think there's an opportunity to do.

We'd always be open to looking at how you can make compliance more effective and more transparent. You'd obviously need to balance that with regulatory burden and other things because you can have perverse outcomes if you go too far. Done carefully, there's certainly a role in improving community trust as well if you wanted to.

**Senator HANSON-YOUNG:** You've recently had to respond to the South Australian royal commission report. What are the key elements that are outstanding there in terms of what that royal commission recommended well before we were presented with this lot of legislative amendments that suggest everything's way behind?

**Mr Bruce:** There are some key things. Obviously, there are the recovery of the 450, the integrity of the SDLAM offset projects, Aboriginal water and making sure that we've properly recognised First Nations interest in water. They are probably the big three, to be honest, and then there's a raft of recommendations that we were provided as part of our submission. If you can fix up the SDLAM, fix up the 450 and appropriately recognise First Nations interest in water, you will go a long way.

**Mr Jordan:** The climate change into the basin plan [inaudible].

**Senator HANSON-YOUNG:** Do you support the call from the ACT government for an independent audit of water that's been recovered and whether it's met what the modelling suggested it would meet, so we at least know what the current state of play is?

**Mr Bruce:** That's essentially the approach that's envisaged under the plan, so, yes, we do.

**Senator HANSON-YOUNG:** Thank you.

**CHAIR:** Senator Davey.

**Senator DAVEY:** I do thank you for appearing. I earlier noted my frustration that NSW and Victoria are not appearing. I really appreciate you making your time available. I want to come to the impact and what work you've done to assess the impact of mass water buybacks on South Australian communities. Certainly I've heard from the South Australian Riverland and irrigation schemes their concerns and trepidation about the impact of open-tender buyback, particularly on the shared schemes, including the irrigation trusts; the impact of swiss cheese; and also the tipping point, because both of those trusts—Riverland and Central Irrigation Trust—also deliver urban water, and there are certain economies of scale that are required to ensure that they're still a viable system. Have you done any work to model what the impact of mass water buybacks on South Australia would be on South Australian communities?

**Mr Bruce:** No, we haven't. I wouldn't normally see that as our role, because the Commonwealth would have a look at the overarching impact under the way the plan is set up. This is where some of the debate gets a bit confused at times, because it starts targeting buy backs per se. The risk is real that you will have a mass exodus of water from any trust, and that definitely needs to be managed. We would be concerned about how we manage that. However, you took the Riverland at the moment. The risk of a mass exodus is there whether the Basin Plan is there or not, given the state of the wine industry. Whether that water is bought for the environment or by someone in Mildura, for example, it actually has the same effect on the local community. Who's buying it doesn't really matter. In some respects, for people who are left behind, if you sell the water to the Commonwealth Environmental Water Holder, when it comes to a time of water scarcity and drought, they will tend not to enter the market, whereas, if you're selling water to an almond grower on a permanent basis, they would actually enter

the water and out-compete you. So the risk to you is increased more by trading it to an upstream or downstream almond grower—depending where you're based—than it is by trading it into the environment, which is often lost.

This is the trouble with a lot of the economic debate. There have been impacts on communities throughout the basin over time. Separating the impacts on the actual Basin Plan from global commodity prices or what the workforce are doing, there are a whole range of economic impacts happening at any one time. What we need to do is have a look at those communities, because we really want viable, sustainable rural communities right throughout the basin, and work out how we work with them to improve their productivity. We also have to recognise that, with climate change and other impacts, production systems are going to change, as they have been in agriculture throughout time. As some of you know, I come from a farm—I'd played for three football teams by the time I was 19 and didn't change clubs; it was just through various amalgamations—and there was no Basin Plan in my area. Agricultural consolidation and changes in agricultural communities happen. What we need to make sure is that we have very productive, sustainable rural communities, noting that they will change over time.

**Senator DAVEY:** Fair enough. Have you considered how much of the 450 gigalitres would, should or could be recovered from the South Australian water holders?

**Mr Bruce:** No, because that's an open thing. If you look at the original plan and efficiency measures, it should really be where the efficiency can be gained. They have the ability to increase productivity and achieve an effective, almost, increase in water in terms of the productivity per megalitre of water. Where that can best be achieved should be where [inaudible] South Australia, then that happens in South Australia. We certainly adopted efficiencies—even pre the Basin Plan—in terms of how the irrigation sector in South Australia has grown. It's been on the basis, in many cases, of significantly enhanced irrigation efficiency rather than net volume of water increase.

**Senator DAVEY:** Given that we're now moving away from efficiencies and going back to open tender buyback, do you hold any concerns that that actually puts the South Australian irrigation regions more at risk of losing more water because it is not now tied to efficiencies or use? As you noted—and this is a serious concern raised with me by South Australian dairy farmers—the current state of the wine industry has flow-on impacts. If the wine industry goes and that water is sold from productive use in the wine industry, it actually goes out of the productive water market, whereas, in past years, if the wine growers didn't need that water, they'd sell it on the temporary market. If it's gone, it's gone and it doesn't come back, so dairy farmers and other irrigators are squeezed.

**Mr Bruce:** Not so much, when you're talking permanent plantings to permanent plantings—vines being permanent plantings. When dairy farmers, as least from a South Australian perspective, are more likely to require the water is when the wine industry will be more likely to require the water as well. I think the point with the wine industry is, yes, we are concerned about that, but we'd be concerned about that whether there was a basin plan or not. It's actually quite a separate thing. There is an issue for us to work through there in how we keep the Riverland community sustainable, but that's driven by international market forces, not the Basin Plan.

**Senator DAVEY:** I want to turn your attention to the Healthy Coorong, Healthy Basin project, which I understand you've received Commonwealth funding for. How much funding has gone towards that project from the Commonwealth?

**Mr Bruce:** I have to check. I think it's about \$35 million to date. Don't quote me on that; I'd need to verify the number. The original arrangement was that the remaining budget in the state priority project funds, which was provided to jurisdictions based on an [inaudible] part of millennium drought—the unspent amount—would be assigned to that. We have one other project still operating at the moment in addition to Healthy Coorong, so it's in the order of \$70 million, plus or minus, which is set aside for that capital change, depending on how much the other project ends up—

**Senator DAVEY:** Has there been consideration to put the Healthy Coorong, Healthy Basin project up as a potential SDLAM project? My understanding is that it has been quite well studied, that it has progressed as far as feasibilities being looked at and that it's part of what the \$35 million has gone to—and I take it that that's your best recollection and not necessarily the final figure. Would you put that forward as a potential SDLAM project? If this bill passes and new SDLAM projects can be put forward—noting Senator Hanson-Young's serious and shared concerns about the status of the Menindee project—all basin states would be looking for potential alternatives.

**Mr Bruce:** Not at the moment, only because the investigations aren't far enough through to mount that properly. If some of the infrastructure options that are being investigated do turn out to be viable—and that has narrowed down to three, from memory, variations of a theme—and if they turn out to be cost-effective, which

governments, collectively, will need to work out, we can have a look at what impact that will have. It won't return water to the river, obviously, but we're looking to enhance the health of the Coorong through that. And we're talking years down the track, which will be outside the scope of the time frame that we're talking about for this bill.

**Senator DAVEY:** It may not return water to the river but, at the moment, the focus is on trying to get water down from the Murray into the Coorong and into the Southern Lagoon. We've heard several times today that that isn't feasible or practical, but that's what a lot of the Basin Plan was based on. So if you can address the Southern Lagoon issues without needing it to come from the Murray, would that not be an offset?

**Mr Bruce:** It may be, potentially, but we don't know the answer to that yet. That's why we commissioned the study. For example: with the reason you're talking about, we're trying to restore the health of the whole basin. If we can do it that way then that would be fantastic. But whether or not it's viable is too early for us to say.

**Senator DAVEY:** How much water from the River Murray is proposed to go to the hydrogen plant at Whyalla?

**Mr Bruce:** No additional water is proposed, I think, for the hydrogen plant. It will be within existing licences, and it will be a short-term thing—so none.

**Senator DAVEY:** But it is proposed that you'll take water from the River Murray from existing licences to turn to hydrogen to export overseas?

**Mr Bruce:** No, there are a couple of assumptions in that statement. There has been no decision to export the hydrogen. Most of the focus is actually on local production—green steel and other things. It's not so much about export hydrogen. And it's short term because there's a project currently being scoped out on a major desalination plant based on the Eyre Peninsula that would provide the water for the plant. So it's an interim measure, but it won't result in any extraction other than within our cap.

**Senator DAVEY:** Okay. You spoke about the millennium drought, and we all acknowledge that that was a very tough time for everyone. Certainly, in my neck of the woods irrigators were on two years of zero allocations. I acknowledge that the Lower Lakes went way down and that the South Australian entitlement flows weren't met for a few years. Compare that to the 2018-19 drought where, again, my irrigators were on zero allocations and South Australia continued to get flows above and beyond their baseline entitlement flows. The Lower Lakes connected to the Coorong and flows kept going out to the sea. That's tick, tick, tick—very good news. Can we acknowledge that the Basin Plan actually worked to meet some of those critical requirements in the extremes and in the 2018-19 drought? Without the Basin Plan that we've delivered to date, we could have seen a repeat of the millennium drought in South Australia but, thanks to water recoveries, we've avoided that to date.

**Mr Bruce:** There are probably a couple of aspects there, including the millennium drought. We had dry conditions in the north and dry conditions in the south which combined to have that residual cumulative impact on South Australia. Certainly the Basin Plan has been working. We're very enthusiastic about the work that has happened, and things are much better. We've seen a range of improvements throughout the basin, just not sufficient. That's what emboldens us to push on; it's actually worth the effort because it's working. Certainly, it is making a big difference, and that's why we want to keep going forward. It's really important.

The millennium drought was quite a disaster, and some of the impacts of that were not just for one year; we are still feeling the impacts of that in terms of some of the agricultural infrastructure and some of the asset damage as well as some of the impacts on the Coorong. A decade afterwards we're still recovering from that.

**CHAIR:** South Australia gets criticised by the other states for not doing enough. Would you like to talk us through the contributions you are making towards the water recovery targets?

**Mr Bruce:** We've met our targets and are on track to deliver our SDLAM projects. Until just recently we made the only contributions to the 450, admittedly small, as everyone else has. I think probably what gets lost a lot here is the work that South Australia had done prior to the Basin Plan coming in. Significant efficiencies: as I explained earlier, most of the expansion of irrigation in South Australia was done on the back of improved on-farm efficiency. Obviously South Australia was settled at open channels originally—Chaffey brothers. That's been replaced with pressurised pipes and sophisticated distribution systems, and those efficiencies allow for further expansion of the irrigation industry.

I think one thing that's also lost is one of the big benefits of moving from the open channels interstate to the pump systems is you have very little conveyance water. So people will be fixated on open channels and seepage and evaporation. To me, the big potential boost for agriculture and for environment is if you can significantly reduce the conveyance water. You have to fill those channels with water before you can even start allocating to these irrigators. So, if you can reduce that down, you'd be able to allocate to irrigators earlier, which gives them



greater certainty for planning their crops, and you can also return water to the environment. If you are looking to a climate change future where you're looking at 30 to 50 per cent less flows coming into the basin, having hundreds and hundreds, if not thousands, of gigalitres tied up just sitting in a channel somewhere that's not being used for environmental or productive purposes—I don't think that would be able to be tolerated in a climate change future.

So South Australia has invested in all of those things. We need to do more, as everyone does, and the pressure will be on to do that over time. You'll hear from some of our farming reps later about some of the work that's been done with shade cloth and netting orchards, which has had significant water savings for those crops. It's also increased production and it's increased the quality of produce, so farmers are getting higher prices per kilogram for their fruit or other produce. So it's delivering multiple benefits, so we need to look at those technological advances to see how we can improve productivity.

At the end, during the millennium drought—I was in the agriculture department at the time and responsible for a lot of the drought management—my minister at the time used to say, 'There's only one drought, and that's a cash drought.' If you can improve productivity so farmers get good returns, if they're growing less but getting higher returns and their bank balance is healthy, that's good for the farmers and good for communities.

**Senator DAVEY:** Professor Grafton doesn't like deficiencies like that.

**CHAIR:** Indeed, there are many views, Senator Davey. We have heard from some proponents that the 450 was never part of the plan. What's your view?

**Mr Bruce:** It's always been part of the plan; it's legally part of the plan.

**CHAIR:** Excellent. Thank you. I just really wanted that on the record. With regard to the recent high flows that we've seen in South Australia, what has been the impact on the Coorong and the mouth of the Murray?

**Mr Bruce:** 'High flows'—that's a very diplomatic term for them. They certainly scoured the mouth out. The mouth is deeper and wider than it has been [inaudible]—

**CHAIR:** I think it just froze. Could you say something so that we can make sure you're there?

**Mr Bruce:** [Inaudible]. Did I lose you then?

**CHAIR:** Given that we appear to have some challenges there, I might pop that question on notice. I think we are done. Thank you so much for your time. We really do appreciate you appearing before us today and thank you for your submission. We will now let you go. You've taken a few questions on notice. We've given you a very, very generous deadline of 2 November for the return of those answers. Thank you very much.

**Mr Jordan:** Just checking on that, the PC response might take a bit more time, possibly. The first question was about the Productivity Commission response—

**CHAIR:** I'm going to ask you to take that offline because the audio is exceptionally bad here and we can't understand what you're saying.

**Senator HANSON-YOUNG:** They're just clarifying what the questions were on notice, so the secretariat can sort that out.

**CHAIR:** Absolutely. The secretariat will assist you with that. Thank you very much. We really appreciate it.

**CHRISTESEN, Ms Linda, Water Policy Manager, Ricegrowers Association of Australia**

**HOLM, Mr Malcolm, Water Committee Chair, National Farmers Federation**

**MADDOCKS, Professor Simon, Chair, Primary Producers South Australia [by video link]**

**MURRAY, Mr Michael, General Manager, Cotton Australia Limited [by video link]**

**RAGG, Mr Warwick, General Manager, Natural Resource Management, National Farmers Federation [by video link]**

[18:06]

**CHAIR:** I now welcome Warwick Ragg, a representative of the National Farmers Federation, and a range of associated staff. I believe you've received information on parliamentary privilege. Excellent. Do you have comments to make on the capacity in which you appear?

**Mr Ragg:** I'm on the other side of the globe, so I'm going to leave it to Malcolm Holm to lead the NFF responses and to triage those.

**CHAIR:** Fantastic.

**Mr Holm:** I come from the small regional community of Finley, and my day job is dairy farming.

**Ms Christesen:** We're a member of the NFF, and the NFF asked us to sit on the panel with them tonight.

**Mr Murray:** We're also members of the NFF.

**Prof. Maddocks:** We are the South Australian member of the National Farmers Federation. I have an academic background, and I have a small farm in the lower Mid North of South Australia.

**CHAIR:** Fantastic. We've received your additional documentation, so I believe we're going straight to questions.

**Senator DAVEY:** I want to come to the consultation that was conducted prior to this bill. Did the NFF have much engagement with the department or the minister's office prior to this bill in devising what this bill would look like?

**Mr Holm:** Yes. We've been in regular contact with the minister's office and the minister. We've had some reasonably good discussions there. We've also been involved in our regular meetings with departments. We've also been involved in some pretty ordinary consultation—invite-only, last-minute, preschool-like consultation. Our members also find that some of the departments, particularly CEWO, have really great consultation, and our members work really closely with them. The consultation varies from really good to atrocious.

**Senator DAVEY:** In your submission, there are areas of this bill that you support and areas you don't support. Can you just break that down for the record? What are the parts that you support and, more importantly, what don't you support? How would you improve this bill?

**Mr Holm:** We support the extension of the deadlines. There's been a lot of commentary here today about not meeting the deadlines. We went through a period of two to three years of COVID where no-one could really do anything. We've just gone through a period of three years of flooding where, again, it's pretty hard to get big earthmoving gear and stuff in to do things. As we move into a dry period I'd expect that some of those things would get a kick on. That's probably about where it ends.

We and our members firmly believe in delivering the Basin Plan, but we see this bill as a wrecking ball for our regional communities, for the irrigation industry, for the 25,000 people who are employed producing food from the horticultural and dairy industries in the basin and for the \$8.3 billion of economic activity they create. We very much see that the bill can be improved by the retention of the 1,500-GL cap.

If, as some of our previous speakers were saying, buybacks are so efficient and so forth, by keeping that in place with no community impacts, then it's not really an issue. It should perhaps stay there, because it already exists. The other part of it is that overlay from the MinCo of the socioeconomic test. It is currently there for very good reasons. They would be some of the key reasons, unless you have anything else to add, Warwick, Linda or Michael?

**Mr Ragg:** There are probably a couple of things to add to that. We're concerned with the way the SDL mechanism might be adjusted unilaterally by the Commonwealth. We're concerned that by avoiding the socioeconomic tests on the 450 and notionally replacing it with the structural adjustment mechanism we have no clear line of sight on what that structural mechanism might do. From our perspective we really need to understand that, if that's going to be in place, those jobs are persistent—they exist in a manner where they are economically

multiplying in the same way that jobs that are likely to be lost do—are meaningful within the communities and are able to be an appropriate replacement for those jobs that are lost.

I think the final thing is to not have the confining reinterpretation of held environmental water for the 450. That narrows it quite specifically and looks to us as though it would mean that only efficiency measures and buybacks can be used to make up the 450. That being the case, it doesn't allow for complementary measures to be taken into account and it doesn't seem to allow for either the reimagining of the plan—that we're assured we need to be able to do—or the capacity to consider all those options that were put on the table only in July but are still apparently under analysis. So going in that direction creates significant concern to the farm sector.

**Senator DAVEY:** We've heard, particularly from Professors Wheeler and Grafton, that buyback—which this held environmental water will be—is okay, because the farmer gets their money and they can use that money to reinvest in the farm, convert to dry-land farming or retire with dignity. They're the things that were put. For starters, can you explain the difference between an irrigated enterprise and a dryland enterprise? Also, farmers get compensated. What does that mean in the broader community?

**Mr Holm:** We're pretty fine. I'll answer part of it and throw to Linda for the rice industry. I'll use our place as a bit of a case study, if you don't mind. Our dairy farm is about 600 hectares. We employ about 12 people including ourselves. Dairy Australia tells us we employ another 12 people in the supply chain somewhere else. My guys have just about finished milking, hopefully. We're employing 24 people directly plus the services. I've got something in at the engineers at the moment getting fixed, and something else happened this afternoon. All that is happening. My neighbour—their place used to be irrigation—sold out. It's dry and cropping. If our place got converted to dry and cropping I reckon you could run it with less than a person.

**Senator DAVEY:** Really?

**Mr Holm:** There's another example of a group of dairy farmers in northern Victoria. There are 10 of them in a discussion group. They employ 100 people between them—all individual family farms. So, there's another 100 people from Dairy Australia. That's 200 people. They have a payroll of \$7 million between them. That's the sort of scale we're talking about. I've seen plenty of dairy farms get converted back into cropping farms, and perhaps I'm too close to it, but I see the reality of what's happened. Linda has a couple of rice examples. Michael might have something as well.

**Ms Christesen:** The main concern, especially around purchase, is that it takes the water permanently out of the consumptive pool. Whereas with the infrastructure projects, you'll typically get a water saving, and it'll be split between consumptive users and the environment, so the consumptive pool doesn't shrink by as much. Using the example of the rice industry, and noting that the majority of the early water recovery under the basin plan was done through purchase, our average annual production has dropped away by about 200,000 tonne per year. We've gone from figures that were close to 800,000 tonne per year, including an average year where no production happened at all due to the millennium drought. We're now closer to 600,000 tonne per year. That's attributable to 30 per cent of our previously accessible water now being held by the environment and not being available in the market or for allocation to irrigation any longer.

**Mr Murray:** Back in the lead up to the Northern Basin Review, Phil Townsend, who was then the economist for the Murray-Darling Basin Authority, did a really thorough economic study into what the likely impacts of water recovery in the northern basin were going to be. On the original 390 gegalitres, he estimated there would be 710 jobs lost across the northern basin. It dropped to 530 at the 320 gegalitres where the Northern Basin Review landed. If it had been reduced further to 278 it still would have had an impact of 450 jobs. Alone, those numbers may not seem that big across the northern basin, but when you consider a town like Dirranbandi, which today has 639 people including children, that would have been 64 jobs out of that little community. Many of those jobs have disappeared. In the town of Collarenebri, 634 people currently live there. It was estimated they'd lose 54. I visited those communities, and they have been devastated by the water buyback that has occurred in those communities. It has a very real impact. We've always acknowledged that the irrigation entitlement holders are pretty well protected by this. As many have said, they can choose whether to sell or not; they can choose how they invest that money. It's the impact on these communities that's most devastating.

**CHAIR:** Can you tell me what report you were referring to?

**Mr Murray:** It was prepared by the Murray-Darling Basin Authority as part of the documentation around the Northern Basin Review. From memory, it probably would have been 2016. It could have been 2017, and the work was authored by Phil Townsend.

**Senator DAVEY:** Conveniently, it has disappeared from the MDBA website, but I intend to ask them to table it for us.

**Mr Holm:** That work was done right across the basin. He did a great job of pre and post, and it's probably one of the few documents kicking around, coming from a government department, that has that pre and post.

**Senator DAVEY:** Professor Maddocks, I'm interested in your perspective. We've just heard from the South Australian government that it's not their job to model the impact of buyback in their communities and that they believe their communities are at risk anyway because of the current status of the wine industry, and buybacks, really, are good for South Australia. Do your Riverland and irrigation communities in South Australia and the people you represent agree with that overview?

**Prof. Maddocks:** I don't think I could support that as a fair representation of their community sentiment. I think one of the challenges here—and I'll try to allow my comments to reflect on what we're focusing on, which is the legislation and what it would mean and its impacts—is that it has the tendency to focus on numbers rather than outcomes. You had a previous representation that talked about the parlous state of the wine industry in the Riverland at the moment. So if I pick up the initial gist of your comment, if there were to be the odd individual producer down the length of the river that decided to sell their rights up and walk away, it might not be a big issue. On the other hand, we're facing a scenario where there is likely to be a significant number, in a very concentrated area in the Riverland, that are simply no longer able to viably exist and obviously will take an opportunity to sell water. In the absence of any strategic adjustment packages for the community that are sitting there with that concentration, there are going to be massive consequential impacts. We might celebrate the opportunity to return to the environmental flow and make a contribution, but we're totally ignoring the social and community-based consequences that will flow from that. I don't think you can discuss one without the other. My members—and I should clarify that Primary Producers South Australia's members include dairy farmers, wine grape growers, livestock producers, grain growers, forest products, and I'm missing one; they'll kill me later—

**Senator DAVEY:** Citrus! Almonds!

**Prof. Maddocks:** Horticulture; it's pretty important. Let's be clear: we are all absolutely committed, not only to delivery of the Basin Plan but also to a healthy river, because without a healthy river we will not have healthy river communities. That is not in any of our interests. I think our real concern is that the focus on our interpretation of what the current legislative reforms will mean doesn't allow those collateral consequences to be really thought through. One of my strong passions is to ask, to plead, for consideration that instead of talking about buybacks—given that we will extend the plan deadline anyway, and I heard Senator Hanson-Young ask earlier respondents, 'We can't keep doing the same things that have not worked, so what could we do differently?'—we think of leasebacks before we move to buybacks. A leaseback would allow you to (a) bank the water and (b) test the consequences of taking that water out in different communities before it was an absolute fait accompli.

Where efficiencies—and there is a range of projects still to be run to talk about how we can continue to build and improve on efficiency deliverables—demonstrate their contribution is where there may be an opportunity to return water to the consumptive pool if they are proving to meet the obligation required. Where there are significant negative impacts on communities, you could potentially say: 'We shouldn't extend that lease. We will put it back into consumption and look at what else we can do.' I think there is a real concern, and it frames the nature of this current legislation, that when we jump straightaway to buybacks to build the environmental contribution we can't be clear where it is all going to come from, and if a lot comes out of key concentrated areas there will be significant social consequences. Buybacks are a terminal solution, whereas leasebacks are a first step and are one example of where you might put your toe in the water and test the efficiencies and other opportunities whilst you look at the impacts and make sure we here not creating another problem while solving the first.

**Senator DAVEY:** I will note that Professor Wheeler earlier mentioned the options for leasebacks as well as allowing the Commonwealth Environmental Water Office to use the temporary market. I believe the CEWO already does leasing in the northern basin around Narran Lakes, to very good outcomes. I'm getting the eye, so I will hand over now.

**CHAIR:** We'll go to Senator Hanson-Young.

**Senator HANSON-YOUNG:** I don't have an awful lot of questions at this point. You've given a submission and then the additional information. I do have a question for Mr Murray, seeing as you're here from Cotton Australia. Where does the figure in your submission of 10,000 direct jobs come from? I think it's bogus.

**Mr Murray:** It is an estimate, but we think it's actually an underestimate. How is it derived? We've got around 1,500 cotton growers in Australia, and the vast majority are in the Murray-Darling Basin. We survey them every year. Their average response on the number of employees they have is a bit over five, plus the owners. So, if we said that in a particular year there were a thousand farms operating in the Murray-Darling Basin component at

five, that's 5,000. If we were to give 1.5 to the owners, that's another 1,500, so that's 6½ thousand. If we were to add in the cotton ginneries, there are at least 500 employed in the 40-odd gins across the basin. If we add our 300 researchers and the 200 in marketing, I think we get up to about 8½ thousand. That's not covering the truck drivers. We think that we produced 5.5 million bales last year, that's 50,000 B-double units from gin to port. That would have to be achieved by no less than about 300 truck drivers, averaged out over a year. We haven't counted the bankers, the agronomists, the machinery manufacturers—

**Senator HANSON-YOUNG:** They're not direct jobs.

**Senator DAVEY:** But they could be—

**Mr Murray:** Well, I think certainly—

**Senator HANSON-YOUNG:** No, no. I'm very—

**CHAIR:** I'm going to ask everybody to stop.

**Senator HANSON-YOUNG:** I would like—

**CHAIR:** I'm going to ask everybody to stop. Please speak one at a time. I know there are very strong differences of opinion here, and I would ask that people be respectful throughout this process.

**Senator HANSON-YOUNG:** Chair, I asked a direct question, and I'll ask it again. What evidence do you have to back up the claim in your submission of 10,000 direct jobs? Have you had independent analysis done? Those figures are way, way beyond anything that any other independent peer researched evidence shows, so I'm wondering why your figures are completely different to everybody else's.

**Mr Murray:** As I said, the main source is from surveying our growers each year as part of the CRDC grower survey. That gives us the average people employed per farm. We've got up to 1,500 farmers. Not all of them grow every year, hence I knocked the number down to a thousand to be as reasonable as possible. That doesn't include the proprietors. Again, I didn't say every farm is owned by a couple; I've knocked it down to 1.5 to average out. I think it's very fair, and I suggest that, as an industry, we believe it's an underestimate. That's all I can say.

**Senator HANSON-YOUNG:** So you reject the evidence from IBISWorld who suggest that it's more like less than 5,000? In the 2016 census, when people were asked what their employment was, it was just over a thousand. If you've got the ability to show us a breakdown of your figures, then I'm willing to see it, but, at this point, it sounds like a bit of a furphy.

**CHAIR:** You might like to take that on notice, Mr Murray, and provide whatever you can.

**Mr Murray:** I cannot provide any more detail than what I've provided. I could dispute some of the senator's suggestions there. The census does not specifically ask or solely ask: 'Are you a cotton grower?' Many people who are cotton growers simply answer 'farmer'. There are all sorts of limitations. As I said, we can only rely on our CRDC grower survey.

**Senator DAVEY:** Mr Murray, could you table the survey for the benefit of the committee? Is that possible?

**Mr Murray:** Yes, I will provide the most recent survey results.

**Senator DAVEY:** I'm just trying to be helpful.

**CHAIR:** Thank you.

**Senator HANSON-YOUNG:** No. I have nothing further.

**CHAIR:** Thank you. Does the idea that there are a thousand gigalitres of projects that could be used, can you just walk through how you calculated that?

**Mr Holm:** Essentially, the submissions were opened, and we asked our members, and they asked their members, who are the people on the ground, 'What are your thoughts?' And that's what rolled back in. I think that comes from a decade of experience. I think CEWO has done a pretty good job of working with people and have actually given farmers and communities the opportunity of actually working together and seeing some of the possibilities of what can happen and some of the innovation. So I think initially communities were probably pretty cynical of CEWO and what they were up to and what they were going to do, but, to us, they've probably been one of the star performers around delivering better environmental outcomes. So, essentially, we just went to people on the ground. I notice that Murray Irrigation has got quite a large project around reconnecting flood plains and so forth.

I did find it half amusing this afternoon that we talked about returning a lot of water to the system when in fact we've built a lot of roads. We've got railway lines, towns and levee banks. So a lot of the floodplain is actually disconnected from the river system. Using the infrastructure that we've built, such as irrigation channels, pipelines and so forth, we're going to actually reconnect some of those flood plains and some of those wetlands. So a lot of

it actually came from just talking to our members and their members on the ground. By no means are we saying there are a thousand gigalitres of projects that you can start tomorrow or in five years time. They've got to go through an assessment process. Some of them will stack up; others won't. But one of the things that disappoints me about this whole process is that we just seem to be talking about the negatives. We're not talking about what the plan has delivered. The point has been made a couple of times that we had the millennium drought and the 2018-19 drought with very similar inflows. Both the north and the south were extremely dry, yet we had a completely different outcome in the Lower Lakes. My farming business went through two years of zero allocations in both those scenarios. So there's a celebration there of, 'We have actually achieved a lot.'

There's this inbuilt conservatism within the system. Farmers are more conservative. Our SDLs are way below the take. We could be taking a lot more water and still be compliant with the cap rules, but we're not doing that because of the conservatism. The irrigation companies are more conservative, the state governments are more conservative, the MDBA is more conservative, and you throw that on top of each other. And then we've got a special water account for a drought reserve—human critical needs. That wasn't in place in 2006 and 2007; it's in place today. What really disappoints me on this and what really makes regional and rural communities upset is that we've done a lot of the heavy lifting. The MDBA CEO at the Press Club down the road made the comment that the irrigators have done the heavy lifting, and it just feels like the government is coming back to belt up the communities again. And we want the plan delivered. We want a heap of grey in what you're talking about; we don't believe in the black and white. We're a pragmatic lot. We just get on with it. We deal with climate change. We adapt to climate change. I'm the product of several generations of farming. So we're here to be practical and provide solutions.

**CHAIR:** I think your submission makes it quite clear that your practical is, 'No, thank you.'

**Ms Christesen:** I can offer a couple of specific examples, if that's useful, Chair.

**CHAIR:** Sure.

**Ms Christesen:** There has been a lot of talk today about the Menindee SDLAM project. What has been done since that was proposed as a SDLAM project is that the Broken Hill pipeline has been constructed. That, effectively, provides Broken Hill's water supply from a pipe at Wentworth—

**CHAIR:** On a point of clarification: are you explaining to me the projects that you believe are coming on the 1,000 gigalitres—

**Ms Christesen:** It contributes. We gave our advice into the NFF's submission process, so these are specific projects that have the potential for water savings within the time frames. If you were looking for specific examples, I can provide a couple for you right now, if that's useful.

**CHAIR:** Maybe you can do that on notice. I'm very conscious that we're way over time. But on a point of clarification: you've said, Mr Holm, that a number of those projects may not stack up or may not come on in the time frame. What was your methodology for the thousand? I'm not criticising. Was it just, 'Bring on any project you can think of,' or was it what could actually be delivered?

**Mr Holm:** It was a bit of both. We're not the experts in analysing water projects, and—

**CHAIR:** No—I accept that. In terms of the kinds of projects that we're talking about here, are we talking about complementary measures as opposed to water measures? What types of projects are we talking about, as opposed to the specifics?

**Ms Christesen:** We've had a working list that we've been discussing with Commonwealth officials for about a year. It was very clear to us that the conversation that the new minister and officials supporting her wanted to have was around water, so I went back to my members and said: 'This needs to be a water discussion. Can I go and do the work and bring suggestions forward?' So we have a number of water based proposals in our submission—which is submission No. 12—to the Senate committee's inquiry. That has been sitting with both the New South Wales government and the Commonwealth government for a year because we don't have the capacity to do the modelling. We haven't had any formal feedback yet in terms of whether they stack up, what's wrong with them or what more we could do to improve them. If I'd had that advice early, I would have done that work, because it was clear that this is a water story. So we have provided that water story, but we're just not getting any traction, unfortunately.

**Mr Holm:** I think Warwick might have had a comment.

**Mr Ragg:** There are two key points. We were asked for a range of ideas, so we sought and put those together. We basically calculated them on a desktop basis. Some of them didn't have a proposed yield, so we didn't estimate that. So basically it's in terms of, 'Here's what each of the projects suggested it would deliver or provide,' so we've

gone there. I think the critical point, though, in this discussion is that we need to give those projects a chance. The way we see the legislation constructed at the moment—as I've referred to, in that quite narrow focus on buybacks from 1 January, as I understand it—really doesn't seem to allow the opportunity to make sure we fully exhaust the opportunities that those projects can offer. That's why we're so strongly arguing for the retention of 1,500 gegalitres—so we've got some confidence that this is a multiple opportunity process, and not just all buybacks.

**CHAIR:** But I think one of the key things we do also have to be alert to is the difference between 'water' water and complementary measures because they're going to do two different things—both valuable, but the balance and the measure of those two things are obviously going to be critical.

**Mr Holm:** But we've already committed—

**Mr Ragg:** And the issue with that is that, as it stands at the moment, those complementary measures can't participate. If it's not a transfer of water, it's not eligible. That's our reading of it.

**Senator HANSON-YOUNG:** You can't have something that's complementary if there's nothing to be—

**CHAIR:** Complementary to.

**Senator HANSON-YOUNG:** complementary to—exactly.

**Mr Holm:** But we've delivered about 80 per cent of it.

**Ms Christesen:** And I would add as well, Chair, that you made a comment earlier today: does this bill expand the options on the table or narrow them? One of the critical inhibitors in the bill is that the only way water can be made available to the environment is via a licensed transfer to the CEWH, so I was in furious agreement with the South Australian government's statements earlier that there's a lot of opportunity to explore in conveyance savings, and there are some projects live and under consideration right now where that is real. The hold-up in that is that they won't be accepted unless an entitlement or a licence is created and transferred to the CEWH. So, it's real water; it's just that it's accounted for and recognised in other ways—that still have status, but they're just different to a licence.

**Mr Holm:** One of the other points I'd like to make, and it was made previously about towns like Griffith and Shepparton and so forth, is that many of those places—and I refer to them as towns with traffic lights; Finley doesn't have any traffic lights—tend to have secondary and tertiary type economies, so they really get esteem of their own. Towns like Meningie, Moulamein, Mungindi are irrigation towns. Without the irrigation water, there's not a lot there. So, when we talk about those community impacts, we're not necessarily talking about the Sheppartons, Griffiths, Waggas and Milduras; we're talking about these smaller regional communities where the damage is real.

**CHAIR:** Okay. We have conflicting data on that, which is our problem, not yours. We will further question other witnesses on exactly this point, and we'll also look at some of the material you've referenced. But I think that's—

**Mr Ragg:** Just on that subject, could I reinforce that the seminal work that's being done on this is the work MDBA commissioned, by Phil Townsend. We need to be talking about it in that context.

**CHAIR:** We may provide you with some extra questions on notice once we've been through this and seen what the other evidence comes to. Mr Murray, you had a comment.

**Mr Murray:** Perhaps I could draw the committee's attention to the MDBA *Annual water take report 2021-22*, which, interestingly, was dated November 23 but I think was actually released yesterday. The report shows—and this goes back to a comment of Malcolm's, and also previous comments about whether or not we're running out of time or have time up our sleeves—that, while the Basin Plan may not have achieved the water recovery targets that it says it needs to achieve to date, we are running well and truly below the level of allowed take under the plan. According to the Murray-Darling Basin Authority's report and backed up by the inspector-general's earlier report from a couple of months ago, there has been a cumulative credit of over 3,000 GL over the last three years. So, we are actually performing better than what the plan had allowed for, even if the plan was fully implemented. I think that gives us time to actually get some of these projects right. As Malcolm says, there's a suite of ideas out there. We're not in a position to prove those that will definitely work and those that won't, but there's an opportunity there, and an opportunity in adopting those, that's going to reduce the pain on those communities that Malcolm and others have talked about.

**CHAIR:** Thank you so much for your time. We do appreciate it. Thank you for joining us from overseas, Mr Ragg. Where you have taken questions on notice, the generous time frame is 2 November.

**BAUMGARTNER, Dr Lee, Private capacity****STEWARTSON, Mr Michael, Chief Executive Officer, One Basin CRC**

[18:44]

**CHAIR:** Welcome, and thank you for joining us. Sorry that we're running behind. Can I just confirm that you have received information on parliamentary privilege. Yes? Excellent. We'll go to Senator Davey.

**Senator DAVEY:** Thank you, Dr Baumgartner. We have received your written statement. You can take that as read. I appreciate you putting that together. Can you both, for the *Hansard*, explain how the One Basin CRC was put together, what the One Basin CRC does and the long-term objectives?

**Prof. Stewardson:** I'm happy to do that. Thanks for the question. The One Basin CRC is funded under the Commonwealth CRC program. It was funded in the last round. We commenced about a year ago, so we've been through an establishment phase. The CRC is a partnership of multiple sectors, so we've brought together 85 organisations from across the agriculture, water, environment and technology sectors, working with regional communities and First Nations people, with the vision of a sustainable, productive and resilient basin. Our purpose is to bring organisations together to work together to grow value from water. We now have a strong focus on collaboration. We work in regional areas. We have four regional hubs where we work. We deliver R&D projects with a focus on commercialising and transferring that research to deliver impact in the regions.

That's it in a nutshell. There's a lot more detail than that, but one of the things we have really focused on is building collaboration. There's a collaborative approach to the work we do. I've been really heartened to find a strong appetite for that collaboration, recognising that there has been a lot of fragmentation in this sort of water-agriculture-environment space.

**Senator DAVEY:** Thank you. I know, Dr Baumgartner, you do a lot of work with fish, particularly understanding how flows and river management impact our native fish species. I note the findings of the New South Wales chief scientist, who was tasked to review the most recent fish deaths. I note that fish deaths have occurred particularly in the upper reaches of the Baaka/Darling and through Menindee at both extreme low flows during the most recent drought and extreme high flows during the most recent floods. Can you explain that to us? How does no water equal fish deaths and lots of water equal fish deaths?

**Dr Baumgartner:** I'll start with the low-flow situation. Low-flow situations were occurring during a period of drought when there was warm weather and virtually no flow in the rivers. They were occurring in weir pools, which are sort of artificially created environments, where the water stratifies—the water on the top is a lot warmer than the water on the bottom. The water on the bottom, which is cold, has low oxygen. In 2018 when that water mixed with the surface water, which was where all the fish were, basically the fish suffocated and weren't able to survive in those situations.

In the flood situations in the southern basin we have blackwater events. Water goes over the flood plain and picks up all of the organic matter—sticks, leaves and things—and bacteria starts to break that down. That sucks the oxygen out of the water and then you have hypoxic events, which is there's no oxygen. That goes down the river and the fish suffocate. So in both situations we're seeing low oxygen that is contributing to fish deaths.

**Senator DAVEY:** The chief scientist made a series of recommendations. Recommendation 4 in his report talks about a lot of strategies that are not necessarily just adding more water. Can you talk us through some of those strategies, what they would mean and how effective they would be to deliver environmental benefits, not just for Menindee and fish deaths but for water quality potentially throughout the basin?

**Dr Baumgartner:** It's important to note that we're dealing with a modified system. When you're dealing with a modified system, there are a range of different solutions that can be applied to mitigate these situations when they go bad. The Chief Scientist's report separated the recommendations into immediate, mid-term and long-term.

Regarding the immediate measures, the panel was particularly concerned that fish deaths might occur again this year. It was August and there were already high blue-green algal counts in the river. We started to see some of the warning signs, so we said, if you flush the environmental water that's there to try and get the algae and the oxygen out of the system, that's a good thing. You could recirculate water to create higher oxygen refuges, and that was very effective in the 2018-19 situation. Fish and other animals go there and they survive, and get through the bad events.

**Senator DAVEY:** We've seen examples of that in the mid-Murray, where they've used irrigation infrastructure to deliver oxygenated water into a hypoxic event in the natural river system, and that's created refuges for fish.



**Dr Baumgartner:** That worked particularly well in the 2016 event, where the Environmental Water Holder teamed up with Murray Irrigation to use the irrigation channels to deliver high-quality water, and it basically saved fish. The water had oxygen and it was good quality. The point I'm making is that if water's delivered it has to be good quality, otherwise you'll see adverse impacts in the rivers.

**Senator DAVEY:** Can I understand how the One Basin CRC works? You're not just all scientists; you work with other organisations. My understanding is that Murray Irrigation are a member of the CRC. Are there other community groups? How do you work with the community to deliver good objectives? You're working towards a healthier basin—am I right?

**Prof. Stewardson:** That's correct. One example would be a project we've got running in South Australia's Riverland. It's a project looking at the opportunity for accessing brackish groundwater as a supply for irrigation water use. The technologies for doing this—the desalination techniques and so on—are reasonably well established. It's really about understanding what the potential barriers are in terms of the business case, the community support and so on. We've got a partnership working on a trial project to demonstrate that that brings together the state government, through the Department of Environment and Water, Osmoflo, which is a technology company that provides desalination equipment, some researchers and local agricultural companies—and I'm pretty sure the local landscape board is involved as well—to work on that project together. Research is the focus, but all our projects bring together different stakeholders with a broad range of values and interests to work on the projects. One of the advantages of a research project is that it's a chance, offline, to test out ideas and improve ideas out of the more heated realm of a policy debate, where you can have an exploration of a range of possibilities and start to think a bit longer term. It's not solving the problem right now, but it can bring broader support around a solution.

**Senator DAVEY:** You do a lot of monitoring, research and reporting—or the CSU does—against not only the work you're doing but some of the outcomes of their environmental watering programs.

**Prof. Stewardson:** I know CSU is certainly involved. We just commenced a project with the Commonwealth Environmental Water Holder to support their revised version of the Flow-MER program, their monitoring and evaluation program, particularly focusing around knowledge exchange, communication and engagement.

**Senator DAVEY:** Professor Baumgartner, in your written statement, you pose the question: how much is enough? You rightly say that we shouldn't be seeing repeated events of millions of fish dying or the ongoing decline of species, and you mentioned water temperatures and prolonged blue-green algal event. Is just transferring entitlement from one water user to another water user, just adding water into the river systems, enough to prevent all of those? We're also hearing that we've got a lot of water that we're managing, but that if we also do things like put fish passageways in, address cold water pollution and address riparian health to improve riparian land management then those will help to improve water quality, which will help to improve environmental outcomes. So there's a tug of war! Do we just keep adding more water or do we actually need to start looking at those complementary measures with the water we've got?

**Dr Baumgartner:** I guess the first point I'd make is that, yes, the water is important, but it's appropriate that the water is of good quality. That's what has led to some of the issues we've seen, particularly with the fish deaths. Adding more water that's not of good quality won't provide any outcomes for anyone.

What the recommendations of the chief scientist's report were trying to say was that water is like the thread that connects all the elements of the river together that make it healthy. You can have the water and you can provide the water, but there are things like fish which need to migrate. You can provide an environmental flow for fish which stimulates fish migration and spawning events, but if those fish are blocked by a weir you may not get the benefit; you actually have to get the fish past the weir to access the spawning habitat. That's where those additional measures become important. The fish need to be able to access good habitat for their nursery, and that's where the Menindee Lakes come into it. That's one of the most important nursery habitats for fish in the Darling/Baaka.

**Senator DAVEY:** But there's no good fish passage out, is there?

**Dr Baumgartner:** At the moment, no.

**Senator DAVEY:** That's my favourite dad joke: a fish swims into a wall and says, 'Damn!' On that note, Chair—

**CHAIR:** Okay. I'll just make sure that we get that quote in the report—it's very worthy! Senator Payman.

**Senator PAYMAN:** Good evening. How will delivering the Murray-Darling Basin Plan in full help to protect our river system and rebuild native fish populations? That's very timely after that fish joke!

**Dr Baumgartner:** The water has definitely helped. I wrote in my submission that adding additional water and then delivering it for fish benefits has been phenomenal over the last few years. There have been fish-spawning events that wouldn't have happened if there weren't any environmental water and fish movement events that wouldn't have happened if there weren't any environmental water. And, as the senator pointed out, there have been refugee areas created that have actually saved fish. The comment earlier was about there having been some positives from the Basin Plan so far. There has been a lot of water recovered; that water has been put to good use and the fish are better.

That said, there was a native fish strategy review done two years ago which stated that fish hadn't recovered that much; fish were still at less than 10 per cent of pre-European levels in most of the basin. So whilst we haven't lost any species, fish are still struggling.

**Senator PAYMAN:** How do you respond to the claim that more water recovery isn't required—that the complementary measures get better outcomes?

**Prof. Stewardson:** It depends on what water has been recovered. This is a point that I made in my statement just a day ago: different packets of water will have different benefits, and the environmental utility will vary. It's not necessarily a one-size-fits-all, black-and-white version of the basin—that's never valid. A packet of water—a megalitre of water in a dam—which can be actively managed and released at the right time can have enormous benefits, and a megalitre of water that can't be delivered because of a constraint, for example, to achieve the target won't have any benefit. I actually think there's some subtlety around the environmental utility of different volumes of water. That's one of the reasons why I made the comment about the benefit of thinking through the volumetric equivalence in the way that the water is considered under the Basin Plan, because it reflects the purpose that water is intended to achieve. It's not simply the volumetric target but that we're trying to achieve specific outcomes with that water. How we go about recovering that water, and from where, matters.

**Senator PAYMAN:** Absolutely.

**Dr Baumgartner:** I might just add to that by saying most of the complementary measures need water to be effective. A fish ladder with no water in it isn't effective. A re-snagging program where the snags don't have water isn't providing benefits for fish. So, as I said, the water is a thread, and the complementary measures are also needed to get those additional benefits.

**CHAIR:** That's a very good point. I think that was part of the challenges we were having in one of the earlier sessions in the sense of complementary measures with no water delivery don't give that balanced outcome.

Thank you so much for joining us. Sorry to have made you wait. We really do appreciate it. If you have taken any questions on notice or if you feel the need to provide us with any additional information, you have until 2 November to do so. We will now suspend for a quick break.

**Proceedings suspended from 19:00 to 19:10**

**AMOS, Councillor Rob, Chair, Murray River Group of Councils**

**CHAFFEY, Mr Jamie, Chairperson, Country Mayors Association of New South Wales**

**MAGIN, Mr Matthew, Chief Executive Officer, Country Mayors Association of New South Wales [by audio link]**

**O'TOOLE, Mrs Samantha, Mayor, Balonne Shire Council**

**WESTON, Councillor Adrian, Mayor, Campaspe Shire Council**

**CHAIR:** I now welcome representatives from the Country Mayors Association of New South Wales and the Balonne Shire Council. Do you have any comments on the capacity in which you are appearing?

**Councillor Weston:** I'm appearing on behalf of the Murray River Group of Councils. I'm a local government councillor and I'm providing water related advice to the Murray River group.

**Councillor Amos:** I'm Mayor of Campaspe Shire.

**Mrs O'Toole:** I also chair region 12 of the Murray Darling Association. I'm also on the Basin Community Committee, just for transparency.

**Mayor Chaffey:** I'm Mayor of Gunnedah Shire Council and chair of region 11 of the Murray Darling Association.

**Mr Magin:** I'm the chief executive officer from the Balonne Shire Council, here in support of Mayor Samantha O'Toole.

**CHAIR:** Thank you very much. Can I just confirm you've received information on parliamentary privilege? Excellent. You do not have an opening statement, which is totally fine?

**Mrs O'Toole:** I think all of us would like to make an opening statement if that is possible.

**CHAIR:** We have said no to opening statements. We've said to people that they can table them. Given the time frame, if we went through the five of you for opening statements, that would seriously reduce our opportunity for questions. But, if you feel that something's been missed, please specify at the end so we can make sure that that can be put on the record. Senator Davey.

**Senator DAVEY:** Thank you all for appearing before us. I have read the submissions that you have put in, so hopefully I can question appropriately. I might start at the top of the basin and work my way down. So the Balonne Shire in Queensland—you're at the very top of the basin. In the Balonne, there was quite significant purchasing in the early rounds of buyback from 2007 to 2012. The Balonne Shire covers the area of Surat, St George and Dirranbandi, those key irrigation areas at the top there. What was the impact of the buyback last time around?

**Mrs O'Toole:** As you mentioned, fairly significant purchasing has occurred in the Balonne Shire over the last 10 years. We have a target for the Lower Balonne of 100 gigalitres. At the moment, 86 gigalitres of that has been recovered, and there's a 14-gigalitre tender that was out in May that we're still waiting to hear the outcome of.

It has had a really detrimental impact on the community. You mentioned some of ours. Surat is just north of our shire, but I represent St George, Dirranbandi, Mungindi and those communities that sit right on the southern part of the Lower Balonne, which has had quite a high water recovery.

For our communities it's had a very significant impact, in that we've had a significant loss in the irrigation area, hence job loss. In Dirranbandi, as an example, 15 per cent of all the jobs that were available within that community previously were lost. That is reflected in the school numbers, which halved over the period of time that the water recovery was occurring. In St George, we had a loss of 20 per cent of all jobs in our communities. Those are real jobs. They are not confined to on-farm. They are the chemists, the grocery store, people that own hairdressers—average, everyday businesspeople in our community that have been impacted by water recovery.

**Senator DAVEY:** The bill before us proposes not only to lift the cap on buyback but also to open the window for recovery of the 450 gigalitres from anywhere in the basin. That could be from Balonne or further down south. How's your community feeling about that prospect?

**Mrs O'Toole:** I think it sends absolute shivers through communities. I think all of us here—not to speak for other mayors—want to be the public face of what happens. We're not representing the irrigation community, we're representing the community: the people who sit alongside those irrigation communities that are impacted by decisions that often they have no input into. If a water recovery deal is done between an entitlement holder and the Commonwealth, the farmer has a direct say in that but the community has no say in that. But the community does wear the consequence of what has occurred by picking up the pieces afterwards. For communities like ours

that are 100 per cent agriculture based—we don't have any diversification into oil and gas or other industries—the loss of agricultural jobs is absolutely devastating. There is no possibility of diversifying and there is no silver bullet for socioeconomic recovery. Our community has been working endlessly with the shire over the last decade to try to stabilise our population. The thought of losing another gigalitre—or the 450 gigalitres that this amendment could potentially pose to northern communities—is absolutely devastating to us.

**Senator DAVEY:** Thank you. I'll move on to the Country Mayors Association of NSW. Your submission provides a very clear case study of what can be done with community engagement and buy-in for delivering good environmental outcomes, with the example of the Macquarie Marshes. You cover Gunnedah, which is around the Liverpool Plains, but the Country Mayors Association of NSW represents all of the inland areas across New South Wales. What sort of feedback have you had, through that association, on this proposed bill?

**Mayor Chaffey:** The Country Mayors Association of NSW represents 84 local government areas in New South Wales. There are 92 regional local government areas out of the 128 that are throughout New South Wales, and we take about 90 per cent of the land mass of NSW. When you look at basin communities, they're all within our membership.

The Country Mayors Association of NSW does not support buybacks. Our position is that we would be encouraged by the extension that's within this bill out to 2027 for water recovery by other measures, but not buybacks. We understand that taking water from our communities for the environment is permanent and that the water will never be able to be utilised for employment within our communities. We understand that, at the moment, water is traded but it stays within those regions, and therefore the economic benefits continue within our communities. In our submission you'll see two communities that are members, the Narromine and Warren shires. They're talking about a loss of around 200 direct jobs from the Narromine Shire from the first round of water recovery, which has had a roll-on impact within that community with the loss of other retailing and businesses. Just next door in the Warren Shire, 200 direct jobs have also been lost, which they equate to 500 people leaving that shire. It's quite devastating for such a small community.

So our position, as the Country Mayors Association of NSW, is that we do support all other measures for water recovery, but we do not support water buybacks.

**Senator DAVEY:** Thank you. I had another question at the front of my mind, based on what you were saying, but I'm having a mental blank. I'll come back to you.

**Mayor Chaffey:** That's okay, Senator. I'd also like to expand a little bit on the impact. When the original Basin Plan was set, there was a study done—I think it was the Sefton report—and it talked about the impact on basin communities, particularly around NSW. I'll home in on those, as I'm here as a representative of the Country Mayors Association of NSW. It's our belief that that report certainly understated the amount of impact, job loss and population loss within our communities. Right at the moment in New South Wales, a federal redistribution is underway. We know that the 47 seats will go back to 46 seats, which is an impact of about 2,500 people to be added to each of those 46 seats for the quota. But, for the federal seat of Parkes, which takes in 49 per cent of New South Wales, there is an estimated shortage of about 15,000 jobs. For that to be the case over a seven-year period, we know that these regional communities must be under enormous stress, enormous pressure. Without water there's no life in those communities.

**Senator DAVEY:** That reminded me of what my question to you is, and then I'll move on to the Victorians. In New South Wales, particularly during the last drought, we saw places like Guyra trucking in water, Wilcannia and Bourke running out of water—and Cobar. And a lot of people point to that and say, 'This is why we need a basin plan.' But is it the case? Can any of this environmental water be used in New South Wales to underpin town or urban water supplies, unless we go into one of the tiers of critical human needs, which we didn't do in the 2018-20 drought?

**Mayor Chaffey:** My understanding of the current legislation, which I think is a failing of both the state and the federal governments, is that, in NSW, for critical human needs in those extreme events you are not able to access environmental water. That simply doesn't pass the pub test. It shouldn't be the case when you can see water flowing past in the river systems in communities that are desperate. You talked about Cobar. Right at the end of the 2017-19 drought, the worst drought in living memory in those parts, they were just about to sign off on bringing water in via trains to that community. The majority, not just the western communities but, as you rightly highlighted, even some of those in New England—and you would think they should be safe in New England—were bringing in water. The effect on water storage was that water in some of the storages simply couldn't be used because of the quality of the water. I wish it were the case, as I believe it is in other states, that you can use environmental water during those events when critical human need water is required, but in New South Wales I believe that not to be the case.

**CHAIR:** Senator Davey, I've also got some specific questions for these witnesses, and then we can move on to the Victorians after that. Is that alright?

**Senator DAVEY:** Yes, just as long as I'm allowed to get to Victoria!

**CHAIR:** Absolutely. You refer to the job losses that you attribute to buybacks specifically. What job losses that you've experienced in your regions do you attribute to changes in markets; other shifts like mechanisation, which has had a significant impact across farming regions; the millennium drought; or commodity prices? Are you blaming buybacks for everything? Or do you split that up, and have you got some data for that?

**Mrs O'Toole:** I think that's a great question. I think it is very difficult to separate that. But, if you look at the Murray-Darling socioeconomic study that was done in 2016 by Phil Townsend, one of the painstaking things that he did as part of that process was pick that all apart: What does cotton mechanisation do to reduce employment? How do some of the other complex things that are happening in rural communities contribute to population increase or decrease? And what is the true impact of just the water purchasing? The figures that I quoted in the job losses in Dirranbandi and St George are specifically out of that study that he did. I would agree that the—

**CHAIR:** So you're saying that the job losses were purely due to buybacks and nothing else at all?

**Mrs O'Toole:** Yes.

**CHAIR:** Do you have figures for the other job losses that would be attributed to those other things?

**Mrs O'Toole:** They're identified in Phil's report, if that report can be found. It's this mysterious report that the Murray-Darling Basin is not making public on their website. But it does exist, and I have copies from when it was previously available to local councils. He does identify job losses in other sectors or from other reasons.

**CHAIR:** Sorry—he does or he doesn't?

**Mrs O'Toole:** He does. And the Sefton report backs that up.

**CHAIR:** For your region, what do those numbers look like?

**Mrs O'Toole:** I can't quote those off the top of my head, but they could be provided.

**CHAIR:** That would be great if you could.

**Mrs O'Toole:** I would also say that the Sefton report that was done more recently, in 2020, backs up Phil's earlier work, in 2016. So there have been two pretty extensive—in my neck of the woods anyway—socioeconomic impact studies that prove that water buybacks are very impactful.

**CHAIR:** Okay. I'd be really keen to unpack it, even if it's just down to a percentage basis, because a lot of the studies that we've seen have shown marked changes in the regional areas. I think that for us to understand the impact we need to be able to unpack that to get a true picture.

**Mayor Chaffey:** I would like to make a statement that the lived experience also needs to be understood. It's disappointing to me, and I'm sure to everyone else in this room, that we're here in this place doing this hearing and there haven't been hearings out in the communities that have been affected by the water buybacks that have already been recovered and the foreshadowed future water buybacks and water recovery into those communities. The people that are going to be most affected today and the generations to come are within those communities I would encourage that, in the future, there be some consideration to go out into the communities that will be affected for future hearings if that's at all possible.

**CHAIR:** I'll be honest, we do try, wherever we possibly can, but, with the size of the basin, we would need a number of months—

**Mayor Chaffey:** It's an extremely important issue we're talking about, Senator.

**CHAIR:** I'm not looking to make an excuse here, but if I could just finish what I'm saying, Mr Chaffey, that would be really lovely. We did consider, we did think about it and we did want to do it, but we would need to go across the entire basin, which would take us a significant number of months. Were you involved in the consultations that the minister and the department have been running for the last number of months?

**Mayor Chaffey:** I, personally, have been. I'm not sure about others.

**Mrs O'Toole:** I have, but I wouldn't say they were adequate.

**CHAIR:** No, of course, you wouldn't. I get that. Genuinely, I totally get that.

**Mrs O'Toole:** Genuinely—they gave the community five days notice. It was invite only to participate in the community consultation that they gave, and they refused entry to the public. So our community consultation that occurred in St George was only by irrigators. As a country mayor, as a mayor of a rural community, I'm here to represent all of the rest of my community, that isn't water literate, that doesn't have a good understanding about

water entitlements and that doesn't understand the complexity of this amendment going through the House and how it's going to impact them. Those are the people that have not been consulted in any way shape or form.

**CHAIR:** Please don't misunderstand me. I was actually being quite genuine.

**Councillor Amos:** I would like to make a comment about this. We hear all the time about the number of job losses and can you prove that number of job losses and what's going on here and how is this all happening. I fundamentally go back to, if these buybacks are not going to cause problems to our community, then why are we removing the socioeconomic test. On page 2 of the Water Act 2007, section 3—the objects—subsection (c), it says:

... to promote the use and management of the Basin water resources in a way that optimises economic, social and environmental ...

Then, if I look through the whole act, it talks about the triple bottom line: social, economic, environmental. On page 45 of the act, 'mandatory content of the Basin Plan' is around the socioeconomic and environmental test. If this is not important, if this is not going to have a negative social, economic and environmental impact on our communities, then why is it being removed? That is my question constantly. We can put all the numbers out there and say, 'Which Professor, which report, which this?' We are constantly asking all these questions, but, if the socioeconomic test needs to be removed, that fundamentally tells me that is going to have a negative impact on our communities.

**CHAIR:** One of the issues regarding what various communities get from the environmental water and the management of the water system when they have no water—and I know that some of your communities have experienced that—is that it's just a one-way street. How do you propose that we recover water, given that we've had 10 years experience and it hasn't worked, which is why we're at the situation we're at now in looking at voluntary, strategic buybacks? Some of the commentary we've had today has been quite flowery about—mass forced buybacks! That's not what we are talking about. We are talking about strategic, voluntary—and I totally get your points. What would be your suggestion? Like I've said, some of your communities have benefited from the water that has been recovered to assist in times you don't have any.

**Mayor Chaffey:** My comment would be, Senator, if I can—

**Senator DAVEY:** But—

**CHAIR:** I'm asking the question, Senator Davey!

**Mayor Chaffey:** I think that there are communities which are on the brink of not being viable. It's not difficult at all to do some research about when water was recovered from these communities, and what the populations are now compared to what they were. That's a very simple bit of research that can be done. I'm sure it would be reasonable to consider that those water buybacks, or the water recovered, has had a major impact on those regional communities. There needs to be a trigger, that no more water can come from some of those communities when they simply will not be viable; if you have no people, you have no community. There must be some sort of a trigger that eliminates the possibility—whether somebody wants to sell their water or not—that water can be taken from those communities.

Without water—it's hard to fathom unless you've been there, and that's why it's disappointing. As I said before, the hearings haven't been out in these communities. It is absolutely devastating for those people who, for generations, have run their business and have planned for generations to come to continue to run their business. That's whether they're in regional communities, on agricultural land or in communities that support those agricultural organisations. If you take the water, there's no future for those individuals within those communities. I think they should be highlighted, they should be identified and that any further water recovery should be eliminated from coming out of those communities.

**CHAIR:** I've heard that point. I'm just going to say that we've still got another panel to go and we're running behind. Your comments are being captured on the *Hansard*, I'm taking notes and Senator Davey is also taking notes. We're hearing what you're saying, so saying it over and over again won't make it any different. I totally understand where you're coming from and totally hear what you're saying.

**Councillor Weston:** I can add something to the conversation. There is a range of issues, and I'm trying to keep it somewhat focused. Speaking for all of us, our key issues are the removal of the social and economic test; the removal of the 1,500 gigalitre buyback cap; and the issue and impacts around buybacks themselves. The key question, among other things, for us—particularly in having a natural resource management background through catchment management authorities, where we plan and administer environmental water—is outcomes and the use of environmental water. For us, that has grown from the use of a few gigalitres per year to a portfolio of managing 800-plus gigalitres of water in our catchment every year of the last few years. Our focus, again, is on outcomes,

both in the use of that water and outcomes for the Basin Plan generally. There has been a lot of discussion around complementary measures and in-catchment management. We understand that to get the outcomes in the rivers there is the need for complementary measures that improve both the land and the biodiversity. You can't have one in isolation of the other. The comment that the water is the thread that brings those together is an irrelevant comment.

There are a lot of things to cover, and not much time, but we want to see that the accomplishments and achievements that have been achieved during the 15- or 20-year journey of water recovery, including what got recovered before the plan, is acknowledged—particularly that the hard work done at the grassroots level by local government and communities is acknowledged. Secondly, we want to see a focus on outcomes. We're done hearing about numbers; we want to see a healthy environment and we want the focus to be on outcomes.

**Mrs O'Toole:** I'll just go to your question about how we can get water. In our submission, and in many others, there are community-led solutions presented as opportunities. But I think the challenge with the tender process is that it doesn't allow negotiation for those community based solutions to go forward. I understand that from a procurement point of view; we're government as well and we're bound by that. But somehow there needs to be a way where we can sit within the community and actually get a grassroots-led solution for some of these problems, because the expertise on the ground about natural resource management, about community and about how we can actually do this often sits in the community that's being impacted. So it's actually reverse engineering the way we're looking at it at the moment, not just throwing a tender out, but coming out and working with community to find the solutions. I think many of us have put up opportunities in our submissions that could be looked at.

**Councillor Amos:** I'm just going to add to that a little bit from the environmental outcome. It seems like people perhaps who aren't from the regions think that we in the regions are just taking all this water and we don't care about the environment. We live there. This is actually our drinking water. We drink this water. In our area, the Murray River is a big part of our tourism. The primary reason people come to northern Victoria is because we have a healthy river that people want to come and be part of. So we want to be part of this environmental solution. We don't want to see that we have unhealthy rivers. Healthy rivers are what's going to make our communities continue to thrive. I worry that people have this view that we don't care about the environment with our water. It's not the case. It is so important to our communities in so many different ways.

**CHAIR:** I think one of the problems we're facing and we always face when we discuss the Murray—I've said this a number of times a day but I'm going to say it again—there seems to be very black-and-white approach and very little compromise and grey in the middle. I think that keeps getting missed. We have advocates on one side who want everything and advocates on the other side who want absolutely nothing. There has got to be some give in the middle where we recognise all of those aspects. My drilling around the job loss and the changes in how our communities are rolling is because we have data that tells us that. We have data that tells us that the smaller communities are shrinking. The larger regional areas are doing quite well, but the smaller areas—in some areas that has got absolutely nothing to do with buybacks, but the trend is exactly the same in the areas where there are buybacks. We're hearing that buybacks are purely responsible for those changes. You have to understand that what we're trying to is unpack the evidence that been provided to us, both your evidence and everybody else's evidence, to try and work out where this all lines up, because there are such vastly different views. We're drilling into your submissions and your evidence because that's our job. That's what we have to do.

**Councillor Weston:** It's very polarised, where we're at the moment. It reminds me of where we were at 10 or 12 years ago, when we started the journey on this particular Basin Plan. With Samantha I'm also a member of the MDBA Basin Community Committee. One of the things we've observed in the last six to 12 months in particular is that breakdown of trust again in where we are at. It took 10 years to rebuild that after the first go. It's so disappointing to see that. I agree: if we can arrive at a better consensus position and come together, that's when we'll really achieve the outcomes. It's so disappointing that Victoria's been, at this stage, not part of that journey. Don't get me wrong: we as Victorians support our minister, but it is disappointing for the first time in over 100 years not to have all the states and the Commonwealth as part of the agreement in managing the resources of the basin.

**CHAIR:** I think one of the challenges here is, what happens if the whole thing falls apart?

**Councillor Amos:** Why is the whole thing falling apart, though? I don't see that that's happening.

**CHAIR:** I didn't say it was. It's just that risk. I was responding to what Mr Weston was saying.

**Mrs O'Toole:** I suppose that's not reflective of how far we have actually come. Those two things are completely different.

**CHAIR:** I totally get how far we've come, but we have had a lot of challenges keeping the states in the tent.

**Councillor Weston:** That has been the case for probably 100 years.

**CHAIR:** Longer.

**Councillor Weston:** But for all its faults the system has worked for a long time. It's so disappointing, as a Victorian, that we have had a break from that. In essence, we almost don't have that right at the moment. I hope that more consensus and a coming together pathway can be found, whatever the pathway forward is.

**Mrs O'Toole:** I think that's a demonstration of how polarising the discussion is at the moment, that people have broken away. Somehow we need to come back in the centre. We need to remember that communities should be at the centre of that conversation. As you rightly said, Senator, there are very differing views on this, but it's our communities that are at the coalface. We're the ping-pong ball going back and forth.

**CHAIR:** I will just point out that I'm a South Australian.

**Senator DAVEY:** I want to come back to something you are saying, Councillor Amos. The proposal before us right now, amongst other things, is to remove the cap on buybacks, which we have not yet reached. There is quite a significant volume available under that. And also to remove the social and economic test from this new category of water recovery under the 450 held environmental water, which is a.k.a. buyback. Do you think that if we could keep the cap and we could keep the social and economic test, there may be scope for not open tender, but strategic select purchases along the system?

**Councillor Amos:** I might ask Councillor Weston to answer that.

**Councillor Weston:** Can I speak to the Victorian experience during the last two decades? With conversations with irrigators, Victoria has moved strategically to close three irrigation districts—the Broken River irrigators, Campaspe River irrigators and the Wimmera River irrigators. Part of that included the decommissioning of Lake Mokoan, a 400 gigalitre storage that returned 50 gigalitres of water to the environmental holdings through saving losses to evaporation. Given the current paradigms or current settings, that is an option that is available. But the key difference between open tender and strategic is exactly that: one is strategic and one is not.

**Senator DAVEY:** We keep hearing from people that certainly it hasn't worked. I would argue that there are certainly parts of it that definitely have worked. What potentially hasn't worked is that we keep coming back to this need to recover licences as opposed to deliver outcomes. I think Councillor O'Toole and Councillor Weston would be well placed to comment. You've spoken about community driven ideas and solutions that are not necessarily tied to licences. It is that where we need to think outside the box and maybe stop trying to do the same thing over and over again, which is just to keep getting licences, and actually start looking at where we can get incidental or savings and better management to improve outcomes?

**Councillor Weston:** You're right. Again, this is part of the complementary measures conversations. In Victoria we feel like we have led that pathway, particularly as it rates to First Nations and facilitating and trying to empower their self-determination through working on country and on complementary works like feral species control, weed control, fencing off sensitive riverine environments. They have done an amazing amount of work in the Barmah forest. It stands for the broader community as well.

**Mrs O'Toole:** I think that's an area in Queensland. An engineer and I were having a conversation about this earlier in the week. He's obviously a very passionate natural resource management person. I think in some states we haven't done enough of that. I think there's more work to be done in improving the water quality. It goes to the information of the scientist earlier speaking about getting quality water into the rivers. One of the challenges is that because the landscape has changed so much over the last 100 years, the way that water travels over the landscape and gets into these catchments is dramatically altered. So the sediments and the amount of nutrients and stuff it carries with it contribute to the water quality. I think that in some parts of the basin we haven't done enough work on the natural resource management side with the whole collective—the ferals, the Riverina, things that we can do much better and that I think will achieve a much higher water quality outcome. Across the board, I couldn't explain how important it is.

**Councillor Weston:** In simple terms it's managing whole of country rather than just trying to manage rivers with water.

**Councillor Amos:** I'll give an example—the Hattah Lakes project, near Mildura. The Hattah Lakes and the Red-gum and Black Box Forest are up there. Fundamentally the river systems have changed because of what we've done to the rivers over that time, so they don't flood as much. To get water onto those floodplains now, my understanding is that, without interventions, without efficiency measures, around 70,000 megalitres of water would need to flow past those areas, which would spill over the banks and then go out and water those systems. There's no control over how long that water is there. It could be a pulse where the flood goes out and then comes back in or it could be a long flood, as we had late last year. The VMFRP is now up there—so they use gates and



mechanical watering, so it pumps, to water those areas now. There only needs to be 7,000 megs of water going past those systems each day to operate those pumps and those gates to get water out there.

On top of that, they can control how long they water that for. It's not just letting the flood control it; they turn the pumps on, and the scientists—who are much smarter than me—go out and say they need it for three days or three weeks or whatever—I don't understand any of that, but it's all controllable. If we want a healthy environment, we need to invest more in that. In Gunbower Forest they do exactly the same thing; they have the gates there where they can go in and water 4½ thousand hectares—I was there the week before last—of Ramsar rated forest. Again, they control the water there. I think around 80 per cent of the water that goes into those systems comes back out—so 100 per cent goes in and 80 per cent comes back out. It's a really efficient use of water that gets the water where it needs to be for how long it needs to be there. That's why these SDLAM projects are so important.

**Mrs O'Toole:** I can give you a quick example in the northern basin of how that's worked—that is, the temporary transfer of water. That's part of the northern basin toolkit. There's been water purchased from irrigators in the Lower Balonne that are close to the Narran Lakes, which is also a Ramsar listed site. There was a flow over December last year through to February 2023 where they purchased temporary water and strategically placed it into the Narran Lakes to finish a bird-breeding event. When we talk about complementary outcomes, working with a holistic environment and trying to achieve a positive outcome, it takes some clever, adaptable management on the ground while these events are occurring to do that. We need to do more of it in the future.

**Councillor Weston:** We're in our infancy in planning and using environmental water. We've got a long way to go, and we're learning by doing. We've got a huge environmental water portfolio. I'm absolutely confident that the outcomes we'll be achieving in 20 years with that same volume of water will be, by order of magnitude, based on what we can achieve today simply as we build the knowledge, experience and know-how to best use every megalitre of that water.

**Councillor Amos:** When we go out on country with the CMA scientists and see how excited they are about what is going on—I asked them a bit of a political question: 'What do you think? Do we need to invest in more of these?' Fundamentally, they said, 'Yes, this is the stuff that works.'

**CHAIR:** I think there are a lot of excellent projects out there. We just need to get this balance right. I believe Senator Davey is done.

**Senator DAVEY:** The only comment I would add is those projects you've discussed also allow us to water those key sites in lower-flow years, whereas if we're seeking to do the overbank connection we need to wait for the higher-flow years.

**Councillor Weston:** Constraints won't be a substitute for the other SDLAM projects.

**CHAIR:** Again, I think that reinforces that notion that we need to get the balance of all the different things we require for a healthy system.

Can you take on notice a tiny job. Some of the material that we're looking at is in Professor Sarah Wheeler's submission; maybe the secretariat can provide that to you. Can I ask you to have a look at the population trends, which are related to what I was saying previously, and see if you have any commentary about how you think that plays out in terms of your region.

**Mrs O'Toole:** Happy to do that.

**CHAIR:** Thank you so much for your time. I'm terribly sorry that we weren't able to come out to all the communities; it would have been our preference.

**COOPER, Mr Paul, Secretary, Australian Water Brokers Association [by video link]**

**CUSACK, Ms Gabrielle, General Manager, Government Liaison and External Stakeholder Engagement, Murray Irrigation Limited**

**FEUERHERDT, Mr Craig, Vice President, Australian Water Brokers Association [by video link]**

**JONES, Mr Brett, Chief Executive Officer and Managing Director, Murrumbidgee Irrigation Ltd [by video link]**

**MARTIN, Mr Andrew, President, Australian Water Brokers Association [by video link]**

**McCALMAN, Mr Ron, Chief Executive Officer, Murray Irrigation Limited [by video link]**

**McCARRON, Mr Greg, Chief Executive Officer, Central Irrigation Trust [by video link]**

**McLEOD, Mrs Jennifer, Policy and Communication Manager, Coleambally Irrigation Co-operative Limited [by video link]**

**SPEED, Mr Julian, Chief Executive Officer, Coleambally Irrigation Co-operative Limited [by video link]**

[19:50]

**CHAIR:** Welcome. I understand you have received information on parliamentary privilege. We have a written opening statement from the Central Irrigation Trust, which will be published, in front of us. We will go directly to questions.

**Senator DAVEY:** We have received all your submissions as well and have read through them. There is a lot to unpack. I will go to the Water Brokers Association first. We haven't had a lot today in unpacking schedule 3 of the bill, the water markets reform. That puts a lot into regulation. I note that water brokers have been championing for some time for a code of conduct—so that doesn't go against what water brokers have been calling for. Have you got an overview of schedule 3, and is that, as it stands, fit for purpose, or are you a bit concerned that so much has been pushed into regulations?

**Mr Martin:** There's a bit of trust in what's in the regulations. We have our code of conduct, and I think some of what's in the bill is based on that. We've definitely had the conversations along the way. We've been advocates for a while of the reform, the transparency, the trust accounts et cetera. We are supporters of that but we have one cautious word on that: don't kill us in paperwork.

**Senator DAVEY:** I note that government agencies have received funding so that they can upgrade their systems to be compliant with the water reforms. I also note that the irrigation corporations on the panel have to register trades and approve trades when they go on and off their licences—so this is a question for them as well—and that they've got a lot of reporting requirements. Have water brokers or irrigation corporations received funding, or are you having conversations about whether you will be supported to upgrade your systems to ensure you will be compliant with the new water-market reforms?

**Mr Martin:** No, we haven't received anything.

**Senator DAVEY:** ICs?

**Mr McCalman:** We have raised it with the minister formally and we didn't get a positive response in terms of a contribution towards system upgrades.

**Senator DAVEY:** Is that consistent across the ICs?

**Mr Speed:** Yes, nothing here.

**Senator DAVEY:** Is there concern about the cost of system upgrades and the additional reporting requirements? I note that you already report significant levels of data to the Bureau of Meteorology and the ACCC. You've got a lot of reporting obligations already. Will this increase your reporting obligations? Have you done an estimate of what the cost to upgrade your systems and meet those new obligations might be?

**Mr Martin:** It will increase our obligations, yes. It cascades down from the water-trading systems, and then a year or two later it comes to those brokers or intermediaries that don't have a specific trading system. The curious thing about reporting free trade data, which we don't think is really going to be of any value—we are hopeful that for those with the automated systems it will be just a bit of code, the data will be skimmed off and away it will go, without too much cost. But definitely there's going to be a cost.

**Senator DAVEY:** I want to now move to something that you all mentioned in some way but maybe used different terminology. The Water Brokers Association uses the common terminology: the 'Swiss cheese effect'.

Could you outline the risks from the Swiss cheese effect? Are there any means or ways to mitigate against it, if we're talking about an open tender buyback that's completely separate from any socioeconomic test?

**Mr Martin:** I think it's probably more of a question for irrigators and operators. It's about stranded assets to me, so it's probably more in their camp to take up the time.

**Mr Jones:** I can lead off the answer, and then I'm sure Ron and Julian can add to it. Basically the whole concept of open buybacks means that right across our footprint anyone that wants to sell can sell. Generally what happens is you get it all over your footprint, without having any strategic purpose in it, and you can reduce the size of your footprint because everyone at the end of every one of our longest channels or most diverse areas will probably be the ones that don't sell their water. So we end up in a situation of delivering half the water that we used to but still over the entire footprint that we have to operate. Your income halves, but your operating costs don't really reduce because you're still managing your full footprint. That of course then increases the charges to the remaining customers, because you have to run the water through your entire footprint to half the customers that you had before. That then starts to spiral because you slowly lose customers that can't afford those additional charges; they drop out. So there are fewer customers, but it's still the same footprint. So, unless we can look at what is being referred to as specific purchases, which means that you can actually close areas down so you can get the savings and not run in that area by getting rid of all of those customers or that you can have the ability to do compulsory shut downs, which we can't as irrigation corps—we must deliver if those customers have contracts with us. We can't just cancel them for other purposes, saying, 'Sorry there's a channel, but we don't deliver water and we're going to cut you off.' We're currently not allowed to do that.

**Senator DAVEY:** You're saying that there is the potential for negative impacts on all of your customers irrespective of whether they individually participate in a purchase or not because of the flow-on cost implications for the network?

**Mr Jones:** Absolutely. That's absolutely correct. I'll pass over to Ron from Murray, who has probably incurred this issue already through the previous buybacks that have occurred.

**Mr McCalman:** The issue, when we saw 30 per cent of the water leave last time, was that our network size has not changed, so we still cover 750,000 hectares. As Brett indicated, the risk is we will see a repeat of that, where certain people—and potentially they'll be at the end of a channel—will wish to continue operating, and our obligation will be to continue delivering.

It's probably worth noting too that, in a recommendation, the Productivity Commission report released yesterday actually does highlight this issue of irrigation company viability. It does have a direct impact on the remaining irrigators, and irrigators currently are facing pricing pressure from the cost of [inaudible] water deliveries. What we're going to be doing is putting the same crop cost or a slightly reduced cost across a lot smaller base, and that's going to directly impact the efficiency and economics of irrigated agriculture.

**Senator DAVEY:** Mr McCarron, from Central Irrigation Trust, you're quite unique as well. You're entirely piped, is my understanding. Also, across your individual districts, you deliver town water and water to public ovals and public infrastructure on behalf of your local government. If too much irrigation water leaves the system, are you still going to be efficient enough and able to deliver that local government water?

**Mr McCarron:** The short answer is no. But the longer answer probably follows on from what Ron was talking about. We have a lived experience of the Swiss cheese. We have a lived experience, which we're still living now 12 years after it occurred. We lost 180 farms across our network in no planned way. They left, and those that remained had to pick up the additional costs and will continue to pick that up into the future.

In certain of our districts, if we have a sufficient number of the irrigation community leave—if we think about it like this: 97 per cent of the water we supply goes to irrigation, so it's by far the largest volume, so they pay the largest share of the cost to augment the ability for us to provide services to other parts of the community. As you said, it's [inaudible] I supply water to the largest winery in the southern hemisphere. If I'm in a position where I can't do that, I can't supply to houses. We don't have the capacity. We're not a public authority that has other sources of income to offset that. As we've said to the South Australian government, if the buyback is unstrategic, given the economic conditions, which I know other presenters have spoken about today, that are impacting us in South Australia, and particularly the region I am in, it will leave those customers of ours who have no particular interest in irrigation on property themselves with an inability to have a water supply to their homes.

**CHAIR:** Senator Payman.

**Senator PAYMAN:** I'll ask the questions to Mr Martin, but, if anyone else wants to jump in, please feel free. Does the proposed bill provide more flexibility or less flexibility to deliver the Basin Plan compared to the existing plan?

**Mr Martin:** I would say less flexibility, purely because the socioeconomic test is left in for the efficiency measures but taken out for buybacks, and the deadlines are skewed in favour of buybacks as well. So it seems to be giving one a bit more of a clear path—the buybacks get a bit more of a clear path versus the efficiency type arrangements or arrangements other than buybacks.

**Senator PAYMAN:** Should irrigation districts be considered differently to direct river pumpers when it comes to water recovery?

**Mr Martin:** We've heard about the Swiss cheese effect just then, but I would say, unfortunately, probably not. You've got to be equal across licences.

**Senator PAYMAN:** Are there any ideas that you would propose as a better way of handling it?

**Mr Martin:** Water recovery?

**Senator PAYMAN:** Yes.

**Mr Martin:** I would imagine there are lots that you've heard already. There are complementary measures and even going back to first principles and asking what we are trying to achieve—if it's environmental health, fishways, carp virus, a lot of things. I sort of struggle with the idea of putting another three or four or six inches in a river height—what does that actually do? Not a whole lot. We know, if you really flood that river, you run into a whole lot of other problems as well. I'm not sure whether I'm answering your question, but that's what I think.

**Mr Jones:** If I could add to that, from the irrigation corps, there is the whole aspect of delivering projects and investment in infrastructure. Through our three irrigation corps, we've handed back probably 120 gigalitres of water through actual water savings by doing projects throughout the original PIOP works. Murrumbidgee Irrigation are participating in the current Off-farm Efficiency Program. We have projects sitting with the government at the moment, awaiting approval. And we have a range of other opportunities to manage the river differently. We've heard a lot today about catchment management works and the fact that you have to manage the whole river. You've just heard from the councillors about the specific, small areas where you can manage the water very differently to get multiple purposes from the same water and lower flow rates that achieve the same outcomes. So you're not looking at just pouring enormous volumes out of the head dams and letting them just wash all the way down through the rivers and cause a whole range of other issues and a lot of wastage. There are a lot of ways to achieve the equivalent environmental outcomes. There are lots of ways to deliver the plan to achieve the environmental outcomes that everyone's after, which all irrigators are after as well.

The issue with this bill is that it seems that it's not a question of flexibility; it's a question of balance. Where we originally thought there was reasonable balance between buybacks and projects, complementary measures and river management, this bill almost seems to tip that scale to buybacks only. Projects do take a long time, and the Productivity Commission mentioned that today. A two-year extension to do projects is fantastic, but, by the time you do feasibility, get into the works and do all the analysis of the actual benefits of those projects, that takes time. Whilst two years is good, it's really not enough time to deliver what the real focus on projects and other measures could really deliver. The balance has shifted dramatically, and that's what our major concern is.

**CHAIR:** Could I interrupt?

**Senator PAYMAN:** Yes.

**CHAIR:** You say that two years isn't enough, and I have heard this. What do you think the time frame should be? What do you think that structured piece should look like?

**Mr McCalman:** That's an excellent question. What concerns me is that if we could get started right now as part of this bill, and have the feasibility studies and that work approved right up-front, then in the six months we've got left, plus the extra two years, we could really get to the stage where we had a definite list of projects that could deliver benefits, offsets, water back and a range of other benefits in place. Some may be started, but not completed, and some may be ready to go.

What concerns me is we found, traditionally, that when we first tried to do the OFEP projects it took us over two years to get the first approval and actually get going, because they changed the program three or four times. Now, even that program—the Murrumbidgee Irrigation works, which we have the funding for—we're going flat out to implement it. Our implementation window got squeezed so hard because it took so long to structure those processes up-front. That's a real concern with the current bill—how long will it take us to get going?

If we could have two years to do the feasibility, do the detail and use a CRC as a different mechanism to assist with the resource load for MDBA and others to work out what those benefits really are, by the end of the current plan period we could be in a really strong position. Of all these projects that people have talked about, we've got a real suite of projects; we know their benefits, we know their costs and we know the time it will take to deliver

them. Then you'd be in a strong position to say, 'Okay, this is the gap for buybacks,' or other things. So, yes, some projects could be done fairly quickly and others could take three to five years. Some could take a couple of years.

**Senator PAYMAN:** I think the infrastructure projects were mentioned earlier. There has been a decade focusing on infrastructure projects with very little water recovery to show for it. What role should infrastructure now play in delivering the Murray Darling Basin Plan?

**Mr McCalman:** I'll make an observation. I did see that there was criticism today of the time it has taken. But I think that as IIOs we've had a history of delivering projects within our business and also externally. We've been involved in delivering projects with CEWO and we're working on a Commonwealth project et cetera. So, as organisations, that's a little bit disconcerting when we're able to deliver projects on time and budget.

One of the things I think people probably don't get is that when we're delivering projects within our footprint we're actually working with our customers. There's a long commercial relationship—a long history of shared experience. When people say, 'It's taken a decade and nothing has been delivered,' I just think that our types of vehicles are the ones that can really push forward some of these projects and that will actually increase the speed and delivery. I think our point on why that's occurring—and really the onus is on us—is why we talk about the 1,500 cap and keeping it in place. Give us the opportunity and put the onus on us to deliver these things in our footprint, because when we deliver them we actually have a benefit for the environment and we're also protecting our businesses and our customers. So I'm very hesitant when people talk about the 'decade of failure' because, whilst there has been failure, I think there's proof that organisations such as ours can actually deliver these projects.

**Senator DAVEY:** I've got a follow-up question. Mr Jones, you mentioned that you had an OFEP project which was to contribute to the 450. It's taken you two years to get it over the line. Is that now approved and progressing or are you still waiting for final sign-off?

**Mr Jones:** We've had two projects. The first one, which took nearly two years, was approved and is progressing. We've got a second project, which has been through the New South Wales state and all of their checks and balances, and socioeconomic reviews. That has now been sitting with the department for about six months. This would deliver another 2½ gegalitres back as part of the up water or under that off-farm efficiency program, OFEP. These project approvals seem to take an inordinate amount of time. If you look at our second project, it's just a piping project that has been done for the last 10 years. There's nothing fancy. There's nothing special about it. I don't understand why it takes so long.

**Senator DAVEY:** We have a two-year extension if this bill passes, but, if any of these new projects are going to take six to 12 months to approve, it is highly unlikely that construction will then be completed in time. Murray Irrigation, we've heard several times today that you have a reconnected flood plains project in your footprint that you have been trying to progress for some time. If you got final approval tomorrow, how long would it take to actually deliver that project and what would the outcomes be?

**Mr McCalman:** We have received a Commonwealth grant of \$33 million to progress the next pilot phase. We will have a business case completed in March which will guide construction time et cetera. But it could be quite a significant contributor. These are very complex projects that take a lot of assessment. I think our fear, from the IIOs, is that the bureaucracy has two choices: buybacks or dealing with very complex projects that may deliver significant benefits. It's probably understandable which lever they pull. That's really where our fear is of giving ourselves some protection to ensure that the focus remains on delivering these projects, not allowing an easier fix which then impacts our communities as structured under the legislation.

**Senator DAVEY:** That would be one of the reasons why you or your submissions say to keep the cap, because at the moment the cap hasn't been hit. There are still 271-odd gegalitres to go, which is a significant volume in and of itself. But, if you lift that cap—I'm going to quote from the AWBA submission: 'Buybacks are the lazy option.' As you said, Mr McCalman, bureaucrats have two choices. They have the choice of buybacks, which are quick, simple and, we've already heard, very cheap when it comes to dollars per megalitre—we heard that today from Professor Grafton. They also have the choice of working through the detail of these significant projects that may actually deliver better on-the-ground environmental outcomes, because you're targeting where the flows go. You're able to really control the timings and you can get flows to disconnected wetlands in low-flow environments.

**Mr McCalman:** It was interesting that the Wentworth group acknowledged the inability to get CEWO water to where it needs to be placed. The type of project we're working on actually deals with that. That would be the tragedy of not allowing those projects to come to fruition, because you won't get the outcome for the environment that you're really seeking and you run the risk of decimating the irrigation communities that we represent. This is

where we don't want false time. We need time. We need commitment from organisations like us that are going to deliver, but we need commitment from government to not make it too easy to pull a lever that actually may address and achieve the plan but has significant consequences. I would say it has been really interesting that people try to quantify what that cost is. After all these years and a number of reports, it's that risk to our community. When you've got projects that can alleviate that, why not structure them correctly? Structure them in a manner so that they have to be delivered. People understand if that got to a point and all that has failed, then, as communities, we've done everything we can to achieve the plan without having that final mechanism. You put everyone in a different spot then. I think you remove the fear and you give people a time line to try and execute. That's what we need as organisations.

**Mrs McLeod:** To add to this: in addition to the comments that my colleagues have made, I think it's important to understand our systems are largely small-scale irrigation farms full of mum and dad farmers. We have made significant investments, often supported by government in exchange for water, to modernise our systems and become efficient delivery systems. We also deliver water to environmental assets using our infrastructure. The risk with buyback and undermining, or Swiss cheese, is that you undermine that former investment. Whereas, in contrast, if we can look at project based solutions like Ron and Brett have been talking about, it actually builds on the significant investment that IIOs, governments and communities have made in ensuring the efficiency of our irrigation system and our capacity to support our communities as well as the environment.

**Senator DAVEY:** I think that's a very concise overview. Thank you all for appearing.

**CHAIR:** We will now conclude our proceedings for the day. Thank you so much for coming along. I know we've kept you waiting, so I do apologise. Thank you so much for making the time and for your submissions; we very much appreciate it. I thank all witnesses that have given evidence today.

**Committee adjourned at 20:21**