REPORT OF PROCEEDINGS BEFORE

STANDING COMMITTEE ON NATURAL RESOURCE MANAGEMENT (CLIMATE CHANGE)

INQUIRY INTO WATER MANAGEMENT

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At Sydney on Friday 14 May 2010

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The Committee met at 10.00 a.m.

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PRESENT

Mr M. J. Brown (Chair)

Mr G. F. Martin
Mr G. M. Piper

RACHEL WALMSLEY, Policy Director, Environmental Defenders Office, 1/89 York Street, Sydney, affirmed and examined, and

TANYA WANSBROUGH, Scientific Director, Environmental Defenders Office, 1/89 York Street, Sydney, and

ROBERT GHANEM, Policy Officer, Environmental Defenders Office, 1/89 York Street, sworn and examined:

CHAIR: I welcome you to this hearing. Thank you for appearing here today. I am advised that we have provided you with the relevant standing orders and the Committee's terms of reference in relation to this inquiry, is that correct?

Mr GHANEM: Yes.

CHAIR: I am sure you are used to appearing before such committees but I point out that you are generally protected under parliamentary privilege for the evidence that you are giving. That protection also comes with the other side of the sword, so any misleading or deliberate information will be treated very seriously under the appropriate Evidence Act. Before we ask questions, would you care to provide an opening statement?

Ms WALMSLEY: Yes. The Environmental Defender's Office [EDO] welcomes the opportunity to address the Committee on the issue of sustainable water management. For those of you not familiar with the EDO, we are an independent community legal centre and we specialise in public interest environmental law and policy. In summary, there is clear scientific evidence that water-based ecosystems in New South Wales, which are already under threat from overextraction and reduced flows, will be further strained by climate change. Climate change poses a significant challenge to water management, as it will intensify the difficult task of returning ecosystems to sustainable levels of water extraction.

The majority of rivers in the Murray-Darling Basin show signs of long-term ecological degradation. The consumptive use in the Murray-Darling Basin consistently exceeds sustainable yields. The EDO submits that there is a pressing need for the water management regime in New South Wales to incorporate climate change projections into decision-making and ensure fundamental ecosystem health through environmental flows. The fundamental point to keep in mind is that all consumptive and domestic uses of water rely on the ecological integrity of water based ecosystems for their long-term security.

Currently New South Wales is not achieving its obligation to ensure secure water for fundamental ecosystem health and to provide security for environmental flows. Current water-sharing plans are not achieving the outcomes agreed in the national water initiative and in many areas the water sharing plans are suspended. Furthermore, these inadequate plans are meant to apply until 2014 when they will need to be remade, consistent with the upcoming basin plan under the Water Act of the Commonwealth. The EDO submits that the New South Wales Government should be proactive and take steps towards creating new or amended water sharing plans that better align with the objects of the national water initiative, the Water Management Act and the Water Act prior to 2014.

A sustainable and science-driven water management regime that appropriately allocates and prioritises environmental flows is essential to ensure long-term resilience to cope with periods of climate variability. We also submit that best practice conservation measures should be adopted in New South Wales to ensure the most efficient and environmentally sustainable uses of water and to encourage the community to use water more responsibly in light of climate change.

Regarding term of reference (b), "Management of water resources and provision for environmental flows", we recommend the Water Management Act be amended to reinstate the need for water sharing plans to provide environmental flows at all times; reinstate the requirement that environmental flows must be allocated first in accordance with priorities contained in the Act; address connectivity between surface water and groundwater to ensure there is no double counting and to enable integrated management underpinned by additional scientific research into connectivity; ensure all provisions and plans are based on the best available ecological science and hydrological modelling, with a consistent process to developing the plans, with all key information made publicly available; establish a publicly accessible central repository of data, describing and reporting on environmental flows; introduce a clear, transparent and scientific process, allowing plans to be

amended at any time when new scientific information comes to light; and provide cultural flows to indigenous people in plans to improve the spiritual, cultural and environmental, social and economic conditions of indigenous people in New South Wales.

Regarding term of reference (c) "Best practice water conservation", we recommend that the New South Wales Government should encourage and implement innovative measures to ensure best practice water conservation management; reinstate guarantees of genuine public participation in the planning process and proper environmental impact assessment of water infrastructure projects in New South Wales; introduce improved demand management measures to change consumer behaviour and encourage lower and more efficient uses of water, for example, through appropriate water pricing that reflects environmental, economic and social costs to encourage environmentally sustainable water use—this should be combined with public education about components of water pricing and measures to reduce water use—and extend current efficiency measures such as the BASIX scheme to include new commercial buildings and industrial buildings with reviewed targets.

In summary, there are a range of measures and reforms that are needed in relation to both rural and urban water management to ensure a long-term sustainable water use in New South Wales and to enhance our capacity to adapt to climate variability.

CHAIR: Thank you for that succinct opening statement and the effort you put into your submission. It is very good. I have a couple of questions. Firstly, for the benefit of Committee members, how is your organisation funded?

Ms WALMSLEY: Basically, we are an independent not-for-profit organisation. We are funded predominantly by the Public Purpose Fund, which is basically the Law Society trust fund and it is administered for public interest purposes like the EDO, the Public Interest Advocacy Centre and community legal centres that have less funding. That is our predominate funder, so it is independent. We get a small amount of funding from the State Government and an even smaller amount from the Federal Government. We also raise funds through conferences, through our litigation and through publications that we do, so we are independently funded.

CHAIR: How large is your staff?

Ms WALMSLEY: The policy team has three lawyers. We have six litigators in New South Wales. We have two in-house scientists, and education team of three and then volunteer staff and administration staff. In New South Wales we have a Lismore office with three senior solicitors there, and an education officer.

CHAIR: Are you a State-based organisation throughout the Federation? I understand there are similar ones in other jurisdictions.

Ms WALMSLEY: Yes. There is a network of nine EDOs. There is one in each State and Territory. New South Wales is the largest and we are celebrating our twenty-fifth anniversary this year, so we have been around the longest. A lot of the other offices are single solicitors in the other jurisdictions, but we do engage on Federal issues such as water management on behalf of the network.

CHAIR: In your opening statement you referred to climate change projections and I understand you have given some facts and figures in your submission, mainly quoting the CSIRO and the Intergovernmental Panel on Climate Change [IPCC]. However, we have been hearing some evidence that there is still considerable uncertainty about the impact of climate change. You have projections that are going into 2030, with a percentage decrease in flows. Is there any other evidence you looked at that did not support those projections you have quoted in your submission?

Ms WALMSLEY: The science team feeds into our policy submissions. Our approach is to use the most reputable scientific sources, such as the IPCC and the CSIRO. In our research we go through a range of different research; we canvass all the views. I think as we have said when we have previously appeared before this inquiry, we are not here to debate climate sceptics. Our starting position is that climate change is very real and happening, and there is a range of scientific opinion out there. So what is important to put in place in our legislative structures is the principles of ecological sustainability, including the precautionary principle. That basically says: Where there is scientific uncertainty that is not a reason not to act.

We are saying that these reforms we are recommending in our submission should go ahead, and our snapshot at the beginning of our submission on the water resources in the basin is based on the reputable scientific sources. But our overall point is that uncertainty should not prevent urgent action. It has now been recognised federally that urgent action is needed on sustainable water management. So, in terms of quibbling about the different projections, they all need to be taken into account by the experts in Government who should be doing a full review of all the available science.

One of the issues we have in New South Wales with water sharing plans is that they have not always been based on the best available science and the best hydrological modelling. So it is up to the Government to analyse all this information. But for our purposes, we are going on the IPCC and what the CSIRO says. What they are clearly saying is that there is an urgent need for better sustainable water management in light of climate variability.

Mr GREG PIPER: Welcome to the inquiry; it is great to have you here. Firstly, I am well aware that the Environmental Defender's Office has been doing a lot of great work for very many years. In former times I have been a beneficiary of the advice and assistance of the Environmental Defender's Office. I know you are obviously flush with funds these days, after that deep examination of your organisation by the Chairman, so obviously you have moved on to bigger and better things. I assume you are driving Hummers now.

Ms Walmsley, in your introduction you have covered so many of the issues, and perhaps given a little more detail to the submission you have made. With regard to your last answer, I was going to ask you about the effectiveness of the water sharing plans. Are there differences in effectiveness of different water sharing plans? Are there some that you would see as a better model, or were a better model before changes were made? Can you suggest practical measures so we can get better outcomes between the demands for agricultural purposes or extractive uses, as opposed to the needs regarding environmental flows?

Ms WALMSLEY: One of the biggest problems in New South Wales at the moment with the water sharing plans is that at least six of them are suspended. The plans that took a long time to develop with a lot of different input—which in no way were perfect documents—are suspended at the moment. You need to get evidence from the department on how they are administering, in the absence of the actual plans. One of the biggest problems is finding certainty and transparency on how water management is working at the moment in New South Wales while these plans are suspended. On a regular basis—because we get a lot of inquiries about water management—we will ring up the Office of Water and do a bit of an audit of the status of the plans, as to which ones are turned off, which ones are on, and whether there are sunset clauses.

It is always quite a difficult process to get that information on what plans are working where. It takes our science interns a few phone calls to find out what plans are actually on. That degree of uncertainty would affect irrigators, the farmers, as well as the environment—the whole community. It is very unclear, while the rules are not applying, how things are managed. The National Water Initiative requires New South Wales to have water sharing rules set out in plans, and New South Wales ostensibly does that, but the plans are suspended.

In terms of what is happening with environmental water, there are still some environmental flows that are occurring, but with the plans suspended these are on an ad hoc basis. Some of them, in the opinion of a lot of our clients, would be good, but without the transparency and the certainty there are no guarantees about environmental water being delivered in New South Wales at the moment. That is inconsistent with the National Water Initiative, and it is inconsistent with what the State Act requires. So I think it is a problem. We certainly get the sense, with the Commonwealth saying they want to get involved in water management in the basin, that New South Wales is kind of in a holding pattern waiting to see what is going to be in the basin plan. But, as I said in our opening statement, the New South Wales plans are still going to be in existence until 2014, so further delays are not going to help. Obviously, if you talk to rural communities, there is a water crisis now, so measures need to be put in place now to improve the plans in New South Wales.

Mr GHANEM: The main concern with the water plans being switched off is that the environmental water rules are basically suspended. In that situation, from our information from the Office of Water, environmental water allocations are made on an ad hoc basis in the areas where those plans have been suspended. In our submission we have gone through the legislative framework. I think that is symptomatic of the fact that the Act is not prioritising water, as is required under the National Water Initiative. The Act itself is internally inconsistent. It sets out the priority for water sharing and its says, "Sharing of water from a water

resource must protect the water resource and its dependent ecosystems." That is the first priority that should be taken into account when setting environmental water rules.

However, the other provisions of the Act operationalise the environmental water allocations, which is not consistent with that. It is saying that you can actually allocate environmental water as the residue of water, or the water remaining after you have granted consumptive use. That inconsistency in the Act itself may to some extent be leading to the suspension of these plans, because the plans themselves do not provide enough environmental water.

Mr GREG PIPER: May I ask a supplementary question. It is not so much about the practice of water sharing plans; it is more to do with a comment that led me to wonder how effective is the communication with the regulatory authorities that you might have. I got the impression that perhaps you have a problem there. You spoke about trying to get through to the right person and about getting a response. Is there a systemic problem in dealing with the different regulatory authorities?

Ms WALMSLEY: We have had certain challenges. In terms of the Office of Water they are doing some things, such as they have a current draft flood plain harvesting policy that they are consulting on and they have set up a consultation workshop with groups. So they do discreet issues like that quite well. But in terms of finding out more general information about the state of water-sharing plans across the State we have found that very difficult. Also with all the various committees involved in water management in the State sometimes it is very hard, and a lot of our community and environment groups have trouble, navigating who is actually in charge, what role the Catchment Management Authority has in water, what role is Office of Water, what State Water does, what Sydney Water does, what the various irrigation committees do.

It is very difficult for community and environment groups to work out who is actually in charge of what bits. There are all these disconnects, like different rules for ground water, for surface water, and it is incredibly confusing for a lot of our clients. Also when we are trying to get up-to-date information on what is happening, a lot of that information is not publicly available so it is not easy to find on a website, for example, and that does require us to the follow-up calls to the department.

CHAIR: You mentioned in your submission about cultural flows. We have not heard a lot of evidence, although we have heard some, regarding that. The Committee has also had some suggestions made to it that the Office of Water, and the whole system, is biased in favour of environmental rather than social economic flows, and we have heard some evidence from you today saying that is not the case. What impact do you think cultural flows would add to environmental flows within the water-sharing plans, and are those cultural flows of a greater social benefit than the economic and social aspects of more strong economies in the regions and therefore jobs for indigenous people?

Ms WALMSLEY: The issue of cultural water allocation does require special consideration; it is not just environmental water, and it is a slightly different type of allocation. There has often been the assumption that cultural water would be covered by environmental water. For example, down on the Darling if you are watering the red gums then there is a significant overlap between your cultural water provisions and your environmental. To some extent that is true, but there are a whole lot of other social and economic elements related to cultural water allocation.

We do a lot of work with the Murray and Lower Darling Rivers Indigenous Nations [MLDRIN] group and they are very interested in getting better recognition of cultural water rights and better recognition of the role of indigenous people in water management. If you recognise the view of the indigenous nations down on the Darling as custodians of the land, custodians of the water, they need a legislative system that will allow them to be custodians. Also part of that is to help promote social and economic development within their communities, but part of it is caring for the environmental elements in those areas.

It is a complex area and I do not think it necessarily fits neatly into the environment versus the irrigators' debate when you are asking which of the social economics or the environment is outweighed. We have talked to this Committee before about balancing ecologically sustainable development, which is where you take into account all these considerations. Certainly with cultural flows, firstly, you have to recognise the role of custodians and, secondly, you have to take into account the social economics and environmental considerations there. Does that answer your question?

CHAIR: It does, thank you. A number of industries are obviously competing for water; predominantly the main industries are agriculture compared with mining industries. Does your office have a view that when resources are limited the Government should be looking at which industry generates the most economic activity and jobs compared with how much water they use?

Ms WALMSLEY: Our office would take a longer-term view of sustainability. We understand that the Government does look at jobs and, the bottom line, financially, but it comes back to that fundamental point in my opening statement that all consumptive and domestic uses of water actually rely on ecological integrity of a healthy system. So if we over extract from the system and the system falls down those other uses will be greatly affected by this as well.

There will not be the irrigation, the industrial use, unless you look after the ecological health of the system as your first priority. I think the approach of favouring projects because they generate high jobs and finance is understandable, but that is a very short-term solution if that particular industry is not sustainable because it is over extracted and a catchment can no longer support that industry—we would see that as short-term. You need to put in place measures now so what is approved in a catchment is sustainable long-term because you want those jobs to be sustainable too.

Mr GREG PIPER: I am interested in the indigenous relationship and water sharing issue. I note you have described those cultural needs as overarching everything else. From your explanation and your submission you are working to find indigenous groups, Aboriginal groups. I am not sure how widespread those particular groups are throughout the State, but I guess it is common throughout the State that the land councils are actively involving themselves in these types of areas or other Aboriginal groupings?

Ms WALMSLEY: The group I referred to, MLDRIN, are a bit unique because they were set up with Federal Government money under the Murray-Darling Basin Authority, and they are quite well resourced and engaged. But in a lot of areas Aboriginal communities do not necessarily have the resources to engage, and while the legislation does not really recognise their rights and their custodianship role very well there are kind of limited opportunities. We work with a range of indigenous clients across the State but probably in terms of water if you want further information MLDRIN would be your best source, to get their view. Certainly the issue is also being thought about at a Federal level under the Basin Plan. Some Aboriginal groups are coordinating to put their views forward that the Basin Plan has got to consider Aboriginal interests and cultural flows, but we are all awaiting to see what the detail of the Basin Plan will be.

Mr GHANEM: We are also waiting to see what the Federal Government's response will be to its endorsement of the Declaration of the Rights of Indigenous People at an international level. That was endorsed last year. Of course, that agreement has requirements relating to providing access to indigenous people to their resources, which would include water.

CHAIR: I totally agree that we should ensure that every person who has an interest makes a contribution towards finding the solution. We have not received much, if any, from any Aboriginal group regarding cultural flows; we are only getting it from non-Aboriginal people.

Ms WALMSLEY: I expect that is probably a capacity issue, and a prioritisation of the urgent issues they are addressing at the moment would limit their capacity to get engaged in processes like these.

CHAIR: Thank you for your time. If the Committee has any further questions they will be forwarded to you.

Ms WALMSLEY: Absolutely. If you need any more information please contact us.

(The witnesses withdrew)

JOHN ASQUITH, Chairman, Water Group, Nature Conservation Council of New South Wales, Newtown, and

WENDY AMBLER, Nature Conservation Council of New South Wales, Newtown, affirmed and examined:

CHAIR: Welcome. Thank you for your submission and for coming here today to give evidence. Have you been issued with the relevant standing orders and terms of reference of the Committee?

Mr ASQUITH: Yes.

CHAIR: I draw your attention to the fact that you are generally protected by parliamentary privilege, so you have all those rights protection. Also, under the Parliamentary Evidence Act there are penalties for giving misleading evidence. Do you have an opening statement you would like to make?

Mr ASQUITH: Yes, if I may. The Nature Conservation Council [NCC] is a peak environment group in New South Wales that operates throughout the State. It is a council of member organisations, and there are around about 120 to 130 of them. Through that, we have a fairly wide network of members. Basically, the criteria for membership are obviously to support the aims and objectives of the NCC but for the organisations to be committed to an agenda of ecological sustainability. My statement is on behalf of the NCC. I am the chair of the NCC's Water Group. I am a former Secretary of the NCC, a job I did for 10 years, but these days I chair the Water Group for them. I will read out the statement.

The NCC's primary interest is in the issue of biodiversity and the health of rivers and, as a consequence, environmental water and what happens to it. The NCC are particularly concerned about environmental flows, environmental water and the consequential threats from changes that have resulted from the National Water Initiative, following the passage of the Water Management Act in 2000, and other various changes in legislation and policy that have followed in the years since 2000. The NCC believes that the rivers need to be managed as systems, not as rivers bounded by State or other administrative boundaries. Environmental flows need to be reaching the end of the river system, the wetlands and the estuaries. We are very keen to see a more broad-ranging approach taken in terms of all the management issues around rivers.

As to the current issues of concern, anecdotal evidence provided to the NCC is that much environmental water is lost by a range of mechanisms. These include overextraction; a lack of compliance monitoring or reporting; town water expansions; changes to what may be taken by mining, for example; and also what is euphemistically called water borrowing. There is evidence of reduced environmental flows in many river systems. We have anecdotal evidence from desktop studies that have tried to balance up water usage and matching it with the actual flows observed, often at the end of river systems. What appears to be the case, although we have no documented evidence of this, is that environmental flows are severely reduced in many instances. Climate change impacts are additional to those that I have listed.

The response proposed by the NCC is designed to ensure environmental flows occur, and if they do not occur find out why and report it in a public forum. The NCC would like to see the provision of a periodic environmental flows outcomes report. This would demonstrate to everyone where and what environmental flows are actually occurring, in which river systems and those rivers that are not receiving adequate environmental flows. This would be a numerical value of volume for the environment supported by an ecological assessment. The recent example of the Lachlan River being turned off at Condobolin is a direct result of decision-making that has favoured water users and consumptive use above the needs of the nationally important wetlands at the end of the system.

The NCC wish to see a macro approach to environmental flows in the first instance to replace the current approach, which is based on environmental flows being what is left over after extractions are measured or assumed. In the longer term, the NCC would expect to see more accountability for environmental flows to see that they reach their intended destination and they achieve the outcomes desired. In particular, we do not want to see a situation where environmental flows are not monitored and specific environmental studies are used to justify outcomes. If you have a look at the websites around the various water agencies at the moment, you will see a number of studies that are occurring, but there are no reports on the actual volume of flow that is occurring. Without that nexus between the volume of water and the ecological outcomes, it largely becomes a race to the bottom. If you are monitoring the ecological condition, that can be a very subjective judgement. So that will keep diminishing over time to justify more water extraction.

Other aspects of environmental flows are also important to the NCC—firstly, a fair and equitable process for amendments to water sharing plans. The plans came into force in 2005 and were to be reviewed within 10 years. At establishment the plans involved all stakeholders in a public process. However, drought, lobbying, legislative changes and climate change impacts have all created pressure for amendments to the plans. The NCC believes that when amendments to a plan are being considered, a process involving all stakeholders in a transparent and public process is essential. There is certainly plenty of evidence of other than that occurring. We believe that this needs to be legislated. There is currently no policy on that, nor any legislation that specifically has that broad-ranging approach.

Secondly, a set of rules is required for the release of incidental environmental water, such as environmental contingency water, which is in some of the water sharing plans, or banked water, which quite often comes about when plans are suspended in regulated rivers. An amount of water, let us say conceptual water, exists in storage which is then to be released when the water sharing plans are turned back on. In some instances this water has been diverted to other uses, forgotten or lost to the environment. Again, we have many anecdotal stories and people asking, "What happened to this water that was in a particular river or storage?" The NCC wishes to see a policy that outlines a public process for release of this environmental water. That would work in everyone's interests. We have talked to irrigators about these things and they are quite comfortable with both those points.

Thirdly, expansion of town water usage and expansion for the mining industry should not be at the expense of environmental water. Unfortunately, increased extraction of water is the cheapest option when externalities are ignored. The NCC does not support the approach of determining extraction accurately for revenue by relying on poor information or guesses for environmental flows. Quite often, that is where the studies are coming in. We are not measuring it again but the studies are being used to justify the extraction.

Lastly, there are a number of outstanding water policies or plans of concern to the NCC, including an aquifer interference policy, which was called up in the Water Management Act 2000, I think, section 90. That is still outstanding due to difficulties of dealing with mining as an issue, which clearly interferes with aquifers quite substantially. Secondly, there are a number of macro water sharing plans still outstanding. Thirdly, a draft floodplain harvesting policy, which was mentioned earlier, will increase extraction and is yet to be finalised. We have a lot of concerns that that will increase extraction but we are already in a situation where overextraction is occurring by a range of mechanisms.

CHAIR: You said in your opening statement that specific studies were relied on more than other studies or that further studies should be undertaken to determine a particular outcome. Would you be more specific about the outcomes you refer to?

Mr ASQUITH: What is happening is that studies are being used to define the health of rivers, and the health of rivers is defined basically as fish and macro invertebrates. It is not defined as the actual flow, so there is no nexus between we have got this volume and we have got these fish and macroinvertebrates as an indication of the health that is achieved with that flow. That nexus does not exist. The health of rivers is defined as the fish and macroinvertebrates and it is not cross-related to the actual flows that should be occurring under the water sharing plan, which, as I have said before, we believe is far below what the plan put together. Again, it was largely—I think a comment was made earlier by the Environmental Defender's Office—the lack of science that was around with the development of the plans. There were a lot of very broad estimates, assumptions, about what had happened over the last X number of years on a river system would continue to the future, and we are seeing that that is not the case.

CHAIR: Were there other studies at that time which would have indicated that that would not be the case?

Mr ASQUITH: No, there were not a lot of studies at that time. Going back to 2000, I think we were expecting that we would have better information on the actual flows achieved.

CHAIR: So decisions were made on a judgement basis?

Mr ASQUITH: Yes.

CHAIR: With the best information available at the time?

Mr ASQUITH: That is right, yes.

CHAIR: So I suppose the issue is now that more information has come to light your submission would be, therefore, you got it wrong, you need to change it, but other people who have invested a lot of money and towns who have invested in infrastructure, companies who have invested in infrastructure, would argue to this committee that, "Hey, you cannot change that because we have invested this on those assumptions". How would we balance that?

Mr ASQUITH: Because it is a big question mark at the moment we are not suggesting that. If you go into the website there are quite a few studies, there are about half a dozen studies being done on fish and macroinvertebrates on various river systems. What there is not are any studies, desktop studies, that link that to the actual flows that have occurred or are occurring, whether those flows are down because of climate change, drought or whatever. But there is no nexus there, so we are doing studies in what is in the streams, the ecological indicators in the streams, and then from that saying we think it is going good or bad, but we really do not know because we do not know whether those flows are down or up or where they are.

I think the key thing we would be promoting at this stage is more information and for that information to be publicly available so that we can move beyond just relying on limited ecological studies and then drawing some pretty big conclusions from them.

CHAIR: There is also the issue about water sharing plans that have had to be amended. You have been concerned about the process there?

Mr ASQUITH: Yes.

CHAIR: Were not advertisements put in papers about these amendments and the like?

Mr ASQUITH: There are a limited number of these that have occurred. They seem to have occurred by virtue of emergency circumstances—so the ones that have been lifted and others. They generally occurred as a response to dry weather conditions. The water sharing plans were developed taking account of the known hydrology of the river. They actually took account of dry weather. It is probable, but unknown, that the reason we are finding it so difficult to manage within the water sharing plans in a lot of river systems is that we do not actually have enough accurate information on just how much water is going down there for an environmental purpose.

As I have mentioned earlier, a lot of evidence has been provided to us of over-extraction, water borrowing, whatever you like to call it, and it happens by quite a variety of mechanisms. For example, some environmental water was released under the riverbanks scheme in New South Wales, which was a large government purchase of water for the Macquarie marshes, where some additional channels appeared just before the water was released from the dams to flow the Macquarie marshes, and obviously never made it there. No floodplain policy was in place, so in theory those sorts of interceptions came under the old Act and it would be fairly difficult, one would think, to pursue actions happening, but that is the sort of mechanism that has happened.

CHAIR: Would you be suggesting then as a recommendation that when an amendment is made a mini process such as that which occurred for the water sharing plan be implemented?

Mr ASQUITH: Definitely. As I mentioned to you, I have spoken to irrigators about a month ago about this and they are quite comfortable with that because it is of no joy to them if lobbyists, let us say, from our side of the fence are able to get in there and slip something through, any more than it is for us if they or others are able to do it. So it really needs a public process. The reason we have put that we think that needs to be legislated is that it can be quite difficult and if the process was to be legislated or regulated in some way then it is very likely we would achieve an outcome that would just flow and we would live with the outcome, if we like it or not, but at least it would be a process that we have all—

CHAIR: You will accept the umpire's decision?

Mr ASQUITH: We have got to accept the umpire's decision, have we not?

Mr GREG PIPER: John, I am sure that you recognise that it is very dangerous to speak for a group that you might have some difference of opinion with and you have just indicated that you have spoken to irrigators and they are quite happy with that. Can you just clarify who it is you have spoken to? Is it one of the peak groups?

Mr ASQUITH: Arthur Burns is his name. I am sure he will not like me mentioning him here. He is the former Chair of the Irrigators Council.

Mr GREG PIPER: You believe he is representative enough?

Mr ASQUITH: Yes, Arthur is a very mainstream irrigator.

Mr GREG PIPER: In your submission you talk about best practice in water usage. I am interested more about the agricultural side of where you are talking about using recycled water. Yes, it is all possible—anything is possible given enough money to throw at it. Can you indicate whether or not you have looked at the cost effectiveness of this particular suggestion as opposed to other mechanisms that might be used to best practice?

Mr ASQUITH: Since water trading came in the cost of water is really the guts of the argument. The costs of recycling are fairly high, however, they are less than desalination. There are other issues around what the water is going to be used for: is it potable or irrigation or recreational, et cetera? We have certainly looked at those issues. They are very difficult because they lead to having to make choices. But it is fairly clear to us that there are a lot of things that we believe are socially desirable, that do mean that in some cases governments will have to step in to the breach to make some of those water sources more attractive because of the policy difficulties. For example, potable water, we generally do not take from recycled sources as such—incidentally, we do on inland rivers, but on the coast we generally do not.

But to keep, for example, Sydney's water demand within control then obviously government subsidies to water which is not going to be used for potable purposes. Maybe is quite suitable for irrigation, it is just not going to cut the mustard to, say, keep the market gardens on the fringe of Sydney. If they have to rely on recycled water there is a significant cost issue there that someone is going to have to help them with. There are a couple of things I would like to mention that have come out of this that I have noticed recently. Ken Matthews, the head of the National Water Commission, was on TV the other night and made what is in my opinion a fairly alarming statement. He said that he wanted to see environmental water receive the same consideration as consumption water. He was implying that environmental water needed to be up there from a Commonwealth point of view.

In New South Wales, the Act was written very much about the ecological health of rivers—that being highly secure water et cetera, and all these others things came under it. Over time, and particularly with the suspension of water sharing plans and with this nexus where the health of the river is what we are trying to achieve, we are seeing a gradual slide in that commitment due to economic, social and other pressures. Again, we would like to see these things go through a public process, to prevent off-the-cuff remarks or things happening by sleight of hand. We do not see that it is in anyone's interests that governments have to defend these things and live with a broadly based community and it is best if they go through a process to achieve that.

Mr GREG PIPER: This question probably pertains to my parochialism and my electorate in the southern area. I refer to groundwater extraction and you have touched on that. Can you expand on your concerns about the attack on the aquifer?

CHAIR: Are the depletion and the recharging of the aquifers not considered before a licence to extract is granted?

Mr ASQUITH: Many areas, including the area that Mr Piper is referring to, have been under a moratorium for some years; in fact, since the last licences were granted prior to the commencement of the water sharing plans in 2005. There have been no new licences, but the existing licences and the extraction is not under control by a long shot at this stage. For example, in the southern part of the electorate groundwater contributes roughly 45 per cent of the base flow of the rivers that provide our drinking water. Therefore, 45 per cent of Wyong River is base flow. We know that sand quarries et cetera on the plateaus—

Mr GREG PIPER: We should clarify the area you are talking about. It is Peats Ridge, Kulnura and into the western areas of the Gosford and Wyong electorates.

Mr ASQUITH: Yes.

Mr GREG PIPER: And Lake Macquarie.

CHAIR: Who are the extractors?

Mr GREG PIPER: Coca-Cola Amatil is probably the major extractor, but there are some others.

Mr ASQUITH: The large quarries are dealing with friable sandstone that is easily crushed for building material. It is washed with the most beautiful groundwater I have ever seen. It is blue when it comes out of the ground. It is used for washing sand and metal for the Sydney construction market. They use about 1.25 tonnes of water for every tonne of sand produced. A fair bit of water is used. We are concerned that the more we interfere with the groundwater the less we will have for the base flow. That is our drinking water for a population of 320,000, which is a fairly limited catchment. A study of the groundwater was done about five years ago. The recommendation in the report was that a social decision had to be made about water. We had to decide how much water we wanted to take out of the river for consumption to support the population and how much we were going to take for these other industrial or agricultural purposes. That recommendation was put in the too-hard basket.

In reality, in the absence of an aquifer interference policy, those quarries are continuing to expand because they do not need a licence to dig a hole into the aquifer at this stage. It is seen as incidental to the approval of the extractive industry. The fact that they might breach a dyke and huge amounts of groundwater flow out is seen to present the opposite problem; that is, they complain about the pit being flooded and having to pump the water out rather than see it as a precious resource. That water does not reach the river; once that happens it is largely lost.

CHAIR: Do you think the moratorium is having a negative effect on competition and therefore innovation and better extractive methods?

Mr ASQUITH: I do not know about that. Many groundwater studies have been done, but they have not led to much. One of the things that is fairly clear is that while the groundwater is being taken out of the system we do not understand exactly where it is all going. Many allegations have been made that everyone involved with water is using more than they record. That is up to three times the nominal extraction rates from wells and so on. Even though well levels are dropping, the evidence is that the groundwater level is dropping. The modelling says that the only way that that can happen is if much more is going out of the system than the modellers know about. However, we do not know the figures.

CHAIR: Ms Ambler, do you want to say anything?

Ms AMBLER: No, I am happy with what John has said.

Mr ASQUITH: I would like to table this document: "The Answers to Global Warming Scepticism" by Heather Hughes. It is a non-technical summary based on "The Scientific Basis for Scepticism About Global Warming", by Dr Frederick C. Bell. Dr Bell was a hydrologist and was involved in many of the groundwater studies undertaken in our area. He died last year. We produced this report based on some of his papers. It was written by his daughter. I can provide additional copies to the Committee.

CHAIR: That would be very interesting. Thank you for appearing before the Committee today.

(The witnesses withdrew)

(Short adjournment)

MICHAEL BERNARD MURRAY, Chief Executive Officer, Gwydir Valley Irrigators Association, P.O. Box 1451, Moree 2400, sworn and examined:

CHAIR: I am aware you have been given a copy of our terms of reference and the relevant standing orders, is that correct?

Mr MURRAY: Yes.

CHAIR: I am required to draw your attention to the fact that you are now under parliamentary privilege so you get all the rights and benefits of that, but there are also stiff penalties for any misleading evidence. Leaving that aside, would you care to make an opening statement?

Mr MURRAY: Yes. First of all, Gwydir Valley Irrigators Association is a voluntary organisation that represents the rights of any irrigation entitlement holders within Gwydir Valley. We are very proud of the fact that it is a voluntary organisation. We represent over 90 per cent of the eligible entitlement. When I use the term "eligible entitlement", the New South Wales Government and the Commonwealth Government now hold approximately 20 per cent of our general security entitlement and 10 per cent of the supplementary entitlement. Although offered membership, they have declined, so they are outside that 90 per cent. We run as a management committee. I am the chief executive officer and janitor and everything in between.

Irrigation in the Gwydir Valley, from the point of view of large-scale commercial irrigation, centres around the regional town of Moree. It starts about 20 kilometres to the east of Moree and goes out to about 120 kilometres to the west. However, there are also a lot of smaller irrigators, supplementary irrigators. The valley itself starts just west of Armidale, and back towards Moree there is quite a number of smaller scale, unregulated irrigators and a bit of groundwater irrigation as well. Our primary crop is cotton. As well, people also grow cereal grains—sorghum and chickpeas—and we also have a small but significant horticultural industry. We have the largest pecan nut orchard in the southern hemisphere and a growing citrus and olives irrigation horticultural industry.

As a snapshot of the water entitlement we have up there, there are 509,000 megalitres of general security licensing. Based on the New South Wales Office of Water Integrated Quantity and Quality Model, it has an average reliability of about 38 per cent, but if we look at the last eight years, it averages at about 10 per cent, and if we look at the last four years we have had a zero, a 24 per cent, another zero, and so far this year a zero as well. We have 178,000 megalitres of supplementary licensing, which is a terrible name because it suggests it is something extra. Supplementary water is simply water that enters the river system below the headwater storage, and there is a set of rules as to how that can be shared. Again, on long-term average across the valley, we can access around about 85,000 to 90,000 megalitres out of that, so around about 50 per cent of that water can be accessed. This year, 5,000 megalitres has been accessed to date, the water year being the same as the financial year.

We have a relatively small but very important groundwater resource, with approximately 29,000 megalitres available for irrigation use and another 4,000 megalitres for town water supplies. There is also a range of unregulated licences, and the taking of floodplain harvesting water has been an important component of agriculture in the Gwydir Valley for many years. I know from attending a briefingthe previous week that the New South Wales Government is in the process of putting in draft policy for the licence to bring the taking of that water in line with the Water Management Act 2000.

The terms of reference of the Committee refer to the likely impact of climate change. The view of the Gwydir Valley Irrigators Association is that the world has been seeing climate change in one form or another for many years. There is no doubt there is a range of climate cycles, some relatively short term. Certainly, the past 10 years has been a drier period than the previous decade. If we look back a little bit longer, the second half of the twentieth century was a lot wetter than the first half of the twentieth century. As far as the contemporary discussion on climate change, there is a large body of evidence that climate change is probably well occurring. However, what it means for valleys is unclear.

Probably the most comprehensive work in Australia, the CSIRO Sustainable Yield Study, looked at the Gwydir Valley, as it did every other major valley in the Murray-Darling Basin and since then across Australia. In the Gwydir, when it tried to work out what may be the climate change situation in 2030, it basically said it could get approximately 30 per cent wetter; it could get approximately 30 per cent drier. The best guess, which

is not, I suppose, a subjective decision on which model it felt was most realistic but just a statistical analysis of the range of models presented, was that it may get 10 per cent drier. So, with that huge variability in what may happen with water, I think the key thing in managing water is to make sure you have water sharing plans that are flexible enough and developed in such a way that they can handle the range of climate results.

We think that the Gwydir water sharing plan actually does that very well. There certainly have been some comments around that in general. Water sharing plans tend to favour extractive users in dry periods. I get a bit concerned about that because even the CSIRO and the Murray-Darling Basin Authority will concede that actually the Gwydir water sharing plan actually manages that far better than many others in that it fairly equally shares the amount of water that is available between the environment and irrigators or other extractors, be it dry sequences or wet sequences. I think that is the type of plan that we need to have. Where you have that in place, you can make a lot of good decisions.

If that plan sets up the basic rules—and maybe it is worth just looking at the basic rules that exist in the Gwydir—in terms of regulated or will it capture it in Copeton Dam available for the Gwydir Valley, we have a 45,000 megalitre environmental contingency allowance [ECA] account. That account or that amount of water is not technically a licence; it is an allowance, but it has many of the characteristics of a general security licence, that is, a general security licence has 10 per cent increment credited to it, so will that environmental contingency allowance account.

The main differences are that the maximum amount of water that can be stored in a general security account is 150 per cent of the entitlement while the environmental contingency allowance account can store 200 per cent, so they actually have space for storing 90,000 megalitres in Copeton Dam. They also have no annual use limit while we have a maximum annual use limit of 125 per cent and an average of 100 per cent over a three-year period. They have a little bit of extra flexibility with it.

Below the dam wall any flows that enter into the system, the first 500 megalitres a day have to flow through to the Gwydir wetlands. Gwydir wetlands are home to four Ramsay-listed sites and are considered a major bird breeding area within the Murray-Darling Basin. Once the flows exceed 500 megalitres a day, the share of those flows can be shared 50:50 between irrigators and the environment. If there is a flow of, say, 2,500 megalitres a day coming down the river, the first 500 will be set aside straight to the wetlands; the remaining 2,000 can be divided between irrigators and environment.

If you get to the stage where you turn on every pump in the Gwydir Valley—approximately 20,000 megalitres is the maximum amount that can be extracted from the valley in any one day—so once flows exceed 40,500 a day, the environment actually gets a greater share. Looking back over the longer term, certainly the average amount of water that goes to the environment from those below dam flows is round about 75 per cent. Over the last decade that percentage would be less, given the fact that we have only had relatively small flows and there have been very few opportunities where the flows in the Gwydir Valley have exceeded 40,000 a day, although it does actually happen occasionally, and we would like it to happen a lot more.

Those are the basic rules in the plan. On top of that the New South Wales Riverbank Program has purchased approximately 17,000 megalitres of general security water to be used as adaptive environmental water and the Commonwealth, at last count, had around about 88,000 megalitres, so in total, around about 105,000 megalitres in general security entitlement out of the 509,000 that is available. Out of the 178,000 megalitres of supplementary licensing, the Commonwealth holds 17,000 of those, so approximately 10 per cent of that. That is adaptive environmental water; it is obviously primarily there to be used for the environment but within the rules that the Government holds that. If they should decide that for anyone, at any particular time that the environment did not need that water, they would actually be free to sell, at least on a temporary or I guess even on a permanent basis, that water back.

It holds exactly the same characteristics as any other general security licence. In fact, you could look at it as being an environmental irrigator licence. That is really the key going forward. If you get a water sharing plan right—and to be honest, I am not sure whether the Gwydir plan got it right by accident or by design in terms of equally sharing good times and bad times, but anyhow, that is the way it has worked out, but if you have got that in place, you can then either decide that the environment has to take the good with the bad or if you decide that you want the environment to be somewhat more protected from negative climate change—if that occurs and things get drier rather than the potential 30 per cent wetter—you might say, "Okay, we want more water for the environment. The proper way of achieving that is by going out through some sort of market-based

activity and purchasing that licensing off willing buyers and willing sellers," just as Riverbank and the Commonwealth have done with that 105,000 that they have purchased to date.

While sitting at the market and buying it is certainly a relatively easy and straightforward way, other ways that we think are appropriate is the funding of irrigation efficiency programs, so basically saying, "Okay, we will co-invest with irrigators to become more efficient". The general rule of thumb is that they then expect 50 per cent of the annual estimated savings to be returned to them in forms of entitlement. From an irrigator's point of view that has got some benefits but clearly one of the major benefits of that approach is that it actually helps protect our rural and regional communities. If you simply buy the water—I have no qualms if it has been bought off willing sellers at a market-based price; the irrigator has sold that, they have made a decision, that is fine and they have been happy with the price; they have been fully compensated and looked after.

But towns like Moree, Walgett, Bourke, Narrabri and the like have now lost the potential economic generation of that water, and while it is good and fine and I am sure there is some economic activity to come from ecotourism and the like, it is very hard to see that in pure terms of economic activity for a region, that putting that water aside for the environment is going to actually in some way generate the same sort of economic activity, whereas if you go down the route of irrigation efficiencies and sharing the savings, water still retains in the economic use but the environment also gets their share.

If I were to list the ways that the Commonwealth or the New South Wales Government was wanting to acquire more water, my best preference would be sensible, rational irrigation efficiency scheme savings. If it is going to cost you three or four times the cost of straight-out buying the water to have some of these irrigation efficiency programs, as a taxpayer I am not going to support that, but if it is going to cost you may be twice as much as simply buying, I think there is a real economic argument for doing that because the simple cost of buying water on a per megalitre price does not take into account the long-term cost to our communities, and there are additional costs there.

So the first choice is irrigation efficiency schemes; the second choice is straight market purchase ; and the third choice is changes to the rules, and that can also affect the amount of water that is available. If you think in your mind of a typical bar-type graph where the down little strokes represent irrigators' entitlements. If you decide you want to take water and you do it through a market-based approach, you really just remove some of those bars. You take them out of the system, and you have got that block of water. If you decide to change the rules, and the rules that impact on the reliability of everyone else's water that is left, you are taking a bit off the top of all those bars. The problem is, taking that bit off the top may well bring it to the tipping point where all those bars are unviable. It is not the case that simply buying 10 per cent of water might mean these businesses lose 10 per cent of their profitability; it may be a case of making them either profitable or unprofitable, and therefore not to exist. That is the basic reason why we believe that purchase is the way to go, or even more preferably, the irrigation efficiency programs.

As I mentioned earlier, the principal crop in the Gwydir Valley is the growing of cotton. Yet, none of my members actually have "cotton growers" tattooed on their forehead. They grow cotton simply because in 99 years out of 100 it represents the best economic return for a megalitre of water on a general security irrigation system. You might recall that two or three years ago the price of wheat went sky high around about this time of year, planting time. It was one of those rare years when irrigators got their calculators out and said, "What would give me the best return? At this price, wheat might do the job." In some cases they took that decision and said, "Yes, it would." So they are certainly willing to grow other crops if they make the best economic return.

The unfortunate thing with that story is that it rained all November, the crop was absolutely downgraded quality-wise, and the price had plunged from about $400 to about $250 by the time they harvested. They do not grow cotton for the sake of growing cotton; they grow cotton because it makes the best return. Often you hear people say, "Why do you grow cotton in a country like Australia? It should be banned." If you banned cotton tomorrow, you would not use one less megalitre of water in Australia; everyone with water entitlements would use it on what happened to be the second best economic return, whatever that happened to be on the day.

The other important thing is that often you hear people say, "Why do you grow relatively low-value crops? Why don't you grow more horticulture?" Firstly, anyone travelling around the river land or down at Griffith at the moment would see many abandoned vineyards, because they are not exactly as high-valued as you would like. Secondly, once you have a permanent crop you need a permit and a secure supply of water. In some places, like the Gwydir Valley, even though we have very large entitlements we have a very volatile or

erratic water supply. In the last 20 or 30 years there has never been a general security entitlement of between 35 and 70 per cent in the Gwydir Valley; you either have good entitlements or poor entitlements.

Over the past four years we have had three years at zero. You cannot keep permanent crops alive on zero—you cannot keep them alive on 10. Hence, various valleys have developed in the way they have developed, in response to the type of security they have. We do have a little bit of room for slightly more horticulture in our valley. At the moment there are probably about 1,200 hectares; there is probably room to bring that up to 3,000 or 4,000 people. People are moving that way as we speak. But we are never going to see anywhere near the vast majority of that 509,000 megalitres of general security entitlement set aside for something like horticulture.

In terms of the role of the New South Wales Government in irrigation efficiency, I think the role is to ensure that the best research is out there to provide growers with options for irrigation efficiency. But it would be extremely dangerous for any government to try to tell someone what is the most efficient outfit for their particular operation. We certainly have members who believe that they are getting 30 per cent irrigation efficiency savings by installing lateral-move irrigators. It is a factor of: What are your soil types, what are your cropping procedures, and what was the optimisation of your previous farrow irrigation system?

The Gwydir Valley Irrigators Association has just been running a comparative trial of a property, funded through the National Water Commission. We set up four blocks side by side, a drip irrigation system, a very well laid out farrow irrigation system, a bankless channel system, and a lateral-move system. While the results are not finalised yet, it is quite clear that there is no real statistical difference in terms of the yields and the water efficiencies from those four. They all have their roles, and they all have their roles in the right place, but it is up to the individuals to make the decision about what works for them.

In terms of the motivation for making it work, if I were a potential irrigator in the Gwydir Valley thinking, "I want to set up to grow cotton", I would have to invest something like $30,000 a hectare, or more, just in irrigation water entitlements. When I have that sort of money invested, I have every incentive required to make sure that I am using that water in the most efficient manner possible.

In terms of challenges for New South Wales as we go forward, particularly in the world of the Murray-Darling Basin Plan, I think it is absolutely important that New South Wales gets its house in order going into this plan. In particular, we have concerns in our part of the world about the way supplementary water is being treated legislatively, and also about the way floodplain harvesting may or may not be treated. We believe that going into the plan, both those forms of irrigation extraction should have the same sort of legal protection as general security licences and high security licences; that is, they need to be issued in perpetuity and they need to be fully compensable, as under the Water Management Act 2000 and the Murray-Darling Basin Authority's risk assignment provisions as they come out in the Water Act 2007.

The previous witness made a comment that the licensing of floodplain harvesting will invariably lead to increased extractions, and he could not understand why we would be doing that in this environment. I am afraid the gentleman does not understand the policy or the situation at all. The licensing of floodplain harvesting is about regularising a practice that has been occurring not only with the knowledge but with the active encouragement of successive New South Wales governments. The extraction volume that is allowed is already accounted for in our water sharing plans. All the licensing will do is bring that process into a fully licensed activity, as is now required by the Water Management Act 2000. It has simply been a process of priorities for the New South Wales Government, bringing all their entitlements in line with that Act. In fact, the Water Act 1912 is still in operation. But one of the processes in moving over to the Water Management Act 2000 was, first, setting up the regulator licence properly, then issuing licensing for supplementary, then they handled groundwater, and now they are moving on to floodplain harvesting.

The truth of the matter is, with the licensing of floodplain harvesting it will immediately bring that practice in line with the 1993-94 cap and the current Gwydir regulated water sharing plan, and also bring it in under the new basin plan when that comes in. That just needs to be done properly, and it should be done as a matter of urgency. We applaud the New South Wales Government for getting a draft policy out there at this stage, and we look forward to making a full submission on it.

CHAIR: Can you further explain the concerns you have raised about how the Gwydir Valley is reported in CSIRO models for water availability?

Mr MURRAY: With regard to the CSIRO's sustainable yield, I guess if you are setting out and trying to do a study initially across the Murray-Darling Basin, you are trying to work out some sort of consistent model. But the problem with everything is that the world is not consistent. They came up with a model that basically said, "We will measure river flows at the point where the river ceases to be a gaining river and becomes a losing river." That happens to be a point in our area near Pallamallawa, a little village where a gauging site happens to be. That sort of system works great in southern river systems where there is snow. Basically, water enters the system at the top and works its way down the back.

In the northern valleys, and particularly in the Gwydir Valley, a lot of our inflows occur below that point. Because we are in a subtropical zone we get a lot of summer storms, and water created by storm events flows into the system. The CSIRO study suggests that our total flows are something in the order of, I think it is, 884 gigalitres, while the Gwydir Water Sharing Plan, which is the New South Wales Government one developed with the IQM model, takes into account these other flows and says our total flow is in the order of 1.1 million megalitres, of which irrigators extract 34 per cent. When you use the figures that come up in the CSIRO study, they say we extract 41 per cent.

As a general rule, most freshwater ecologists will say that if you are operating in a system that takes roughly a third, you probably have a fairly healthy system; when you start going over that you start running into problems. That is a major issue. Again, the CSIRO will recognise that the model they used treated the Gwydir unfairly. We have brought this to the attention of the Murray-Darling Basin Authority. The authority has been reasonably good in talking; they have not been good at all in communicating and consulting, so we do not know as yet if they have taken that information on board. We know they have got it. What they have done with it, we have no idea.

That reminds me of another statement with the previous witness talking about how the major studies simply looked at where fish and macroinvetebrates are. Probably the key major study of river health on a Murray-Darling Basin scale was the Sustainable Rivers Audit, and it actually looks at three main things: hydrology, fish and macroinvetebrates. So there are actually some reasonably comprehensive studies in those areas that are available and we are told will be used in the development of the proposed Basin Plan.

CHAIR: Thank you for your evidence. If the Committee has any further questions we will forward them on to you.

Mr MURRAY: Not a problem.

(The witnesses withdrew)

MARK MOORE, Policy Analyst, New South Wales Irrigators' Council, Level 9, 15-17 Young Street, Sydney; and

ANDREW GREGSON, Chief Executive Officer, New South Wales Irrigators' Council, Level 9, 15-17 Young Street, Sydney, affirmed and examined.

CHAIR: Gentlemen, thank you for appearing before the Committee today. I am advised that you have been provided with our terms of reference and the relevant standing orders.

Mr MOORE: We have.

Mr GREGSON: Correct.

CHAIR: The rules of parliamentary privilege extend to you now so you are afforded those protections but, with that, there are some serious issues with regard to misleading the Committee under the same rules. Would either or both of you care to make an opening statement?

Mr MOORE: If we could please, yes. First of all, I would to thank the Committee for the opportunity to appear here today and to follow up in person on our submission. Just to quickly go over some of the main points. The New South Wales Irrigators' Council believes the cooperation between all water users and States in effectively and equitably managing water resources needs to be continually encouraged. The CSIRO has put out different climate scenarios representing various impacts on water resources and we acknowledge that there maybe an impact on available water and therefore irrigated agriculture.

Management structure in New South Wales is well suited to deal with the short-term impacts of climate variability. Available water determinations account for only the water coming into the system and allocate a volume or percentage against each licence. In this way only water that is available is used. The impact of climate change on irrigated agriculture will be less severe than dry land agriculture, increasing the importance of irrigation and efficient water management practices. The focus lately has been on purchase of entitlement for the environment. However, infrastructure investment funding must be rolled out as quickly as possible both at Commonwealth and State level.

This will lessen the effects of climate variability and maintain efficient agricultural operations, maintaining regional communities and food production capabilities. Providing security to remain viable with confidence to invest, means ensuring water licences from all forms of take are issued in perpetuity. Presently flood plain harvesting and supplementary flows are not perpetual, which does not provide any security for the entitlement holder or for asset building certainty. In order for water to move easily to its most valuable and productive use, a regulated water market providing an efficient and transparent platform to trade and sell water will assist in addressing the management of this valuable resource. Presently this is not in place.

The first draft of the Basin Plan will include an individual Environmental Watering Plan, which I assume will include an individual asset plan for each of the environmental assets listed, and must include prioritisation of these assets, delivery mechanisms, water use objectives and a cost analysis of water held in the environment. Understanding the costs of maintaining environmental assets is essential in representing a comparison to the value of productive use. We do agree that all users should play an active role in managing the water resources. We therefore do not agree with a Federal takeover of the basin, which would only politicise the management process. The varied topography, climate and soil throughout Australia mean that local knowledge in managing water resources is more important than ever. Maintaining individual State management and utilising local knowledge must be protected.

Focus lately has been on the Murray-Darling Basin in regards to water conservation and management. There is no question about the importance of managing the Murray-Darling Basin. However, outside of the basin is also very important. The coastal irrigators, for example, are faced with very short rivers, mostly unregulated. The storage of water, therefore, needs to be encouraged in that particular system—on-farm, cooperative or public storages to capture large amounts of water in times of plenty in order to utilise them in times of low supply. To close, throughout Australia farmers who want to keep farming, regardless of the geographical location, are open to the opportunities that will allow them to provide their families, the community and Australia.

Mr GREGSON: I want to make some brief comments in respect to the forthcoming Basin Plan. As you know, a draft of the Basin Plan is due to be released in July or soon thereafter. The New South Wales Irrigators Council has been reticent to date to make any comments in respect of the implications of the Basin Plan, as we have waited to see the contents of it. The progress of the development of the plan, however, is leading us to some pretty significant concerns, particularly in respect to the amount of water, which it appears probable now will be taken away from productive use through the implementation of the plan. I do not think it is overstating the case at all to suggest that it is a distinct possibility now that the Basin Plan will drive a stake directly through the heart of communities that rely on irrigated agriculture—the towns, the economies and the social fabric that they support.

We have long advocated that the Basin Plan should take into account the three objects that are stated quite clearly at the start of the Commonwealth water Act, that is, social, economic and environmental. It seems very clear to us that one-third of those objects is the sole basis on which the Basin Plan is being developed. There is an assessment of how much water is needed for the environment on the basis that water is the sole answer to environmental needs. It appears to be a policy of "just add water" and that will fix the environmental requirements across the basin. That is clearly an inappropriate approach to it and certainly does not provide the balanced approach that New South Wales signed up to when it agreed to implement the Basin Plan and, indeed, the full objects of the water Act. We are greatly concerned about those implications and trust the Committee will consider those in the course of looking at water licences in this State.

CHAIR: Thank you, the Committee will look at all relevant factors. We understand that irrigators are using, to limited degrees, different innovations to reduce the amount of water going to their properties and to use water more efficiently. Can you outline some of those improvements and how you are assisting your members in doing that?

Mr MOORE: Depending on where the irrigators are located, there are different forms of irrigation methods or efficiencies that will be appropriate. It could be anywhere from the relining of channels to delivering water more efficiently throughout the system; sub-surface drip irrigation; lateral moves or centre pivots, meaning delivering a concentrated amount of water onto a particular part without getting it onto areas where it does not need to be; more efficient storage of water in certain areas where there are unregulated systems or large amounts of storage capacity in dams. On-farm storage is the main way that water is stored, so to lessen evaporation or seepage through those areas.

Some of the things we have done as a council is to run a program to visit not only within New South Wales but also outside New South Wales to promote changes in efficiency that people can implement on-farm. We have taken four irrigators with us who are specialised in different areas of irrigation efficiencies. We have them do a presentation to irrigation farmers or anybody who is interested in water efficiency and to share their information. We call the program Sharing of Knowledge. It is supposed to break down areas and to share information that can be helpful in improving efficiencies.

CHAIR: We have heard evidence from the Gwydir Valley Irrigators Association that it would support policy developments of co-investments by the taxpayer to the farmer to improve efficiencies as opposed to simply purchasing water outright. Does your council support policy moves in that direction?

Mr GREGSON: Absolutely. The New South Wales Irrigators Council has long been an advocate for productivity increases as the first means of obtaining environmental water. We note that the Commonwealth's Sustaining Rural Infrastructure program allocates a bit over $5 billion to infrastructure development. We have argued that that should have been rolled out at least at the same pace as the water buy-back program to give irrigators the opportunity to access the program that best suited them. But when it comes down to it, and as Michael from the Gwydir Valley Irrigators Association said, for every megalitre that is obtained through infrastructure development you are maintaining the integrity, the economic efficiency and the social fabric of a town because you are keeping the jobs there and you are keeping the activity there.

It needs to be recognised that a water licence is the sole thing that underpins economic activity in a lot of these towns and obviously is the sole thing that underpins an irrigation enterprise. If there is no certainty or security in that licence, there is no economic incentive to invest and there is a great deal of uncertainty for the rest of the community that wants to invest on the back of that as well. So the licence is key and critical to all of this.

Mr GREG PIPER: Could you advise us of the New South Wales Irrigators Council's constituency? We are told here that it represents 12,000 irrigation farmers. I assume that is through other groups and that you are the peak or umbrella organisation. Are any irrigators individual members?

Mr GREGSON: You are correct, in the first instance the council has been around 26 years and is the peak group. Its membership is essentially twofold. Those sitting around the council table are representative groups. They fall into three categories—geographic stretching from the Richmond Wilson water users group in the far north-east of the State right down to the south-western water users in the far south-west, so both coastal and inland systems. Commodities groups, the Rice Growers Association, Cotton Australia, and various horticultural groups are also represented around the council table, as are the infrastructure operators. The New South Wales Farmers Association is also a member representing individual farmers. That is who sits around our council table but in formulating policy we are doing so on behalf of the 12,000 water access licence holders in the State.

Mr GREG PIPER: As the peak representative organisation, do you feel you are given appropriate representation or access to decision-making across the board, whether it is at the State government level or federal agencies? What is the relationship?

Mr GREGSON: Access, yes. Influence is an interesting question. At a State level we feel that we are not only given the opportunity to be heard but on a regular basis we are also listened to. At a Commonwealth level, particularly with Commonwealth agencies, I could not say the same thing. There is a great deal of Commonwealth agency work that involves being seen to communicate, being seen to engage, but we are not entirely certain that any of those enormous efforts to be seen to be engaging are actually useful or relevant. I suspect we will see the best evidence of that when the draft Basin Plan is released.

Mr GREG PIPER: You are talking about authorities there, but there are obviously other players in the water management cycle. Some of those may compete for water, for example, the mining industry. How closely does your organisation work across the board with other industries that might wish to place a demand on water?

Mr GREGSON: We are and always have been open to talk to anybody and have always approached the problem from the aspect that if all sides of the problem can meet with a mutually agreeable solution, then that is the best option to approach government with. To that extent, we speak regularly with environment groups and others that might be interested in water management and water use. We certainly do not always agree with them, but we will always take the opportunity to understand, if possible, from each perspective the problem before we approach a solution.

Mr GREG PIPER: That relates to the environment groups. What about other industrial users, for example, mining?

CHAIR: Obviously there is competition between industrial users of water as there is competition for water per se. We have heard evidence from the mining council of its efficient use of water compared to other jobs and economic activity, significantly more so than irrigators. Do you have any comment on that?

Mr GREGSON: I do not think we feel the need to abuse any other group in terms of the way that they use water.

CHAIR: I am not asking for abuse.

Mr MOORE: They are using water in a completely different way than irrigators are using it. We have no real issue with mining using water. What we sometimes have an issue with is that any time an aquifer is cracked or a streambed is affected, that then affects other users downstream. So the actual licensing of the water, what they actually use the water for, they might not be able to do it very efficiently but—

CHAIR: What I am asking is what economic value does the irrigating community provide to New South Wales jobs and social infrastructure?

Mr GREGSON: It is not only a significant contribution but it is an ongoing contribution. Our use of water, of course, is as part of a renewable activity. Farming happens every year; minerals can only be extracted once. That is not to say that the two of them cannot co-exist and it is not to say they should not co-exist and, in fact, there are plenty of examples where they do. As long as water use for mining activity is governed by the

same rules and they are subject to the same market that irrigators are, then we are not necessarily going to have a problem with it.

Where there is the potential for interference with existing irrigated agricultural activity—and indeed dry land activity—then, of course, we have got concerns with it, and particularly in respect of aquifer interference and particularly in respect of long wall mining. We would suggest that there needs to be proof beyond any reasonable doubt that you are not going to interfere with an aquifer that is a long-term, ongoing, sustainable resource for a one-off extraction of minerals. But I am sure we can all come to an agreement on that.

Mr GREG PIPER: Going back to an issue Michael raised, and we probably did not follow it up then but you have covered the same point in your submission. You are talking about the floodplain harvesting of—or Michael was referring to this—supplementary flows and the need for these licences to be provided in perpetuity rather than for life of plan. Michael elaborated on that but I have to say that it is something that I do not quite yet understand what the implications are there—not the value of the water but this significant difference between the licence in perpetuity as opposed to life of plan.

Mr GREGSON: They are two different things, floodplain harvesting and supplementary entitlement. Supplementary is when, for example, there is a significant below-dam flow event where there is an opportunity to access that water, whereas floodplain, we think of it as outside the river. So they are different forms of extraction; they are also different licences. There is a draft policy that is on a second draft now in terms of issuing licences for floodplain harvesting and we, along with Michael, have been heavily engaged in how that might look.

There was a requirement under the National Water Initiative that all forms of extraction be licensed. So both floodplain harvesting and supplementary entitlement use of water has been going on for many years in New South Wales and has been undertaken legitimately and legally, and the National Water Initiative required that those legitimate and legal forms of extraction be licensed. That is what is happening now with floodplain harvesting. The second draft of the policy says that those licences will be issued in perpetuity, and that is the sort of security you need as an economic indicator to make decisions on how it is managed at an individual level.

As Michael said, that does not result in any increased levels of extraction; it merely changes the management structure of what is already occurring and formalises it through a licence and recognises the market-based approach that Australia has chosen to take towards water management—that includes environmental water management. Without that market-based approach, without a solid perpetual indefeasible title, you cannot go and buy it back—and, of course, there is $3.1 billion set aside for buyback; you cannot invest in infrastructure in return for the provision of water, because indefeasible perpetual entitlement does not exist. So every approach that we have taken to water management relies on a market-based approach, which is underpinned by the issue of a perpetual licence.

There is a proposal now that floodplain harvesting licences would be issued in perpetuity. At the moment supplementary entitlements are not issued in perpetuity, they are revokable, and that obviously does not underpin that asset, which is why both the Irrigators Council and GVIA, as a member of it, have called for supplementary entitlements to be issued in perpetuity as well. It is not about increased or decreased extraction; it is about conforming to a management system that Australia has chosen to embark on.

Mr GREG PIPER: And the existing practice that has been there?

Mr GREGSON: Exactly.

CHAIR: I just have one last question and it relates to comments you made in your submission that you have concerns about the State Government's priority projects program—a program that is meant to deliver infrastructure investment for improving sustainability of water. Can you explain your concerns briefly?

Mr MOORE: I think it is just the speed in which the programs are not really being rolled out. We would like to have seen the buyback working in conjunction with the efficiency programs, but the buyback has definitely been a program that has taken the most focus and has been the one that has been implemented the fastest. There are obviously a lot more details to work out when you are talking about infrastructure investment, but that program is now starting to come through. But we feel it should have been up and running much sooner than it has been, and in order to give irrigators and communities the opportunity to choose between which

program is going to best suit their particular operation and give them the opportunity to remain viable and keep communities working, the infrastructure program is definitely the better of the two, we feel.

CHAIR: Thank you for your time.

(The witnesses withdrew)

(The Committee adjourned at 12.15 p.m.)