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PRODUCTIVITY COMMISSION

INQUIRY INTO THE FIVE YEAR ASSESSMENT OF THE EFFECTIVENESS OF THE MURRAY – DARLING BASIN PLAN

DR J DOOLAN, Commissioner
MR J MADDEN, Commissioner

TRANSCRIPT OF PROCEEDINGS

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COMMISSIONER DOOLAN: All right, good morning and welcome to the public hearings for the Productivity Commission inquiry into the five-year assessment of the effectiveness of the implementation of the Murray-Darling Basin Plan. These hearings follow the release of our draft report which occurred at the end of August. My name's Jane Doolan, my fellow Commissioner, John Madden, will be arriving, he's driving down from Sydney and has encountered a little bit of roadwork on the road, I think, but he'll be arriving quite soon.

I would like to begin by acknowledging the traditional owners of the land on which we meet and pay my respect to the Elders, past and present.

The purpose of this round of hearings is to facilitate public review of the Commission's work, our draft findings and our draft recommendations, to get comment and to get feedback on that draft report. We have already had hearings in Mildura, Murray Bridge and Shepparton. This hearing is in Dubbo and our last hearing tomorrow is in Canberra. Then we will be working towards completing the final report to be handed to Government just before Christmas. In completing that final report, we take very seriously the submissions that we have received and the comments that are made in public hearings and in meetings that are held with stakeholders, so this is very important input into the finalisation of our draft findings and our draft recommendations.

Participants and anybody who has registered their interest in the report will be automatically advised when the draft report is about to be tabled, so, as I said, we will hand it into Government just before Christmas, but the Government has up to 25 sitting days to table it within Parliament, so somewhere between Christmas and probably the end of May.

In terms of these hearings, we like to conduct them in a reasonably informal manner, but I do remind people that a full transcript is being taken, so, for this reason, we can't take comments from the floor. There will be an opportunity at the end of the day for people who are not participating, if they wish to have their say, to come up and actually put comments on the record. Participants can not only refer to their own submissions and comments but other people's comments as well, if they wish to do so.

You are not required to take an oath, but we do ask, obviously, that you are truthful in remarks and, as I said, you are welcome to comment on issues made in other people's presentations.

The transcript will be made available to participants and will be available on the Commission's website in a few days. All the submissions are also publicly available on that website.

To comply with the requirements of the Commonwealth Occupational Health and Safety Act, we are advised that in the unlikely event of an emergency requiring evacuation, a signal will go off and we all go down the stairs and we actually aggregate in the car park, so if people can just be aware of that.

Each time we ask a participant to the table, we ask you to make some opening remarks but then allow some time for questions as well.

I would now like to welcome Melissa Gray from Healthy Rivers Dubbo. Melissa, for the record, if you wouldn't mind introducing yourself and your organisation.

UNIDENTIFIED SPEAKER: Excuse me, can we say that that's been hard for us to hear.

COMMISSIONER DOOLAN: These microphones, I'm sorry, are not for broadcasting, they are just for recording, so maybe just move forward. I'll try and speak up, I'll do my best to speak up, but if anybody wants to move forward in the room, feel free. Melissa?

MS GRAY: Thank you, Jane. My name's Melissa Gray, I'm the founding member of Healthy Rivers Dubbo. I'd like to acknowledge the traditional owners, past, present and future, of the land that we're meeting on and the custodians of Wirrimbah, the Tubba-Gah Maing of the Wiradjuri Nation.

I volunteer a lot of my time for the river on weekends with my bushcare group. I play my part in physically restoring the river to health. I give a lot of my time and resources to being an advocate for water in the rivers and the marshes. I am a founding member of the community group Health Rivers Dubbo and I'm a member of the Macquarie Cudgegon Environmental Flows Reference Group.

In my day job, I'm a contract book-keeper and I work with small businesses. I know how accounts work and reconciliations and I know the value of complete transparent, meaningful and relevant data.

I welcome the Productivity's draft report and I thank you for the opportunity to speak here today. In particular, I commend the draft report in highlighting the lack of commitment by Basin Governments in implementing the plan and the need to extend the deadlines for accrediting the water resource plans.

Just broadly, big picture level, I believe the most logical and efficient way forward for the Basin Plan implementation is for the 1500 gigalitre cap on water buybacks to be lifted, for actual water to be purchased from willing sellers at an acceptable market rate. I think that the buybacks should replace the \$1 billion worth of poorly described efficiency projects that are looking to permanently restructure the natural forms of our rivers and wetlands in the Basin. The money saved by replacing the supply measures with water buybacks could go to supporting communities that need to transition from a reliance on irrigation.

Today, I would like to take this opportunity to talk specifically about extending the deadlines for the accreditation of the water resource plans. Initially, first, vital indigenous consultation is missing from the process, particularly in New South Wales. There's no conduit for Government to consult with indigenous communities any more. There was, but it's been disbanded and dissolved, and that's crucial.

Secondly, the claim that is being made and referenced in your draft report, draft recommendation 3.1, of over-recovery just cannot be the case. Over-recovery in the Macquarie and the wider valleys cannot be real and I'd like to talk to two points to back this position up. One point is the exclusion of floodplain harvesting volumes from the sustainable diversion limit to caps, and the other point I would like to speak to is the questionable use of cap factors. There are a lot of other concerns as well about how the Northern Basin amendments were actually arrived at. Thank you.

COMMISSIONER DOOLAN: Perhaps you could actually take us through your views on floodplain harvesting and cap factors.

MS GRAY: Sure, thank you. Incomplete data is being used to reach the assumption of over-allocation, data which doesn't include floodplain harvesting volumes in the SDL. So the volumes of floodplain harvesting take will not be ready in time for the accreditation of the water resource plans, and this was confirmed by New South Wales DPI staff in Dubbo on 8 October. So, they are going to have a mechanism where the water resource plans can be adjusted after they are accredited to include the volumes, once known, of floodplain harvesting take. I don't believe it's a logical step to accredit a plan that's got a ten-year life before such vital information is available and can be accurately assessed.

Although the Macquarie Water Sharing Plan does acknowledge that floodplain harvesting happens, there is no figure at all associated with the take, the amount of take, so, therefore, the water that is taken has been assumed to go to the environment, which it very clearly does not. Information about the volumes of water taken by floodplain harvesting in the Basin is very limited.

In 2012, it was estimated that the floodplain harvesting take for the whole Basin would average out at 210 gigalitres a year. Recent work on the Gwydir Valley alone revealed the potential for 614 gigalitres of new compensable property rights eligible for licensing, and that's just one valley alone. So, all we do know about floodplain harvesting volumes in the Macquarie is that floodplain harvesting has increased since 2000, especially downstream of Marebone and downstream of Bells Bridge and, according to DPI, New South Wales DPI staff working on the floodplain harvesting project, the volumes of water taken have been grossly underestimated.

So, the challenge now that New South Wales DPI has is to fit the volume of floodplain harvesting under the existing SDL cap so that the licensed take plus floodplain harvesting equals the SDL. The way algebra works is that, therefore, the licensed take would have to be reduced if the SDL is a fixed amount. However, the SDL is apparently a concept rather than a fixed figure, meaning that the value of the SDL can be adjusted. That's not really accounting. A limit with no value is not a limit.

COMMISSIONER DOOLAN: When you say the SDL can be adjusted, where did that advice come from?

MS GRAY: The Murray-Darling Basin Authority and New South Wales DPI. It's part of the Murray-Darling Basin Plan that has just become - it's been around since the Plan

was implemented, but lately it's become spoken about more and more, this concept that the SDL is just a concept, whereas that's sort of new learning for a lot of stakeholders who believed it was a fixed figure, which, from an accounting point of view would make sense that it be a fixed figure, and the volume of environmental water is a fixed figure, but the SDL take can be adjusted.

COMMISSIONER DOOLAN: By climatic conditions?

MS GRAY: No, there's no - absolutely no working in of climate change or climate variations.

COMMISSIONER DOOLAN: Not climate change, just sort of year to year variabilities?

MS GRAY: Well, no, just can be adjusted, as far as I know, to suit caps.

COMMISSIONER DOOLAN: That's something we will take up, but that's not our understanding.

MS GRAY: Okay.

COMMISSIONER DOOLAN: That the SDL is firm as a long-term annual take, so year to year, but long-term annual take.

MS GRAY: That was our understanding.

COMMISSIONER DOOLAN: And that floodplain harvesting would, as you say, come under that and if there were issues that New South Wales would have to actually balance its floodplain harvesting with its licensed take to still achieve the SDL.

MS GRAY: Well, apparently the SDL is a moveable target.

COMMISSIONER MADDEN: Were there any materials at the meeting discussing that?

MS GRAY: No, but it was definitely confirmed by a member of the Murray-Darling Basin Authority and someone from New South Wales DPI, the person who's working on the floodplain harvesting project, yes, it was definitely confirmed.

COMMISSIONER DOOLAN: All right, thank you, we will follow that up. You mentioned New South Wales will not have the figures for floodplain harvesting in time for the release of the draft Macquarie Plan.

MS GRAY: That's right, yes, it's not expected that they will have the volumes ready.

COMMISSIONER DOOLAN: As a stakeholder in that plan, as you can see from our recommendations, we have recommended that there is an extension of time, obviously

regrettable because, you know, States have had quite a lot of time to actually undertake their water resource plans, but, in our view, a good plan requires decent community consultation and if there's real changes involved, obviously it's much more important that that community consultation occur. So, from the Macquarie Healthy Rivers Dubbo's perspective, extension of the water resource plan timeline is preferable to a hard sticking to a deadline?

MS GRAY: Absolutely. Floodplain harvesting is one of a few very serious elements that need to be correctly addressed. There has been no study of the environmental impact of floodplain harvesting, it's all unknown. There's no plan also, there's only a little bit of environmental work that will be done when actual earthworks happen for floodplain harvesting, there's a little bit of environmental work, but there's no plan that I'm aware of to actually assess the environmental impact of floodplain harvesting on the Macquarie marshes, which are internationally significant marshes, Ramsar-listed wetlands included, our obligation under the Water Act and International Migratory Bird Agreements is to protect those wetlands and by not having any environmental impact studies in the wings around floodplain harvesting, that should be all done before a ten-year water resource Plan comes in to accreditation.

COMMISSIONER DOOLAN: Given it is important to have the SDLs come into operation as soon as it is practicably possible, from your perspective, given the current status of the draft plan, what is a reasonable extension here and what needs to happen?

MS GRAY: Well, we need to assess the environmental impact of floodplain harvesting. We need to find out the volumes first and learn about what this sliding SDL limit, we need to understand the impacts of that.

COMMISSIONER DOOLAN: That's a broader question that we will take up.

MS GRAY: Yes, we need to know what that means for our valley. We need to know what the figures are and we are far from that point. Without all of the relevant data - - -

COMMISSIONER DOOLAN: A 12-month extension?

MS GRAY: We need the extension to go until we've got the data that we need to understand the truth of what's happening.

COMMISSIONER MADDEN: Did they outline the mechanism? We are talking about floodplain harvesting that already exists as an operation and the structure is already in place.

MS GRAY: Yes.

COMMISSIONER MADDEN: So we then have an SDL accounting approach which, over time, depending on that estimate would actually measure that estimate take over time and then obviously to comply with an SDL that will occur as implications on the take

under floodplain harvesting or supplementary or general security, you know, as you say, has to fit that number.

MS GRAY: Yes.

COMMISSIONER MADDEN: So notwithstanding the concept of a floating SDL, would not the compliance and SDL accounting going forward be the best way to get information anyway? I'm just wondering what additional information you would get in a year?

MS GRAY: Cap factors create a bit unknown element in all of this in calculating SDL's baseline diversions and water recovered, water for the environment. We've got three versions of these cap factors which blur everything and it's not clear which cap factor is being used in which circumstance and so, unless that information is clear and transparent and available for stakeholders, we won't be able to understand, you know, some basic truths about what water is going where. It's very murky. I could speak to cap factors, I think, if you would like.

COMMISSIONER MADDEN: Yes, I was going to say if you would deal with cap factors as well.

COMMISSIONER DOOLAN: Yes, please.

MS GRAY: So they use like a conversion rate between valleys, they represent the long-term average reliability of water supplies for each valley. They are referred to as long-term diversion limit extraction factors, but I'll just call them cap factors. The calculation of cap factors is contentious, it has generated distrust of the Government amongst stakeholders since 2011. For us to have confidence that actual water is being recovered for the environment, the calculation of cap factors must be transparent and be able to be scrutinised.

New South Wales Department of Industry Water has come up with three different cap factors. So, there's one for baseline diversions, there's one for water recovery and there's one for SDL. We don't know which cap factor they're using. We cannot have confidence that they aren't being used to reach a predetermined result, including over-recovery and no further recovery, which is just not accounting and it's something else completely.

For example, the 2018 cap factors, they were determined in June, they were calculated in June this year, but they were apparently already known by the Murray-Darling Basin Authority when the Northern Basin amendments were finalised in November 2016. This is when the Macquarie and the Gwydir were flagged as over-recovered. Knowing what the figures will be two years before they are calculated, that's not accounting, that's something completely different.

When the same cap factors were applied to the Lachlan, the result was a significant under-recovery. So, after years of work, over a weekend, that value was revised to zero with no explanation coming forward, they just said, "There's extra information came

forward over a weekend and we've changed that figure to zero." That's not how accounting works, that's not - anything but.

Then there's the finance, how cap factors and money interact. The Murray-Darling Basin Authority and New South Wales Water say that cap factors should never be used by the finance sector to value water and yet they are supposed to represent real water. That's a red flag. Cap factors are not indeed representing real water and that must mean that we can't trust those figures. In accounting, figures must represent what they are meant to represent, but if there's a different cap factor for environmental water and a different cap factor for SDL, how can we know - and they're saying, "Oh, don't use that, don't take that number to the bank", well what's the use of that number if not to be a mechanism to obtain the answer that you want?

COMMISSIONER DOOLAN: I certainly understand the confusion. Cap factors are highly technical, an arcane science, if you will, but, however, necessary. So, what mechanism of communication would actually help restore your confidence in this? What would you like to see?

MS GRAY: I'd like to see consistency in the application of cap factors. There shouldn't be one set of rules for the environment and one set of rules for take, it doesn't make sense. When a cap factor is applied to any water, it should represent real water and you should be able to take that number to the bank.

Water markets are affected by the SDL, of course, because the SDL sets out the amount of water available for consumptive use, which in turn affects the price, so if a cap factor is only applicable to environmental water, it undermines the water market, it's taking away integrity of the CEWH's \$3.2 billion water portfolio and the property rights associated with that water. It's diluting the property rights and it's undermining the entire water reforms of the past decade, including our \$13 billion investment in the Basin.

COMMISSIONER DOOLAN: As we understand it, the application of cap factors is a necessary element. Without the Basin Plan, it would occur in a continuous improvement cycle anyway.

MS GRAY: Yes.

COMMISSIONER DOOLAN: The application, whilst I certainly take your point that it is not terribly transparent, it's very confusing and therefore it does reduce confidence, absolutely.

MS GRAY: Yes.

COMMISSIONER DOOLAN: The numbers are still around the margin, so it's, I suppose, understanding that the application would still be around the margin, it doesn't hugely change the portfolios, but the key thing is undermining confidence here and public trust.

MS GRAY: Absolutely. You do come up with different figures when you use different cap factors and we know in our rivers, getting away from accounting, when we're out on the ground, you know, on the land, that most times are dry times and a little bit of water makes a huge difference.

COMMISSIONER DOOLAN: Okay.

COMMISSIONER MADDEN: Just a clarification. When you say environmental water is treated differently, do you mean the Environmental Watering Allowance holdings or do you mean general security holdings held by the CEWH are treated differently to general security water that's held by irrigators?

MS GRAY: Well, that's my understanding, that's my understanding. I would imagine that's the case, but I can't absolutely confirm.

COMMISSIONER MADDEN: Sorry, you mean - - -

MS GRAY: Yes, SDL has got its own set of factors and the water held by the CEWH, which is both general security, has a different set of factors again.

COMMISSIONER DOOLAN: Thank you for that.

MS GRAY: So there's no longer a publicly-available and readily understood metric developed by Government that can be used by the finance sector when considering finance against water licences and that is extraordinary.

COMMISSIONER MADDEN: We can put that question back to New South Wales.

COMMISSIONER DOOLAN: To the Authority.

COMMISSIONER MADDEN: And the Authority.

MS GRAY: There's clearly data missing from the technical document for the 2018 cap factors calculation, including reliability and utilisation factors, therefore, the data is incomplete and the accounting cannot possibly be sound.

COMMISSIONER DOOLAN: Thank you for that. But what you would want to see going forward and into the finalisation of the water resource plans is a clear set of cap factor numbers, consistently applied, and transparently understood.

MS GRAY: Absolutely. We understand the need for cap factors, we get it, we're all experienced with the practicalities of the river and availability and management of general security, so, of course, we understand the need for cap factors, but we don't trust they're not being used to get predetermined results two years in advance.

COMMISSIONER MADDEN: Just in that meeting, and they may not have specified, but what were the kind of broad next steps, and did they communicate, more importantly,

the broad next steps on how to come to a landing on some of these things in terms of policy or process where they're telling you what's happening, water resource plans and the like?

MS GRAY: Yes.

COMMISSIONER MADDEN: The next major step?

MS GRAY: Yes, I'm not on the stakeholder panel for the water resource plans, so I won't comment on that.

COMMISSIONER DOOLAN: The October 8 meeting, it was a more general meeting?

MS GRAY: That was a floodplain harvesting consultation. The next thing that we're going to get together again next year, I think, early, and we're going to know what the volumes are and we're going to learn more, I'm sure, about this sliding SDL limit with no value.

COMMISSIONER DOOLAN: Okay.

MS GRAY: I'd just like to tie some - I mean, these are just some concerns that we have about a lot of assumptions that have been made, particularly over recovery of the Macquarie and the Gwydir as well, but they all tie in, along with a lot of other things as well that other people can speak to, about what went through - the Northern Basin amendments that went through the Senate earlier this year. So the amendments are going to reduce the amount of water in our environmental accounts. The amendments were calculated in a rush. There was no new science done to assess the health and resilience of rivers and our internationally-significant marshes, which we've got an obligation to protect.

The modelling used must have been flawed because the data available didn't include floodplain harvesting and it's got this very foggy, unclear use of cap factors, and this work was done two years prior to those factors being calculated. It's not transparent and it's not accounting.

The Northern Basin amendments are going to have significant negative impacts on the health of our rivers and our marshes, our internationally-significant Macquarie marshes are going to reduce in size and complexity. If our floods get further apart because of a dry in climate, the flood events are going to be longer apart than the life span of the birds that come to breed and we'll lose the entire site as a breeding opportunity.

If we had less water in our Macquarie accounts, we are going to be able to connect to the Barwon even less frequently than we can now. We've currently got a connection to the Barwon, which is great and against the odds, but we're going to be able to do that less and less frequently.

The rivers in the Basin, if they connect less, they are weakened, they have got less resilience, it's going to impact on the local economies of places like Brewarrina and Bourke. That water that comes through the Macquarie falls in winter and in springtime finds its way through to the Barwon in ideal circumstances. All the other - most of the other rivers in the Northern Basin are monsoonal-fed and they get summer rain. So, the water that does come from the Macquarie is precious to these economies and communities along the Barwon-Darling, so the less water we can get out - connectivity is how our native fish move and we are going to lose species of native fish naturally occurring in the Macquarie if we lose more connectivity that we've already lost.

COMMISSIONER DOOLAN: I have read your submission as well. Do you mind if I ask a question around your submission rather than what's covered - - -

MS GRAY: Yes, absolutely.

COMMISSIONER DOOLAN: You did talk about connectivity in the submission.

MS GRAY: Yes.

COMMISSIONER DOOLAN: But you also did refer to the trade-off between the use of environmental water locally with the use of environmental water to produce the connective event down the Barwon-Darling.

MS GRAY: Yes.

COMMISSIONER DOOLAN: We have made recommendations about how the Basin Environmental Watering Strategy, the next version of it, what it needs to take into account, so there's some areas where it's a good start, if you like, but people have learnt and it's a bit deficient and connectivity through the Basin is one of those areas.

MS GRAY: Yes.

COMMISSIONER DOOLAN: Do you want to comment on the trade-off, if you like, between a local environmental watering or decision to water locally and a decision to devote to a more system-wide event?

MS GRAY: Yes, we aim to connect to the Barwon-Darling as often as we can through our local watering events. Because of the marshes, it's not an easy case of just sending water through the marshes through the Barwon. The marshes are a complex system, they've got deep, spongy composting soils that take a lot to keep moist. A parched system takes a lot more water to get water through, the cracks are deep, the water goes down and down and down before it goes along.

COMMISSIONER DOOLAN: So not a lot of control anyway?

MS GRAY: There's not a lot of control. We can only - the best time that we can send water through the marshes into the Barwon-Darling is when the marshes are wet and,

obviously, that happens less and less. We can do it, but we know our system well enough to know that if the system is parched - - -

COMMISSIONER DOOLAN: It won't happen.

MS GRAY: It won't happen, it takes too much water because they're too dry for too long.

COMMISSIONER DOOLAN: Okay. I'm sorry, I interrupted.

MS GRAY: No, that's okay.

COMMISSIONER DOOLAN: It's just an interesting element. Are there other comments that you would like to make?

MS GRAY: I could sit here and talk all day, but I have mentioned everything in my notes. Yes, prime concerns around a lot of things, but the Northern Basin amendments don't sit very well with us.

COMMISSIONER DOOLAN: Thank you. I have no further questions. John? Okay.

MS GRAY: Thank you very much.

COMMISSIONER DOOLAN: That's the first set of clapping we've had for a submission. Well done. Our next speaker is Beverley Smiles from the Inland Rivers Network. Beverley, do you mind just introducing yourself again for the record.

MS SMILES: Beverley Smiles, President of the Inland Rivers Network. I appreciate the opportunity to present to you at this hearing today and I would like to start by acknowledging the traditional owners, present, past and emerging, on whose country we are meeting today.

The Inland Rivers Network, or IRN, is a coalition of environmental groups and individuals that have been advocating for healthy rivers, wetlands and groundwater in the Murray-Darling Basin since 1991. As you are aware, we submitted comment on the draft five-year review of the Basin Plan and we outlined a number of key concerns both with the review, some of the recommendations, some of the economic analysis and our deep concern that the Basin Plan is now completely off the rails.

I would just like today to concentrate on three areas as the basis of our concern for the lack of success of the Basin Plan. These are the failure to meet an environmentally sustainable level of take, or an ESLT, the process of water resource plan accreditation, WRPs, and the State and Federal Government commitments under international treaties, as identified in the Water Act 2007.

We consider that the original Basin Plan adopted in 2012 already had a highly compromised volume of 2750 gigalitres set to be recovered for river and wetland health

across the Murray-Darling system and this figure already failed to meet significant hydrological and environmental targets. We consider that the final outcome of the Northern Basin amendment and the SDL adjustment package certainly fails to meet an ESLT. We note that by referring to the new recovery target of 2075 gigalitres throughout the draft report, the Commission has failed to recognise the 5 per cent limit of change built into the SDL adjustment mechanism and that a further 62 gigalitres need to be recovered under that adjustment.

The original 390 gigalitres for the Northern Basin recovery met only 49 per cent of the environmental targets. So, lowering that to 320 gigalitres takes the outcome further away from an ESLT. Returning 605 gigalitres back to extractive industries in the Southern Basin from the already compromised Basin Plan recovery target will cause a major failure to meet the objectives of the Plan.

The 36 supply measures proposed to provide this significant claw-back will not result in environmental improvements and have compromises inbuilt within the way they were developed. So, there is a high level of uncertainty and limitation in the modelling and the ecological elements method scoring and final modelling outcome was not available before the SDL adjustment was made.

The Menindee Lakes Project is a key element of the package that is supposed to provide the greatest return of water to the extractive industries and this project, as we all know, is highly questionable. The Jacobs Due Diligence Report on the business case for the Menindee Lakes Project is dated October 2017, so prior to the SDL adjustments, stated: "In general, the business case does not present an organised, comprehensive, consistent or persuasive case for the Project. It does not include all the elements that would be expected for a project of this type and, in some instances, provides cursory consideration of key project issues." Yet this is the project that got the SDL adjustment package to a politically palatable volume of water claw-back for the industry. There is significant doubt around this project and, indeed, the whole package of supply measures, as the Commission has recognised.

The current political threat to achieving the 450 gigalitres upwater through on-farm efficiency measures now creates a greater risk of an ESLT being achieved. Lack of cooperation from New South Wales and Victoria through refusing investment into improving the efficiency of on-farm water use is a very strong argument for lifting the cap on buybacks. We are disappointed that the Commission's economic evaluation of Basin Plan spending did not include this option as a way forward. We also note that modelling scenarios of the full recovery of 3200 gigalitres showed that 22 of the 25 hydrological targets at four indicated sites have a high level of uncertainty of being met.

From our perspective, the Basin Plan appears to be broken.

With the water resource plan accreditation, we support the Commission's recommendation for an extension of time for this process because there are critical issues in New South Wales that need to be resolved.

The issue of amending WRPs after accreditation is very unclear and, as you have heard from Melissa, that has been publicly stated to stakeholders that that's a consideration in regard to plugging in figures some time in the future. There's also a bit of uncertainty about the lifespan of the water resource plan. We have heard, again, some people think it's got a ten-year lifespan, I've been told they are perpetual plans. Unless there's an amendment to the Basin Plan, that causes there to be a need to amend the water resource plans, so there's a bit of uncertainty around what a water resource plan actually is or, you know, the period of time of its input.

As we have said, it's been stated that a solution to the current timing constraints - there is, you know, a lot of timing constraints for a number of complex issues, and really the whole accreditation process needs to be more accountable with clear explanation of the standing of water resource plans.

So the New South Wales Government has not completed, as you have heard, the estimation of take through floodplain harvesting, Water Sharing Plans have not been finalised, particularly in regard to protecting environmental water in unregulated river systems, the development of cap factors to account for water recovery is still a work in progress. From our understanding, there has been a consultation process around cap factors and, to my knowledge, nothing has popped out the other end of that yet, that particular process, and the consultation with Aboriginal communities has been less than desirable.

We believe it is really important for held and planned environmental water to be protected within and between water sources in rules within accredited water resource plans. For example, there are unregulated sections of rivers at the end of the regulated part of the river in rivers like the Macquarie and actually most of the New South Wales Northern Basin rivers have got a regulated section and then a bit of an unregulated section before they enter the Barwon-Darling. We consider it is really important for that feed into the Barwon-Darling to be protected in that unregulated section.

But the New South Wales Government is saying that they do not intend to amend their unregulated plan rules until the end of their ten-year lifespan under the New South Wales Water Management Act 2000, which is generally around 2022, and the Northern Basin toolkit measures, which include protection of environmental water, will not be implemented by July 2019 when the water resource plans are supposed to be turned on. So, we consider a pause in this process to get the water resource plans right is really important.

We have got two WRPs on exhibition for community comment, as we speak, of the 22 to be developed in New South Wales. The community will be overwhelmed by this rushed roll-out to get all WRPs to the MDBA in time for accreditation by June 2019. This is an impossible task and should be recognised as such. Because New South Wales is the largest extractor of water in the Basin, it is critical that the water resource plans are fit for purpose, that is, to achieve and manage the combined ESLT.

So, just to restate some of the things that have been said about the importance of the international treaties and the Basin Plan and also State Governments, who have an obligation as land and water managers to promote the conservation of wise use of wetlands, as required by the Ramsar Convention, and this includes the provision of adequate share of water, and the Convention on Biological Diversity is also an important environmental treaty signed by Australia giving the Water Act and Basin Plan constitutional validity, one of the key aims of the Basin Plan is to prevent the ongoing decline of wetland across the Murray-Darling and to improve their health and resilience.

The Basin Plan, as it now stands, after the dubious and non-transparent processes around the Northern Basin amendment and the SDL adjustment package will fail to meet the obligations under international treaties, and the 16 Ramsar-listed wetlands in the Murray-Darling Basin have not been recognised in the Commission's draft report.

The reduction of water recovered to meet environmental objectives will cause the Basin Plan to fail. That's the general position of Inland Rivers Network.

COMMISSIONER DOOLAN: If I could follow up on a few of those things, you referred to the SDL adjustment of 605 and, as you said, a number of those projects have a high degree of uncertainty about them as we speak. We have recommended a gateway-like process where, say, Menindee goes through a much greater detailed design package and, at that gateway time, is actually assessed as to whether the principal environmental outcomes have changed, if the cost has gone up, deadlines, a whole range of things, but, at that point, a decision be made whether to go ahead with it or not.

We have also gone - well some of those projects are really important and desirable, but if they need a longer time, you could use that then as well. So, we have imagined a series of checks and balances, go and no go, milestone assessment, and a call of failure, if you like, in that process in advance of 2024. Whilst noting that generally you feel that they put the outcomes at risk, nevertheless, that's the process that we've got. Does that process, should it be accepted and put in place, provide more confidence that those projects would go ahead only if they did deliver those environmental outcomes at the price?

MS SMILES: Definitely, and we have been saying each of the projects, particularly the onground ones like Menindee, need a full EIS to start with.

COMMISSIONER DOOLAN: Sure.

MS SMILES: And, you know, the preliminary business case has been demonstrated to be very deficient.

COMMISSIONER DOOLAN: By that you mean the environment assessment, the cultural assessment?

MS SMILES: Yes, exactly.

COMMISSIONER DOOLAN: Everything a major project requires.

MS SMILES: But, I mean, that whole side of things means that the decision around recovery for environmental water is going on for a limitless time and the 2024, which is what our concern is, the Basin Plan will not have met its objectives by that deadline because the complexity around the supply measures that have been put up and, as I said, you know, the strong doubt around the actual process, which was not transparent at all - I mean, over the period of time that the ecological elements modelling was being developed - but, I mean, we were meeting, environment groups were meeting regularly with various people involved in that process and coming away feeling more and more concerned about, you know, the route that it was taking.

Then, when the final process of having the draft SDL package out on exhibition, where there still wasn't available information, particularly around modelling, we were very critical of it and then, all of a sudden, it was in Parliament and passed, you know, so there wasn't even a response to our submissions before the amendment went up to Parliament. The whole process, from our perspective, has been very dodgy and was aimed at getting a number that was politically palatable. So everything, you know, was sort of back-tracked to achieve that, and it wasn't good science, isn't going to be good for environmental outcomes, is not forward for the objectives of the Basin Plan.

COMMISSIONER DOOLAN: Going forward, though, they are all in the process now of further development.

MS SMILES: Yes.

COMMISSIONER DOOLAN: So it is about designing the next stage of the process to provide greater transparency and confidence in the decision-making.

MS SMILES: If I could just say why I backtracked a bit is because some of the initial modelling and some of the stuff that needs to be reviewed as well, while you're looking at each individual project and, you know, putting together a more stringent process around that, is how they fit together as the final package.

COMMISSIONER DOOLAN: Yes.

MS SMILES: But also the rigour of the modelling and like the ecological elements method, all those types of things really need to be looked at.

COMMISSIONER DOOLAN: Okay. The equitable ecological equivalence method was peer reviewed and - - -

MS SMILES: But there were already compromises built into that.

COMMISSIONER DOOLAN: Sure.

MS SMILES: So, there were already compromises built into the environmental outcomes that were then adding up to get, you know, your big picture package. So, right through the whole process, the environmental outcomes are compromised.

COMMISSIONER DOOLAN: Okay.

MS SMILES: So some of your trade-offs with - - -

COMMISSIONER DOOLAN: Levels of change were developed at each of the KI sites which meant there was a minimum level.

MS SMILES: But they weren't all met. Even in what went out as the draft SDL adjustment package - - -

COMMISSIONER DOOLAN: Sure.

MS SMILES: - - -some of those were not met. The limits have changed, and particularly keeping the Murray Mouth open for nine years out of ten wasn't mentioned anywhere in the entire document. So, there's a number of key things to do with the Basin Plan that have just been swept to one side to get this particular outcome. So, yes, the compromises built into the actual process to get to that outcome, to further compromise the actual volume of real water returning to the rivers and wetlands is, you know, a clear concern.

COMMISSIONER DOOLAN: Okay. Coming back then to the water resource plans and, once again, looking forwards, what would be the key points you would want fixed in a plan, and obviously an extension is an extension, it can't go on forever.

MS SMILES: No.

COMMISSIONER DOOLAN: So we do need to be quite clear about what is the key points that the Plan needs to have in it and, I suppose, almost set a work program for New South Wales, so the level of consultation required. Could you just elaborate on that because we do think extensions are necessary, we have heard that, particularly in this area, but the element is to be quite specific about what needs to happen.

MS SMILES: You did ask Melissa what sort of timeframe.

COMMISSIONER DOOLAN: Yes.

MS SMILES: I think another 12 months would be a reasonable thing and, from our perspective, all the floodplain harvesting - well, not just estimates because they are handing out new compensable private property rights with floodplain harvesting licences - so that needs to be final and bedded down so that everyone actually knows what the actual licensed volume of take is for floodplain harvesting, and the problem around that is while they're working on the Northern Basin, they haven't even started looking at the

Southern Basin, so while it's not as extensive in the Southern Basin, it still does occur. So, it's this big question mark of the actual original estimate of take from the river system.

The other really important thing is the rules for protecting environmental water in unregulated systems. I don't agree with the New South Wales Government's position that we're not going to change anything about our water sharing plans until the end of their life under our Act just because the Basin Plan is asking us to put something in a water resource plan that we don't really understand what the life of the water resource plan is, and this referral to, "Oh, well, we'll just amend the water resource plan after it's been accredited", you know, how does that work, who's in control of that? It's just all these unknowns that again cause a lot of doubt about the final outcome for environmental benefits from the whole process.

COMMISSIONER MADDEN: I wanted to touch on another thing which is the governance of the MDBA, which we haven't talked about. So, notwithstanding who does it, but just one of the, I guess, key functions or roles that you - and I think it's why you yourself recommend some independent authority to be looking at parts of the regulation of the Plan.

MS SMILES: Yes.

COMMISSIONER MADDEN: Are you happy to elaborate your concerns?

MS SMILES: There's a general sense that a totally separate body to the MDBA, or anybody else that are doing the hands-on water management, like the day to day making decisions around turning levers on and off and all of that, that, you know, the regulations should be separate. New South Wales should be highly embarrassed by a news, a television program, how to set up the independent regulator, and that's - you know, they're really starting to put runs on the board, which is why, you know, while you're proposing two arms of the MDBA, so there's a regulator and the rest of what they do, we would prefer to see a totally separate regulator set up and, we have suggested, for a whole range of environmental regulation at a Federal level and a Federal MDBA be established and regulating the Basin Plan could be one of the roles that that body takes on.

COMMISSIONER DOOLAN: I think we agree with total separation.

MS SMILES: Yes.

COMMISSIONER DOOLAN: I have one more - and again it's more in your submission, but if you wouldn't mind - we have actually recommended - the environmental water holders obviously make decisions around environmental benefit, but, as a secondary consideration, taking into account social and cultural benefits, and I think in your submission you say there's not enough water to do that, but I suppose I just wanted to clarify, from our perspective, we're not saying those benefits - they are a secondary consideration.

MS SMILES: Yes.

COMMISSIONER DOOLAN: So work through the priorities as per the Act and, you know, the absolute statutory requirements on all those environmental water holders, but then, if there's flexibility, all things being equal, to take account of social and cultural outcomes after that, or to identify them at the very least, do you see - do we not clarify that well, our prioritisation, or do you see problems with that as an idea?

MS SMILES: Well, I mean, we all agree that there are multiple benefits from the use of environmental water, having water in your river systems, and that there are automatic and subcultural and lots of social benefits.

COMMISSIONER DOOLAN: Yes.

MS SMILES: But I wouldn't like to see the argument move away from having additional cultural water because the tick the boxes are the environmental flows are doing all of that anyway, so I've got some concerns around that and from the social perspective, but the example that we've had with a recent Northern Basin productivity flow, which, you know, we have really tested how that process works, and a lot of people were involved in it and there was really close scrutiny, but the real driver for that flow happening when it did is the poor water sharing rules in the Barwon-Darling Water Sharing Plan.

That's what caused this disastrous social situation where people couldn't even - you know, people bathing their children in their water supply ended up in hospital, and so while there was a bit of a tag put on this water released for fish and blah, blah, which would have happened, the timing of it and the decision-making around it didn't take into account that that water was sitting in those storages with possibly previous decisions around watering internally in those valleys, and, you know, it was a great - it was a great pilot program how that would all work, but, again, I would not be comfortable with those types of releases being used because there's not enough water getting into the Darling system.

COMMISSIONER DOOLAN: The value of critical habitat, something like that?

MS SMILES: That's right, that's exactly right. So, again, that's why I've said if you're going to go down that road for the use of environmental water, we need more water because there will be other possible decisions made that that water is no longer available in those catchments.

COMMISSIONER DOOLAN: Okay. Taking your point, from our perspective, we need to make that clearer in our report.

MS SMILES: Yes.

COMMISSIONER DOOLAN: All right, thank you. Thanks very much.

MS SMILES: Thank you.

COMMISSIONER DOOLAN: If I could call on Grant Tranter from Macquarie River Food and Fibre and, again, if you wouldn't mind introducing yourself for the record.

MR TRANTER: Sure. Morning, my name is Grant Tranter, Executive Officer at Macquarie River Food and Fibre. Excuse me while I get my technical issues file. Apologies.

COMMISSIONER DOOLAN: That's all right, if you need to take a glass of water.

MR TRANTER: Nothing beats paper and pen, I think, and now it's got a mind of its own.

COMMISSIONER DOOLAN: Are you all right?

MR TRANTER: We'll soon see.

COMMISSIONER DOOLAN: We have got copies of each.

MR TRANTER: Okay. Thank you for the opportunity to present today on behalf of the nearly 500 irrigated enterprises in the Macquarie Valley which we represent. I would like to start by congratulating the Commission's effort to date in encapsulating an incredibly complex journey which is the Murray-Darling Basin Plan. In particular, I would like to thank the Commission for appearing in Warren, which really demonstrated an appetite for genuine stakeholder engagement. We don't typically get government organisations out that far and I think it went a long way to garner some local support, so well done. I won't belabour the points of our original submission. I would rather focus on the Commission's draft report, and there, as we agree, there are areas we still feel require attention. I'd rather keep my address short and engage in some conversation.

First and foremost, MRFF welcomes the Commission's draft recommendation 3.1 with regard to the state of over-recovery and that a policy and timeframe should be formulated. To date, neither the New South Wales or Commonwealth Governments have accepted governance or responsibility for addressing over-recovery in the Macquarie-Castlereagh catchments. While MRFF welcome the recognition of the issue, we strongly urge the issue should be addressed as a priority within the Macquarie-Castlereagh Water Resource Plan, thus before July 2019.

Addressing over-recovery within the WRP process will ensure it is dealt with in a timely manner and subjected to the necessary accreditation processes. MRFF strongly recommends governments work closely with communities to ensure over-recovery is addressed in a socially suitable manner.

We agree with the draft recommendation 3.2 and welcome the focus on environmental outcomes rather than a simplistic recovery volume. With that said, we maintain that environmental progress is fundamentally hampered by the Water Act itself, at 22.10, which specifically excludes the Basin Plan from dealing with land use or planning management, other than water and control of pollution. We contend that a solely water

focus as a means of achieving environmental outcomes is both economically inefficient and environmentally ineffective.

We request the Commission to consider the impact of the Water Act between 2007 and 2015 and possibly amendments that permit more integrated approaches to environmental management. In our submission, we present evidence of the value of coordinated NRM.

Draft recommendation 3.3 is correct in asserting rural assistance funding to date has not been commensurate with reform impacts, with little ground made in assisting communities divesting from the irrigating industry, and specifically the grants-based structural adjustment program, we don't believe has been particularly effective in the towns of Narromine and Warren, who have been significantly impacted.

We agree that the Government should put in place transparent and accountable governance around the Northern Basin reviews, the Northern Basin Toolkit. It is in line with our long-held strategy that there's more than just water, this is about value adding to recovered water and that it's about an integrated approach to environmental outcomes, and specific environmental outcomes rather than things such as specific flow indicators.

MRFF agrees with the Commission's findings and recommendations regarding the water resource plans. Now, we have had an interesting experience with the water resource plan and the stakeholder advisory panel and it became clear quite early there was a lack of appetite or lack of opportunity for real change in terms of the water resource plan or the water sharing plan itself. MRFF formally stated that we were requesting a minimal change to the water sharing plan on a couple of issues. There's a lack of progress on local and state-wide policy issues such as floodplain harvesting, over-recovery and planning assumptions, and what they really did was cloud the water resource plan process. With those unresolved, it was very difficult to understand what moved in one area would result in another, so we essentially were hoping that those positions would be formulated before the water resource plan could be accredited, but that doesn't seem to be the case.

There was a level of scepticism of the modelling process and whether the modelling is fit for purpose for many of the stakeholder advisory panel issues. Recognising the considerable uncertainties of the model, we believe there is insufficient numerical evidence to warrant significant change.

We are also in the position that, you know, for a sustainable and profitable industry in the Valley, we require a stable policy environment and change for change sake is just not an effective use of resources.

We strongly agree with the Commission's report with regard to measuring policies and we have been an active participant in the water reform process being led by New South Wales Department of Industry and NRA. We are seeking cooperation from those organisations, which has been somewhat patchy to date. Those timelines are quite optimistic, to say the least, and for us to have any chance of meeting those deadlines, we require as much assistance as possible. I'm not talking about financial assistance, I'm talking about information provision in terms of, you know, what's the current state of our

meter fleet and how can the current records held by NRA assist us in engaging private industries such as meter manufacturers in getting the required equipment.

That's where I'll leave it and hopefully have some questions.

COMMISSIONER DOOLAN: The water resource plans, you don't believe there's sufficient evidence to change the rules at the moment? Is that what I took from your comments?

MR TRANTER: We had presented a number of issues which were - some of them were new and some of them were legacy from the previous water sharing plan.

COMMISSIONER DOOLAN: Yes.

MR TRANTER: We were provided with modelling outputs to indicate what the subsequent rule change would mean in terms of, you know, shares and things like that. Now ultimately those models present us with a number and that number is - I think it presents a level of accuracy which just isn't founded.

COMMISSIONER DOOLAN: All right.

MR TRANTER: That's essentially what we thought about the modelling, that there was a bunch of assumptions made and, whether we agreed with those or not, the accuracy of the model couldn't be substantiated to us. So, it's a bit of better the devil you know, I think, in terms of some of those rules.

COMMISSIONER DOOLAN: Okay. Just in terms of what we've heard today but also in submissions, the issues around the floodplain harvesting which you have said is an issue and the cap factors, the confusion around cap factors, from your perspective, there is a need to extend the timelines for the water resource plans in these areas to debate it through or simply to rollover the existing rules?

MR TRANTER: I think we have to be quite aggressive still because this could just bleed on for years.

COMMISSIONER DOOLAN: Sure.

MR TRANTER: I think there needs to be a very clear cut process about how we actually lock in some of these things. Some of these things, such as planning assumptions, didn't directly affect the water resource plan, but what it did was it diverted resources from areas within the department, so there was a resource scarcity, so that was more of the issue rather than a direct impact on the plan itself. Whether we had another six months, I think a lot of those issues we had wouldn't be resolved in the six-month process. I do feel that some of those larger issues, such as the floodplain harvesting number, I would like to see that number in the water resource plan and, to my knowledge, we will be submitting the water resource plan to the MDBA without the floodplain harvesting number in it.

COMMISSIONER DOOLAN: Yes, so basically that's not adequate, you want to see that number in the plan and that would give you - - -

MR TRANTER: I think that would give all stakeholders a bit more certainty. I think, you know, making amendments here and there, it just clouds the issue, so I'd like to see it as a package.

COMMISSIONER DOOLAN: All right.

COMMISSIONER MADDEN: Just a quick question. Given that there has been some investment in efficiency works and the like in this area, we have heard a lot in the south because they are obviously in the planning phase as regards further on-farm efficiency and system efficiencies. Notwithstanding - and I'll get you to have some comment about the structural adjustment and the like and if there are any lessons to be learned about what will work, but also in that kind of PIOP or PEOP, depending on which part of the State you are in, has that been working well? What's the general feedback from people who are involved in those projects and have they been successful, has production been maintained by the lessons learned in that, and then moving on to the structural adjustment, is there anything that actually has worked as well?

MR TRANTER: I think PIOP definitely has winners and losers. I think the schemes in PIOP, a vast majority of the water that was returned during the PIOP process was something they called scheme rationalisation, which was essentially just severing unprofitable or inefficient limbs from the scheme, so essentially that was just telling people from (indistinct) areas, "You're not irrigating any more" and that's buyback by another name, I think. There are some savings in terms of lining. We had the (indistinct) system with their extensive rubber lining was, I think, a good news story and I think the scheme itself works quite well in that regard, but taking water out of production certainly, I think, takes water away from communities and takes money away from communities. Whether or not there's more opportunities - and they will be here next week to discuss it - I'd be surprised if there was a lot more. The Macquarie is quite unusual in that a significant portion is managed by operative schemes and most of those have already been part of the PIOP process, so how much fruit is left to be picked from the Macquarie is yet to be seen, I think.

In regards to your structural adjustment question?

COMMISSIONER MADDEN: There's a comment about impacts and we're aware of the work that the Authority and others have done in that area. I guess just on the ground, talking about green space funding not having much of an impact, but in terms of structural adjustment going forward there could be lessons elsewhere as well. What does work in your opinion?

MR TRANTER: I think locally what's hurting at the moment is the (indistinct) cycles and it's hard for towns and businesses to adjust to a high allocation, no allocation, high allocation, no allocation, so there are groups in the Valley looking at developing

industries in the Macquarie, so things like permanent plannings or back into (indistinct), which was quite common here in the 80s and 90s, and valuating to those industries and keeping that money locally, so that's things like co-ops and seed funding for those type of things that just tend to take the bumps and swales out of the local economies, which really hampers local business, I think. It's hard to put on people when next year you might need to get rid of them. Whether or not there is opportunities to develop those industries locally and keep those industries locally-owned, I think would be a great opportunity.

COMMISSIONER MADDEN: Just a quick follow-up on the meeting you talk about next week, is that for the efficiency measures and further work in that area?

MR TRANTER: Yes. This is for the upwater.

COMMISSIONER DOOLAN: Yes. Can we ask who you're meeting with? Is it the Commonwealth management of that program?

MR TRANTER: Yes.

COMMISSIONER DOOLAN: Yes, okay.

MR TRANTER: That's an open forum next week, they're doing their caravan around the State.

COMMISSIONER DOOLAN: Okay. I actually haven't got any other questions, John, do you?

COMMISSIONER MADDEN: No, no.

COMMISSIONER DOOLAN: Do you have any other comments?

MR TRANTER: No, thank you.

COMMISSIONER DOOLAN: Thank you very much. We have finished a little early. We will break for morning tea and reconvene at 11 with the Macquarie Marshes Environmental Landholders Association.

ADJOURNED

[10.26 am]

RESUMED

[11.01 am]

COMMISSIONER DOOLAN: Okay, if people are ready, we would like to resume the public hearing and Garry Hall from Macquarie Marshes Environmental Landholders Association.

MR HALL: Thank you.

COMMISSIONER DOOLAN: Just introduce yourselves for the record, if you don't mind.

MR HALL: Are we right?

COMMISSIONER DOOLAN: Yes, go.

MR HALL: Good. I'm Garry Hall representing the Macquarie Marshes Environmental Landholders Association, referred to as MMELA. I'm a marsh landholder, have lived in the Macquarie Marshes and part of my property is Ramsar-listed. I'm the Chairman of the Macquarie Marshes Environmental Landholders Association. I'm a landholder rep on our local water advisory group set up under the water sharing plans and I'm also the local EWAG rep, Environmental Water Advisory Group, on our stakeholder advisory panel doing the water resource plan. I am unprepared for this procedure, but I do appreciate us being given the opportunity.

I have read as much as I can of the Productivity Commission's report and there are points in there that I do congratulate on and there are some points that I would like to take you to task on.

COMMISSIONER DOOLAN: Sure.

MR HALL: The first for me, and it is - - -

MR BUCKNELL: Do you want me to introduce myself before you go on?

MR HALL: Yes.

MR BUCKNELL: Dugald Bucknell, I'm also a member of the Macquarie Marshes Environmental Landholders Association. I live on the eastern marsh. Garry is on the western marsh, which is the marsh which is the major side, I'm on the eastern side, which is the Gum Cowl Terrigal System, which is a minor side, but, without each other, neither would exist, so they are complementary. I'm a marsh grazer and at the moment I'm representing MMELA, so I'll hand back to you, Garry.

MR HALL: Righto. The main thing that I'd like to bring up is after making my way through the report, on several occasions, including, as an example, was the reference to the Northern Basin Review and the Macquarie and the Gwydir over-recovery. For me, that's been actively involved in environmental water management and also live in the marshes, I've had major concerns for a long period of time about the term over-recovery of water, which is a number that's come about when the Northern Basin Review process was being worked out that the Macquarie - more water had been recovered than was necessary.

At the very beginning, when I first started to ask questions about how they decided that the Macquarie was over-recovered, I kept getting referred to this SFI, site flow indicators, which is an attempt to measure the volume of water entering the marshes, often at the lower reaches of each valley, each water course, and that was cross-referenced to a flow frequency, and in the Macquarie, with the model, the modelling has shown us that we've

hit four out of four of the site flow indicators, one of the few in the Northern Basin to achieve those four indicators, four out of four site flow indicators.

So, I dug a bit deeper and started to ask questions about what are the volumes that they're trying to achieve and, in the very beginning, I was surprised. This was with the Northern Basin Review team working with the Office of Environmental Heritage NSW, who are the environmental water managers, to say, "Work out what's required." So the first - it's divided into four - we've got 100 gig, 250, 400 and 700 ggalitres. In the first site flow indicator of 100 gig, wetland and the channel flood plain, volume over five successive months. Now that's a mistake, it should be three successive months.

Just imagine channel capacity. If you are putting a volume of water down, the longer the duration for a volume of water, it's going to be reduced (indistinct), so it's actually going to be in-channel flow if you extend that three months to five months. You don't need to take my word for it, it was the Office of Environmental Heritage that had provided me with the information that that was wrong, and during the period of the three years, I've been challenging the MDBA on that because it is actually critical that in their objectives they had added two months to the duration of flow and then the results were we weren't achieving the desired outcomes in the marshes.

If we step up to the 250,000 megalitres, 250 gig, flow floodplain level, the next biggest flood, and we have also failed on that one. The duration is correct because that much larger volume of water over the five months, it's providing over-bank flows during that period because it's a larger volume of water, but the actual - I checked back through the actual observed data at the gauge where this information is collected on the site flow indicator - and in the actual delivery, we have failed each time.

So, as a farmer with not a lot of experience in modelling - I'm in the room where a lot of people seem to think they know a lot about modelling - but, to me, if we're failing in observed data actually what's going on on the river heights when the flow is delivered, but the model tells us that it's going to reach the site flow indicator four out of four times, a light comes on. I'm concerned about that. I've challenged the MDBA about it every opportunity and I haven't been given a satisfactory response. Phillip Glyde told me that they had reviewed a site flow indicator in our local area and you must understand my frustration when I was to learn that site flow indicator that was reviewed was several hundred river kilometres downstream of this site.

So, to bring it back to your report that you have been provided evidence from the MDBA that the site flow indicators in the Northern Basin end up us accepting of the terminology over-recovery, I would ask - I know you don't have a lot of time - but I would ask that you investigate the over-recovery in Macquarie and the Gwydir based on the site flow indicators.

There's just a couple of other things I want to touch on. In the Macquarie, we have unreg licences both above the dams and below the regulated region of Macquarie. Those licences, the licence conditions have been changed by the New South Wales Government recently and it has resulted in an unreg irrigator being able to harvest an

environmental flow. As a result of the Matthews Inquiry, we have an improved system to monitor irrigation take, but it hasn't had an impact on the ground yet.

COMMISSIONER MADDEN: Do you have the name of the plan, the water sharing plan that's been changed?

MR HALL: No, these are licence conditions in the unreg, so it's licence conditions of the unreg - the licence holders in the unreg water sharing plan in the Macquarie-Castlereagh (indistinct), which was 2012.

COMMISSIONER MADDEN: And this particular instance is above the environment, not below the environment, so they actually took the water before it got to the environment?

MR HALL: Then the only other thing was - - -

COMMISSIONER MADDEN: Sorry, we think it's legal.

COMMISSIONER DOOLAN: Those changes were made in the 2012 plan?

MR HALL: No, the plan's been legislated by the New South Wales Government recently to try and (indistinct) protection of environmental flows. It's a real sad case of a restructure in government agencies that has resulted in a severe lack of knowledge on ground works and how they operate. What I was also going to say is that up until now, preventing these things from happening of a change in the licence conditions was operation managers living locally that understood about operation procedures, if environmental water is being delivered, the unreg irrigators are restricted from take. Those positions are no longer there. We've lost localism as far as our water managers go and we are now seeing the result of that change.

COMMISSIONER MADDEN: Just to get the timing on the changes, is it during the last year or so and, I guess, again for us to be able to look at that as a process, have the Authority been aware of that, including when they're making a water resource plan? I assume you are on the water resource plan group?

MR HALL: Yes.

COMMISSIONER MADDEN: Has that been raised in that meeting?

MR HALL: Yes.

COMMISSIONER MADDEN: In that context?

MR HALL: That's right. Everybody in the environmental water management space understands that the changes made by licence conditions to, you know, an attempt to protect the portion of environmental water has removed some of the other protection.

When? I'm guessing. Within the last 12 months. Those are unreg. I can provide you with an exact copy of the change, a printout of each licence conditions if you like.

COMMISSIONER MADDEN: That would be helpful.

COMMISSIONER DOOLAN: Yes, that would be good.

COMMISSIONER MADDEN: I guess the second part of that question is was it discussed in the water resource plan stakeholder advisory group - panel?

MR HALL: It was discussed at length, but, like many other things, it was outside the terms of reference.

COMMISSIONER MADDEN: How can the licence change of protection of environmental water be outside the terms of reference?

MR HALL: We're not discussing licence conditions within the water resource plan process.

COMMISSIONER DOOLAN: Okay.

COMMISSIONER MADDEN: Sorry, that was a comment from the New South Wales Government, the Department of Industry, not the Murray-Darling Basin Authority?

MR HALL: That's right, yes.

COMMISSIONER DOOLAN: At any of those meetings has the MBDA indicated how they would accredit such a change? Has there been any discussion of that because protection of environmental water is a prerequisite in the Basin Plan, so has any of that come out? I take the point that it was an attempt to protect in some areas but with some adverse outcomes.

MR HALL: I'm sure you understand that the environmental water holdings in the Macquarie that I'm familiar with is quite a complex space. We have an EWA, environmental water allocation, of which it's within the water sharing plan, and we have both Commonwealth and State licensed water. This isn't about the last two, this is about the EWA.

COMMISSIONER DOOLAN: Yes.

MR HALL: And its licence conditions on the EWA. The other two licence holders have all their own set of problems about access for unreg irrigators, but they're not what we're talking about. We're talking about the active and translucent portion of our EWA.

During our water resource plan development process, MDBA have been at the table - not always the same people - and your question was have they expressed concern?

COMMISSIONER DOOLAN: Yes.

MR HALL: The way the process works, we don't have an opportunity to make statements about whether we're concerned or not about that, we're just sitting in the room to deal with the facts that are put in front of us.

COMMISSIONER MADDEN: They didn't raise the fact that that might be something they look through through a water resource plan accreditation process?

MR HALL: I still don't think it sits within our water resource plan that's - - -

COMMISSIONER MADDEN: The Authority, sorry.

MR HALL: No, I wasn't aware that they understand the risk, and it's not until a lot of these changes are actually - environmental water being delivered down the system - that we realise the implications of these changes, so, no, personally I don't have any faith that the MDBA accreditation process will have the backbone to challenge any of those changes, but that is my personal view. As you have indicated in your document several times, communities losing confidence in the MDBA, I can resonate with that loss of confidence.

COMMISSIONER DOOLAN: But your concern is also that, even if they do, because the licence conditions aren't necessarily referred to in the water resource plan, they might not even have the wherewithal to understand the actual shift that's happening on the ground?

MR HALL: That's right. New South Wales can tidy it up.

COMMISSIONER MADDEN: Not that I'm trying to labour the point, but looking forward now from this point, I mean the plans have to go on public exhibition to get submissions that will then be public through the Authority. Again, has anything been mentioned or has there been any intimation that if that issue is raised through that process, it would be addressed then through the Authority? I'm just trying to think of the channels that you actually - - -

MR HALL: Yes, well, firstly, the community consultation period for comments on the water resource plan process is going to be six weeks, it's going to be rushed. Our community is also struggling with the implementation of the floodplain harvesting policy and the floodplain management plan, all during the same period, all prior to Christmas. Our area, other than a pretty favourable environmental release that's happening right now, is still in severe drought, so I'm not looking forward to asking the members of our association to be able to give worthwhile feedback to the Water Resource Plan on its own, let alone all the other plans we have to - - -

COMMISSIONER MADDEN: I take that the expectation should be raise the issue with some level of materiality and then those best placed to assessment et cetera, actually do their job.

MR BUCKNELL: Could I interrupt there just for a second?

COMMISSIONER MADDEN: Yes.

MR BUCKNELL: The two sides of the marshes, Garry's side has had quite a reasonable environmental flow. It seems to be, on all accounts, you know, reasonably good. The eastern side has been absolutely atrocious. There's not enough water. There's been gauging problems and there's been water take. The other things you were talking about, the Water Resources Plan and the Water Sharing Plan being put into them. At the cap meeting for the Flood Plan Harvesting meeting that occurred earlier this month, it was mentioned there and I don't think this is right but you can check it, that the New South Wales Water Sharing Plans are going to be incorporated in the Water Resource Plans. But their belief was that they're not going to be - they're going to be insulated in those Water Resource Plans, and I looked at this guy and I said, "What do you mean?" He said, "Well, they're our plans in their Water Resource Plans. We are the ones who run them or operate them, they're what we put in there. They're not going to be changed", and I don't think that's right.

And you will have a better understanding than me, but I sort of walked away because I - not enough grounds to be able to pass judgment, but it shocked me.

COMMISSIONER MADDEN: So my understanding, and it depends on which State you are, but I would say that the legal instruments are still the Water Sharing Plan, however the Water Resource Plan for the region would have a number of Water Sharing Plans that sit under it and various rules and policy instruments and the like and the Water Resource Plan goes over the top. But the fact that they don't get changed - this is all accreditation process, so if you fail accreditation you request the State - - -

COMMISSIONER DOOLAN: It means the Water Sharing Plan is insufficient.

COMMISSIONER MADDEN: - - - to then actually go and make the appropriate changes. So there's still a process you have to go through which actually says yes, that package of instruments including the key one which is the Water Sharing Plan, meets the requirements of the Water Resource Plan. So in that way they are nested in a sense, there's not suddenly two plans here.

MR BUCKNELL: I hope you are right. I can only pass on, because you bought the conversation up, this is the structure.

COMMISSIONER MADDEN: No, that's the structure. The question of how you actually assess various elements including licence conditions or rules and then actually give them accreditation, is the key issue here. Where there's contestability what's the process to contest something? From draft Water Resource Plan which references Water Sharing Plans as part of that, through to the authority actually saying yes, we believe that actually meets the requirements set down under the Water Resource Plan process.

MR BUCKNELL: The problem with that is that the knowledge - the complication - how complicated the Water Sharing Plans are and the effects on the ground and all the machinations of it, can only just be understood and is constantly under change by Water New South Wales. So how's the MDBA actually has the ability to recognise a problem without actually going to Water New South Wales to clarify it, Water New South Wales ought have the ability to clarify any problem in any manner of ways.

COMMISSIONER MADDEN: Which I think is why we're saying it's important to raise these issues through a process and secondly, we've got reservations in some cases where they were major changes but you're telling us that even minor changes can have major impacts. Now, I think we've heard earlier that rushing these things through has potential for significant local impacts to the detriment of the environment, potentially other uses, so we need to allow in our recommendation, talk about materiality where you actually put a plan, a Water Resource Plan back in terms of accreditation. I think we're hearing now there's a lot of smaller issues which need airing and proper analysis and resolution which sounds impossible for June 2019.

COMMISSIONER DOOLAN: So just to take - it's a combination which we understand is to meet its requirements, New South Wales are making a range of different changes, Statewide changes to floodplain harvesting rules which changes the protection of (indistinct) water rules within Water Sharing Plans and it's the combination of those in a local area that people need to understand. Is really what we're saying, isn't it?

MR HALL: On ground stuff.

COMMISSIONER DOOLAN: On ground stuff.

MR HALL: We're being - there's less and less knowledge so the offending agency is DOI Water who are going through the planning process at the start four years ago when we were first going through the review of our (indistinct) and Regulated Water Sharing Plan of which had been operating for almost ten years and had not been reviewed. There's few people left in the room who were there at the start other than stakeholders. Some of them have changed but it's the water planners whose agency had undergone massive restructure that is likely to have impact on the end result and achieving improved environmental outcomes and water protection.

MR BUCKNELL: One of the things you missed then with changes, is the change to the cap. Not cap factors, but the cap. They are changing the cap as we found out last week at the floodplain harvesting meeting by - because they admitted they have no idea of what floodplain harvesting water was taken. Earlier in the year they did admit that they had grossly under-estimated it at another meeting here. Now, they're going through a process of what they call an IBQ, Irrigator Behaviour Questionnaire. Now, this Irrigator Behaviour Questionnaire is going to be kept totally absolutely confidential and they are going to have no ramifications if they have done something wrong, different, suspect or anything in the past. That does not count. This is kept completely confidential.

Out of that Irrigator Behaviour Questionnaire, they're going to attempt to build a model to try and describe the floodplain harvesting in the Macquarie. The questionnaire is based on year 99-2000. Now, 99-2000, in 2000 there was a flood in the Macquarie, a big flood. It was actually just before the Floodplain Management Plan is going to be developed for Narramine to Oxley Station which I was a part of. So it was quite fortunate.

So at that time lots of levee banks in the Macquarie had to be blown because the water was dangerously high. Now, at every farmed paddock, dry land or irrigated, that year received flood water on it. So it is quite possible in this Irrigator Behaviour Questionnaire and probably correct for those irrigators to say "These paddocks received flood water this year thus my floodplain harvested".

Any enclosed areas that captured water that year because the flood was so big or banks had been blown and enough water entered, could actually be counted as storages. So the Irrigator Behaviour Questionnaire can be extremely misleading. Once they've done the model for it, then they are going to come out with a new redefined cap. We'd all been operating under the theory that the cap had two definitions. One amounting to 391,900 megs and the other one 433,000 megs and the cap in the Macquarie was to be the lower of either which thus was 391,900. That figure, we were told at this floodplain harvesting meeting no longer exists. The definition is not changing but it is being redefined. I don't quite know how you can say that but that's what they said.

So once you have a changed cap, you really have a changed, completely changed system in the Macquarie. And when you have the efficiency programs that are being pushed by the government and funded by the government and water being returned through those efficiency programs to the environment, we now have many more storages on the Macquarie to capture that floodplain harvesting.

We also have just learnt about this meetings going around, designed to again try and have efficiency programs so that when the floodplain harvesting licences are actually given, how there can be efficiency programs created in there to give water back to their environment, but more storages will be delivered. The re-licensing of works, now NRAMA, and I've got it here, has a form out for their customers to change the licences of already licensed works. Application for modification of works. So the potential changes in the Macquarie Valley are almost unlimited. Now, NRAMA I thought was the regulatory body but for them to be putting out an application form for modification of works seems rather curious, and it is for their customers and for floodplain harvesting.

COMMISSIONER MADDEN: So we'll look at the integrity of this system because it's around the whole - I mean, these are bringing what was unlicensed into the licensed system. There then has to be processes around, well, if you want to be (indistinct words) actually got to put that on the record et cetera otherwise you can't have a compliant system. So I think we've just got to be careful of processes going through and the integrity again, and the process around that of how it is assessed in the Water Resource Plan as policy.

COMMISSIONER DOOLAN: And the totality of shifts and changes that happen together.

COMMISSIONER MADDEN: Yes. And it is something that as it is for a long time in terms of the practise, so it has had an impact on the water resources and under the Water Sharing Plans has always been there as an estimate in terms of how much water goes. It's not something new. The question is how to bring it under a proper monitoring and compliance regime.

COMMISSIONER DOOLAN: With accurate estimates.

COMMISSIONER MADDEN: So again, I think it gives that on a macro scale as opposed to the micro scale on licence conditions, the level of uncertainty in how that actually is bought under a compliance regime where you're talking about volumes, is really something that (indistinct), even though we've had many years of this policy being developed, when it's coming down to the end, there seems to be a lot of loose ends being tied very quickly.

MR BUCKNELL: So I get the risk. I think we've got to be aware though that it is trying to move to a better (indistinct), and I think that's worthy to just making sure that it doesn't cause anything that has unnecessary impact on just the environment holder, (indistinct) security holders and other licence holders as well (indistinct).

MR BUCKNELL: And so could I ask, in the environmental sustainable level of take, if under the present situation that is valid, the under this new cap, if more water is taken then that environment sustainable level of take is not found to be environmentally sustainable, how do you propose quickly before the environment suffers damage for it to be fixed?

COMMISSIONER MADDEN: So you'd have to ask the authority and it's a question we will ask, what's the relationship between the baseline of diversion limit, so the baselines and what this actually means in (indistinct). So whether both are shifting because we're actually talking about those SDLs is shifting at the margins to meet the flows. So if you under-estimated, you know, by 50 gigs that take, it actually has been taken in the past, well, if you move this, that moves the other as well. So we will get to the bottom of it about whether there's actually any change in approach (indistinct) in the last (indistinct) and I think the important thing is here, is unification around that and the policy itself as well.

Which comes back to the point of rushed, lack of analysis, and consultation that is not actually wide-spread is again, for us, another example of appalling run process. That being said, that then doesn't come to the conclusion that it's fundamentally lacking integrity somehow, that's another question to ask. However, time is required, I think, and due process to ensure that integrity can be achieved.

MR BUCKNELL: Because what we and our members see is that the environment is spiralling downwards. Every now and then mother nature supplies with a sight flow

indicator of a three or a four which the environmental water can't do, and mother nature steps up. And then we start spiralling from that point downwards. So we are still on a downward trajectory. We haven't hit the bottom yet. And so that is our major, major concern. One would think that an ESLT would mean that we've hit the bottom, when in actual fact we haven't on the ground.

COMMISSIONER MADDEN: We might come back to that. Anything else Garry, as we go through? Then we will come back to (indistinct).

MR HALL: At a few stages during your report, you talk about coordinated, connected environmental watering activity. Environmental water management in Macquarie has been going on for - over the last 20 years and the Macquarie now has a volume of water contribution to the Barwon-Darling. It is an extremely complicated space. I don't think the MDBA has handled it very well at all. In theory, the idea of having (indistinct) in the Northern Basin and hooking systems like the Macquarie in with it to achieve and improve flows in the Barwon-Darling it works in theory, but in practice it is very difficult and often jeopardising local environmental assets and in your report, it appeared to me, my interpretation of it was, that you are after more structure about the decision-making process. I'd say successive environmental water deliveries requires less structure and more adaptive management. Because the Macquarie has been involved in environmental water management for a considerable period, I would urge caution on your reporting on this subject.

COMMISSIONER DOOLAN: We certainly take your points, new discipline and there's a need for adaptive management, but we also do believe that there needs to be a bit more clarity about what they're aiming for in connectivity because it's not clear if the pilot worked, I suppose, but in terms of then what's the balance between local assets and a connected flow isn't clear and needs to be clear to the downstream users, and that includes the downstream environment.

MR HALL: Yes.

COMMISSIONER MADDEN: So the aim of our recommendation is not just to make that happen and - - -

COMMISSIONER DOOLAN: No, it's to make it clear - - -

COMMISSIONER MADDEN: So we've got to make that clear, its actually to enable discussion from various stakeholders about what the goal is and that there are local considerations, not just an end to itself. So I think hopefully we can make it a more structured process that actually is adaptive, if you know what I mean. So we take your point.

COMMISSIONER DOOLAN: Yes.

MR HALL: I do note the Northern Connected Basin and Environmental Watering Committee and that would be the type of committee that would be answering the challenge of what we're trying to do.

COMMISSIONER MADDEN: Yes. Including to have those discussions about trade-offs.

MR HALL: Righto. One last thing on the - - -

COMMISSIONER DOOLAN: Yes, we will have to move on.

MR HALL: Yes. Reporting, monitoring and evaluation which is an extremely contentious issue with the environment water, and our association and members happen to live in a place where a lot of that data collection takes place, and from the very beginning of the Basin Plan, our association has been consistent that we need the same - similar agencies, similar staff collecting that data. As agencies changed and now we've got the Commonwealth Environment Water Holder, we've got the MDBA, we're watching as every agency wants to come and collect the data themselves. I would like to see in your report, that consistent data collection. I don't know how you write it, but it's frustrating to us that every time people are after a new story, they send out funding application, a different university will win the contract and there's new people on the ground. They are very often entering our private land. It's frustrating to us telling them the whole story over and over again, let alone, the strength, the rigidity of the data set that has these rakes in it from different government agencies, playing with it and using it in different ways.

COMMISSIONER DOOLAN: All right. Thank you very much. Our next speaker is Mary Ewing from the Lachlan Valley Water. Mary, if you would introduce yourself for the record.

MS EWING: Thank you. Mary Ewing, I'm the executive officer with Lachlan Valley Water which is the valley based industry group representing ground water and surface water irrigators in the Lachlan catchment. So our members extend from up around the Crookwell area to down below Booligal, and I am also a representative on the Lachlan surface water stakeholder advisory panel, the groundwater (indistinct) and the environmental water advisory group. So thank you for the opportunity to speak today.

We've, I guess, got five main points. We agree with the recommendation you've made about dealing with over recovery, that there needs to be a clear policy and process for that. We think it is a high priority because the over recovery generally has been in existence since 2010, and it was largely achieved through open tender buy back. So exacerbating, I guess, the social and economic impacts of it. We think there are a range of water trading options that are available to address it, and we agree with your proposal that there should be engagement with the valleys that are involved. The wider Lachlan and Macquarie have actually put together a couple of proposals over the years and have presented it to the Commonwealth Environmental Water Office and we would be keen to continue in that kind of work.

Secondly, we agree with the strategy or the program you've outlined in terms of - that there should be a strategy for recovering of 450 gigalitres of up water. We agree that it should be the criteria, it should be both science based and objective and be very clear in addressing those Schedule 5 outcomes and you know, be weighted towards achieving those outcomes.

We do have some concerns now that the Department of Agriculture Water Resources is out consulting with communities on recovery through on farm programs at what we feel is a relatively early stage and we certainly don't believe that voluntary participation in that program via an irrigator is a sufficient test of neutral or positive socio-economic impact. We suggest that it actually needs to have a regional approach. We also agree with your recommendations about the Northern Basin toolkit measures, the requirement for governance arrangements. We acknowledge that there are risks with non-implementation and while the toolkit measures don't specifically affect the Lachlan, we think there's certainly benefit in expanding those measures across the Basin where appropriate. Environmental outcomes are not just flow based and in fact, we think there's a link back to dealing with over recovery and using proceeds from traded water to implement toolkit measures.

With regard to the Water Resource Plans, we agree with you that there is a risk with the time frame there. In New South Wales the fact that there's only two plans out on public exhibition now, the Lachlan Ground Water Plan came out about a month ago and wider surface water came out last week, so two specific issues there. I guess one is the one you raised about some issues that have not been addressed, and clearly it has been difficult with the restructuring of the department.

I think there is some benefit in allowing additional time to address some of those issues, if they can be addressed in a reasonable period of time. However, one of the other issues, I think, is that when the plans come out, it will actually be a difficult to consult with communities. The six week period for consultation will presumably be over December, January when people have other priorities. It's, I think, going to be difficult for people to have the time to attend some of those meetings and for organisations like us to get representative feedback and be able to provide submissions.

Finally, on the long term watering plan, we concur, I think, with one of your comments that some of them are fairly aspirational. We think there are some risks in trying to, through long term watering plans, replicate environmental conditions that are not representative of long term variability in the environment, and that, for example, in the Lachlan, I think, there may be a risk that continual lower volumes of watering may effectively end up irrigating, river (indistinct) saplings in water courses or open water bodies and actually change some of those environmental conditions. We suggest that part of the problem is the lack of locally based staff and local engagement there.

Finally, we agree with your comments about compliance and we endorse it. The regulations must be workable and must be cost effective to be adequately implemented. Thank you.

COMMISSIONER DOOLAN: So I suppose I'd just like to pick up a bit of a theme that we've got in this region which is the Water Resource Plans and the need for extension of time. From your perspective then, what would be a sufficient time, but also the key elements that need to happen within that. So really nailing what's lacking in the Water Resource Plans now. People are concerned about that. That needs to be in a final plan that people will be confident about. Might not agree, but be confident about.

MS EWING: Yes.

COMMISSIONER MADDEN: So just on that. I was going to ask a similar question but (indistinct) through the Lachlan Ground Water package that came out. There is probably more detail in there than I thought and expected when I went and had a look through. The feedback, the (indistinct) have seen there the detail and so on, (indistinct) adequate.

MS EWING: They actually held the first consultation meeting on Tuesday night and probably the two main things that came back from people were, they were concerned about managing local impacts and you know, how you have confidence that the assessment criteria that are used will prevent - - -

COMMISSIONER MADDEN: Within zones you mean?

MS EWING: Yes, sorry, within zones John, yes. And the other one was about the mechanisms that you use to manage - if usage exceeds the long term annual average attraction limit, what methods you use to manage that because two methods are talked about; one is simply an allocation across the board, and one is reducing access to carried over water which clearly has different impacts on different types of users.

So at this stage that's the feedback we've had from ground water. There's two more consultations to take place so I'll have a better handle on it after that. In terms - - -

COMMISSIONER MADDEN: There was enough doing for people to actually engage on the major issues?

MS EWING: I think so. I mean, part of the issue is, I guess, that there's - - -

COMMISSIONER MADDEN: I know it is early days.

MS EWING: No, no, but the plan - the Water Resource Plan is 80 pages. The Water Sharing Plan is 60 pages. There's 300 pages of supporting documents. It's quite a lot to get across and you're probably going to count the number of people on one hand who are going to read all those documents. So people - it is probably hard for people to get up to speed quickly with everything that's - all the potential impacts, I guess, John.

COMMISSIONER MADDEN: Yes.

MS EWING: In terms of surface water, in the Lachlan for example, we've had an issue with persistent under usage. Long term average usage is about eight per cent below the plan limit. We did put forward proposals for how that could be addressed. Obviously those proposals will be contentious. Anyway, they haven't been adopted yet. In fact, the Department has said there's too much risk. They need more time to address it. I think possibly a three month extension is not going to be enough time to address that. But in terms of surface water, I think maybe - it is a hard trade off because with all the restructuring that has happened in the Department, time lines have just moved out and out and out and you don't want to just extend timeframes and just have the time lines move out further without the work actually staying on a schedule.

So possibly six months something like that. I think there's probably not going to be time to address all the issues, but it may allow some more of the issues to be addressed.

COMMISSIONER MADDEN: In terms of that under use issue that was mentioned up in the Water Rivers I think in our consultation as well.

MS EWING: Yes.

COMMISSIONER MADDEN: Is there kind of general policy? I mean, are they talking about the risk (indistinct) about central changes, but is there kind of a buffer that if it goes above five per cent they actually have a look at what the rules will mean for the usage? Do you know of any?

MS EWING: I'm not aware of the general policy. The Department's response was basically it's due to irrigator behaviour. You are not using enough - "It's down to you guys. You're not using the water. Therefore if you change your behaviour, the usage will go up". I think in the Lachlan there's - I mean, clearly the Lachlan was very affected by the Millennium Drought. We had seven years of zero general security allocation so I think that damaged everyone's confidence, and they're quite right that behaviour is one of the key factors, but I think it's also probably the interaction with some of the rules. The fact that under the Water Sharing Plan, the 2004 plan, extractive use was limited to 25 per cent of the long term average annual flow, 75 per cent was already reserved for the environment.

The purchases then took the proportion for the environment up to 80 per cent. So there's not very much, sort of, room to move there for productive users, I guess.

COMMISSIONER MADDEN: I guess - I am just going to come back to the public hearings and talk about the 450 and voluntary participation. I am sorry, I can't remember my schedule, but are they coming to Forbes or were they - - -

MS EWING: Yes, they are coming to Forbes on 1 November.

COMMISSIONER MADDEN: I am not sure of the technicality of it but obviously there's not a lot of connectivity.

MS EWING: Correct. Yes, John.

COMMISSIONER MADDEN: Is it one in a hundred years? What's the connectivity between - - -

MS EWING: In a large drought - in a large flood, sorry, so maybe once every 30 years, something like that, but the MDBA recognises the Lachlan as a disconnected catchment. There's certainly no certainty that water recovered is going to - well, end up - clearly it's not going to end up in the Murray, let alone at the Coorong.

COMMISSIONER MADDEN: So you think the meeting will start with a discussion of the 450 and Schedule 5 outcomes?

MS EWING: I honestly don't - - -

COMMISSIONER MADDEN: Has the Department mentioned anything? Have you had direct discussion at any stage either with New South Wales or with the Department about the 450 and the Lachlan being even in the scope?

MS EWING: We're right at the start the Lachlan, three years ago, I think, in 2015, they approached the Lachlan as a pilot. We looked at it and we decided not to participate for two reasons. One was the administrative complexity and the other was, it was becoming increasingly obvious that we had an under use problem and we thought that recovering additional water for the environment would only exacerbate that under use problem.

COMMISSIONER MADDEN: So no strategic discussions since in terms of the 450 cup water, resourcing that.

MS EWING: No.

COMMISSIONER MADDEN: So they are consulting on the criteria and the like but - - -

MS EWING: That's what I understand.

COMMISSIONER MADDEN: - - - but they haven't discussed that kind of regional approach or basis of the program itself?

MS EWING: Not yet and to be honest, I haven't read the discussion paper that is out yet either.

COMMISSIONER DOOLAN: And your irrigators basically would want to - would potentially want to be part of that or not?

MS EWING: I'm sure some individual irrigators would want to be part of it because if they're going to pay 1.75 times the market value of water, it's a way to fund the project so yes. Our concern is really about the regional - - -

COMMISSIONER DOOLAN: The regional which is the concern elsewhere. Okay. I haven't got any more questions.

COMMISSIONER MADDEN: No. I mean it's more thoughts and it's probably back to this - the over recovery and noted from the fall over recovery is different things in different valleys. I note that we have to be clear that we're talking about a policy for over-recovery, not on a certain date that it has to be resolved, so if there's uncertainties around cap factors and the like, and even things like the 450 in various places, we're talking about when things are resolved probably 2024.

COMMISSIONER DOOLAN: Yes, or even 2026.

COMMISSIONER MADDEN: You know, when things are clear. Then actually addressing it.

COMMISSIONER DOOLAN: But being clear about the policy early.

COMMISSIONER MADDEN: Yes. So for us - the Commission was actually about well, the integrity of the program saying "this is what we need" and in a sense sticking to that as you start talking about how much (indistinct) and all that kind of thing, so probably could have talked about that earlier but point taken and it's a point taken made in other areas. We're not talking about just divest in 2019, so we do have to have certainty around that, what the over recovery is. But I'm just again thinking if there's over recovery in the 450, I'm just wondering how you actually deal with that and what does it mean for the Lachlan? Do they have a program and is it (indistinct) separately or - anyway. It's a question we can add to the Department - - -

COMMISSIONER DOOLAN: It is also whether there are any potential views from your organisation.

MS EWING: Yes.

COMMISSIONER MADDEN: Leading into that a little bit about the water trading options. So the options there, are you talking about kind of leasing in the meantime and things like that, while this is resolved one way or the other in terms of the water trading options or are you talking about once there is a point where a decision is made selling back into the market?

MS EWING: Temporary trade can be - yes, is an option now, I think.

COMMISSIONER MADDEN: Yes.

MS EWING: We understand that people don't want to necessarily make permanent decisions until everything's settled. But we think that - I guess, dipping your toe in the water and getting used to it, is a way to start addressing some of the issues.

COMMISSIONER MADDEN: So again, as part of that policy.

MS EWING: Yes, and with a year like this when water is valuable, temporary water is valuable there's an opportunity to put a reasonable amount of money away. Thank you.

COMMISSIONER MADDEN: Thank you.

COMMISSIONER DOOLAN: Thank you. Our next speaker is Michael Job. Would you again, for the record just introduce yourself.

MR JOB: Hello, yes, I am Michael Job, from Warren. Yes, I am here, I am a landholder. I'm actually a landholder along one of the tributaries of the Macquarie River, the Brummagen Creek and I'd just like to pass on some observations and some things I would like you to put towards the Plan.

As I said, I've got a bit of a vested interest. I'm a landholder in the Brummagen Creek. I have observations of missed or maybe undervalued, passed over, forgotten or maybe sacrificed parts of the Macquarie Valley. I'd like to use my personal experiences as an example of what goes on in environmental sharing of water. Questionable water sharing plans of creeks and tributaries. They are stressed and dying because of management driven by government, international requirements and of what looks good in the news and in newspapers.

The marshes are a very important part but they are not the whole story. I believe the reduction of local knowledge and management, local management by land and water is being replaced by regional management and centralisation of people who have too much on their plate already. I believe you need to make a bigger emphasis on local on the ground management otherwise it all falls down, and then this results in water not hitting its intended mark.

As an example, I could give you a bit of a personal experience. I think there is inequitable access to Macquarie River flows down the creeks and tributaries, especially with the land and water installation of gates to prevent water flowing down creeks. In a lot of cases, the river needs, especially in my case, the river needs to be flowing, it's, for example, like a 7.6 metre height to run the creek and it is the same with a lot of other creeks, and this normally occurs once or maybe twice a year if you are lucky for a few days or a week and there are no local water officers anymore who know and understand the required quick action time to open these gates to capture these runs down the creeks before the river drops below these run levels. The gates used to be left open and only closed when deemed plenty of water had run down the creek and no more water was wanting to be - and more water would then need to be sent down the river.

I fail to see why the fauna and flora down any of these creeks and tributaries and I'm mainly meaning like the unregulated creeks are any less important and are denied legitimate flows, when the Department of Land and Water are still more than happy to send bills for water access but then block the water from flowing down these said creeks. This is rather frustrating when the river flows 24/7, 365 days of the year and these creeks are denied very infrequent flow opportunities.

A lot of these tributaries are used to move water from the Macquarie Valley to the lower Murray-Darling valley, (indistinct) are used to shut water down to the Bogan River for Lower Bogan and then that water's then often sent down to places like Goulburn and then back down to Bogan. And so basically I'd just like to close by just saying that yes, I think it comes down to we just need more on the ground people and they need to be local with local knowledge. And that's me done.

COMMISSIONER MADDEN: I think this was raised at Warren when we were out there talking. I guess the question for me is what's the change of management? We talk about the gates. If we go back ten years and then we put the operation out and I don't mean the pointy bit, you know, over a couple of years and the point now. With the closing of the gates, was there any discussion with landholders about the operation of the gates and the expectations allowing water into those creeks and the timing of it? I mean, was it something that used to be discussed at that local level a couple of times a year or actually having a target in terms of having (indistinct) pool available at certain points (indistinct) or whatever it might be? I'm just wondering what the kind of change in operation is and whether there was a discussion about that at all.

MR JOB: Yes, there were plans and they used to like want to flush the creeks a year, they'd give them a really good flush, but now they'd rather just either pump water down channels or just let - in my specific case we haven't (indistinct) channel, and it flows like at 30 megs a day. But 30 megs a day just channels out the creek, whereas we'd much prefer the water to come gushing out of the river out at full flow and we used to get - we used to have good local management but as the boys were saying just a while ago, we used to have good local management but that's all gone now, and it's all been centralised in Dubbo. And those people are already over-taxed doing what they're doing. When we come down and talk to them, they don't know who we are. They don't understand that these gates need to be opened like yesterday. You've really got to - you've nearly got to see hitting the ground so then you've got to know that gate needs to be open tomorrow. Well, maybe we should be opening it now, because that river's going up and down. Before they have time to consult and talk to other people. These things have got to happen like yesterday.

It is the quick reaction time and these local water officers we used to have, when these rivers are high they'd know which creeks to run first because the river levels are at different heights so they'd know that this creek, we need the river at high level so we should run this one first, and then they have an order how they run them. So it's shared more equally or effectively is probably the (indistinct) there.

My main crux is that we can now make up all the plans we like, but unless we've got the right people on the ground making the decisions and carrying out these plans, it is all going to fall down and that's going to come from local knowledge.

COMMISSIONER MADDEN: This is something that we have raised (indistinct) projects down the Yanco for example, this is further south. The same kind of discussion about how you make decisions for the system versus local kind of areas. We've got a

creek in a similar kind of proposal with a weir in there and change the flows down that system. I guess for me it is a general point that we can make regarding how you actually make these local environmental issues come to the fore.

So the local management, there's also discussion - have you actually had a forum? Have you been to the local and environmental water committee meetings? Did you raise it there? I'm just - - -

MR JOB: I've been - - -

COMMISSIONER MADDEN: What you've done to raise it, I'm not saying you should have done this or that.

MR JOB: Yes.

COMMISSIONER MADDEN: But I'm just wondering what avenues you've tried and had no success.

MR JOB: Yes. I've been to the meetings. I've been - spoke to the local - spoken to water resources and they will pass you off and they say you've got to go to another level. You're at the wrong meeting. You need to go to this meeting. You need to go to that meeting. And you go and then they don't get back to you. You don't hear back. So - and that's pretty much because we don't have the local representation anymore.

COMMISSIONER DOOLAN: When did it go?

MR JOB: Well, unfortunately what happened was they retired. We had two very good water officers and they both hit retirement age and retired and were not replaced. So then it was all - it's all operated out of Dubbo now. And so now we used to have two guys who used to, rather effectively, operate the Warren area, for example, and now they're gone so now we've got Dubbo looking after the lower, the middle, the upper and all the other tributaries and probably the other valleys as well. And that's fine, you can contact them as long as the rain falls on a Sunday night and water's flowing on the Monday, but if it doesn't, if the rain falls on a Thursday or a Friday, by the time you ring them and you talk to them or you try to get through to them, you know, the water's gone, it's passed you by, especially on the - in respect to the tributaries. It's the unregulated tributaries, they're the ones that are getting choked.

COMMISSIONER DOOLAN: All right. We will take the issue.

COMMISSIONER MADDEN: Yes, it is a general issue and honestly we could have chased this to the nth degree because it's not our role.

MR JOB: But it is part of the Macquarie Darling.

COMMISSIONER MADDEN: However, there is points to be made and we will discuss it with New South Wales. In terms of Water Resource Plans, how do these local

decisions actually get made and what's the forum for them. So we'll actually say well, where's the forum, was not shop around, so don't shop around, it should be explicit on a range of these rules and a similar thing (indistinct) where they actually get aired and what are the impacts on the local environment.

MR JOB: Thank you.

COMMISSIONER MADDEN: Thank you.

COMMISSIONER DOOLAN: Thank you.

MR JOB: No, I just agree with what the other people said. I was just speaking on a few things that weren't mentioned.

COMMISSIONER DOOLAN: Our last formal speaker Ms Margaret McDonald.

MS McDONALD: Thank you for this opportunity. I am speaking on a personal level and usually you'll find my submissions are on a personal level. I am an emotional person and I've complained mostly on environmental and social justice issues, and I'm a retired mathematics teacher and have the character of believing in the experts. If they are experienced in their field, and they have the data and research, then I'm somebody that takes on board that information.

So I don't necessarily have my head all around the way that the Murray-Darling Basin Plan works, but I have believed in the experts when they've told me that the May 2018 northern amendments was passed that the pipeline to the Menindee Lakes and the extra water from the north arch of New South Wales, that that would mean the death of the Darling River and the death of the Menindee Lakes.

So now I would like to acknowledge also the Wiradjuri first nations people who were the custodians of the land which we stand upon and also the custodians of the central west land of New South Wales and the north-west land of New South Wales where my forebears came from Britain and settled and prospered by farming that land. And it is today that I would like, because we have had people speak for farming and irrigation and the environment, I would like to speak on behalf of the Aboriginal people.

All right. The Aboriginal people were here for 60,000 years and we know now things that we didn't know when we first arrived and people reported that the land looked beautiful and grassy and like parklands in England, and wonderful to farm. That that land was nurtured by the Aboriginal people with their burning regime, that they used their culture of their dreamtime which was their religion and to nurture the resources so that they could be sustained, self-sustained in this country.

So the dreamtime meant that there was spirits in all of the natural resources. In the trees and in the rivers, in the oceans, in the flora and fauna and it was their duty to look after those things, and they held such a strong belief that that was their duty, that in Tasmania where they were being captured and either put on islands or killed, and they knew they

were being hunted down because there was a bounty on their heads, they still burnt where they knew they needed to burn to maintain the grasslands or the templates that they were then managing for the 60,000 years, they still did that, even knowing that they would give themselves away and thus their lives. So they had a strong bond to the land and they believed that the spirits needed to be appeased.

Now, with the rivers and the swamps and the billabongs, all of these things were maintained. They did not just leave them as they were. They looked after them so that the fish and the fauna would reproduce the resources that they needed. So we have fish traps like at Brewarrina which are now dry. I spoke to somebody in May this year in Dubbo from Brewarrina, an Aboriginal youth, who said that you could walk across the river at Brewarrina. This is the Darling River. The fish traps were built and maintained so that they could not destroy the water and not destroy the river, but actually reproduce them and propagate them and make them more abundant.

So what we have done in the last 200 years, and I am including myself as a white settler, is that we've cleared the land. We've gotten rid of the Aboriginal people. We shamelessly massacred them and kept that secret because we wanted the land to put our sheep on. We cleared and we're still continuing to clear today. Michael Baird relaxed the laws only two years ago of clearing and that resulted in an 800 per cent increase in clearing in one year because we, in our wisdom, allowed you know, people that owned land to self-assess whether it was necessary or not.

We know that clearing the land destroys the soil. We know that having grasslands and trees stores the carbon. We know that it makes good soil. We know that the water doesn't run off and erode the land, and yet we're still doing things like that today. So here I am, I'm a second or third generation descendant of farmers and I am a person who is responsible for the disenfranchisement of Aboriginal people and for their displacement, and now I'm looking at what we're doing to our rivers.

We have Aboriginal communities at Wilcannia, at Bourke and at Brewarrina, and what are we doing about it? Do we feel any shame for what we have done to them, how we've taken their land from them and how we're placing them in juvenile detention centres here in Dubbo where I know that children as young as 11 are being housed in over-crowded conditions because there's nowhere else for them to go, and because they lack such opportunity and their families are so dysfunctional, where I know that up to 50 per cent of those children have alcohol foetal syndrome conditions and even if they wanted to go on a drug rehabilitation program, they aren't bright enough or literate enough to actually sign the papers because they don't understand the conditions of their rehabilitation.

Explorers in the mid-1900s came looking for inland sea because all the rivers flowed out west. If they were today - they found the Darling River. If they came looking today, what would they find? Large holding dams that hold more than the Sydney Harbour. The Aboriginal people on the Darling River, they call themselves the Darling River People, they call it their life blood, and water for Aboriginal people has always been their life blood, but - and without it, they say they all die and that means their spirits will die because they know they need water for everything else that their culture is dear to them.

So I want to ask what our legacy as settlers in this county is. We have said sorry and made a big deal of it at Parliament House to the Stolen Generation. It was just a little tick box thing to make them feel sorry at the time.

An extra 70 gigalitres of water allowed to go out of the rivers in May 2018 will not give those communities the water that they need or the fish that they need or the river gums or any of the grasslands that they value. The Food and Fibre executive, Grant, has said that we need more natural resource management to recover some of the water, but I have been told that for the last 20 years this process has been in place and large amounts of money have been spent on it, and still we suffer over-extraction and over-allocation which has not resulted in more water into the rivers and the tributaries are still not flowing into the Darling River.

So in conclusion, in my emotional way, as a settler to Australia I would like to address the issue of our treatment to our Aboriginal people. We've only been here 200 years and we should be ashamed of the situation we've placed them in, and I feel a debt to them because they did maintain this beautiful land that my family have farmed. I have to say my father, because he had four daughters, sold that farm in Baradine to a large company and then they over-stocked it and the place is just a barren wasteland at the moment.

I would like the Darling River people to be treated with respect and to be allowed, at the very least, to have their healthy flowing river.

COMMISSIONER DOOLAN: Thank you very much. We certainly note the comments. Many of the issues that you have raised are much broader than our inquiry can deal with. But the areas that our inquiry can deal with are the areas of restoring health to The Darling to some extent, and also the participation of indigenous people in water management and water sharing specifically. We have been discussing with both the Northern Basin and indigenous nations and The Darling indigenous nations along the river as well. Their concerns and their thoughts on how this process is rolling out for them, and the level of consultation that's occurred and will occur in the months to follow.

So we are talking directly to them, but putting that aside and noting the more limited scope of our inquiry, is there anything that you would like to see from our inquiry specifically?

MS McDONALD: If there was a way to make the whole of the country aware of how important this river is, The Darling River and how the rivers are being affected because I think there's a lot of ignorance out there and I think the city people - it's not part of their lives, and unfortunately they vote in these governments and that's probably, if that's possible, that's what I would like. More publicity about the straits that the rivers are in.

COMMISSIONER DOOLAN: Thank you. Thank you very much. Well, that is our last scheduled speaker. At this point though, we do have an opportunity for anybody in the audience who would like to put comments on the record or make additional comments to actually come up and take that opportunity. So are there any people who would like to do that? Okay. We have one.

MR COLE: Yes, thanks for the opportunity.

COMMISSIONER DOOLAN: Can you state your name and affiliation.

MR COLE: My name's Ian Cole. I work for Barwon-Darling Water which is an organisation that represents water users on the Barwon-Darling River. I have been a farmer. These days I'm retired from farming. I'm a councillor on the Bourke Shire. I've lived in Bourke all my life. Did all my schooling there. Know the Darling River well and I certainly agree with what you said before. We do need to pay our respects to the Barka People of the Barkindji Nation who lived and originally came from along The Darling River, and also the Wiradjuri people locally.

But I guess there a lot of issues that came up today that are either relevant or not relevant to what you are looking at, but just looking at some of the ones that are relevant here and to your report, with the Water Resource Plans, yes, probably more time is needed on those. There are a lot in New South Wales and there are only two on exhibition at the moment that I'm aware of or three. Is there a ground water one as well?

COMMISSIONER DOOLAN: There's no ground water one.

MR COLE: There's two. Okay. And there's quite a lot of work to be done and the Department has had in New South Wales had quite a lot of restructuring to do in the last year or two. But a lot of work has been done already. We're not starting from scratch with these Water Resource Plans and Water Sharing Plans. A lot of work has been done already. I hear people often complain about the modelling not being sufficient. I'm a SAP member for the Barwon-Darling and I've seen extensive modelling over many years, firstly, on the Barwon-Darling River Management Committee back in, starting in the late 90s and through the early 2000s. Work done on our Cap Management Program. Work done on the Barwon-Darling Water Sharing Plan which involved extensive modelling and what we're doing really, is building on that modelling now and improving that modelling.

So what I see in the Barwon-Darling is yes, we probably are behind schedule and more time may be necessary, but I don't know that six months would make all that much difference. Maybe a year might make a little bit of difference. I guess what do we want to achieve here? And you know, from Barwon-Darling Waters' point of view and certainly from people who live along The Darling's point of view, we want to see a plan completed. We want to see a Murray-Darling Basin Plan delivered that does protect the interests of people with water licences. Does protect the environment and does protect the rights of other water users in the system, and so we'd like to see that earlier than later.

On the Bardon-Darling, we're a bit like the Lachlan and this might be strange for some people to hear, that water usage, irrigation is way below plan limit and that has to do with what Mary said earlier, it is irrigator behaviour. Irrigators on the Barwon-Darling have, because of the Millennium Drought and this most recent drought, become a lot more at risk, I suppose you'd say, in their planning decisions and the type of gamble they might

take on a crop, given that the Barwon-Darling is an opportunity type river. A river that runs sometimes and doesn't run a lot of the other time.

And on The Darling itself, the irrigators take a very small amount of the water that comes down the system. If you look at it, and the numbers - the gross numbers tell you and it's written in the Barwon-Darling Water Sharing Plan that six per cent of water long term is used for irrigation. Now, I know there's been a big discussion about that publically after the Australia Council, someone put out a report on this, Ms Slattery put out a report on it. But the truth is that if you look at averages, and when you look at averages you've got to look at the big years and you've got to look at the small years, the Barwon-Darling runs a lot of water and very small amounts are taken as irrigation. The average at the moment is 189 gigs, that's a long term climatic average, 189 gigs, less the 32.6 that's being taken.

One of the other issues that was raised here this morning is over recovery and again, people may be surprised to know that under the Murray-Darling Basin's original plan, the Barwon-Darling has been five times over-recovered on their local contribution towards the plan. So initially we were slated to have six gigs bought back as the SDL reduction, so far we've had 32.6. And we have asked that something be done about that so what was done about it was it got wrapped up in it all in Basin review and the number was changed from six to 32.6. We call it reverse engineering, I don't know what you call it. So that's where we are at the moment with that.

So a small impact industry on the river has made a big impact, I know nationally in the news and current affairs situation the politics of water. But we do on the Barwon-Darling love the idea of connectivity. We wouldn't have the water in the Barwon-Darling if it wasn't for the contributions of the Macquarie, not the Lachlan, the Border Rivers, the Moonie, the Weir, the MacIntyre, the Colgoa, Bokharam, all of those contribute something to the Barwon-Darling. So with these watering plans that you are talking and other people are talking about, we don't think that the tributaries can be selfish and say "We want to use our water out of our dam to water our assets only". What we'd like to see as a Barwon-Darling community where we derive most of the water that flows in the Barwon-Darling from the tributaries, not from local rainfall or local run-off, we'd like to see that more of that water come down.

And I don't think a lot of people realise that under the Plan we're going to get on average an extra 320 gigs in the north flowing in the rivers. That doesn't mean 320 gigs makes the Barwon-Darling, but a good proportion of that will. So we're going to have more water on average flowing down the Barwon-Darling and this is why I don't understand the problem - the people who have got a problem with the Wentworth pipeline they say, "Because the pipeline's going to be built from Wentworth to Broken Hill all the water's going to be kept up north in the Northern Basin". That's just absolute rubbish. More water is actually going to flow down on average when the drought breaks, through the Barwon-Darling and fill the Menindee Lakes.

So some of the other issues that were raised this morning, there was something said about the Barwon-Darling water sharing plan being blamed for us needing an environmental flow. This year we've had three environmental flows in the Barwon-Darling and that's all

we've had. That's the only flows we've had. Firstly, there was an embargo flow early in the year that came out of the Gwydir and the Border Rivers. There was the early environmental flow that was embargo which was unregulated water that would have been available to irrigators. It was allowed to flow down the river because of that section 324 order or whatever they call it now. We call them embargos.

Then there was the great northern connectivity flow that came out of the Gwydir and the Warr rivers, and then there was a small flow that generated from rain fall up around Brewarrina, not long after that, that irrigators in the Brewarrina to Louth section of the river decided to let go which created another environmental flow, they weren't going to get much benefit from pumping the water anyway, to let that go to go down the river and that's the only flows we've had.

Now, it was suggested, I think, that at that time there was water in storages, private storages, at the time, and that was the reason for the river being dry. That was not the reason for the river being dry. The reason the river was dry is because we've had a standard drought since 2016. So I think what we've got to do when we're looking at the points that the Productivity Commission's looking at is to look at facts.

Let's look at the facts of the flood plain harvesting and there is flood plain harvesting on the Barwon-Darling and we're having meetings with the Department about that very shortly. We've sort of been one of the last ones to be looked at, but it was always intended that the Barwon-Darling would have its cap which became our SDL, it would have our cap and then the flood plain harvesting would be external to that. It wasn't included in the SDL, in the original river take. It was the cap plus your flood plain harvesting. But those figures had to be ground truth first and it has taken many, many years. I mean, work was started on this back 2007? Hold on. It's a long time ago. And so I'm sure the Productivity Commission knows that the flood plain harvesting in each valley in the north is not meant to fit under the current cap, it's the cap plus the flood plain harvesting and always was.

And all that's happening there is - all that's meant to happen and we should make sure that this does happen, is that historical use is being licensed and then being able to be, you know, monitored, metred and monitored properly. So all we're doing is taking what is historical take and bringing it under a licensing regime, just like we did in the unregulated rivers back some decades ago in properly licensing all unregulated take.

Basically, they're the points I wanted - I mean, there's much more I could say. I've been involved in Barwon-Darling issues for many years and one of the things I did want to say, what Grant had said earlier, just to back that up and say thank you for coming to Bourke. Not many organisations like yourselves come to Bourke to consult, and you did and you came and listened to us, and we were pretty grateful for that and thanks for the opportunity today.

COMMISSIONER DOOLAN: Thank you.

COMMISSIONER MADDEN: I take your points about the Plan and the like. I guess, you talk about the averages but it is - you're concerned that we get the low flow in the changing of commence to pump rules.

MR COLE: Sorry, no changes have been made to the commence of pump rules on the Barwon-Darling. There were no changes in the Barwon-Darling Water Sharing Plan and there are no charges - - -

COMMISSIONER MADDEN: I'm trying to get - what I'm actually trying to get to with the modelling in the broad is we get the questions from the Lower Darling that they see changes so and they gave us figures about how often they go dry over time. As seen from their perspective it's either one of two reasons. One is less water coming into Menindee Lakes over time and that can be a range of factors, and/or the operation of the Lakes changes so they've actually gone down quicker as water is released. So when you have the discussions at Barwon-Darling SAP, how do you actually address that interaction between the Upper tribs for you and what are their impacts and their changes. How do you - and what changes you may or may not make, whether it's trading or whatever the conditions are on all types of flow, but then also there is a discussion about what happens in the operation of the Lakes.

So it seemed to me that in isolation we're having discussions and you saying there's no rule changes, but something *prima facie* has changed but I'm wondering, from your experience, where does that actual discussion happen about or what does it mean further down? So when the Lower Darling people say it's this, can you actually say what you think, or have you seen modelling or aware of modelling from the authority or the Department in your interactions with them? Have they said well, it's actually an operation of the Lakes causing that. Or is it further upstream or just the draught.

MR COLE: We do have discussions all the time obviously. Sometimes with the SAP process and other processes before that, you've tended to work in isolation in your own valleys and certainly there is still a little bit of that goes on, but we have had a number of all SAP meetings where representatives of the various SAPs have been invited down to Sydney to take part in two or three day discussions on all sorts of things, including the connectivity issue, and certainly that's been big on the agenda. Do things change? Yes, they do change over time and certainly in the last couple of years, well, really since the big flood of 2012 in the Barwon-Darling system. We've had a pretty dry run except for that 2016 year when the Bogan River, I think had five or six floods in one year and we almost filled Menindee Lakes as a result of that.

I've had discussions with the - what do you call them - DPI or DRI Water, the New South Wales officials about how they manage the Lakes and most of the replies I've had are indicating to me that they haven't really changed the way they managed the Lakes. But yes, sometimes water is let out a little bit more quickly than in previous years, but they really haven't changed markedly.

We had a huge drought in the Barwon-Darling from 2001 through to 2009. Then we had 10, 11 and 12 which were pretty wet years. Since then, except for 2016, we've had

drought. So yes, things have changed but things will turn around again, and we may find that in the next ten years we have a 1970s period again or a 1950s period where you get a lot of water down the systems and the Lakes are never empty. But that's the type of episodic system we live on, and it is, the Barwon-Darling is and always has been, even under natural conditions, an episodic event based river, and that's how the businesses that operate on the Barwon-Darling have to survive. They have to manage their risk around the fact that sometimes the river runs really well, and sometimes it's absolutely dry.

The Barwon-Darling today would be bone dry from top to bottom if it wasn't for the weirs on the river and the fact that you've got dams on the top of the tributaries that trickle water down the river in the growing season, in the summer growing season.

COMMISSIONER DOOLAN: So if wanted to change over time to actually achieve some level of security to the Lower Darling people - I'm not saying they should - is the modelling up to it to be able to actually model what changes you would have to make in terms of - - -

MR COLE: If you look at the modelling, the Lower Darling Irrigation System is probably dealt the highest security of any valley in the Murray-Darling Basin, maybe except for the Murray. Well, certainly in the north it has anyway or in this northern part of the river going down to the Lakes. Their security on a historical basis is very, very high compared say to the Gwydir or the Namoi or the Barwon-Darlings. It's a very high security. And now that Tandou's gone, there's very small amount of water being used there anyway, and a big lake system that has normally got a lot of water in it. We've just gone through two big droughts and we're still going through one.

COMMISSIONER MADDEN: So I asked about the modelling, whether it's actually in a sense up to the task to actually assess its small rule changes and see what the impact is.

MR COLE: Oh, sorry, yes. Look, yes, it is and you could probably - you can log onto the Barwon-Darling SAP site and get the modelling so the low flow access on the Barwon-Darling and see that a lot of people think that because A class water is used more on the Barwon-Darling now that it used to be, that it's having a big impact on the low flows downstream. The modelling doesn't show that. Talk to Andrew Brown who did the modelling on that and you'll find that the demand is just not there to have that huge impact that people like to talk about. Out of the 189 gigs of licence on the Barwon-Darling, there's nine and a half gigs of A class. It's a very small amount of water in the whole scheme of things.

I can't believe that you've got people who will sit there and say that this nine and a half gigs is really important when they sat in the Northern Basin Review, those same people, backed the Northern Basin Review and said "Let's not let another 70 gigs go down the Northern Basin". Do you see what I mean? It's okay to take that out of the system, that extra 70 gigs on average, but "Let's worry about this nine and a half here". It's just nonsensical

COMMISSIONER DOOLAN: I suppose what has become apparent to us is though in such an episodic river as you say, actually the low flow arrangements and event management is becoming particularly important, particularly for a climate change future where vulnerability will only increase and it's probably the area that people are learning most about.

I have a question though, we've obviously - - -

MR COLE: Could I just comment on that? I think it's always been important. I don't think it's just become important. It's always been important and if you go back to 2000, 99 and 2000, all the water users on the Barwon-Darling got together on the Barwon-Darling River Management Committee with the environmentalist, Aboriginal representation, local government, Fisheries, everyone in, and looked at what we could do about the low flows on the Barwon-Darling. At that time B class access, which is the big pumps on the Barwon-Darling, and C class - oh, not C class, but B class which is the big pumps and the majority of pumps, have access down to 390 megs a day past Bourke and there were different access levels up the river.

But 390 megs, not gigs, megs a day past Bourke, you could start a B class pump. So we looked at that and we said that that is not sustainable for the low flows, so you know, Louth, Coolabah, Wilcannia, other people downstream weren't getting a fair go. So those all got lifted to 1250 megs a day past Bourke before any of them could start a B class pump. Now, you might want to argue about whether that's enough or whether it should be higher or whether it should be lower, or where it should be, but we actually lifted those heights and at the time of the Barwon-Darling Water Sharing plan, the regional advisory group made up of all the scientists in Fisheries and water and other government departments, got together and did an assessment of the low flows in the Barwon-Darling and found that because we'd implemented a low flow regime, it was called our environmental flow package, because we'd implemented that under the Barwon-Darling Management Committee, the environment was better protected and they came up with all sorts of reasons why that was a good thing.

Now, no one's ever gone back and done another assessment of that since probably the. So right now, yes, the low flow regime is really important in the Barwon-Darling and all the rivers, but it always has been.

COMMISSIONER DOOLAN: So we did understand and correct me if I'm wrong, that there were a number of rules in place both in water sharing plans and then in other rules said to protect the low flow regime back around the late 90s and 2000s, but in the 2012 plan and then subsequent arrangements, some of those have fallen by the wayside in some way.

MR COLE: No. No, the rules are exactly the same. I said that before and I'll say it again. The environmental flow package of - begin to pump and cease to pump rules on the Barwon-Darling that were put into place in 1999, 2000 are still in place exactly as they were.

COMMISSIONER MADDEN: Sorry, I think the important thing is obviously given the level of concern that there are actually changes under foot or underway at the moment, when's the plan, in terms of consultation for the - the Water Resource Plan that covers the area, do you know when it's meant to be out for public discussion?

MR COLE: Well, it should be out very soon. We've got, I think, one and possibly two more meetings of the SAP and then it will go out to - - -

COMMISSIONER MADDEN: So it will be next year?

MR COLE: I should image so.

COMMISSIONER DOOLAN: Does your SAP have representatives at the Lower Darling on it? I mean, I understand all SAP members meet in Sydney.

MR COLE: It's got representation of people all along the Barwon-Darling, just like there's representation on the Gwydir, all along the Gwydir.

COMMISSIONER DOOLAN: Including the Lower Darling, below Menindee or not?

MR COLE: No, no, the Lower Darling is a separate system.

COMMISSIONER DOOLAN: Yes, I understand but there's still an interest in how those rules go. I know there's Menindee and Menindee operations (indistinct).

MR COLE: Yes.

COMMISSIONER DOOLAN: I mean, clearly we've seen and heard a lot about the Lower Darling. We've had a lot of representations at Mildura. We will be asking the authority about the shift in change that's apparently occurred and what might be the cause.

MR COLE: Well, the - okay, I will say again. There's been no change in the access rules. If there's interest in the Lower Darling and what's happening on the Barwon-Darling, I'm sure there is.

COMMISSIONER DOOLAN: There is.

MR COLE: Yes. There's also interest in the Barwon-Darling and what's happening in the tributaries too.

COMMISSIONER DOOLAN: Sure.

MR COLE: So we are all connected.

COMMISSIONER DOOLAN: Of course. Part of the - and the accreditation process is understanding how those plans talk to each other and the connected nature of those plans. It's a critical element about its accreditation. Okay, thank you.

MR COLE: Thank you.

COMMISSIONER DOOLAN: Is there anybody else who would like to speak? Okay. Last chance.

MS SMILES: Can you get up a second time?

COMMISSIONER MADDEN: If you want to clarify something, yes.

SPEAKER: I've got to go, thank you very much. If you want to ask anything, feel free to contact me. Thank you.

COMMISSIONER DOOLAN: Just again for the record.

MS SMILES: Bev Smiles, Inland Rivers Network. I think there was a general understanding just in regards to the Barwon-Darling Water Sharing Plan, that the Water Sharing Plan that went out on exhibition for comment was vastly different to the Water Sharing Plan that was gazetted in 2012. So that's one of the key concerns that people have, that difference, and I think it's the A class, the change in the A class access is another thing that's probably been raised, and also from an Inland Rivers Network view point, the business of using long term annual averages as a way of explaining that water use is only a very small percentage of that long term annual averages, yes, it is because that long term annual average includes all the really big floods.

And the real concern with river health is what is extracted during medium and low flows. So that's where your river health issues really can be impacted, so the use of long term averages is a way of explaining that the irrigation industry only uses a very small percentage of water in the system, it doesn't really have a relevance to the volumes of water that are taken out at critical times. So you know, it's horses for courses as far as impacts are concerned and that's one of the - we see that's one of the key problems with the way that water's managed, is using long term annual averages smooths out the problems. Yes, so I just wanted to make those couple of comments.

COMMISSIONER DOOLAN: Thank you very much. And we certainly appreciate the importance in a river system like the Barwon-Darling.

MS SMILES: Thank you.

COMMISSIONER MADDEN: I guess for me there's a couple of comments out of that which I think are expectations around consultation on changes. We've had a discussion with New South Wales about the changes between the plan that went out and in and sorry, that was gazetted. They said the changes were minor but I think that's an important thing that they should actually spell out in consultation regards the changes going forward, so people can actually see and definitely see what they were because we do get the sense with New South Wales being absent in some cases. This is the Department of Industry water. This is also reflected in their recommitment recently to the Murray-Darling Basin Plan and the like, so it is not something that they don't shy away from, that

they can be explicit about some of that history. I think the other point is that - and this is something we have heard. Water isn't run and managed on averages. It's often used for the sake of commentary and setting SDLs and numbers and things, but it is annually water availability and I guess the other thing with that consultation, important point of low flows is to be explicit with your modelling and information that it is not done on averages.

So again, that's, I think, something we could make in the expectations what's an appropriate and meaningful consultation process.

MR COLE: Can I comment further?

COMMISSIONER DOOLAN: If you want to come to the table.

COMMISSIONER MADDEN: If it's minor clarification. You have to come up and state your name.

MR COLE: Yes, I will. Ian Cole from Bourke from Barwon-Darling Water. I just want to clarify that there were not changes to A class access as a result of the Barwon-Darling Water Sharing Plan of 2012 and that will be confirmed to you by the Department. Any change that was made on type of pump was as a result of that plan then coming under the new Water Management Act rather than the old Water Act of 1912, which the new Water Management Act didn't manage access by pump size, but by annual volume, and that was the difference. There were no changes to the actual access rules of A class, and the Water Sharing Plan that went on - went out for advertising was different than the one that was bought in. Every plan in New South Wales, I dare say, was the same way because changes were made between advertising and public comment and final proclamation of the plan. That's not new. That's what happens to just about every plan. It happened to the Barwon-Darling and the changes, as the Department says, were minor.

COMMISSIONER MADDEN: I think this is the point of the Department giving information about those changes and their extension and materiality and so I think the point stands on a good way going forward on consultation, is actually having a solid foundation on facts.

MR COLE: Sure is.

COMMISSIONER DOOLAN: Anybody else? All right. Thank you very much, ladies and gentlemen. I will now adjourn the proceedings and the Commission will resume its public hearings tomorrow in Canberra for its last public hearing. So once again, could I thank you for your participation and your comments. We value them and the submissions that you make, and they do form part of the evidence with which we review our draft recommendations and findings. So thank you again.

**MATTER ADJOURNED AT 1.01 PM UNTIL
FRIDAY 26 OCTOBER 2018**