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STANDING COMMITTEE ON RURAL AND REGIONAL AFFAIRS AND TRANSPORT

Reference: Management of the Murray-Darling Basin system

TUESDAY, 10 MARCH 2009

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SENATE STANDING COMMITTEE ON

RURAL AND REGIONAL AFFAIRS AND TRANSPORT

Tuesday, 10 March 2009

Members: Senator Sterle *(Chair)*, Senator Milne *(Deputy Chair)*, Senators Farrell, Heffernan, Hutchins, McGauran, O'Brien and Williams

Substitute members: Senator Siewert for Senator Milne

Participating members: Senators Abetz, Adams, Barnett, Bernardi, Birmingham, Mark Bishop, Boswell, Boyce, Brandis, Bob Brown, Carol Brown, Bushby, Cameron, Cash, Colbeck, Jacinta Collins, Coonan, Cormann, Crossin, Eggleston, Feeney, Fielding, Fierravanti-Wells, Fifield, Fisher, Forshaw, Furner, Hanson-Young, Humphries, Hurley, Johnston, Joyce, Kroger, Ludlam, Lundy, Ian Macdonald, Marshall, Mason, McEwen, McLucas, Minchin, Moore, Parry, Payne, Polley, Pratt, Ronaldson, Ryan, Scullion, Siewert, Stephens, Troeth, Trood, Wortley and Xenophon

Senators in attendance: Senators Birmingham, Farrell, Fisher, Heffernan, Hutchins, Nash, Siewert, Sterle, Williams, Xenophon

Terms of reference for the inquiry:

To inquire into and report on:

1. Water management in the Coorong and Lower Lakes for inquiry and report by 30 September 2008, with particular reference to:
    a. the volume of water which could be provided into the Murray-Darling system to replenish the Lower Lakes and Coorong;
    b. options for sourcing and delivering this water, including:
        i. possible incentive and compensation schemes for current water holders who participate in a once-off voluntary contribution of water to this national emergency,
        ii. alternative options for the acquisition of sufficient water,
        iii. likely transmission losses and the most efficient and effective strategies to manage the delivery of this water,
        iv. Commonwealth powers to obtain and deliver water and possible legislative or regulative impediments, and
        v. assessment of the potential contribution of bringing forward irrigation infrastructure spending under the Council of Australian Governments agreement to deliver water to save the Coorong and Lower Lakes;
    c. the impact of any water buybacks on rural and regional communities and Adelaide including compensation and structural adjustment; and
    d. any other related matters.
2. The implications for the long-term sustainable management of the Murray Darling Basin system for inquiry and report by 19 March 2009, with particular reference to:
    a. the adequacy of current whole-of-basin governance arrangements under the Intergovernmental Agreement;
    b. the adequacy of current arrangements in relation to the implementation of the Basin Plan and water sharing arrangements;
    c. long-term prospects for the management of Ramsar wetlands including the supply of adequate environmental flows;
    d. the risks to the basin posed by unregulated water interception activities and water theft;
    e. the ability of the Commonwealth to bind state and territory governments to meet their obligations under the National Water Initiative;
    f. the adequacy of existing state and territory water and natural resource management legislation and enforcement arrangements; and
    g. the impacts of climate change on the likely future availability of water.

WITNESSES

Committee met at 3.38 pm

CHAIR (Senator Sterle)—I declare open this public hearing of the Senate Standing Committee on Rural and Regional Affairs and Transport. The committee is hearing evidence on its inquiry into the long-term sustainable management of the Murray-Darling Basin system. I welcome witnesses here today. Before the committee starts taking evidence, I remind all witnesses that, in giving evidence to the committee, they are protected by parliamentary privilege. It is unlawful for anyone to threaten or disadvantage a witness on account of evidence given to a committee, and such action may be treated by the Senate as a contempt. It is also a contempt to give false or misleading evidence to a committee. The committee prefers all evidence to be given in public, but under the Senate's resolutions witnesses have the right to request to be heard in private session. It is also important that witnesses give the committee notice if they intend to ask to give evidence in camera. If a witness objects to answering a question, the witness should state the ground on which the objection is taken and the committee will determine whether it will insist on an answer, having regard to the ground which is claimed. If the committee determines to insist on an answer, a witness may request that the answer be given in camera. Such a request may, of course, also be made at any other time. On behalf of the committee, I thank all those who have made submissions and sent representatives here today for their cooperation in the inquiry.

[3.40 pm]

BYRNE, Mr Patrick Joseph, Member of Committee and Journalist, Murray-Darling Water Crisis Management Council

TREWIN, Mr Kenneth Rodney, Member, Murray-Darling Water Crisis Management Council

CHAIR—Welcome. Do you have any comments to make on the capacity in which you appear?

Mr Trewin—The Murray-Darling Water Crisis Management Council was established approximately three years ago.

CHAIR—I invite you to make an opening statement.

Mr Trewin—I daresay the invitation to appear today came about due to the submission we made last September. From our point of view, that submission is a follow-up to what we produced in November 2007, which was a similar document that pretty much fell on deaf ears. Despite what we had to say in the earlier document—with the amount of research, local knowledge and expertise that went into it—sadly we are now at crisis point in the Murray-Darling Basin, especially in its management.

Senator NASH—Could I ask you to table that document?

Mr Trewin—Could I table it at the end?

Senator NASH—Yes.

Mr Trewin—Thank you. This has been extremely frustrating to the communities of our region, especially regarding irrigation and the way that the system has been run and managed over the last two years. From our point of view, nothing came out of Melbourne Cup day with the previous government. It was just a lot of rhetoric and hot air. Sadly, we are now at absolute crisis point in our communities, especially in the Murray region, the Riverina and on to Mildura and northern Victoria.

We get around a fair bit in Melbourne and we go to Bendigo, Mildura, Deniliquin and Albury frequently, and I do not think there is an easy fix to this. I think there has to be some vision in government today. What is lacking in this country is vision—the desire to really want to do things and fix this country. Shortly, I am going to hand over to my colleague Patrick Byrne to speak about something that we have been developing over the last few days and only printed off about an hour ago—that is, the food crisis we are now facing in this country. Believe me, you are about to get a shock. We are not looking for quick fixes. We are looking for something with real teeth: environmental reservoirs. We believe they are absolutely paramount to the future development of this nation, particularly in light of what we are going to hear in a moment about the food crisis we are heading into, which is falling on deaf ears everywhere.

Mr Byrne—Ken said we have been doing this over a couple of days. We have actually been doing it over a few years, but we have tried to compile it with some meaningful statistics for you, the government and all members of the parliament to have a look at. I have given the committee two sheets prepared by an economist—I will go into his details a little bit later—that show ABARE figures on Australian food production. The point of giving you these figures is to ask: do people from all sides of politics understand that, when you do the calculations, the broad objective of the money that is being spent on the Murray-Darling Basin is to buy water from farmers for environmental flows? Using ballpark figures, we are talking about around 3½ million megalitres, which is about 30 to 31 per cent of the water allocated to irrigation in the Murray-Darling Basin.

The Murray-Darling Basin constitutes approximately 40 per cent of Australia's agriculture and it is worth in the vicinity of $110 billion—that is, food and fibre plus downstream processing industries. I am not necessarily including the input industries. If you take 40 per cent of that figure, it comes to 12.2 per cent of Australian agriculture which is about $13 billion in Australian agricultural terms.

If you look at the first of the two sheets I have given you, one gives you the figure from ABARE of the food and beverages imports and the second is the food and beverages exports. They are a slightly different scale because of the different figures. What you see is that going from 1988 forward we are seeing an almost exponential rise in food and beverage imports. If you look at the figures on food and beverage exports, they had risen for a time. They have flattened out. I will come to the significant factors here in a moment. If you look at the second sheet, which gives you the balance of food and beverage exports and imports, you get to a point where you see that the net balance is declining.

The first point I want to make to the committee is if you look at the first of those sheets on exports and see that we are exporting around $1.2 billion worth—I am being a little bit generous there—of food and beverage exports per month, that is around $14.4 billion per year. If you look at what we will take out of production in the Murray-Darling Basin—these figures have really been done on the back of a postage stamp and one of my recommendations is that you really need to get some expertise out of ABARE in here to discuss this—we will be taking about $13.4 billion worth of agriculture out of production. This will turn Australia into a net importer of food and then we will have rising food prices. That is the point I am trying to get at first and foremost.

Unfortunately due to photocopier problems I cannot give this to everyone, but I would like to have this sheet passed around if you do not mind.

The second set of figures is also from ABARE. They have been put in two formats because ABARE's figures have been slightly inaccurate in recent times. ABARE's index of the value of net farm production in Australia shows that somewhere between 2017 and 2025 hits zero. It means we are going to have a massive collapse of agriculture. They are not my figures.

Senator HEFFERNAN—Can you say that again?

Mr Byrne—The ABARE figures as projected here, which have been done by an agricultural economist, Dr Mark McGovern, who has been studying this stuff and writing on it since the late 1990s. There is a difference between the two graphs. These are the raw agricultural figures and

these are the slightly amended figures. Between 2017 and 2025 the real net value of farm production in Australia hits zero. These figures were first done in about 2001 and have been confirmed by the latest ABARE figures. They are ABARE figures.

Senator HEFFERNAN—Yes, but for what reason does it hit zero?

Mr Byrne—Look at the chart. That is the value. That is the long-term—

Senator HUTCHINS—We have just asked to have them photocopied.

Mr Byrne—The photocopies will be around in a minute.

CHAIR—So the projection is zero.

Mr Byrne—There are a whole variety of reasons in terms of the trends in agricultural policy. I have worked with farmers—

Senator HEFFERNAN—You are saying that by 20-whatever it is going to be zero?

Mr Byrne—That is right.

Senator HEFFERNAN—Profit or production?

Mr Byrne—The real net value of farm production.

Senator HEFFERNAN—That will be profit.

Mr Byrne—It is basically profit. It will come down to profit.

Senator HEFFERNAN—What is the gross?

Mr Byrne—These are the real net value figures. I want to make a recommendation on getting all of these other figures together to you later on. I have given the net figures because the net figures are the ones that count.

Senator HEFFERNAN—In 2006-07 the Murray-Darling Basin produced $4.2 billion out of irrigated agriculture, $360,000 a year. That might mean that we produced $14 billion, but the net figure after costs is zero.

Mr Byrne—That is right.

Senator HEFFERNAN—Are they putting it down to whether we are in or out of emissions trading, do you know?

Mr Byrne—No, this is the long-term trend that has been going on—as you will see from the figures—from 1957 to 2005-06. The latest figures are from 2007-08. They are the long-term trend figures, and I want to go into the reasons why in just a moment.

Senator HEFFERNAN—Net profit or net production?

Mr Byrne—Net value of farm production.

Senator HEFFERNAN—Does anyone on the committee understand what that means?

Mr Byrne—If you want to boil it down into profits, another way of putting it is that net farm profits hit zero in that time. Net farm production—that is, the value of production—

Senator HEFFERNAN—So what are they lining up in the cost benefit of that as to why they arrive at that? Is it too much carbon tax, too much—

Mr Byrne—I want to recommend to the committee that they get a couple of people in here. This is what I am getting at more than trying to do a detailed analysis of all the stats here. What I am trying to say is Dr McGovern published a paper in 1999 called *On the unimportance of exports to Australian agriculture*. He was not having a go at the export sector; he was saying that the concept that we export 80 per cent and consume 20 per cent is wrong. There is a paper that is about to be copied for you and put around called *The Customs House agreement*. Subsequent to his paper being produced and verified by Ted Kolsen, who is the former head of the University of Queensland economics department, Rod Jensen, the former dean of the department, had two leading economists go through his figures and they said that the figures were correct. There was a meeting between McGovern and leading ABS people, mainly people who, like him, are input-output analysts who can figure out the difference between the value of the farm going into wheat, how much goes into bread, how much goes into wheat that is exported or bread that is exported or cakes that are exported. He works it all out so you can figure out what is exported and what is domestic.

This is the agreement that was signed off between him, the academics that he was working with, leading academic economists and also the leading input-output analysts from the ABS. He said that there is no foundation to the claim that we export 80 per cent and consume 20 per cent. At first stage production it is somewhere between 25 per cent and roughly 30 per cent, as I vaguely recall. It is being photocopied at the moment. You can check the figures.

What these figures on trade show is that our trade position has deteriorated so that those figures have gone down even further. If I do a back-of-the-stamp calculation, if you look at the rough trade figures at the moment of $14.4 billion, if you take 30 per cent of the water out of production in the Murray-Darling Basin, given that it is 40 per cent of Australian agriculture, it will take $13.4 billion worth of agriculture out of production, which gets us to the point where we are a net importer of food.

I am saying that there is a background to the papers that we have given you and this is the background to it. I had a long talk to McGovern yesterday, and he said that he had spoken to ABARE, who said they know what the figures mean. He said that he spoke the other day to the Queensland department of primary industries and they said they knew the figures. But there is no interface going on between ABARE, ABS and the governments. There is no interface going on to say: ‘Hang on. We are facing a crisis here. We could end up being a net importer of food rather than an exporter to the world.’

The second problem that comes out of this is that there is an attitude that we feed 60 million people. I was watching the Minister for Agriculture, Fisheries and Forestry, Tony Burke—who I know and respect a great deal—on Sunday on *Landline* saying, 'We feed 60 million people.' On these figures we do not feed 60 million people. We feed ourselves and a bit more. There is an attitude that it does not matter if we lose 30 per cent of the farmers out of the Murray-Darling Basin because we will have plenty of food. We are not going to have plenty of food. That is the point. And these are not my figures. These are ABARE figures. If I can finish on one last thing, I am happy to take questions. The minister made an interesting point. By the way, I am not taking on any side of politics here because the policies I am talking about in terms of the Murray-Darling Basin are across the board.

The minister said something interesting on *Landline* on Sunday. He had a diagram showing that Australia's productivity in farming is going down and he said we are losing our edge. I wrote to the minister last year and basically said to him that I approached agriculture from the point of view of productivity because that is the buzzword of the time and it is true. Countries get ahead by encouraging the industries in which they have high productivity. Gary Banks from the Productivity Commission said in one of his reports, in about 2002, that if you look at the productivity figures in Australia, the third highest productivity sector is agriculture in the last two productivity cycles. The only two higher ones were telecommunications and something like supermarket logistics, which is around computerisation. That was higher than manufacturing and almost any other sector you looked at. What Tony Burke showed the other day is the direction of agricultural productivity. It is going in the same direction as our net exports, which are going down, or our net farm income, which is going down.

The minister has the figures now, but when I spoke to him last year I only had anecdotal information. I said that productivity in agriculture is driven by the elites, the top one to three per cent who basically are the creative ones who devise the new tools, the new machinery, the new styles of agriculture, and that that then permeates through the industry. What is happening across agriculture because of this long-term decline is that the elites are now saying, 'We're getting out.' The very ones who drive productivity are the ones who are leaving. I think the minister unfortunately missed the point in what he was saying on Sunday on *Landline*. I can give you two examples of the elites who drive productivity who are getting out. One is a friend in northern New South Wales who is a leading wheat farmer. He has been in the industry for 30 years with his sons. He said: 'We've done our calculations. There is no return on investment anymore in agriculture and we're getting out.' They have sold everything. He has about 12 patents on things he has devised for the wheat industry. One of my close friends in Victoria who has recently left dairying told me he went back home the other day and the farmer next to him, who has had the highest productivity in the dairy industry in Australia, has now left the industry. This is what is happening now.

What we are trying to say today is, firstly, there has to be a rethink on what we are doing with water, and what we are planning to take in water, or else we are going to find that farmers will not wait until net farm income is zero, they are going to get out—and they are getting out. One of substitutes for this has been managed investment schemes. One of the attitudes has been: 'All right, if we can't get investment in agriculture, if there is disinvestment, let's give MIS tax deductions'—which is basically Collins Street farmers, who are not farmers at all, getting tax concessions to invest in agriculture. This is no way to run agriculture.

Senator NASH—That is right.

Mr Byrne—The first of the recommendations we want to make to the committee is: don't take my word for it; get one of the leading experts like McGovern in here to talk to the committee. The second is: you have got to interface with ABARE and the ABS and ask them the meaning of these statistics and what it means for the future of Australian agriculture and look at the reasons behind it. Part of it is the terms of trade, which has been declining rapidly; it is declining as fast as agriculture is going down. And if the terms of trade cannot be saved then we have to start looking at alternative policies.

CHAIR—I want to clarify one thing, Mr Byrne. I appreciate you tabling these figures for the committee's perusal. At no stage do I wish to demean or intend to demean Australia's agricultural industry—and I want to make that very clear before senators jump—but this committee was told a couple of years ago, on ABARE's predictions, that fuel would be around 50c a litre. So let's not forget that either, so that we have a balanced presentation. You do not have to comment on that; you were not at that hearing.

Mr Byrne—I just make one comment: I totally agree with you.

CHAIR—I am just reminding senators. I am not degrading the work of Australia's agricultural industry, so you do not have to jump on that.

Mr Byrne—I would like to say one thing. That is why these figures are adjusted. As Dr McGovern says, how come we are in a drought—

CHAIR—Mr Byrne, you had a very long opening statement, which we appreciate and we appreciate the figures you supplied to us, but I hear comments coming of 'hear, hear' and whatnot so we will just get that very clear.

Senator HEFFERNAN—I apologise for being late. I still have not got what your message is. The Murray-Darling Basin is in decline. If there is no rain this winter and spring then the Murray River will probably fail. The mob down the bottom want water for lakes that do not exist. You say the long-term outlook for agriculture is zero profit. I take it that is what you mean. I will not go into that because we have an inquiry into that. But what is your message? What have you come here today to tell us?

Mr Trewin—There are about five messages and that is one of them.

Mr Byrne—No, he wants to know what the message in all of this is. If at the moment you look, without finding alternatives, to take 3½ million megalitres out of production, Australia will become a net importer of food. That is the message.

Senator HEFFERNAN—Yes, well that is garbage. What is yours?

Mr Trewin—I do not believe it is, Senator. With respect, it is something we have been delving into for the last three years.

Senator HEFFERNAN—Three and a half megalitres out of where?

Mr Byrne—The Murray-Darling Basin environmental flow.

Senator HEFFERNAN—With great respect, the science is telling us—

Mr Byrne—Gigalitres, sorry. It is 3,500 gigalitres.

Senator HEFFERNAN—That is fair enough, but science is telling us that Mother Nature is going to do that, not man. Science is telling us that in 40 years time, due to climate change, regrowth of forests, the non-plotting of forest interception—all the things that are happening—we are going to lose somewhere between 3,500 and 11,000 gigalitres. The 11,000 gigalitres, science says vaguely, is at the catastrophic end, but regardless of what happens, they are saying, there is going to be a decline in run-off. I am not too sure whether you accept that. The 3,500 gigalitres that you are talking about is being pinched from the system by the environment or something is it?

Mr Trewin—No. We are very much for the environment.

Senator HEFFERNAN—So where are the 3,500 gigalitres going?

Mr Byrne—I am looking at the policies that are broadly being adopted in terms of how the $10 billion to $13 billion is being spent in the buy-up of water mostly for environmental flows.

Senator HEFFERNAN—Can I tell you something about the $10 billion to $13 billion? If the science is right on the weather, at the end of the spend there will still be zero allocation in most river systems for general-purpose water, not because of mankind but because of Mother Nature. It is a stupid argument to argue, I think, some of that proposition.

Mr Byrne—I think it depends on what happens. Can I pass this around to you? This is out of the *Weekly Times* from December last year and shows the oscillating periods of wet and dry in the basin that go for about 25 to 30 years based on El Ninos and La Ninas.

Senator HEFFERNAN—I am very familiar with that. Can I give you an instance of that? Back in the 50s the average flow of the Goulburn River was about 2,700 gigalitres. We expect it to go down to 350 gigalitres this year. I am not interested in what is causing it; I am interested in what we are going to do about it. And I am not interested in having people come here and try to raise the hopes of irrigators that somehow we are going to have this magic pond of water appear if, in the long-term, the science is saying: 'I am sorry. You are going to have to get used to doing more with less and you have got to disproportionately return water to the freight system of the river as the run-off declines.' And bear in mind that only four per cent of the water that falls in the Murray-Darling Basin actually finishes up in the river system as opposed to 35 per cent in most of the rest of the world and 10 per cent across Australia. It is a pretty dry thing, and the forecast says that rather than plot and plan and raise people's hopes based on what happened in 1956 or 1974—if you have got a little thing on your finger and the doctor says the melanoma you would either get a second opinion or get it off—the scientists are telling us that in 40 years time we are going to have somewhere between a 25 and 45 per cent decline in run-off in the Murray-Darling Basin southern reaches. We have to deal with that. What your 3,500 gigalitres is about I do not know.

Mr Byrne—The 3,500 gigalitres depends on whether there is water in the basin, of course, ultimately to take as permanent water that is brought up for environmental flows. That is what it is discussing. As it shows, there is an oscillating period. The first point is if you take the water—if the water is there and it is taken—that has an effect on agriculture. The second point we are trying to make is that we need new dams built.

Senator HEFFERNAN—We need?

Mr Byrne—We need new dams built, whether it is in the basin, or whether it is using water from North Queensland. Out of interest, I showed the chair the Burdekin dam, which was three metres over its capacity on 1 February. The water is there—it is up north. I think the difficulty at this stage—and it should be approached by the parliament and the government—is shifting some agriculture to Queensland, if you can do it. But, at the moment, the impediments are that the land-clearing laws do not allow much opening, there have been no new water irrigation licences in the north for the last quarter century, there are no new dams to actually hold the water to use it and most of the rivers in North Queensland and around the Gulf have been declared wild rivers and therefore off-limits to agriculture and any other use. I am saying those things have got to be dealt with.

Senator HEFFERNAN—Can I just progress that. If the science is saying that in the south we are going to lose somewhere between 25 and 45 per cent of the run-off over a period of years for a number of reasons—and everyone knows that I have a strong view about this—that means that paddy rice and furrow cotton are things of the past, except as an event based opportunity crops. I do not know how you maintain the infrastructure between events. It is patently obvious that if you progress your argument based on the south, without the proposition of developing the north, of course we would be off the bloody pace as a food producer. Of course we would! And of course the wild rivers legislation that Peter Beattie said he had put in place to get an agreement with the Wilderness Society for preferences in inner Brisbane suburbs is stupid legislation. The Australian Conservation Foundation even thinks it is stupid legislation.

Of course we have got to do all that, but the first thing we have to do is educate the Australian public about what the 'do nothing' option is going to do to Australia, and then get wider community support to give governments of all persuasions—which have all been pretty gutless on this over a period of years—a bit of courage to not move people north but, instead, create opportunities in the north. The market will take care of who takes up the opportunities.

In the long term my view is if the science is 50 per cent right the water that is used in the Murray-Darling Basin will be mostly high-security water and they will learn from lessons from places like Carnarvon. You would be aware that the Murray-Darling Basin produces $360,000 per gigalitre. The Ord, which is seriously inefficient, produces $190,000 per gigalitre and Carnarvon produces $7 million per gigalitre. You do not think we have to learn from that! It is not a time to slit your wrists or something else; it is a time to get on board with the science of the future and the technology of the future.

Mr Byrne—I think we are both saying the same thing. There has got to be the development of agriculture in the north. I do not know what the future is, and I do not think anyone can say whether or not we are going to have water in the basin next year or the year after. It is an oscillating thing. Maybe it is global warming, maybe it is not now, but that is what those figures

show. What I was trying to highlight in the first part is if one is done without the other—if that water is taken without a plan for the north, then we are going to be in a serious situation. That is the point—it is not a case of slitting our wrists, it is a case of facing reality. We are not here trying to raise the hopes of irrigators. I am not quite sure—

Senator HEFFERNAN—The water is not going to be there to take if the science is right.

Mr Byrne—If the science is right. But that also says that we go through droughts like that periodically. I do not know whether the science is right, but what we do know is that oscillation. That is what I am saying.

Senator HEFFERNAN—All I know is if that looks like a melanoma on your hand there, I would go and see a doctor.

Mr Byrne—That is why I am at one with you. I do not think we are arguing at cross-purposes to say 'You have got to develop the north'. The second thing is that there is a paper that I have just given the chair that says the electorate does want new dams and the development of water industry. The *Herald-Sun* did a formal poll prior to the last state election in Victoria and 75 per cent of the electorate wanted new dams.

Senator HEFFERNAN—Can I ask you a pretty dumb question?

Mr Byrne—Yes.

Senator HEFFERNAN—Where would you put a new dam, other than on the Shoalhaven?

Mr Byrne—Can I give you this?

Senator HEFFERNAN—In the Murray-Darling Basin?

Mr Byrne—The New South Wales Water Resources Commission in 1981 put together a list of potential dam sites along the east coast of New South Wales where you could feed money through a hole in the mountain into the Murray-Darling Basin. The half a dozen most likely sites would give over 2,000 gigalitres into the basin and add 16 per cent to the basin's flow. Mr Chairman, could I table that with you, because Murray Gates and the Buffalo Dam—the land has been bought for the Buffalo Dam. It is sitting idle there. It has virtually a weir there at the moment outside Myrtleford, and at full capacity I understand it is half the size of the Hume. But nobody has looked to build it.

Senator HUTCHINS—Mr Byrne, is that in your submission where you referred to the possibilities for inland diversions? Is that what that is?

Mr Byrne—Yes. This was compiled by the New South Wales department of water, or whatever they called themselves at that particular time, to see what was feasible to actually help the Murray-Darling Basin. I am saying you have $10 billion to $13 billion, that would probably do a half a dozen of these dams easily and add 16 per cent of water to the basin. I would like to table that, if that is okay.

CHAIR—Thank you, Mr Byrne. Before we go to Senator Nash who has some questions, we were scheduled to go to our next witness at 4.15 but unfortunately we were a little bit late starting so we will extend that time a bit.

Senator NASH—I think you raised some very interesting points in what you have put forward. I think we need to work on the premise that the government policy that currently exists is working on the fact that they are expecting water to be returned to the system at some stage. Otherwise they would not be buying entitlement to then get the allocation from when it does rain. I think we can presume that is the basis of the policy in spite of some of the more dire predictions that are out there.

One thing you raised in your submission which I thought was extremely pertinent was the issue of having a comprehensive socioeconomic impact study. What concerns me is that, even within the first 50 million buyback, 24,000 megs of that are going to go from agricultural production to the environment. And absolutely no work has been done on the consequence of that, and that is only the first 50 million of what is going to be 3.2. So if we assume that that water will be taken back—if and when it occurs—the fact that this has all been put forward with no socioeconomic impact studies on the effects of that to me is absolutely dire. If you could perhaps expand a bit on how you would like to see that happen. It just stands to reason to me that, if you are going to take water from agricultural production and put it to the environment, then you have to reduce the agricultural capacity in that region.

Mr Trewin—I would say to you that there definitely needs to be a full audit of the basin's resources and allocations. I do have a copy at home—it was too bulky to carry up here—but no doubt you are all aware of the Sustainable Rivers Audit that has been completed. We have some fears about that. Even before it was done we knew the outcomes before that done sadly, because from our point of view the majority of scientists today I do not believe have got credibility. That is one of the things we are finding time after time. With some of the stuff that we have had done and we have followed through, I can say to you that it gets very disillusioning.

The only study we have been able to come across was an economic and social study on impacts of water trading that has been developed up in northern Victoria. It was done for the Rural Industries Research and Development Corporation, the National Water Commission and the Murray-Darling Basin Commission back in September 2007. That is sitting on a shelf with every other report that has been developed over the last three to four years as well. That document is fairly extensive, and it is the only one to our knowledge that has been completed.

The council I have been on for 22 years is currently having its own independent audit done at the Wakool shire which has the five rivers running through it, and let me say the decimation in that area is a disgrace. The fish kills over these last few weeks is an absolute blight on the MDBC from our point of view with fish hundreds of years old gone—dead—just the way the whole system is being run and managed. What I find alarming in this country is that we have brilliant experts, fellows with background of 20-odd years involved in the MDBC—we do not even talk to them. I put this forward for you, Senator Nash, and for the whole committee: I think you need to talk to a fellow with Peter Millington's calibre, knowledge and expertise, because sadly he now works for Asia, China and everywhere else other than Australia.

Mr Byrne—He is a former director of the New South Wales Department of Water.

Senator NASH—Can you table that document for us—or the details at least? That would be great.

Mr Trewin—Also, I want to say that what we highlighted, going back around 2½ to three years, is this: how did the Living Murray proposal ever get going? It was fatally flawed. The intradevelopment report in 2004 of the House of Representatives Standing Committee on Agriculture, Fisheries and Forestry is the only review of the science behind the Living Murray process, upon which all subsequent policy has been based; it is a disgrace.

Senator NASH—For Hansard, can you just say what that publication you just referred to is.

Mr Trewin—It started off as an inquiry into the future water supplies for Australia's rural industries and communities. It was an interim report, and the final report was put out in June 2004. That was done in March 2004. Then in June 2004 there was *Getting water right(s): the future of rural Australia*. It has been totally ignored. Now we have governments of all political persuasions absolutely off and running, although the report said, 'Put the brakes on until you do the science.' So you are dead right, Senator Nash.

Senator HUTCHINS—Can I just jump in there, Senator Nash?

Senator NASH—Yes. I realise there is not much time, so I am happy to cede.

Senator HUTCHINS—Mr Trewin, I know you referred to the report in your submission. Did the then government act on any of the recommendations? Did they respond to any of the recommendations?

Mr Trewin—No.

Senator HUTCHINS—So there was no ministerial response to the report that you are aware of?

Mr Trewin—No. The report says, 'Go no further until the science is completed,' and here we are debating about 3,500 gigalitres of water going down to the Lower Lakes for all sorts of reasons of political expediency without doing the correct science. It is decimating rural Australia—our communities. I have people up there absolutely destitute, and I think it is a damned disgrace to see what is going on in this country. All sides of politics should stop, put the brakes on and do the science. We are all environmentalists; we all love the environment. We are sick of getting it rammed down our throat. Our farmers—fourth-generation farmers—have had whole-farm planning done; they are doing full recycling; there is no tailwater going into drains. I have heard today about the rice industry. The rice industry is not dead and buried at all. I would encourage you all to do what I do: go overseas with World Vision and have a look at the real world, because—believe it or not—if Australia ends up in a war, we have five days food reserve in this nation. I cannot imagine my kids and my grandkids going through a war and having five days food reserves. That is how well we plan in this nation. So I do not know where it is all going to end if it gets started. I have a strong belief, because I go periodically to Israel. We have a lot to learn from Israel and how they use water, but we also have a lot to learn from Israel about what is about to start. I am absolutely convinced from going over there, listening and

getting to know a lot of the people, including in government, that in the next 12 months there will be the next war. That is where we are heading.

Senator HUTCHINS—Mr Trewin and Mr Byrne, there is something I could not see in your submission. We have had a number of people with 'Murray-Darling' in front of their names. There are advocates for the Murray-Darling from up there to down there. Can you tell us about your council and who comprises it. I understand from your statement that you are from Wakool Shire Council.

Mr Trewin—I am with Wakool Shire. I have just done 22 years and have just stepped down as mayor. I did 4½ hard years, I can tell you, but it is getting pretty disillusioning in local government. That is another story; it is not funded properly either.

Senator HUTCHINS—I do not think any of us have ever wanted to go on council. Senator 'Wacka' Williams might have; I do not know.

Mr Byrne—We can table our background here. Neil Eagle, for example, is a former head of the citrus council. He has lived on the Murray all his life.

Mr Trewin—He belongs to the Order of Australia.

Mr Byrne—He has helped write the water rules in parts of New South Wales. Others are people who have lived and worked in the water industry. They probably have about 200 years experience in the water industry between them.

Senator HUTCHINS—But is it shire councils?

Mr Byrne—No.

Senator HUTCHINS—Is it a group of individuals—

Mr Byrne—It is a group of individuals.

Mr Trewin—Cross-border.

Senator HUTCHINS—who have some expertise in this area or various areas.

Mr Trewin—Yes.

Mr Byrne—I have just given you a sheet, which is basically the set of recommendations we want to make.

Senator HUTCHINS—I was going to ask you about that, Mr Byrne. You have said there are five steps that are essential and urgently needed. If you were advising the committee to go and see the government, which one would you say is the most important and the most immediate need?

Mr Byrne—Can I summarise it in a slightly different way? I do not think you can do just one. It is no good doing the audit of the basin unless you do the environmental studies as well, because there are 22 issues in river health aside from just water flows. You cannot do that as well without doing the socioeconomic studies on the impact of water trading. They have to be done together. You cannot do half a plan; you have to do a whole plan if you are going to make it work, and it has to be put in the context of Australia's food security. That is why I was saying on the summary sheet that I think you need to get some of the expertise here to talk about food security so that we have an understanding of the background.

You have to remember that the Murray-Darling Basin irrigation system was created after World War II for food security, not for electricity; that was a side benefit of it. If it is going to be in jeopardy either from climate change or from taking this much water out of irrigation then there has to be another plan put in place. You cannot just do one and hope that the second one happens. They have to work together. To get to that point, I recommend that you talk to Dr McGovern—I have given you his details—and to key figures in ABARE and the ABS and ask them to explain their own figures and what they mean. As Ken has said, I recommend that you get Peter Millington before you. We asked Peter Millington. We said, 'Look, if you were in a position to write the plan for the basin and what has to be done, how long would it take you?' This is a guy who knows the basin backwards. He said, 'Three weeks.' If the committee asked him, I think he would give you a structured plan. What we are really trying to do is to say to the committee today that there has to be a broad plan put together across all of these areas. You have to talk not just to us; we are trying to introduce you to people who can help you. That is what we are trying to see.

Senator HEFFERNAN—The terms of reference for this committee are 'inquiry into the implications for the long-term sustainable management of the Murray-Darling Basin system'.

Mr Byrne—Sustainable management, that is right.

Senator HEFFERNAN—So, going back to Mother Nature, if Mother Nature says, 'We are changing the rules,' then obviously we have to change farming systems to make them more efficient and so on. But you may be aware—and you or the people you have just mentioned may like to make a submission—that there is another inquiry, which I am chairing, through the select committee about how we produce food that is affordable to the consumer, sustainable to the environment and viable to the farmer. That actually fits more into what you are about there.

Mr Byrne—What I am trying to say is that you cannot take the Murray-Darling Basin in isolation. You have to look at these other factors; otherwise, you are completely out of context. That is what we are trying to say.

CHAIR—Thank you very much for your time and your assistance to the committee.

[4.23 pm]

BROWN, Mr Bruce, General Manager, Namoi Catchment Management Authority

CLEMENTS, Mr John, Executive Officer, Namoi Water

CHAIR—Do you have any comments to make about the capacity in which you appear today?

Mr Brown—I am the General Manager of the Namoi Catchment Management Authority and also a member of the Namoi Regional Organisation of Councils.

Mr Clements—I am the Executive Officer of the Namoi Water. I should also add that I am on the council at Narrabri, which is in the catchment, and I am on the regional development board up there as well. So I bring some of those perspectives, but I am here principally for Namoi Water.

CHAIR—Do either of you wish to make a brief opening statement?

Mr Clements—We thank you for the opportunity to appear before the committee. We want to talk about sustainability in the broadest and most correct sense. It needs to be economically and socially sustainable as well as environmentally sustainable. They are some of the messages we want to bring today.

Senator HEFFERNAN—Have you made a submission to the other inquiry?

Mr Clements—I heard you, Senator, and we certainly—

CHAIR—If I can just come in there, Mr Clements, you are making a brief opening statement. The best thing we heard today was that the dentist had his hand in Senator Heffernan's mouth and had him quiet for half an hour—and I do owe the dentist! Would you like to continue on your opening remarks before we go to questions.

Mr Clements—We have a limited period time so we would like to get into a discussion with senators, which is probably the best way to flesh out some of these issues. There is a paper which we gave to Minister Wong a week and a half ago at Moree which I think is being distributed. The background that we want to present is that New South Wales has been a decade in water reform. Where we live, which is Namoi catchment—from Quirindi, through Tamworth, Gunnedah, Narrabri and out to Walgett—we have a group of farmers who have responded well to change. We have had price signals. We have had serious drawbacks of water, with 60 per cent of the groundwater—so 60 per cent of the investment basis for the businesses—clawed back and 30 per cent of the surface water clawed back. But our farmers are still viable, they are still profitable, and they have responded to change. We have taken on GPS technology. We are keeping stubble and incorporating it into the fields. We are getting our carbon up. We are getting our moisture retaining capacity up. We are reducing the number of operations we run over the country. These are the changes you carry out when you are living in a world of reduced water, be

that due to policy or to drought, or to any other factor that people might want to bring into the equation.

So change is good, change is okay, but you need to get clear signals from government about change. And governments need to be consistent and they need to be fair in delivering change. One of the messages we bring today is that it is our belief that South Australia has ducked water reform for the last decade and that the quantum of change for them is such now that it is going to be very difficult to take on. One of the messages we give is that we have changed. We have had our lot of people go out of business; we have had a lot of people stay in business. We have increased productivity and reduced our water usage and we have a productive, viable farming group in the Namoi catchment. It is because we got clear signals from government. Despite all the rhetoric, New South Wales has engaged water reform; it has embraced water reform. We have had clear signals on price. We have had clear signals on environmental outcomes. That has been good for us.

We want to put on the table the fact that we have a state below us that uses the media, in our belief, to duck water reform—and that needs to be dealt with. It needs to be dealt with so that we can take on further change, because we are unwilling to take on further change if we see other states ducking water reform. We will table a few figures. South Australia, for whatever reason, uses shallow lakes in New South Wales and South Australia for their town water infrastructure. Interestingly, if you look at the figures for the Murray-Darling Basin cap on extraction, there is only one set of figures you will find there that are not talked of in terms of evaporation: South Australia's evaporation figures are not in the cap, they are undeclared in the cap. Everybody else's evaporation figures are in. The Namoi's evaporation figures are in, the Gwydir's figures are in, the border rivers' figures are in, the Macquarie's are in. For everywhere in New South Wales your evaporation figures are in, but not if you are South Australia using the Menindee Lakes—a man-made diversion, concrete sitting in the Darling River, forcing the Darling into the shallow lakes—with an average annual evaporation of 470 gigalitres. Water held for Adelaide is in shallow, inappropriate lakes that become salt machines. If you put enough salt in a glass of water like this one so that you can just taste it and then leave it out in the sun until it evaporates down to there, it will be undrinkable. That is what we do, in the most deliberate way, for South Australia every day of the year in Lake Victoria, in the Menindee Lakes—a series of lakes—in Lake Albert and in Lake Alexandrina. In the most deliberate way we spread water over a shallow area, heat it up, evaporate it and accumulate a salt residue and then we claim that there is an environmental disaster in the system.

The disaster is a lack of infrastructure and an avoidance by South Australia of getting into water reform and into infrastructure expenditure. It is called concrete. The concrete that is inappropriate is eight kilometres of concrete that holds the ocean out at Lake Albert and Lake Alexandrina. The concrete that would be appropriate would be some deep storages somewhere to store water deep so it does not evaporate and does not create salty residues; to actually get some infrastructure for this state so it ceases to demand that the system be run 24/7 so there is always water running past their pumps. That is not environmental management. That is not natural resource management. That is infrastructure avoidance. We need to get the debate very clear in the eyes of the public about what is natural resource management and what is an avoidance of water reform and an avoidance of spending money on appropriate infrastructure, be that a desal plant or be it some deeper storages.

That is, I guess, the perspective that we offer. One perspective is that we have been in a decade of difficult water reform with 60 per cent of the groundwater clawed back and 30 per cent of the surface water. There were people who went out of business in a pretty brutal adjustment process; while other people who, through whatever means, achieved success in the adjustment process adapted to change, took on new technology and are making a go of it and are enjoying it. We have got great communities. We have got good farmers. We need to know that government will deliver fair and equal reform, that everybody will be in the reform and that some states cannot duck out because they do their media a bit better. We need to know that this will be a fair and equitable reform.

In terms of our catchment, we have been a decade in reform and we have learnt a few things—you would hope that we have learnt a few things. We know that governments do not do social and economic studies on reform, not on regional reform anyway. If it is the steel industry somewhere perhaps you get a social and economic study, I do not know. But if you are an agricultural industry in a regional community that is fairly marginalised politically and within your electorate a marginal group anyway, you do not get governments carrying out work that will point a gun at the head of government by delivering negative information. So we know that we will not get a social and economic study. I am not here to argue about that. We know that is a fact. We know there will be a pretence at it. It does not matter what the government, whether it is state or Commonwealth, you do not get social and economic studies if you are a regional community and you are talking about water.

One of the measures we are promoting and informing the committee of today is that we are going to corporately in our area seek to put up a social and economic model to make sure that we have an adequate response to reform. So that is something we will do at a community level: industry, CMA and local government. We made a start to that today by talking to NATSEM, the National Centre for Social and Economic Modelling. We want to build a stress resilience model of where we live. We are not interested in whether we have a country music festival or what colour hats people wear; we want to know what the indicators of stress and resilience are. In a very dedicated way we want a social and economic model that looks at stress and resilience indicators: how resilient is your community? How stressed is it? If we can promote that model and get it owned corporately by the community—by CMA, by industry and by local government—that will become a reform tool for us. It will become our process of responding to ETS, to climate change, to thought bubbles. With respect to Senator Heffernan, climate change is not a precise science; it is a very speculative science. But when the thought bubbles emerge, we want to be able to respond to that talking about what the stress indicators, the adversity indicators and the resilience indicators are for us? What does it mean to us? How much damage will it do? What are the social breakdowns that roll out of it?

We are already, we feel, a very stressed community. We have been five years in terrible drought and we have seen the repetitive—under any government—removal of services that has gone on for decades. We think the indicators for us are that we are probably already running quite highly on the stress indicators. Is it fair to offer a community that has been in a decade of reform, is it fair to offer them more reform when you do not have an environmental watering plan—the act says there should be an environmental watering plan—when you do not know what the social and economic indicators are? It is all very well to talk about speculative science and the fact that there will be less water at some point in the future. What I want to know is where the water being purchased is going to go to? What dedicated plant is it going to? What

key environmental indicator is going to be achieved and improved by the purchase of water? By the way, when you purchase water out of a community, what are the stress indicators to that community? Socially, what will happen?

I will raise a couple of places with you. Since the 1960s with the advent of irrigation and the cotton industry, Wee Waa has been a very viable community—a community with growth and all sorts of economic opportunities—but it has struggled considerably in the last four or five years. Bourke for a period of time had the same status. Warren had the same status. Particularly Bourke and Warren are struggling awfully socially because of the loss of the economic opportunity that irrigation brings, and that is due to drought or whatever we want to call it. If you compare them though to Wilcannia and look at the social indicators in Wilcannia, which is a community without economic opportunity, the picture is that when you remove economic opportunity from reasonably isolated regional communities, it is not year one or year five where you really see the awful things, it is year 15, year 20 or year 25 where you get complete social breakdown.

One of the messages we have for government is: you need to think very carefully about the 10-, 15-, 20- or 25-year scenarios. It is not the first two years of a reform. By the way, we have already copped a long and difficult reform, but it is not the next two years we are so worried about, aside from the obvious losses of business and all the upset that that brings; it is what happens to our communities over a longer period of time. Has government considered exactly what the costs to government are? If you want to look at the costs to government of backing up Wilcannia, they are enormous in the area of DOCS—community services—health budgets and other budgets. Those budgets get out of control and they stay out of control because there is no solution. Once you have had a 25-year breakdown, there is not a two-year fix, a five-year fix or even a 10-year fix.

So these are the things that need to be put into an appropriate reform, and we do not see them in this reform. We have not seen them in previous reforms either, but this reform needs to look in a detailed, compassionate and courageous way at the social and economic modelling indicators and what buyback will mean. It needs to have an environmental watering plan that is sensible—one that can be looked at, examined, peer reviewed and debated. There is no such thing there. We are buying water because the rivers need to be healthy, but I do not know what that means because no-one has given me a study or a precise plan as to what the indicators are. With the Living Murray agreement, which we heard talked about before, whatever its sins and faults, at least you could pick it up and work out what somebody was trying to achieve. Whether you agree with it or not, there is a document you can pick up that tells you that you are buying 500 gigalitres and you are going to achieve certain outcomes with it. With the current watering plan—or the current reform; there is not a watering plan—I have no idea why we are buying the water or what key indicators are going to be improved, and I do not know what the social and economic impacts are going to be.

So the measure that we bring forward is that, if you had a good social and economic model and an environmental watering plan that made sense, you could talk about adjustment and what the gap is—because there will be a gap between the Commonwealth's expectations for the retrieval of water and the outcome. You can measure that gap if you have a good social and economic model; you can measure the gap if you know what the environmental watering plan is. You can sit down and talk about adjustment. You can talk about things like on-farm efficiency gains. You can actually start to measure up the scandalous situation in the Menindee Lakes, Lake

Albert, Lake Alexandrina and Lake Victoria; you can actually start to line them up against what you are asking and work out where you should spend your money first.

I would suggest that it should be spent first in sorting out Adelaide's misuse of shallow lakes to replace infrastructure and that it should be in on-farm efficiency gains. As I said, we have a very progressive industry which has self-funded considerable efficiency gains in the last three to five years. We know that there are a lot more efficiency gains available through some very simple programs and processes. We also know that our guys, who have been many years in drought and reform, are not going to spend further money of their own if they do not know what their security is, so either the government needs to tell us what the cutbacks are and where they are going so people can put that into a farm budget and work out what money they are game to spend themselves or it needs to come in and say, 'We're taking charge of this; we're going to help you get your efficiency gains up on farm, and that's water that we want.' We need a clear signal as to which way the government is going. Again, the context of that is that on-farm efficiency gains are structural adjustment; that is what they are, and we should not think of them as anything else. They are structural adjustment. But, to get an accurate structural adjustment figure, you need an environmental watering plan that makes sense and a social and economic model that is detailed. Then you can talk about adjustment.

On-farm efficiency gains are an adjustment mechanism. Operational efficiency gains in the system are just plain common sense; they are something we should be doing. We should be spending construction dollars on sorting out these shallow lakes. You would get a benefit: you are spending some money on infrastructure and you are employing people on the infrastructure—and, by the way, you do not get a disbenefit because you are not purchasing productive water and taking it out of the economy. So why aren't we sorting out the operational problems in the system first? I could drop to the reform in New South Wales; I think we have $1.3 billion or something like that. There is $200 million in the northern basin for on-farm efficiency gains going through DPI; we have no idea what that program is. We had a brief talk last year with some people who talked to us about it, but I would inform the Commonwealth that the industry really has no idea where the state money is being spent. We have no engagement with it, and due diligence—

CHAIR—Sorry to interrupt you. That is a lengthy and very interesting opening statement, but with your description of how New South Wales has, to use a good trucking term, pulled their finger out and there being others that have been hanging onto the coat-tails I am sure there will be a host of questions for you. Do you have much longer to go in your opening statement?

Mr Clements—I will finish with a couple of simple sentences. If this reform is going to work well, you need to engage the catchment communities. Currently there is just no mechanism for that. There are committees up here that important people will get on and they will talk to a few of their important friends, but you need to get the community on the ground engaged and make sure that the adjustment processes are sensible and are owned by the community and that there is a good dialogue with the Commonwealth to make sure that this thing becomes a reasonable process. At the moment it does not look like that.

CHAIR—This is the second part of this inquiry. In the first part it would have been good to hear from you and hear your thoughts because at this table you could not move for South Australians. There is nothing wrong with that. A South Australian has just walked into the room,

and perhaps Senator Birmingham will have a question for you later. Mr Brown, would you like to make some comments?

Mr Brown—We as a catchment authority have no real concerns with the National Water Initiative or its principles. I do have some concerns about the way in which some of the sustainability principles are being played with. I will return to Senator Nash's comments. Given the magnitude of the types of cuts that we would expect to the valley cap—and I am talking 20 to 30 per cent at some stage in the next decade—then it is clear that a full socioeconomic study needs to be conducted. I believe it should be conducted at the individual catchment levels. Otherwise, while you might reduce the total Murray-Darling Basin cap how is anybody going to allocate that total cap reduction back to individual valleys? Secondly, if you do not do your socioeconomic study, how when the structural adjustment assistance cuts in are you going to allocate it to the various entities in the valley itself? I think they are salient points.

The other salient point—and I guess I am going to talk against one of my present positions as I am a board member at Coleambally and am also representing the northern basin here—there are some equity principles I would like to enunciate. The COAG agreement on the Murray-Darling Basin reform specifically mentions the northern basin program under schedule B. It would now appear from brief discussions we have had with the Murray-Darling Basin Authority that that program has been abandoned. I am not even sure that the government realises that that program has been abandoned. The discussions John and I have had have been relatively brief, but we have been told that. I think that raises some very significant equity concerns about the treatment of the northern catchment communities and those in the south. Of course you actually have significant differences between the north and the south, which we are all aware of, as in the level of public infrastructure in the south compared to the privately funded infrastructure in the north.

As most of you would know, the north-west of New South Wales has always been an area of higher levels of independence. It has always supported wheat deregulation, for example. It is a self-thinking, self-starting community. When it comes to the governance of how some of these structural adjustment moneys should be spent we would like to see some regional governance within the catchment. That is not necessarily the Namoi CMA speaking, but that is more along the lines of the ROC, the Namoi Regional Organisation of Councils, Namoi Water and various representatives of non-irrigation industry having a say in how those funds should be spent for the benefit of the whole catchment community.

To that end John and I went and had a look at the governance structures and talked more broadly to Murray Smith, who is the CEO of the northern Victoria infrastructure project. It is clear to me that they have a regional governance structure which is skill based. We would like to put that on the agenda rather than having some central entity—be it Sydney, New South Wales, or Canberra, ACT—preaching to a regional community about how those dollars should be dissipated. I guess the proof of the pudding is that, after 10 years of water reform in groundwater, we were able to get a range of very rational irrigators—outside a few—over the line across 13 groundwater zones in the catchment and agree to different models within each one of those zones for their own benefit in the final analysis.

Senator HEFFERNAN—And that included a loss of up to 85 per cent of some people's water rights?

Mr Brown—Ninety-five per cent in one case. And we also fought battles on the taxable nature of that adjustment money. You might remember that it was going to be taxed as income when clearly it should have been taxed as capital. What I am saying is there is a high level of skill in the valley that should have some say in how, when the structural adjustment moneys cut in after the cap has been introduced and then spilt down to the individual catchments, that should be picked up and run with. I will stop there.

CHAIR—Thank you, Mr Brown. I do apologise for not coming to you. There will be questions from Senator Williams, Senator Heffernan and Senator Hutchins.

Senator WILLIAMS—Mr Clements, you mentioned in your presentation that the reform must be fair and equal. Considering the cap on sell-off of water largely from Victoria with the 10 per cent cap under their state legislation, how do you describe the 'deal' that Independent Senator Nick Xenophon did to bring these buybacks forward—do you think that system is unfair as far as New South Wales irrigators go?

Mr Clements—I will be frank: I think it was ill-advised. I think we are bringing forward an expenditure program that was appropriately set at a timetable that you could do it in a way that was reasonable and made some sense and within mind of the fact that we do not have an environmental watering plan yet. That is my understanding. I do not know about the current thinking today but, in structuring the Water Act 2007 and all the discussion that went with it, that was the thinking in terms of those timetables. Certainly the new government, the current government, has changed some of those timetables, but I think their timetables are still appropriate. So bringing $500 million forward, I think, was ill-advised. Certainly without an environmental watering plan and without a social and economic study we are just down to the banalities of the market of who is under the most stress, who is going to let the most water go, and that is just too random to be what you would call an appropriate reform.

Senator WILLIAMS—Being ill-advised as you say, if that is your opinion of it, surely if Minister Wong has a pocket full of money and she is out there to buy water licences back and she is restricted almost to the cap of what she can buy in Victoria, isn't she going to then buy more in New South Wales?

Mr Clements—I think that is the obvious outcome of that. My belief, and it is the understanding of the Namoi, is that the four per cent is actually not inappropriate. It is there for a good reason. It is there to make sure that you manage the change. What is inappropriate is probably that New South Wales and other people do not have four per cent, or whatever rule we should all agree on, to make sure we manage change in a way that is appropriate. The problem at the moment is that you have one state that probably has a better idea than another in terms of managing change. That is what it is: change management. New South Wales for whatever reason is saying that they are full speed ahead with the program. Our message in New South Wales is: when you sign over your state's responsibilities you need to make sure your citizens are looked after in a reasonable way, and we are not sure whether we have been.

Senator WILLIAMS—So you have a situation where the Victorian government has obviously been more protective of their water licences and New South Wales has been more reckless, if we can call it that, so we are not on a level playing field. And hence New South Wales faces to be the loser. I ask that in relation to what happens when the floods come? And we

will see them again. As Dorothea Mackellar said, 'it is the land of droughts and flooding rain.' They will come again regardless of what people think of climate change. I mean, we have had climate change for millions of years. If we didn't, we would be living in the ice age today, and I am sure it was not coal-fired generation of electricity that caused the ice age to melt. What I am saying is when the floods come and we see places like Copeton Dam full, as we have seen before, and like the Hume and so on, then we will face the situation in New South Wales where they will just have to let that water run down and out the Coorong, out the mouth of the Murray.

Mr Clements—One thing I would raise is that, depending on whether you are a contractor, farmer or live in the west or at Toorale station at Bourke, let us get down to the realities: 7,500 of that 14 or 15 gigs of water will never get into the Darling except in a major flood event. It has got through five times in 60 years. So 7½ of those gigs has got into the Darling five times in the last 60 years—now that is a good expenditure. When it gets into the Darling next, when it becomes six times in 80 years or whatever it may be there will be a major flood on. So the Commonwealth is purchasing flood water in terms of that 7½ gigs.

Mr Clements—There is another 7½ gigs on the Darling proper, which has got the realities of irrigating on the Darling. It has got about 30 per cent reliability. Thirty per cent of 7½ gigs is whatever it is. That was $11.3 million for that water, for that 30 per cent of 7½ gigs, because the other water will only ever get there—

Senator HEFFERNAN—They paid $350 a meg for it.

Senator WILLIAMS—It will probably lead to a 90,000 hectare bushfire later on.

Mr Clements—With respect, I got a ring from Andrew Lewis, the Mayor of Bourke, on the way in, just before I walked in here. They have lost nearly $40,000 of their rates. It will become a national park, which is not rateable.

Senator WILLIAMS—What I am saying is: under this bring forward buyback scheme, in your opinion is New South Wales the loser, considering the unlevel field we are playing on against Victoria?

Mr Clements—If that $500 million were deployed immediately, the answer is New South Wales would have more water purchase—not according to any plan or any thought-out process. My understanding is the $500 million is not guaranteed to be deployed immediately; it has to go to the Productivity Commission.

Senator BIRMINGHAM—$250 million of it is.

Mr Clements—$250 million? That is news to me.

Senator BIRMINGHAM—The appropriations bill for $250 million is in the parliament.

Mr Clements—Okay. I thought it needed to go to the Productivity Commission.

Senator WILLIAMS—And of course the more that comes off New South Wales, the less food we grow, the less exports, the bigger effect on your local economies et cetera.

Mr Clements—Yes.

Senator WILLIAMS—I am inclined to agree. I think we got done over on it.

Senator HUTCHINS—Thank you, gentlemen, for coming down today and illuminating us about some of the proactive decisions that the people you represent have been taking. One of the things I am interested in is on-farm efficiencies. Can you just expand for us on what the farmers in your areas are doing which you may not see evidence of people in, say, South Australia doing.

Mr Clements—Without a price signal or without water reform you have no need to change. We have had a price signal on water reform for many years. In the activities we have seen, I guess there are two or three broad areas where you can save considerable water. We transfer water in channels. Those channels can either leak or not leak, depending on how they are constructed and the work you can carry out to stop them leaking. Rivers leak like a sieve, as you would expect. They are hooked up to groundwater systems. You put water in a river and it will go everywhere. When we pump it out of the river we would expect that we are not actually losing water from surface transfers into the groundwater. That is just a waste; it is an inefficient process. That is one.

The other is storages. As I have indicated today, if you put a jug out in the sun it will take longer to warm up than a little bit of water in a glass. The deeper the storage, the harder it is to warm up the water. The water stays cold and does not evaporate, and, surface area to volume, obviously that is a more efficient design than the big, flat pan. So we are increasing the wall height of our storages to make them deeper and we are putting cells into the storages so, as the storages go down, you pump up into a cell and you stack the water. It is called water stacking. You keep the water stacked, so you keep the water deep. We are getting a lot of water savings out of that.

But in the field is probably the most innovative and interesting technology. We have wireless technology out in the field—moisture probes, with a variety of technology employed, that actually measure the soil profile. We have various logging stations around the field using wireless technology. You can watch the plant deplete the moisture. You put your irrigation on and you can work out if it is leaking through past the plant. We do not want to put any water past the plant's root zone and, through the speed of the application of the water, through the layout of the field—what grade we put on the field, what technology we use to put the water on, how long we run the water, how quickly we run the water—we are making sure we do not get water outside the root zone of the plants.

We are getting improvements in the yield of the plants because we are not stressing the plants and we are not overwatering them. We are avoiding both a plant that has too much water stress and a plant that does not have enough water stress at the same time as making sure we are not putting water through to deep drainage. We have pulled 16 per cent in three years doing that private investment. We know we can do the same again. We are getting—

Senator HUTCHINS—So that is 16 per cent less water?

Mr Clements—Less water for the same productive output, and we feel that we can do that again. We know we have got the farms out there. We have software packages now where people

can do an evaluation of their farm. It is a very cheap package—you are talking $10,000-$12,000 to carry out a full evaluation of how your farm stacks up. You get numbers out at the end that will tell you whether you are losing significant amounts of water.

Senator HEFFERNAN—If it is all that efficient, do you agree with the flood plain harvesting regime that is in existence now?

Mr Clements—In what way?

Senator HEFFERNAN—Do you agree with flood plain harvesting water, say, in the Gwydir catchment?

Mr Clements—The Gwydir catchment is not my catchment, but I talk to the Gwydir. Do I agree with it? It is not whether I agree with it; it is a reality that has been going on for—

Senator HEFFERNAN—Yes, but it is alright to talk about efficiency in root zones for irrigation et cetera but the impact on the aquifer in some catchments of overland harvesting—and I am going to come to the big one in a minute—where you have got all these rogue blokes that you know about and I know about. There is a great new channel there in the Moree district—two sided, allegedly—which is obviously just a flood plain harvester and it happens to take it 20 miles across the plain to a turkey nest. How duplicitous is the argument for efficiency when we knowingly allow people to not only harvest the flood plain but to steal the water?

Mr Clements—We do not knowingly allow people to steal water. My organisation will put members in if they steal water. It is as simple as that. It is a public stance we have taken And it is one we have deployed.

Senator HEFFERNAN—So why do you think—

Mr Clements—So, Senator, to answer your question, we don't agree with water theft. I do not think overland flows should be characterised as water theft: where they are a licensed activity, they are a licensed activity.

Senator HEFFERNAN—Alright, we will progress that.

Mr Clements—Where someone is behaving illegally, stick them in front of the Land and Environment Court as quickly as you can.

Senator HEFFERNAN—One of the great silences of the present time in the Queensland election is the silence on the Lower Balonne ROT. No-one from either side of politics has got enough guts to say publicly that it is stupid and there should be a serious inquiry into it. No-one denies that the chairman of the independent authority—the advisory council—does not qualify for a water licence yet finds herself on Cubbie's water licence for the commercial-in-confidence arrangement for 469,000 megalitres of water, which we know is unsustainable in a system which has 1,200 mean gigs annual flow and 850 per cent variability, which will have to be bought back after they issue the licence. If you put it down at $350 a meg, as Toorale did, it is worth $175 million. What do you think about that? It has absolutely destroyed every property down below it and we just sit there and allegedly cop it.

Mr Clements—I am getting well outside my territory, but the development—

Senator HEFFERNAN—No, but you did say—

Mr Clements—of the last five to eight years in Queensland in my view has been unfortunate. There should have been a tighter agreement. There has been a huge development down there that does have an impact on Bourke, for instance. And it will have an impact on the people involved in it, because ultimately it will be unsustainable.

Senator HEFFERNAN—As you know, about four per cent of the Culgoa now gets through to the Darling. It used to be 28 per cent. After it had been through all that flood plain country, 28 per cent still got there. You have got places that have gone bust, like Balandool, simply because of the duplicity. Why is the Queensland government, why is the Queensland opposition absolutely gutless on this?

Mr Clements—Senator, you know I cannot answer that.

CHAIR—Senator Heffernan, Mr Clements cannot answer that. It is alright, Senator Heffernan—for the sake of *Junee Bugle* you got that line in! That's fine.

Senator BIRMINGHAM—Unfortunately there are no Queenslanders here to respond to Senator Heffernan.

Senator HEFFERNAN—I would be happy if they would. I am happy to take them on.

Senator BIRMINGHAM—As we all would.

Senator BIRMINGHAM—I will not provoke you anymore, Bill.

Senator HEFFERNAN—It saves the stupid argument on the lakes down there. If the water is not there, forget it, mate—either let the sea in all plant them out.

Senator BIRMINGHAM—I will come to the lakes in the second. Time is tight, so I have a few quick ones. Firstly, following up Senator Williams's questions, would you agree that a better position would be not to have your four per cent caps or those types of restrictions but very clearly to completely fulfil the types of environmental, economic and social impact assessments that you were talking about for all of the regions that are affected—you transfer things then with your eyes wide open to the consequences and address those consequences, not have any type of artificial cap anywhere?

Mr Clements—If the sentence was never dissected then the answer is yes, there should not be a four per cent if you have got a good environmental water plan and a social and economic understanding of what you were doing.

Senator BIRMINGHAM—Yes, excellent. Mr Brown, who made some interesting statements about regional governance in parts of the basin. Given the movement that we have had towards at least the development of a National Basin Plan and so on, would a better outcome actually be for the states to bugger off out of the whole damn situation and have decent regional government

working on regions affected in the basin, working with them in a national plan for the whole system?

Mr Brown—I think I am on the record that it would be better for the catchment management authorities in the Murray Darling Basin to become in some way associated with the Murray Darling Basin Authority and/or the Australian government. It is clear, simple management that I think would make everybody's job a hell of a lot easier. So I am actually saying yes, but whether you can actually politically achieve that is another question.

Senator SIEWERT—Senator Birmingham, could I just seek clarification? Do you mean, then, that the catchment management authorities would not be subject to state law or influence?

Mr Brown—I need to be careful what I say for obvious reasons—

Senator SIEWERT—I am not trying to put you in hot water—

Mr Brown—If the Murray-Darling Basin is under Commonwealth government control, and I am a catchment management entity that is in one of those catchments, does it make sense to be a statutory entity under a state government? I will not say any more.

Senator SIEWERT—That is what I was trying to answer.

Senator BIRMINGHAM—I refer to your section on the restoration of the Northern Basin Program, where you talk about the MDBA abandoning this program. Have you been formally advised that that program has been abandoned? On what basis is that assertion made?

Mr Clements—We have been informed by the staff involved that there is no longer a Northern Basin Program and that they have been moved off to different divisions. Those staff are senior enough that I am sure that the answer is accurate. But the simple answer is that neither have we had any discussion at all that the program was under threat nor have we been advised formally.

Senator BIRMINGHAM—Have you followed up with either your state minister or the federal minister's office?

Mr Clements—Yes, we have. We raised it directly with the federal minister a week and a half ago.

Senator BIRMINGHAM—What response did you get?

Mr Clements—We are going to be got back to.

Senator BIRMINGHAM—That might be one for estimates. It would be inappropriate for me not to at least pursue some aspect of the South Australian issues you have raised. I am curious—when were the man-made diversions of Murray Darling Basin water into Lake Alexandrina constructed?

Mr Clements—1930. Eight kilometres of concrete you call barrages—and that is a diversion.

Senator BIRMINGHAM—That is a smart answer. I am not sure that is actually diverting Murray Darling water into the lake.

Mr Clements—We manage a formerly estuarine lake. We manage it now to hold the ocean water out and pool shallowly fresh water for the purposes of Adelaide and the irrigation industry that has grown up around those lakes. That is a diversion on the basin.

Senator BIRMINGHAM—It sounds to me that, if you are arguing that that is a diversion, you would rather construct a weir at the other end of the lakes which would equally be a diversion.

Mr Clements—It would be a far more efficient diversion.

Mr Brown—The relevant concern is actually—coming back to what Senator Heffernan was talking about—interfering with the flood plains. Having lectured at Roseworthy Agricultural College in my youth and spent some time in the south-east, the huge drains that have been chopped across the south-east have diverted all the fresh water flow into the southern edge of the Coorong. There are significant issues there—environmental ones that South Australia has created itself.

Senator BIRMINGHAM—I do not disagree with that point and it certainly was one canvassed in this committee's first inquiry report about the impact of the south-east water. We could argue all day on that one, I am sure.

Senator WILLIAMS—There are locks up the Murray there in South Australia as well. Lock 5 just below Renmark, I think it is, broadens there. That also causes a lot of evaporation as well, I would imagine. Would you agree?

Mr Clements—It also causes leakage out into the surrounding landscape as well. There is actually a lot of shallow leakage of water into the landscape which is, again, causing natural resource management problems. Seldom do you carry out an activity, as you are well aware, where you do not have impacts. It is whether the impacts are impacts that we can live with or should live with. That is always the difficult question of getting into the natural system and doing something different.

Senator HUTCHINS—You have emphasised the need for socio-economic modelling and observation. You also said you had spoken to the Mayor of Bourke before you gave your evidence today, Mr Clements. Can you tell the committee what the socio-economic costs of the Commonwealth assuming Toorale Station have been? What has happened in Bourke?

Mr Clements—It would be great for the people from Bourke to come and give evidence on that directly, but we had—

Senator HUTCHINS—Is that what you are referring to—something like this?

Mr Clements—Yes, very much so. Bourke has lost half of its population—particularly, it has lost the professionals—due to drought. The concern is that we have a permanent drought if the policies are inappropriate. Directly, for Bourke, it is $40,000 in rates. I think they are

estimating—and take this under advice—the loss of 40 jobs, which they cannot afford. They have got a national park which they have a lot of questions on—how that will be run, what it means in terms of increased costs to them of a poorly managed national park and the impacts that neighbours and shires feel about trying to pick up poor management. They are some of the—

Senator HEFFERNAN—This was a con job by the New South Wales—

CHAIR—Senator Heffernan, we have gone over this ground before. I am more than happy for everyone to hear your point of view—we have all heard it 30 or 40 times—but we are over the time limit. I thank you, Mr Clements and Mr Brown, for your patience and your assistance.

Senator NASH—Actually, can I just ask two questions, quickly, on notice?

CHAIR—Yes.

Senator NASH—One relates to my concern that there seems to be an image in some quarters of irrigators being the big, bad meanies—that we have been taking and pillaging water forever. You mentioned in your opening remarks about the process that had already been undergone in your region, I understand, on state, federal and local levels, to arrive at the assessment that you did of what the appropriate sustainable groundwater for the region is. Could you just perhaps provide for the committee—take this on notice—the process that you went through to do that, how you arrived at the figures and how you arrived that it was a sustainable level.

The other one relates to the concerns around the potential impact of mining in the region. Could you also take on notice any correspondence or response to that correspondence you have had from the minister. I have some serious concerns, given some questioning at estimates, that she has no concern at all for the potential impact of that mining on the water system. I think it would be useful for the committee to have any correspondence that has been entered into on that—and any of your views, actually, on that particular issue.

CHAIR—We will have a final question on notice from Senator Heffernan, and then we will have to move on.

Senator HEFFERNAN—If you would take that question on notice on the huge cutback in the Namoi aquifer, which I take it is what you are referring to you, you might add to the story not only the action you took but why you had to take it—in other words, the original decision by Paul Lander, who sadly died on a tennis court and who was the minister under Neville Wran at the time, who knowingly made that decision in the full knowledge that it was going to give it a 30-year life of mining the aquifer. And big, fat Wal Murray would not do anything about it either when he got into government. You might just include the whole history and the political gutlessness of people that led to that.

CHAIR—Thank you very much, Mr Brown and Mr Clements.

[5.08 pm]

BUCHAN, Dr Arlene, Healthy Rivers Campaign Coordinator, Australian Conservation Foundation

CHAIR—Welcome, Dr Buchan. Do you wish to make a brief opening statement before we go to questions?

Dr Buchan—Yes, and thanks again for inviting me back here. The most important thing that needs to be done to secure the future of the Murray-Darling Basin is to accelerate the reallocation of water from irrigation back to the environment. We already have the policy framework and the tools with which to do this. We have the full understanding and support of the public to do it. There is enough scientific understanding to understand what the problem is and how we can fix it. And, of course, there is $9 billion of Commonwealth money alone which is there to buy back water and invest in infrastructure and structural adjustment to do the job. So, we need to get on with the job and do it.

One really important development that has taken place since the last time this committee met to talk about water issues has been the agreement, linked to the stimulus package, that Senator Xenophon has negotiated. The advance of $500 million for buyback is the most spoken of among those, but personally I think that almost more important is the Productivity Commission inquiry, through which the government has committed to looking at the best way—in the senator's words, as used in parliament—to recover water in the Murray-Darling Basin. I think that is really important because, currently, the buyback is far too slow to match the scale of the problem and too slow and too cumbersome to enable us to efficiently and effectively spend all the money which has been made available to fix the problem. So it is really important that the terms of reference for that Productivity Commission inquiry are right.

There are two key questions that the inquiry needs to look at. First, it needs to look at the best way in which we can acquire water: what the best mix of measures is in terms of tenders, standard in the market, options or other novel market based instruments; compulsory acquisition—it is not on the government's agenda and it is not on mine, but it is a legitimate question to ask; properties, perhaps, as storage capacities; and the best way that we can integrate water purchase with investment in infrastructure to generate water savings and also with structural adjustment.

Second, the inquiry needs to look at the question of the optimal rate of change. Within the interested community, this is something on the subject of which there exists a scale of opinion from 'We can't go fast enough,' to 'No, we need 50,000 other studies—be they environmental, socio-ecological or whatever—until we really engage in that process of change.' So what the optimal rate of change is is a key question that the inquiry should look at. I think it would be very worrying if the inquiry did not look at the best way that we can acquire water across the basin but instead limited itself to looking at the diversity of options which are available to government, because we know what those are; the Productivity Commission has already examined that to death. We know what the options are; we just need to know how to put them together in the best way to do the job.

There are two issues related to this. The first is that—and I would want to make this clear—I do not think the department should wait for the Productivity Commission report to get on with the job. There is a lot of science there—we know what the problem is and we know what the solution is. The Wentworth Group, who will present later today, have already argued that an interim basin plan is the best way to get started on the job, and they have put some facts, figures and numbers to that. So we can adopt an interim plan to get on with the job whilst waiting for these other inquiries and so on. The second, worrying issue is things like four per cent caps on the rate at which water can move from one district to another. While the committee knows that the Australian Conservation Foundation thinks that those caps are restraints on trade and on repairing the damage and that they should be got rid of, questions still arise, such as: what happens to that $3.1 billion if we are not able to spend the money? Is it there on a 'use it or lose it' basis? What happens if we just cannot spend the money?

Another new development is community planning. This was one of the key things I talked about last time I presented to this committee, and I am very pleased to see that new amount of money and a commitment to community planning across the basin. I support the Torrumbarry Reconfiguration and Asset Modernisation Strategy, or TRAMS, group from the Goulburn-Murray water area who have shown an incredible capacity to self-organise from the bottom up. They have sought the information and the tools, have done the planning and have looked at their entire irrigation district with a view to asking questions like: 'What is the best land and water reform that we can engage in in this area?' and 'What is the best use that our different land and water assets will have in 50 or 70 years, given climate predictions and so on?' Communities can organise and plan if they are given the resources and the opportunity to do so. We really support community planning—it is a great way to make sure that we reduce the amount of conflict and differences of opinion across the basin on how to do things, and, again, we commend the TRAMS group as a blueprint for that type of community based planning set out in the land and water reform paper previously presented to this committee.

Very briefly, the other key issues that need to be looked at in terms of securing the future of the Murray-Darling Basin are, again, giving greater prominence to the Darling basin. Some of the best wetlands and freshwater assets are in the Darling basin—many of them in far better nick than in the southern basin. Water flow in the northern basin will become more important given the climate predictions that we are looking at. Really, the Darling basin has been consistently overlooked because the southern basin gets most of the attention.

As we acquire water, we need to address some of those shepherding issues, making sure that water acquired for the environment remains green to the sea, and that legitimately or illegitimately, water which is acquired using taxpayers' money for the environment does not legally or illegally get used for another purpose. Flood plain harvesting is the perennial issue which really has to be addressed. Also, we do need to start developing long-term plans for our RAMSAR listed and other high-conservation value freshwater areas. We need to take a realistic look at climate change and other predicted impacts on the basin. What is the best we can hope for? We need to look at the freshwater areas in the future and develop long-term plans so that we have something to work towards. For some of our areas like the Lower Lakes and the Coorong, we do not have a long-term plan to work to. I will leave it there.

CHAIR—Thank you, Dr Buchan. The Australian Conservation Foundation lodged submission number 81 during the first part of the inquiry. Do you wish to make any amendments or alterations to that submission?

Dr Buchan—No, I do not think I do. The first part of the inquiry was focussed on the Lower Lakes and the Coorong, and with the possible exception that some of the numbers have changed since we submitted that first part, I do not wish to make any amendments.

Senator SIEWERT—I asked a question of the government about how many districts had reached the four per cent cap. In fact, I think we then amended it to ask for the 10 per cent as well. As far as I am aware, they have not yet given us an answer on notice. Do you have any information about how many districts during this financial year have actually reached that cap?

Dr Buchan—I do not know how many. I will take that on notice and get that back to you pretty quickly.

Senator SIEWERT—You might be able to do it faster than the department.

Dr Buchan—I do know that last year the water year began on the 1 July and by 4 July a number of areas within districts, if you know what I mean, were within a hair's-breadth of breaching that cap. So there is a backlog of applications which had been lodged just prior to the start of the water year. So by the time they were all taken care of, by four July, that four per cent cap had been breached. Of course, there are all manner of shenanigans in Victoria as well, which you are aware of. For example, the four per cent cap does not just apply to an actual sale of water from me to you. If I decide to put my water entitlement into my superannuation fund, it gets counted twice even though it is still mine. This reduces the real cap to two per cent. There are also other bits and pieces of inappropriate behaviour, in my opinion, which further reduces the real amount of water that actually can be transferred. But I will take that question on notice because I think I have some recent figures on that.

Senator SIEWERT—If you could, it would be appreciated.

Senator NASH—You said putting some of that water into superannuation would reduce the cap from four per cent to two per cent.

Dr Buchan—It gets double counted.

Senator NASH—I understand the principle, but how do you go from the number four to two on the basis of water going to super?

Dr Buchan—If I were responsible for transferring four per cent of the water—or if everyone was doing that—the amount of water which is really available would be halved. It is double counting.

Senator SIEWERT—But that would be from your property?

Dr Buchan—Yes, we are saying that a unit of water gets counted twice, and therefore, halves in real terms.

Senator SIEWERT—You mean that any entitlement can be halved. You cannot really say that it is half the entire four per cent because not everyone might be doing it. This is the point I am trying to make.

Dr Buchan—Not everyone is doing it, but there is enough of this going on that one of the water brokers looked at a particular area and tried to work out, in real terms, how much real wet stuff had actually transferred. It was 0.37 per cent, although the actual cap was four per cent. I will try to get those figures for you with some detail about exactly what happened to reduce that four per cent to a real number of 0.37, in addition to the superannuation business.

Senator SIEWERT—You asked, I think rhetorically, during your opening remarks: where does that water come from? Senator Nash did helpfully suggest New South Wales, but it is a serious issue. How much water, in your estimation, would be available for purchase for environmental flows if the four and 10 per cent caps were not being imposed?

Dr Buchan—The Commonwealth government itself did a study last year looking at what the impacts of the four per cent had been. It showed that within those Victorian districts at least 8,000 gigalitres of water transfer had been turned down. That is not just water that could or would have been acquired by the Commonwealth environmental holder or any other environmental water purchaser; that is also efforts by irrigators in different districts perhaps within Victoria or outside Victoria to purchase water.

Senator SIEWERT—That 8,000 includes that?

Dr Buchan—Yes.

Senator SIEWERT—I did not mean to interrupt you, I just wanted to clarify that. That was last year. Would you expect it to be of the same order this year?

Dr Buchan—This year, certainly from a Commonwealth perspective, there is a lot more money which is there to spend. If those four per cent caps remain in place it will be very difficult for the Commonwealth to spread that money evenly or fairly across the whole Murray-Darling Basin. You can understand the angst of irrigators in Queensland and New South Wales who think that is unfair. That does not mean that the government should not proceed and buy good water entitlements wherever it can find good water entitlements, but you can understand their angst about that.

Senator SIEWERT—You brought up the Productivity Commission inquiry and the optimal rate of change, but also then said that it should not hold up purchase. I must admit I do not want to see purchases held up, but you can understand why some people might say, 'Well, you want to bet both ways. You want us to keep going with purchases, but you want a study going on to tell us what the optimum rate is'. How do we balance the need to make sure we acquire water now—when it is available and we have the opportunity—but also make sure that we are getting it right?

Dr Buchan—The Productivity Commission has a huge amount of experience in this area. It has done a number of different water inquiries, analyses and reports. It is replete with the capacity and ability to do this. So they are not starting from zero. I do not know if there is a time

limit set on the amount of time that the Productivity Commission has to do the inquiry, but I would not imagine that inquiry needs to be any longer than six months. Therefore, in the intervening period, there is no reason why we should not proceed with business as normal—trying to increase the rate of water acquisition. Certainly, in the interim, I see no reason to stop water acquisition by any means—to wait for that report or any other report, or the basin plan, or water-sharing plans to expire. The science is pretty clear. We know, for the most part, what the problem is and how to fix it. There is enough there to keep going in the interim. It is only to our disadvantage to delay in that change. We can either change now and do it gradually over a period of time, to the extent we can, or we do nothing and then wait until the last moment and have to undergo a huge amount of change in a very short period of time—which is never an easy thing to do.

Senator SIEWERT—I wanted to clarify that time period of the Productivity Commission inquiry.

Dr Buchan—That is a question that the Productivity Commission needs to answer. Depending on who you ask, you get different opinions. It requires analysis by a really reputable and experienced body like the Productivity Commission, rather than just have various bodies with opinions about this and the next that we can argue about till the cows come home.

Senator SIEWERT—We have talked about the TRAMS group before. I think it was this hearing or it could have been one of the others.

Dr Buchan—It was the Water Amendment Bill.

Senator SIEWERT—I am hugely attracted to the community planning approach. Has there been progress in implementing the plan? They have sat down, they have done their plan—they have done it across the district, as I understand it. Since you last spoke to us, has there been progress in terms of implementing that plan?

Dr Buchan—Yes, there has. A particular irrigation stem called 5/7, or sometimes just called 57, has been identified as the ideal area for a pilot project. They have identified an area that they want to retire—

Senator SIEWERT—To retire?

Dr Buchan—To retire from irrigation—take that whole irrigation stem out—and identify some of the preferred land uses and how to go about doing that. Yes, there has been progress and there are positive noises from governments about funding that as a pilot project—which is great.

Senator SIEWERT—So, when you say 'positive noises from government'—which sounds good—is that using the infrastructure money, the buy back money?

Dr Buchan—The point of this whole integrated investment program is that it is integrated investment. It is working out what is the optimal land and water use for a particular district in the future, doing a 'traffic lights' analysis on that, and saying, 'Okay, this area is a great irrigation area. This will remain viable for irrigation in 50-70 years time. Therefore, we should invest in making that as good as it can be. ' In that instance, you channel the infrastructure investment

into that area to maximise the efficiency of that area. Where you have a red area, and this is not a good area for irrigation in the next 50-70 years, therefore the optimal land use might be grazing, it might be carbon credits or it might be other ecosystem products. Whatever it is, that area then gets targeted for water buy back and also for structural adjustment—for example, the removal of infrastructure. It is determining the most appropriate mix of funding to achieve the optimal land uses for the future. The whole point of this integrated investment package is that it does not rely on only buy backs or only infrastructure or only structure adjustment—it is getting that mix together, in the landscape, to get the best land and water outcomes.

CHAIR—On that, Senator Siewert, do have any other burning questions you really need to get on notice before I go to other senators before we run out of time?

Senator SIEWERT—No, I have got other questions but I am happy to hand over, and maybe I can jump in at the end if we have got time.

Senator FISHER—Dr Buchan, thank you again. You have reiterated your concerns today about state-based restrictions on trading, and in particular, you have referred to the four per cent cap in Victoria, and when you were last before this committee, your submission in September last year, bemoaned the fact that that was restricting trading. You noted that COAG had failed to deal with removing the four per cent cap in July last year. What do you think the Rann government's projected High Court challenge will achieve in that respect, if anything?

Dr Buchan—I am not a constitutional lawyer, so I am not sure about how I am prepared to give an opinion to that.

CHAIR—That is fair enough.

Dr Buchan—But what we do need is to either abolish those restraints on trade or find workable exemptions around them. Again, that land and water reform paper, which I have provided to you—and from discussions with irrigators, farmers, bureaucrats and everyone else who we have discussed this with is happy and content to embrace the idea that where you have an area which is designated as an integrated investment area for the purposes of infrastructure, structural adjustment, and water buy back, then in those areas they would be exempted from the four per cent cap or the 10 per cent investor cap. Whilst our preference is for there to be no restraints on trade, where that is an impediment to fixing problems, if we can find workable exemptions to those—I have not yet discussed this issue with anyone who has said, 'No, the four per cent cap is important to maintain the productivity of this area'—everyone we have discussed this with has said that within a plan, around a district like that, they would grant an exemption to that four per cent and ten per cent cap.

Senator FISHER—Are you contemplating, essentially, a transition out of trading restrictions as a part of that plan?

Dr Buchan—What we contemplate as a part of this land and water reform package is that where you have done the work on looking at an area at its optimal land and water use for the future and we have agreed that we can invest from all those different funding streams in the change which is necessary, clearly it is sensible and important to set aside those four per cent and 10 per cent caps. Some of the strongest proponents or defenders of that four per cent cap come

around quite easily to saying, 'Okay, well in that case we should grant an exemption to the four per cent cap,' which would clearly make a good plan unworkable.

Senator FISHER—So there could be ways around the four per cent cap, putting it another way, without a High Court challenge?

Dr Buchan—Without actually abolishing it—yes.

CHAIR—Senator Heffernan does have some questions as well.

Senator FISHER—I will ask one more, if I may, on this. I understand you are not a lawyer, but, in your view, given your expertise in this area, if the High Court challenge were to be successful in, say, 18 months time, would it achieve anything?

Dr Buchan—It would certainly remove those impediments to reallocating water from irrigation to the environment by a purchase mechanism.

Senator FISHER—Then, and maybe you can answer this on notice, what will happen between now and the adjudication of that challenge?

Dr Buchan—As I said in my opening statement, it remains the case that the most important thing we can do to secure the future of the Murray-Darling Basin is to accelerate the rate of transfer of water from irrigation to the environment. The arguments between states, between states and the Commonwealth, and so on is largely the reason why we are in the state we are in in the first place.

Senator FISHER—Hear, hear.

Dr Buchan—And, in the same way, I do not think that waiting for plans, studies, inquiries or whatever will accelerate that transfer. We know what the problem is; we know how to fix it; we need to do the job. If a High Court challenge meant that everything was frozen and stood still for another 18 months, I think that would be very sad—and we will lose a lot in the intervening period. I think that would be a real pity.

Senator FISHER—Thank you.

Senator HEFFERNAN—Senator Nash is not here and she said that I am not allowed to say that you look well today, but you do look well today.

Senator FISHER—He wanted to say that. I have counselled him, off the record.

Senator HEFFERNAN—Can I congratulate you on your submission and continuing contribution on behalf of the Australian Conservation Foundation. Did I hear you say that in the confined irrigation areas there is an exemption from the 10 per cent investor cap?

Dr Buchan—I did not. What I said was that in the package of measures which we have put forward in the land and water reform paper, in my experience of discussing that and talking about it around the traps, where we are able to define particular irrigation districts and do the

planning process which says, 'Well, this is the best land and water future we can have in this area, and we can integrate the investment from the various different funding streams,' everyone I have spoken to, irrespective of whether they want to get rid of the four per cent cap, whether they are the greatest defender of the four per cent cap or a proponent of the four per cent cap and the 10 per cent investor cap, would be happy to see those set aside or exemptions granted to those caps provided that is done within the context of a planning framework that assesses the optimum land and water futures rather than solely having a buyback program or solely having an infrastructure program going on in an area.

Senator HEFFERNAN—I referred earlier to the gutlessness of all the politicians in Queensland during the context of the election for not raising the disgusting proposition for the Lower Balonne resource operating plan implementation, which involves the issuing of licences for 469,000 gigalitres. Does the Australian Conservation Foundation have a view, given the largest flood plain in Australia is below this area, on the impact of knowingly issuing that licence under the resource operating plan even though it is as dodgy as hell—and possibly having to buy it back because it is based on past history of earthworks and capacity to store water not on science. Does the Australian Conservation Foundation have a view on the damage that such a proposition would cause, if that proposition is set in concrete as a financial instrument, to the wellbeing of the Murray-Darling Basin further downstream?

Dr Buchan—We have not discovered these problems within the last six months. These problems have been creeping up on us for the last 20 years and it beggars belief that, despite all evidence to the problems and the causes of them, governments and departments and so on should head blindly down a path of self-interest which will undoubtedly make that problem worse.

Senator HEFFERNAN—I have not spoken to anyone privately that disagrees with me. It is an outrageous proposition. I have no indication that there is any hanky-panky going on there, but I have to say that it is very distressing. In the opinion of the Australian Conservation Foundation and the long-term interests of the Murray-Darling Basin, do you think that the planners are taking into account the weather of the last three or four years and the decline of the Goulburn River from 2,700 gigs down to possibly under 500 this year et cetera? Do you think anyone is really planning with a view to where we are going to be in 40 years time on that scenario? Isn't all this a fantasy bit of work in buying back water that is not going to exist anyhow?

Dr Buchan—I think it is important to make sure that the portfolio of water products which are acquired, whether they are bought or whether they are secured through investment in efficiency, has a profile that meets the needs of the environment, taking into account climate change and so on. I think we have heard already, even in this inquiry, that there are efforts by some to look at where we were in the mid-1970s or something and try to use our rainfall runoff patterns for them to plan for the future, which is clearly ridiculous. I am neither a climate change scientist nor a constitutional lawyer but I know that what has happened in the past is no longer a good guide to what is going to happen in the future. Having said that, in their sustainable yield hydrology study, the CSIRO has certainly started us on a path to really understanding what are water rainfall and runoff futures likely to look at. They understand or they are exploring other risks to water security—things like groundwater use, reafforestation, bushfires and so on. We are certainly in the right ballpark and looking in the right direction. But, yes, I think there are substantial parts of the relevant land and water management community who are still trying to look at the past with a view to that being a guide to the future, and it is inappropriate.

CHAIR—Thank you Dr Buchan. Senator Siewert, did you want to put a couple of questions on notice for Dr Buchan?

Senator SIEWERT—Yes, I do. You would be aware that part of the package that Senator Xenophon negotiated includes $20 million for community planning and the Greens had a hand in making sure it got on the agenda. I would be interested in you taking on notice how you think that money should be allocated, bearing in mind what has come out of the TRAMS model that has obviously been some of the inspiration for the approach that we are recommending to government. How would you involve the community, how would you get community ownership and do it in a scale that is implementable?

Dr Buchan—Yes. Has someone from TRAMS, the Torrumbarry Reconfiguration and Asset Modernisation Strategy group, been invited to give evidence in this inquiry? Certainly they are able and willing.

Senator SIEWERT—They would be most useful.

Dr Buchan—It is amazing when you look across the community and ask the question of why is it. We talk about ecological resilience but also community resilience and socioeconomic resilience.

I am interested in the question of: why is it that when you look across the basin, which is facing hard times, some of those communities seem to have the inherent capacity to self-organise? They do not wait for top down amounts of money or for edicts to come that they react against. They are able to get together and acquire the right information, the right skills, the rights grants and so on from government to do that sort of planning—the land and water planning and the community planning. That is interesting as well. Yes, community planning is good and it works and it is not like none of it happens already. What is it that makes some of those communities already more resilient and able to do that more than others?

CHAIR—On that note, Dr Buchan, I am sorry to cut you short but we are well and truly over time. Senator Siewert, is there anything else you need? That other one was put on notice, by the way.

Senator SIEWERT—I have one more bit to add about what are the key bits of information you think are needed to undertake that process.

[5.40 pm]

KORN, Mr Terence John, Publicity Officer, Australian Floodplain Association Inc.

CHAIR—I now welcome Mr Terence Korn of the Australian Floodplain Association. I apologise that we are running a little bit overtime and are going to have to tighten up the schedule. Do you wish to make a brief opening statement?

Mr Korn—Firstly, I would like to apologise on behalf of Hamish Holcomb and Debbie Kaluder, who were listed to be here but at short notice could not get away from their properties. My opening statement is five minutes long. I spent a lot of time getting it to five minutes, so I would like to make that if I could.

CHAIR—By all means.

Mr Korn—I will give you an outline of the association and what we intend to do. The Australian Flood Plain Association is comprised primarily of flood plain graziers, with some dryland farmers and community members, who support the sustainable use of rivers and their associated flood plains and wetlands. We are a voluntary, non-government organisation with members concentrated in the Murray-Darling Basin and the Lake Eyre Basin.

We speak for the forgotten majority in this water debate—those graziers and dryland farmers who have traditionally relied upon overland flows to prime in their land. Before river regulation and large-scale irrigation development, such lands commanded a premium price because they received regular overland, or flood plain, flows. In other words, these landowners were practising water trading in an indirect sense well before the current statutory water trading was introduced a few years ago through the National Water Initiative reform process. Unfortunately for these landholders, though, this indirect form of water trading was not recognised statutorily and consequently no redress is available to flood plain dependent enterprises disadvantaged by the disappearance or significant reduction of flows over their land.

Our aim as an association is to preserve and restore the ecological health and productivity of flood plains in Australia. We seek to do this by securing the permanent protection, in terms of their flow, of unregulated iconic rivers such as the Paroo in the Murray-Darling Basin and, up in Queensland, the channel rivers. We want to have more water over the flood plains of regulated rivers and we want to increase public awareness of flood plain management issues and to promote research on flood plain issues.

Of particular concern to us is the continued harvesting of flood water from Australia's flood plains and the inability of governments to successfully monitor and manage this damaging practice. Many of our members have been directly affected by the loss of water across the land and, as such, are seeing incomes halve, small communities diminish or disappear, ecosystems deteriorate and populations of water dependent birds, reptiles and amphibians collapse. Approaches to overland flow issues within water management agencies are of importance to our association, especially those associated with measurement of volumes, flood plain planning and monitoring and compliance. Our association applauds the purchase of water by the government

for the environment and encourages governments to press forward with this program as a matter of urgency, because water will only get more expensive overtime. However, we do stress that environmental water purchase must be strategic and well targeted and its delivery must be closely monitored to measure outcomes.

Putting aside environmental water purchases and other possible small gains for the environment through delivery efficiency, the short-term future is still bleak for environmental flows. This is despite the fact that the Water Act in New South Wales puts the environment as its top priority. The fact is that, under the terms of agreement between the Commonwealth and basin states, existing water-sharing plans must complete their term before the basin plan, which has yet to be drafted let alone agreed to, is implemented.

The earliest plans terminate in 2014 and some as late as 2017. This means business as usual for the management of water by the basin states for at least the next five to six years or up to 10 years. We are certain that the general community is not aware of this time lag and, in terms of environmental health, what it means for the basin. Such a scenario is alarming for the Australian Floodplain Association because history does not show the states as environmentally sensitive water managers. The scenario must be even more alarming for South Australia for whom we feel.

In summary, despite this the Australian Floodplain Association believes we must remain focused on this issue because of its great importance. We must not repeat mistakes of the past, we must plan carefully, but I emphasise here, like the previous presenter, that there is a lot of information we need to act on as well. We need to adequately fund the basin plan, we do not want to forget the silent majority in this water debate and we want to look to the future so we leave something our grandchildren will thank us rather than curse us for.

CHAIR—Thank you Mr Korn, never a truer word spoken. We did meet Mrs Kaluder last September, who spoke passionately about the Paroo and the floodplains of New South Wales.

Mr Korn—It is unfortunate that she cannot be here because she and Hamish would have been able to present production viewpoints on this. They both own properties.

CHAIR—That is fine, I am sure she has sent a very able body to relay the message of the Floodplain Association members.

Senator WILLIAMS—Mr Korn, would you just explain some of these areas of floodplains. You have mentioned the Paroo, but would you give me some other examples of areas of floodplains that your organisation represents.

Mr Korn—We have members stretching from Hay, Balranald to Longreach, Windorah and Birdsville.

Senator WILLIAMS—A lot of that floodplain country would be very good alluvial soil, good food-producing country.

Mr Korn—Yes, it is.

Senator WILLIAMS—The reason I ask is that I am concerned about our food production. We had a submission earlier on today about the lack of food production in the Murray-Darling Basin and the general lack of food production for Australian exports et cetera. Would you give me your opinion on the government buying back the water licences, especially in New South Wales because of the cap in Victoria? Are they going the right way in allowing more environmental flows down the Murray?

Mr Korn—Our association strongly supports the purchase of water for the environment. Whether or not more of it is going to come from New South Wales, arising from Senator Xenophon's strategy and ability to get that money and Victoria's cap, we will have to see. We strongly support that. I would like to emphasise—I am not sure of the reason behind your question—that our association is not against irrigation; we are against what has happened with irrigation due to the poor planning and administration by governments over the last 30 years.

Senator WILLIAMS—Overallocation rights—

Mr Korn—Yes.

Senator WILLIAMS—There is no question that that has happened but of course they were wetter years but now, when the drier times have come, they say, 'Of course we overallocated; that is too much water.'

Mr Korn—That is true.

Senator WILLIAMS—Do you see the Menindee Lakes as a handbrake on the Murray? In other words, are they just something that is stopping the flow of water? We crossed this earlier on today—for example, the purchase of water off Toorale Station. The Menindee Lakes is a big area of evaporation and a loss of water.

Mr Korn—Yes, it is an inefficient system. There are lots of inefficient systems in the basin where there are large areas of water. If you can make gains through particular processes, whatever they might be, that should be done. I would like to emphasise that if you are talking about food production—I mentioned the forgotten majority in this, which are the floodplain graziers—in all the studies that we have seen, we have not seen a proper study that has accounted for the production lost through those systems over the floodplain. It has all been focused on irrigation and what has happened to the irrigation industry. It is not accounted for the loss of cattle production, mainly on those areas, but also sheep and the opportune cropping that has occurred on some of those floodplain areas that were flooded more often in the past.

Senator WILLIAMS—To your knowledge is the watertable dropping on those floodplains?

Mr Korn—It is in most places. When you say the floodplains that we are not responsible for but where we have members, it is the entire basin and the Lake Eyre Basin. You know the story with water as much as I do on that.

Senator FISHER—New South Wales irrigators have expressed the view that New South Wales will be unfairly targeted by the Commonwealth's water buyback because of restrictions on trade in other states, particularly in Victoria. Do you share that view?

Mr Korn—I have yet to see it. I think that is a bit of a strategy by the irrigation group. The markets depend upon willing sellers, and it may be that there might be more water bought out of New South Wales. I do not know. But they are willing sellers. Under the National Water Initiative, the irrigation industry and the farmers argued for a free market. When suddenly it is going against them, they are saying, 'Oh, this is a bad thing. We want it to change because it is not suiting us'. You cannot have your cake and eat it too.

Senator FISHER—I hope I am not misrepresenting their argument. I think it is that not much of the water can come from Victoria because of the cap. Thereafter, New South Wales has the most volume, and after New South Wales follows Queensland and South Australia. So the impact will be felt most, in terms of targeting for sale, New South Wales operators. There will be a spike for the period of the buyback in water prices and a deterioration thereafter. What do you think of that?

Mr Korn—That could easily be the case. I would not deny that that could happen, if you look at a straight economic model. Yeah, you could say that that is what would happen on supply and demand.

Senator FISHER—If I may, Chair, a brief commercial, because I know Senator Heffernan would get away with it: Mr Korn, there is a separate select committee inquiry into agriculture and food security. You may wish to consider giving your views on broadacre farming to that committee in the context of the impact on food production and what the people you represent can bring to the country and the world in terms of food.

Mr Korn—Thank you for the suggestion.

CHAIR—The beauty there, Senator Fisher, is you know how far you can push the boundaries, unlike your colleague. That is why I let you go for it.

Senator FISHER—Thank you, Chair. I will quote you on that back at you.

Senator SIEWERT—First off, I want to go to the comment you made about the issue around loss of production. Can we just go back and explore the context you were talking about. Are you talking about being due to water used for irrigation, because When your organisation previously appeared we had quite long conversations around the interception of floodplain overland flow et cetera? Is that what you are referring to or are you referring to something different?

Mr Korn—It is primarily due to interception by irrigation—by allocation of water for irrigation. But it is also due to interception on the floodplain by floodplain developments—either approved, authorised, or not authorised—

Senator SIEWERT—What it is it? It is not authorised but it is not illegal?

Mr Korn—Yes. Those two things are the main areas. I live in the Macquarie Valley. I have lived there for the last 30 years—I live in Dubbo. Over that time, I have seen the poor old Macquarie Valley, the lower valley in particular down below Warren, just deteriorate because of no planning on floodplain development and no monitoring and compliance of those developments on floodplains. At the same time you have less rainfall and more irrigation.

Therefore, those landholders who had great cattle country down there no longer have great cattle country. They cannot produce from that country like they used to. Nor can they put in crops like they used to when they were relying on the overland flows. Those things have disappeared and, I emphasised before, those losses have not been factored into the studies and all of the media that you hear.

Senator SIEWERT—What you are hearing is that irrigators are complaining that they are losing access to water which impacts on their businesses, but you are not hearing what were, in fact, the impacts previously of water harvesting activities on existing agriculture.

Mr Korn—Yes, that is true.

Senator SIEWERT—You talked about monitoring and compliance. This has come up in a number of inquiries, in fact, that our committee has undertaken. Do you think there is a need for increased monitoring and compliance? My understanding of the laws in New South Wales—which is why I made that comment about 'not illegal'—is that there is still some questions over structures that are not authorised but are not classed as illegal either. That has proved a problem for monitoring and compliance because, if they are not illegal, what action can you take? Have I got a correct understanding of what the situation is?

Mr Korn—Are you talking about New South Wales?

Senator SIEWERT—I am talking about New South Wales.

Mr Korn—The Murray Valley in particular or the Gwydir, the Macquarie and all of those?

Senator SIEWERT—I am talking about New South Wales in particular and we have had evidence that people in Queensland are doing it as well. I am interested particularly in New South Wales and I am trying to get a bit more of a handle on whether there is an issue there and, if there is, should we be recommending anything about it?

Mr Korn—We think monitoring and compliance is an extremely serious issue. We do not think it is being done properly. We think the legislation is probably okay in both Queensland and New South Wales but we think policy development has been poor or, even if the policy has been developed, the implementation has been poor or not resourced. There are certain cultural attitudes within both states about water management that have hung over from past water management organisations in each state, so there is that issue.

I will put this question to you, senators. The federal government has put aside a bit over $3 billion to buy water for the environment, which is a lot of money. If you were running a business and you were going to invest $3 billion in something, wouldn't you like to set up a system to ensure that that investment had some guarantee or some surety that it was going to do what you wanted it to do? I have raised this point both with the New South Wales government and Senator Wong. We said that this is really bad business on behalf of government and on behalf of the taxpayer of Australia. If you are going to spend $3 billion on buying water and you do not fund a monitoring and compliance program that will protect that investment on behalf of the taxpayer, it is atrocious. You would not do that if you were in private business. That is the answer.

Senator SIEWERT—Thank you. I appreciate that. I am pretty certain you were here when Dr Buchan was presenting and I am sure you have heard the call, because we have the Wentworth Group next, about the need to increase the speed with which we are buying water and implementing the buyback in particular. What is your comment on that? Do you think there is a need to increase the rate that we are buying back water?

Mr Korn—I do. I think I stated in my opening statement that we needed to do it as quickly as we can because the price of water is going to keep going up. However, when you are operating in a free market like this, you can only buy what is being offered and that is the limiting factor. You cannot really speed it up. Senator Xenophon got the money and moved it forward but that does not mean you are going to buy any more water. There is a supply issue.

Senator SIEWERT—Do you think we should be targeting specific areas? Should we be doing a more structured approach, like ACF is advocating, which is actually looking with an eye to the future at what the basin is going to look like and what agriculture should look like into the future?

Mr Korn—Yes, we do. We support a strategic approach like that. You really need to think about 50 years ahead and factor in climate change and make a risk assessment and say that these are the areas that we think we can save. My personal view is that you should have a triage approach to this and say that that area has had it, so you are not going to waste any money on that. It will just have to go by the wayside. Another area we might be able to do something with through the strategic process. And another area is basically untouched. In New South Wales there is only the Paroo and the Warrego but it is really touchy because of what is happening in Queensland. We think it needs to be strategic and you need to work out which environmental elements you want to protect.

Senator SIEWERT—So you would support a planned approach?

Mr Korn—If a community has ownership of a process, that is always much better than if it is imposed by a state or a federal government.

Senator SIEWERT—Your association supports this approach. Have you had discussions with other farming organisations around these issues?

Mr Korn—Which particular issue?

Senator SIEWERT—Issues around the need for a strategic approach.

Mr Korn—Not formally. I might add that probably 95 per cent of the AFA's members would be farmers, so they would belong to all these different groups themselves. But if you are asking if the AFA has gone to New South Wales farmers—we have talked to Arlene about this, but we have not sat down and formally developed a strategic approach with another group about this issue. We have not done that. I might add that we are a non-government, voluntary-funded group and that we are scratching for dollars.

Senator SIEWERT—I appreciate that—having worked in NGOs for most of my career, I totally understand. It is just that your views are slightly different to other farming organisations

that we have heard from—and I think it is quite a progressive idea, I must say. On both occasions on which you have come before us you have been much more progressive than some other farming organisations we have spoken to. I was just wondering whether you had had discussions with other farmers' organisations.

Mr Korn—No—as I said, our members are farmers, but they are all flood plain farmers. They have lost a lot of their production, but they love the flood plain environment that used to exist, where they had swamps, birds nesting and all these other things happening, as well as growing fat cattle—it does not happen any more. Senator Heffernan mentioned before the Condamine-Balonne system and all of that. That has been a major issue for us—we have got sore heads from bumping them against the Queensland wall, the federal wall here and the New South Wales wall, and we have not had any success.

Senator HEFFERNAN—They are all gutless. They know it is wrong, and they are too gutless to do anything about it.

Senator SIEWERT—I am not arguing with you.

CHAIR—On that, Senator Siewert, I think time is up again. Senator Heffernan, did you want to make one, very quick statement?

Senator HEFFERNAN—Mr Korn, you introduced it—I apologise for not being here for your full presentation. Given the attitude of the Queensland government and of the Commonwealth: their ability to look the other way on overland water harvesting; the capacity of Queensland to argue that they are all right because New South Wales has not done anything about their overland harvesting; the consequences of what has been allowed to happen now being converted into financial instruments by way of licences in the Condamine-Balonne—can you describe to the committee the damage that the interceptions that have occurred in the lower Balonne have done to the flood plain? The likes of Brenda Station et cetera.

Mr Korn—I cannot give direct figures, but I can tell you that quite a few of our members come from that area and they have seen the capacity of their property and the health of the flood plain plummet—trees die—I mean, if you have been up there, it is a sad sight. The country is sick, and it is sick because of this poor management of water in Queensland and New South Wales.

Senator HEFFERNAN—As you are aware, the flood plain people did not participate in the deliberations of the resource operating plan advisory committee for the lower Balonne. As you are also aware, the chairman of the committee—even though she does not qualify under the terms of the committee for a licence because she has no harvesting capacity and no storage capacity—has managed to get herself, in a commercial-in-confidence arrangement, onto Cubby's licence, which is the largest water licence ever issued in Australia. The licence is for 469,000 megalitres in a system that has 1,500 gigalitres of on-farm storage and a mean flow of 1,200 gigalitres, which is seriously unsustainable and which has never been subject to a fair dinkum scientific study. If those licences are issued, they are in draft form right now. We have an election on, and there is not one person—they are all gutless in Queensland, all the politicians because not one of them has been game to raise this, because they are all running scared, and it is all wrong. Wouldn't you agree?

Mr Korn—They are certainly not addressing it. I must say that our association has not addressed that because we feel we have pushed the envelope with all the people we could before this. In that Queensland election we focused on the triage approach. I am moving outside the Basin now Mr Chair.

CHAIR—You are going to have to Mr Korn.

Mr Korn—We have formed an alliance with the Coopers Creek Protection Group, which is a group of landholders that battled to stop cotton on the Coopers Creek. The Coopers Creek Protection Group and the Pew Environment Group are funding us, and we formed an alliance with the Wilderness Society, which was launched last week in Brisbane. We are lobbying to have the channel country rivers given some formal long-term protection under some Queensland legislation.

Senator HEFFERNAN—My last question and you can take it on notice. Why do you think the resource operating plans for those rivers end at the Queensland border?

CHAIR—It is on notice, Mr Korn. Thank you very much for your time. I am sorry we have gone over.

[6.06 pm]

COSIER, Mr Peter, Member, Wentworth Group of Concerned Scientists

WILLIAMS, Dr John, Member, Wentworth Group of Concerned Scientists

CHAIR—Welcome back. It is nice to see you again, Mr Cosier and Dr Williams. The Wentworth Group lodged submission No. 71 during the first part of the inquiry. Do you wish to make any amendments or alterations to that submission?

Mr Cosier—No. In fact, in this conversation, we want to refer back to our original submission, particularly the second issue of the interim Basin plan. We have made an opening statement, but to save time we are more than happy to have that statement tabled rather than read it to you.

CHAIR—If you want to make it brief, please by all means go ahead. We have been over it. It is our fault that we are over time and we will continue to be over, so we will probably wrap up at about 6.40 pm at the latest.

Mr Cosier—Thank you Senator. I will just allude back to our submission last year. We tabled a joint submission by the Wentworth Group and other experts, so it is not just a submission of the Wentworth Group. Essentially other resource economists helped us with that submission. It is in two parts. The first part dealt specifically with the lower lakes and the Coorong issue. The second part, which is what we would like to address this evening in more detail, is the broader issue of overallocation of water in the Murray-Darling Basin. The second part of the submission is on page 8 and I have spare copies to pass round.

CHAIR—Is this the original submission?

Mr Cosier—Yes; it is the original submission. On page 8 we put forward an interim Basin plan to help guide us towards the latter issue which, as I said, is the overallocation of water across the Basin. We argue strongly that the two are connected. It is impossible to address the long-term issue of the Coorong and Lower Lakes without addressing overallocation in the Murray-Darling Basin. In preparing that interim Basin plan, the analysis that we undertook, which Dr Williams would like to speak to specifically, showed that if we are to maintain healthy rivers and provide high quality water to produce food, the magnitude of adjustment across the Murray-Darling Basin in massive—well beyond anything that has been contemplated before in the Australian community. We believe that it will result in the consumptive use of water across the Murray-Darling Basin having to be cut between 42 and 53 per cent. I would like to pass to Dr John Williams who will briefly explain how we believe we can make that adjustment process.

Dr Williams—On page 12 of our original submission there is table 3, which sets out the figures that Peter just referred to. We based our analysis on the CSIRO reports on available water in the basin. We worked with them. They gave us good access to all of the information. We then used the best information we could, particularly from the eWater CRC, Professor Garry Jones and other people, well published material, to suggest at a first pass that the magnitude of the

change that we have is of the order that Peter said. It is about living, in rough terms, with 60 per cent of the water that we currently have over the long term. That is a massive adjustment.

In the document we tabled this afternoon our focus is really on how we successfully undertake such a large task—that is, to build better futures in the Murray-Darling Basin with 60 per cent of the water. It is a huge issue. We think the focus needs to be like a three-legged stool. We need integration between an approach of community planning and government assisted structural adjustment for our rural people. These communities are hurting and sometimes feel somewhat deserted. Yet it is about building more sustainable and enduring futures with 60 per cent of the water. It means that we then add to that the water buyback and water efficiency improvements integrated with infrastructure investments for the future.

All the elements are in pieces around the place but we do not see them being brought together in a cohesive frame that allows us to see it as part of a positive picture for the future about regional development in the basin. We think we are at the point where such a huge reform can be cast in regional development and rebuilding a secure future with a lot less water. I guess it is about giving people and particularly small businesses some certainty about what is ahead. People can adjust. The economic cost of adjustment is minimised when people know what is ahead and are given a sense of what government framing is. I think that that is our first point in our document—planning for a future with less water and providing the structural adjustment support that is required.

The second thing is removing the restrictions to the trade of water. We hear a lot about that. We could go into the detail of it but it is sufficient to say that that is a major issue that needs to be brought together. I know how difficult it is but it is important to recognise that over the 2007-08 financial year some 921 gigalitres of water entitlements were traded in the basin—and government trade is some seven per cent of that, so it is still very small—but only 0.2 per cent of this was interstate trade. Particularly with the accelerated purchase of water that has been agreed to recently, with the caps on trade that exist between the states we are going to have some serious problems to go forward. Certainly the water may well trade out all of New South Wales and cannot trade out of Victoria. That is the sort of option that is there. That I would have thought was politically unacceptable.

I think we really need to have look into your terms of reference to the water act and then the NWI to see that we give the environment a formal entitlement. In simple language, the river must get the first drink because rivers need water for all users not just the environment. Rivers need water so that the irrigation industries have water that can be delivered. You have to carry water on water. There are a whole lot of issues there that I could talk about but time is short. But it has to be an entitlement that recognises there is a certain flow in a river that all parties are part of. In addition to that there is water that the environment requires to water the wetlands, flood plains and the assets that we all care about and love.

Getting those water reform issues to reflect the principles in the NWI, I think, is still very much ahead of us. We have made a start. I have a couple of graphs that illustrate very clearly where we are lacking, even though in theory, we have a lot of the elements in place. The graphs show data that has been assembled for the Murrumbidgee River by Professor Tom Kompas of the ANU. It is based on data from the New South Wales Department of Water and Energy and the Department of Environment and Climate Change. It only runs to 2005 but there is a little

more data there that will add some insight. The graphs show the decline of the inflow into the Murrumbidgee since 1984. The bottom line with the square symbol on it is the outflow from the Murrumbidgee at Balranald. The line in the middle shows the water use for irrigation. Even though we have seen huge declines in intake, we recognise that the actual relative loss to water for irrigation has been quite small. The bottom line is that the environment got a pretty pathetic share. That is what is going on, and yet we have water sharing plans in place but, because of the circumstances, they have not been designed to cope with our climate variability or the impacts of likely climate change, so of course they end up being suspended. In the formulations in the issues ahead of you with the Murray-Darling Basin Authority, I think water planning has sufficient capacity to avoid the problem that is documented in the first graph.

The second graph illustrates work done by Professor Shahbaz Khan, who is now in Paris with the world hydrological organisation, but who was previously with Charles Sturt University and the CSIRO. He has presented there a flow, which is the flow at the Murray mouth, and presented it as a probability distribution—that is, the percentage likelihood of this flow being achieved. The natural conditions meant that there was about a five per cent likelihood—where that arrow is—of the river mouth having a flow of less than 5,000 gigalitres. But under 1994 extraction patterns, the likelihood of getting 5,000 gigalitres at the end of the river system, is about only 60 per cent. If you want to put it in other terms, you had a 95 per cent chance of getting at least 5,000 gigalitres under natural conditions, but now you have only a 60 per cent chance. It is a tricky graph to look at, but that is the sort of probability flow relationship that we have to get to know for our catchments and on which we should base our allocations of available water.

One further thing I will comment on and my fourth point on the paper is that, in our purchase of water, we need to develop an environmental benefits index. Direct purchase of water entitlements and water efficiency improvement, and the purchase of land and water and other options for the cover of water, should all be evaluated against an environment benefits indicator that can assess the value for money for the water purchased. Water entitlements gained at a higher price may be preferred to entitlements at a lower price, provided they generate a proportionately greater environmental score. As we say in our document, the purchase of water now may be more expensive if it pushes you up the price curve. I think it is important that you have a look at the price curve—and I am sure you will if you have not already—and you will see that it is a fairly flat curve at the moment. The government has been perching down at one end of that curve.

The point is that, even if you go up the price curve, if that water has a big environmental impact, it is a good investment, and we need to bear that in mind. Those four issues about building an integrated package will take us forward, but it has to start with helping communities—irrigation communities particularly—to build a better future for themselves with a lot less water. Thank you, Mr Chairman.

CHAIR—Thank you, Dr Williams, and thank you, Mr Cosier.

Senator HEFFERNAN—Dr Williams and Mr Cosier, on the argument of entitlement versus allocation, we have some people who think—I do not know why—that the water we ought to be buying ought to be on the spot market, allocation water, for a long-term plan. I think that entitlements are a better investment. Would you like to comment on that?

Dr Williams—Yes. If we take for a start the fact that we have one of the most highly variable climates on the planet, I think we have to have a water entitlement and allocation where those two things are actually broken. You have an entitlement to a dividend in that resource, but that will depend on the circumstances: the rivers' needs and the climate change and variability. So for the actual allocation, I think, to be a fixed and solid thing is going to prove into the future, as it has in the past, to be very difficult. If we look at the facts of the matter, even high-security water in Victoria is down as low as about 30 per cent of the actual entitlement. In New South Wales, of course, it is similar, and lower. What we have worked towards and the way we have coped with the variability is to disconnect the entitlement from the allocation, based on what we have, which is sensible, I would have thought. And yet we need to build that into our water products that we are marketing and selling, and I do not think we have done that at all yet.

Senator HEFFERNAN—There has been a lot of fantasising about the Murray and the water that is available up there somewhere hidden behind rocks and trees in the system. I have said publicly several times—I am waiting for someone to shoot me down—that, if we get the weather that is forecast for a dry winter and drier this year, some of our river systems, including the Murray, will fail. Could you comment on that and then also perhaps inform the committee of how much water we would have to have to prevent that failure?

Dr Williams—We need a flow. At the moment we are extracting something like 3,000 to 4,000 gigalitres per year from the system. I think the evidence is that, to fill the reservoirs that we have at the moment, if you look back in history at the events that actually filled the Snowy scheme and filled the large dams on the Murray system, the Hume and the Dartmouth, they were filled in years that have a relatively low probability of re-occurrence. Have a look at a hundred years of data and work out the probability of a 1974. My knowledge from discussing this with Snowy Hydro and other good hydrology groups is that you need about three years of those really low likelihood years of high rainfall to fill the system. Therefore, when you multiply those probabilities together, which is the normal way you manage probability, you have a very low probability of the system refilling under the historical pattern of rainfall that we have had. If in fact we had had this system of extractions and reservoirs built in the first 50 years of Federation, I would suspect the system would have failed at least twice and maybe three times. We see it—

Senator SIEWERT—If we had had the level of use we have now?

Dr Williams—With the level of use we have now. Well, that is reasonable. You might want to say to people that you are uncomfortable with predicting the future with climate change, but at least you should be comfortable with saying we should have a reasonable likelihood of having what we have had in the past, so we should expect 17 years when Lake George is dry, which we had in the past. So, if you have those sorts of years into the future, you can expect that the system would fail.

Senator SIEWERT—Even without climate change?

Dr Williams—Without climate change. We have a double whammy, as we say in our book. We have to adjust to an overallocation in a wet period, plus the fact that we have rising temperatures and the likelihood of further climate change. Tom Hatton's excellent work is there in the last report on the Murray-Darling. It shows a diagram that shows the variability we have had—and they only looked at the last 10 years, but I could do the same thing for the period I

have just mentioned in the thirties and forties. The loss of flow in the Murrumbidgee due to climate variability is about the same order as the loss we can expect in 2030 or 2050 under a moderate climate change scenario. So, when we are doing this thing, we must always look at our variability and recognise on top of that the superimposed climate shift.

Senator HEFFERNAN—So, given there is a dry winter forecast—

Dr Williams—Yes, we are in trouble.

Senator HEFFERNAN—Do you expect there may be some river failure?

Dr Williams—Yes.

Senator HEFFERNAN—You wouldn't be game to punt where?

Dr Williams—I would not be very popular if I did.

Senator SIEWERT—No, you would not be very popular but it might be sensible.

Senator HEFFERNAN—Surely it is time for people to wake up to the fact that we are—

Dr Williams—Our submissions are saying, 'Guys, this is a huge one.'

Senator HEFFERNAN—Approaching a doomsday—

Dr Williams—We have to build a system in the Murray-Darling Basin that can actually cope with what we know we have had in the past—plus climate change. We are suggesting that you probably have to reduce our irrigation extractions to something like 60 per cent of what they currently are in order to avoid what you want me to tell you. I do not really have a good enough sum to tell you where the failure is, because I cannot predict where the rain will be.

Senator HEFFERNAN—If we take the Goulburn River, for instance, which is a useful contribution to the Murray system. It has something like a 2700-gigalitre mean flow and it is predicted to go down to, perhaps, 350 gigalitres this year, and then the dopes in Victoria are talking about taking about 115 gigalitres gross of that water in a pipe to Melbourne, which would be half the water available in the system—

Dr Williams—I would say the Goulburn system is the one under pressure. The next one is the Murrumbidgee.

Senator HEFFERNAN—Could I just take you to your submission—sorry to pick you up on this. 'At the time the government purchased Toorale it was ridiculed by some'—that is a reference to me, but I take it as a badge of honour—'as a waste of money, yet the recent rains have now produced 11 gigalitres flowing into the Darling.' I accept that, but what I do not accept is this: when—not if, but when—the 80,000 gigalitres of sleepers which are in the process of being woken up further up the river do wake up, that will be a waste of time and my criticism will be justified given that, below Wyandra, there is no net return to the river. It is all out of the river. Would you like to comment on that?

Dr Williams—Yes, Senator, we would humbly submit that you are correct in the latter instance. In the first instance, you were not the only one at the time to call it a waste of money. But the point—and I think we had this discussion at the last inquiry—was that a lot of that controversy was over the purchase of the station as well as the water entitlement. I think the case we made at the last inquiry was that the government had no choice but to do that because, whilst New South Wales had promised to separate water title from entitlement to allow government to buy water, that had not been done. So the only choice they had, if they were to buy that water entitlement, was to purchase the station.

Senator HEFFERNAN—I fully appreciate that, although it would have made sense if we could have gone up and bought the sleepers.

Dr Williams—But the sleepers are the issue and now they are going to be activated—

Senator SIEWERT—What do we do about the sleepers?

Dr Williams—I think it was John Anderson who said publicly that it is one of the big mistakes in his time, that we did not eradicate sleepers and dozers.

Senator HEFFERNAN—Use it or lose it.

Dr Williams—The point is, to my mind, that sleeper and dozer licences are nearly things of the past, but obviously if you activate them while buying water, you are buying with one hand and taking away with the other. Peter and Paul are playing a game.

Senator HEFFERNAN—I accept that there has been a whole lot of lack of political will in this whole process. Would you venture to comment on the gutless position of every politician in Queensland in the context of the present election, without raising the issue of the complete absurdity of the Lower Balonne Resource Operations Plan, the conflicts of interest and the capacity of the licences that are proposed to be issued? This is against the background of the science on the systems, which Tom Hatton and others are now building, showing the inevitability of having to buy back this water, and knowing all that before we issue the licences. How bloody stupid is that?

Mr Cosier—Can I answer that, please. We have heard that debate. We have heard debates in Victoria about why their water system is better than New South Wales, in South Australia about why their system is better than Victoria and in Queensland why theirs is better than New South Wales. The bottom line is what John Williams has just said that we have over-allocated the system by 40 per cent. Whilst we agreed in 2004 to what the Wentworth Group described at the time as a 'historic reform' for water reform—world class reform I think was the expression we used—the principles in that NWI are superb. What has happened since 2004 is the subtle gain between agencies at various states who then fling one example back as to why their state is better than the other. Here we are sitting for the umpteenth inquiry into why water reform Australia has failed because we will not address the fundamental issue that we have grossly over-allocated the system. Until policy and governments of all levels confront that issue, we will be back here next year and the year after and the year after having the same debates.

CHAIR—Thank you, Mr Cosier. We are going to have to get moving now because time is progressing. I agreed to go to Senator Siewert and then Senator Fisher wants to put a couple of questions on notice.

Senator SIEWERT—You present a pretty dark picture. You put forward an interim plan about where we can go. As much as I think you are right, I am pretty sceptical about the level of change that we are going to get from either federal or state governments. Are we looking at permanent system failure if we do not do anything? Are we going to move quickly enough to actually achieve the objectives?

Dr Williams—I think we can. It does not mean you throw water planning out the window, not at all. But you have to make sure it takes into consideration the actual climatic variability, realistically and properly, that there is a genuine recognition of the environmental need in that sharing plan and that the river must get the first drink. If you did those two things, got on with it and made sure of the NWI principle that the river gets the first drink, that has to occur. You build into both the entitlements and the allocation principles the climate variability we have, which must be in the water sharing plan. I believe you can do that. But you have to tie it down from the top, the basin catchment end deliverable, and be quite strong about the fact that the river must have the first drink. I think it can be done.

Mr Cosier—Can I just also add a second positive element which is a huge issue and a hugely positive element? The government has put aside $10 billion of taxpayers' money to help deal with the adjustment that needs to be done. It is an enormous sum of money. The reason we asked the other group of economists to help us with our submission last year was to find the best way to use that money. Do you incrementally go into the water market over 10 years and buy what has been put on the market or do you use that sum for a fundamental readjustment of the system and get economic development driven from that huge investment, economic certainty because we now know what the science says and we have money to drive that reform, as well as long-term environmental resetting of the system? When we undertook that analysis that John referred to earlier, never in our wildest dreams did we think that there would be sufficient money on the table to actually deliver the reform that we believe is necessary. To our great delight there is enough money in the system already allocated under the budget process to go a long way to fixing the system. What we need is a driver to actually trigger that action.

Senator SIEWERT—I suppose that is why I am asking the question. You talk about fundamental reform in your submission. I am not saying I disagree with you. In fact, I absolutely agree with you. But if we do not get that reform, is the $10 billion going to actually achieve the objective? Just spending money is not going to work if it is not about fundamental change.

Dr Williams—I would agree. We have a great opportunity to go about regional development in the Murray-Darling Basin with $10 billion. If we lace the three legs of the stool together—the planning and structural adjustment, the free purchase of water because we have open markets that can allow that to happen, and follow it up by infrastructure and development to support new futures—and we use that $10 billion well we can do it. It is not a bleak future; it is a positive future. We are coming to terms with living in Australia.

Senator SIEWERT—The point I am getting to is the fundamental change—

Dr Williams—Absolutely.

Senator SIEWERT—and the acknowledgement that we need that fundamental change.

Dr Williams—That is right. The Howard plan is on the table and the current government has picked it up, and that is terrific, but I think that the issues that have emerged in recent times show that now we need to pull it together and drive forward to really make the reforms happen. Just hoping it will happen with the original formula, to me, lacks the energy, drive and focus and positive framing that it can be.

Senator SIEWERT—I am not disagreeing with you.

Dr Williams—No, that is alright. We are just pointy headed scientists!

Mr Cosier—One specific perspective on your question: at the moment—and again we address this in our submission—we have a compartmentalisation of the plan. So we have $3 billion for water buy backs and $6 billion for infrastructure. It may well be that you do spend $6 billion on infrastructure, but if you go in and spend money on infrastructure without identifying where you need to make the adjustment, you may well be throwing a lot of infrastructure money that has been put together by state agencies, not industry specialists. You might, as Peter Cullen once said, be producing gold plated redundant infrastructure. In other words, building new pipes that will never be used because the water will not get there. So the current process is at risk with state agencies putting up infrastructure projects that are not economically viable whilst the Commonwealth is in the market purchasing water.

Senator SIEWERT—We have that happening while the basin plan is in the process of being developed, hence the need for an interim basin plan, as argued in your submission. I am playing devil's advocate here. You would have listened to the debate we had in the chamber when we were talking about the water amendment bill—that is, we do not have time to do an interim plan; we have to get on and do the real planning now. What is your response to that?

Mr Cosier—Again, after a lot of thinking, our judgement is that you should put the programs together in an integrated package and work with local communities. We have done our best to identify what the gross entitlement realities are facing the basin. You start with the hydrological reality. You then work with local communities and say, 'Given this reality, given the fact that we have this sum of money available, what do you feel is the most cost effective way of achieving these outcomes in a way that also drives economic development in your region?' So regionally based community development processes, as John was arguing, are definitely the way forward, and that does not require another five or 10 years of planning and interim planning. I ironically ask this question: How many targets have been met in water reform in Australia in the last 15 years to give us confidence that there will be a 2011 basin plan? But let us assume that we manage to do an interim basin plan. What does that plan contain? We still do not have agreement as to what a healthy river means, so there will be a fight and debate over that. Let us assume that we resolve that and have a basin plan in 2011. That plan will not be enacted for many years down the track. If you look at the probability of rainfall, which John was just talking about, the chances of having a system in place worthy of doing a plan by then is almost nonexistent. We do not have time to do that rubbish.

Senator SIEWERT—I notice that the Chair is back but I will sneak in one more question.

Dr Williams—I think you also have some regional capacity in our local governments in Victoria and New South Wales. There are certainly increasingly capable catchment management authorities where you have some independent people and facilitation. They are the new boys on the block. There is a possibility of working with local government, industry, irrigation groups and really putting together something that people determine their future.

Senator SIEWERT—So you get on with the community planning—and in the Xenophon package we managed to get $200 million—which in effect becomes the interim plan while the basin plan is being prepared?

Dr Williams—It may well inform your basin plan. Why not let the people shape the plan, given that we have to have only 60 per cent of the water.

Mr Cosier—Given the reality of where it is, the planning cannot be just planning; the planning has to be based on the reality of what needs to be done.

Senator SIEWERT—Yes.

Mr Cosier—The other positive light in that process is that we do know, and irrigators know, that there are gross efficiencies to be made in the way we use water. There are many, many ways of using water more efficiently. Through that planning process you can identify those opportunities, which then drives your regional economic development outcome as well as your environmental allocation.

Senator SIEWERT—Thank you.

CHAIR—As was succinctly put to us by the people from the Namoi Catchment Management Authority. Senator Heffernan is going to have a question, not a lecture. This is the last question.

Senator HEFFERNAN—The mean annual run-off across Australia is 10 per cent of the rainfall. It is the driest continent on the planet. The run-off across the Murray-Darling is four per cent. The Murray irrigation system, with 6.2 per cent of Australia's run-off, is twice as efficient per megalitre of water per dollar produced gross than what is a pretty lazy scheme but which has a lot of potential—the Ord—

Dr Williams—Absolutely.

Senator HEFFERNAN—but it is only one-twentieth as efficient as Carnarvon. Carnarvon produces $7 million per gigalitre. I am a wool classer and a welder, so I am subject to correction—

CHAIR—And a pilot.

Senator HEFFERNAN—and a burnt-out farmer and a reckless pilot and all the rest of it—and a disgraced senator. $360,000 per gigalitre for the Murray-Darling, $190,000 for the Ord and

$7 million per gigalitre for the likes of Carnarvon. So I just wanted to get your comments, as the Wentworth Group, on this: there is a light at the end of the tunnel if we go to higher technology?

Dr Williams—Of course. I really worry that we have been painting a black picture. I can understand that. Look, the opportunities to use our water and turn it into greater wealth, whilst looking after our rivers, is absolutely the thing that gets me out of bed every day.

Senator HEFFERNAN—Good on you.

Dr Williams—We have just got to get on with it. We can build better futures, because the current future is not much good if we keep on doing what we are doing. I agree with you. The opportunities of turning more dollars out of every meg of water is right on there.

CHAIR—Thank you, Dr Williams and Mr Cosier. We thank you for your assistance to the committee today.

Committee adjourned at 6.42 pm