COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON AGRICULTURE, FISHERIES AND FORESTRY

Reference: Future water supplies for Australia's rural industries and communities

THURSDAY, 31 JULY 2003

DENILIQUIN

BY AUTHORITY OF THE HOUSE OF REPRESENTATIVES

INTERNET

The Proof and Official Hansard transcripts of Senate committee hearings, some House of Representatives committee hearings and some joint committee hearings are available on the Internet. Some House of Representatives committees and some joint committees make available only Official Hansard transcripts.

The Internet address is: **http://www.aph.gov.au/hansard**

To search the parliamentary database, go to:
http://parlinfoweb.aph.gov.au

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON AGRICULTURE, FISHERIES AND FORESTRY

Thursday, 31 July 2003

Members: Mrs Elson *(Chair)*, Mr Adams *(Deputy Chair)*, Mr Forrest, Mrs Gash, Mrs Ley, Mr Schultz, Mr Secker, Mr Sidebottom, Mr Windsor and Mr Zahra

Members in attendance: Mrs Elson, Mr Forrest and Mrs Ley

Terms of reference for the inquiry:

To inquire into and report on:

The provision of future water supplies for Australia's rural industries and communities, particularly:

- The role of the Commonwealth in ensuring adequate and sustainable supply of water in rural and regional Australia.
- Commonwealth policies and programs in rural and regional Australia that could underpin stability of storage and supply of water for domestic consumption and other purposes.
- The effect of Commonwealth policies and programs on current and future water use in rural Australia.
- Commonwealth policies and programs that could address and balance the competing demands on water resources.
- The adequacy of scientific research on the approaches required for adaptation to climate variability and better weather prediction, including the reliability of forecasting systems and capacity to provide specialist forecasts.

Committee met at 9.10 a.m.

ARTHUR, Mr Lawrence John, Chairman, Irrigators Inc.

BARLOW, Mr Michael Gerard, Chairman, Moira Private Irrigation District

BARNETT, Mr Rodney Alan, Vice Chairman, Moira Private Irrigation District

BRAMSTON, Mr Mark Lindsay, Chief Executive Officer, Coleambally Irrigation Cooperative Ltd

CHAPPELL, Mr Leigh, Executive Officer and Secretary/Treasurer, Murray Valley Groundwater Users Association

CLARK, Mr Trevor, Chairman, Southern Riverina Irrigation Districts Council

GLYDE, Mr Scott, Chief Executive, Southern Riverina Irrigation Districts Council

HETHERINGTON, Mr William, Chairman, Murray Irrigation Ltd

HOWE, Mr John, Water Policy Manager, Murrumbidgee Irrigation

KERR, Mrs Deborah Gail, Executive, Irrigators Inc.

WARNE, Mr George, General Manager, Murray Irrigation Ltd

CHAIR—I declare open this public hearing of the House of Representatives Standing Committee on Agriculture, Fisheries and Forestry inquiry into future water supplies for Australian rural industries and communities. Today's hearing is the seventh one in the inquiry, and it is part of the committee's program of hearings in and visits to different parts of Australia. We have previously held public hearings in Queensland, Victoria, South Australia and Canberra.

We are here today because of your submissions and through the enticement of the local members that are sitting here: Sussan Ley, who you would all know, was a very strong advocate to make sure that we came and heard and saw first-hand the problems that her area was experiencing; and John Forrest, the member for Mallee, whose electorate is very close by. He has also taken us around his electorate to see first-hand the problems there. As chair of the committee, I am so pleased that we did come to these areas to see something totally different from what the rest of Australia is experiencing.

As you probably realise, this inquiry is not linked to the Living Murray process. They have a separate identity. This is more far reaching than the Living Murray. We are looking at our sustainable water supplies in rural and regional Australia, all around Australia. We all experience difficulties in different areas of Australia.

I will firstly apologise that we have only three members of the committee here. We have two very good members here, but this inquiry is also coinciding with the bushfire inquiry. Quite a few members of the committee are also interested in the bushfire inquiry, so we are splitting up

and taking different roles at present. Most of our members are either farmers or represent farming areas, so we probably see first-hand all around Australia what you are experiencing here through droughts and lack of water.

Our proceedings today will take the form of roundtable discussions rather than a series of separate hearings. We have a program in mind that has identified certain people to open the discussions on each topic, but our main aim is to seek contributions from you. The committee is keen to understand the issues and look at how the Commonwealth government can assist in bringing about solutions. The reason we have Hansard here is that this inquiry is not about what we as members believe the changes should be. With an inquiry, it is through the evidence we hear that changes come about, so please do not hold back. Make sure you get your points on our *Hansard* record so that we can make recommendations from what we have heard in these public hearings.

I will ask each one of you if you would like to give an opening statement about individual issues that you might want to get on the record first. Then we will discuss the key issues, with approximately five minutes introduction on each topic—first, water access rights by Murray Irrigation; second, environmental flows by Irrigation Inc.; third, efficiency of water use and potential savings by Murrumbidgee Irrigation; and, fourth, future research requirements by Murray Irrigation. We will start with Rodney Barnett. If you have anything that you would like to contribute before we go into our four discussion sessions, we would appreciate that.

Mr Barnett—Our involvement primarily is from a practical point of view of getting access to water supply. The greatest difficulty that we face is the uncertainty in terms of availability of water. Our members cannot operate their businesses without having access to the most essential resource that they require.

Mr Barlow—I can only expand on that by referring to the security of supply. Water has got to the stage where all allocated water has become active due to water trading. The capacity of the system has got to the stage where it cannot handle it. We have to have engineering works to improve the situation.

Moira has a project to try to improve flow rates down the Murray River that we are trying to get off the ground. That is one small one. It is only a small area of the river. As you go along the river, you can see there are plenty of places where small engineering works will improve the river out of sight. Another thing that we have not seen anywhere, which would also help in the uncertainty, is experimentation with cloud seeding, which is used in all other countries of the world.

Mr FORREST—We had a look down your way yesterday. Could you delineate a little better the irrigation region that you represent? Is it up above the ridge or is it only on the flood plain?

Mr Barlow—No, Moira is up above the Cadell Fault. Our water is gravitated from the Murray River through about six kilometres of channel to our pumps where it is lifted 57 feet up onto the Cadell plateau. It is expanded out over about 20,000 hectares in the Murray shire out to the west.

Mr Howe—The issues being confronted by the committee are very wide ranging. Our major concerns are really with the management and conduct of the current reform program and in particular property rights and trade issues. I think you have captured the issues here very well with the topics related to the Living Murray and the efficiency of water use. In terms of future research, I mention the general information base available to stakeholders in this area.

CHAIR—Leigh, do you have anything to add?

Mr Chappell—In regard to water access rights, I guess our main concern is with the make-up of the management committees that are deciding water management policies and the complete disregard for social and economic effects with the loss of water. Our management committee was given $30,000 for a socioeconomic study. I do not know if anyone is aware of socioeconomic studies, but $30,000 barely scratches the surface. When it is done, all the minister has to do is give due regard to that. I pursued that 'due regard' further, and all that means is the plan has the ability to buy water that has been taken away and there is no compensation or anything in regard to that.

Then there is the community effect, with the losses to communities with the flow-on from farm production. In our case, the environment could be a big loser in the reductions that they are talking about. I think that is about all in regard to these points.

Mr Bramston—Coleambally wrote to you about cloud seeding. When I wrote the letter, we were a little concerned that the idea was not getting a good run. There were quite a large number of departments and groups involved that we had to talk to to try to get the thing on the agenda. Things seem to have moved forward slightly, but it still seems to be a difficult topic. I perceive some reluctance to think outside the square to find solutions. That was just one of the issues. Another one is administration and the number of government departments and people involved in the water issue. It has become very complex. It has reached the stage for some of our family farms where the issues are becoming very complex and difficult for them to deal with.

Mr FORREST—I am wondering where you get the confidence to say that the debate has moved on in respect of weather modification, particularly cloud seeding. I am sorry but it has not. The CSIRO in particular are very rigid in their view that it will not work on the Australian mainland continent. Where do you get the confidence that things have moved on, because I have not?

Mr Bramston—We have had at least one meeting where various ideas were being debated, whereas when I wrote the letter it was a flat, 'We are just not prepared to consider it.'

Mr FORREST—Have you had any meetings with the CSIRO?

Mr Bramston—I believe Deborah could expand on that. It happened just recently when I was away.

Mrs Kerr—No, we have not met with CSIRO. However, cloud seeding was conducted on the mainland apparently in the 1980s by the New South Wales government at the time in response to the drought. I believe George Souris was the Minister for Water at the time who actually approved that cloud seeding exercise. So it has actually been done.

CHAIR—What were the results?

Mrs Kerr—Apparently there was some improvement in the actual rainfall event. My understanding of cloud seeding is that it is not the intensity that is improved, it is the length of time for which a cloud will actually rain. That results in a benefit to the area on the ground below that cloud seeding exercise.

CHAIR—If that was the positive, what were the negatives? Why didn't it go ahead if there was good rainfall?

Mrs Kerr—My understanding is that it was purely as a drought relief exercise and there were limited funds available to continue.

CHAIR—But it was successful in 1980?

Mrs Kerr—In the 1980s, yes.

CHAIR—Do you want to add anything to that, John?

Mr FORREST—We might tease it out a bit later.

CHAIR—We are just going over the top of everything at the moment and then we will go into discussions later in the morning.

Mr Arthur—I believe it is essential that we get the balance between consumptive use of water and environmental flows right. We need to provide irrigators in this district with a very strong foundation for us to develop our businesses. There has been a real revolution in areas like this with the technology that we are applying to our businesses. And to do that, we need very secure access to water so that we can invest in this and satisfy our banking arrangements.

It is interesting that the pendulum of public opinion regarding irrigation has swung completely in the opposite direction to the stage where the very future of districts like this is actually being questioned. I think the federal government needs to outline a vision for the future of water for consumptive use in Australia. It is quite extraordinary that just an area like this basically guarantees the Australian population will never go hungry. It seems to be almost an irrelevancy in the debate at a public level these days, which is something I find quite extraordinary.

CHAIR—I am going to come back to you, Deborah. I do not think you said all you wanted to say.

Mrs Kerr—That was purely just responding to Mark's request.

CHAIR—I realised then that I had skipped over you too quickly.

Mrs Kerr—A lot of people so far have outlined a lot of the concerns for irrigators. If you look at irrigators across the basin, they all want their licences respected; they all want to ensure some sort of security for their businesses; and they all want continued profitability. I believe that the way that the interactions on water use are taken at a state level have at times been inadequate for

the communities that are being impacted by various decisions. A lot of irrigators wish to actually participate in decision making rather than just be told what is going on. So there is an issue there of adequate community consultation—as the community sees it, not as governments or as bureaucrats might see it. There is an issue about how that can be done better. The Living Murray is making some moves in the right direction, but certainly there is a long way to go yet.

Mr Warne—Just by way of background, Murray Irrigation is an irrigation company that was formed in 1995. It supplies water to about 2,000 farms over 750,000 hectares and our average diversion is typically 1½ million megalitres. So in scale it is quite a large organisation. Since the company was formed in 1995, we have had four years where we have commenced the season with a zero allocation. They were the only times in the last 70 years where that has happened. A couple of those years turned out quite disastrously.

Last year, the final announced allocation was eight per cent in the New South Wales Murray. We have been wracked by drought and at the same time we have seen changing government policy. Whereas irrigators eight or 10 years ago considered that their water rights were basically secure—the ones that their grandfather had been issued in 1932—there is now some doubt amongst this community about what governments mean about access to water—the shifting sands, if you like. That is all I want to say about that.

By way of reference to cloud seeding, I would recommend that this committee talk to Snowy Hydro Ltd, and in particular to Barry Dunn, the production manager. Barry said there is statistically valid information that would indicate an annual increase in yield of 150,000 megalitres to the Snowy scheme based on cloud seeding. You should be aware there is some conflict between Snowy Hydro's proposal to get into cloud seeding and the New South Wales National Parks, who vehemently oppose it.

Mr Hetherington—I will make reference to a couple of points that I will be bringing up later with George in our presentation. In MIL's view, there are four things that are fundamental to the success of water policy: firstly, to establish river health requirements; secondly, property and access rights; thirdly, structural adjustment and compensation; and, fourthly, trade.

Just to elaborate slightly on that, a secure property right is one that is compensable, legally acknowledged, and fair and equitable. That is the No. 1 priority with us, with irrigators and with all our members. We will be speaking about that further later. Structural adjustment and compensation is the No. 2 priority. Just terms compensation needs to be spelt out by the Commonwealth right now. That is something that has been lacking in all this debate. People seem to be ducking and diving and using all sorts of words to cover this compensation area if water is confiscated.

Water trade seems to be now an issue that some people believe will solve everything. I just make the point early so you can talk about it later. In actual fact, trade has worsened the position we are in right now because sleeper and dozer licences have all been taken up and traded. And that meant more use of water which means less water for what you are looking at—river health. I wanted to highlight those issues so you can take them on board. We will be bringing them up during the points we make to you.

Mr Clark—I would like to talk about the people I represent—the 1,600 farm businesses of Murray Irrigation. There has been a lot of criticism of low-value water use. The irrigators I represent are basically all broadacre flood irrigators, and we still think that has an important role to play in irrigated agriculture.

We cannot all live on wine and those high-value foods. We can certainly turn around and grow those foods in this area, but I still think there is an important role for the rice growers and the dairy farmers—the so-called low-value pasture irrigation. There have been some enormous efficiency gains made particularly in the last few years with land forming, recycling and other works that have been done. I think we need to recognise the fact that flood irrigation still has an important role to play in irrigated agriculture.

Mr Glyde—The only thing I would like to add is that my particular interest rests with some sort of commitment to identifying the real value of social stability associated with water reform, and in particular water supply in rural communities, and some sort of measure which allows that social stability to have some sort of credibility in any arguments in terms of the trade-offs associated with structural reform in water supply.

CHAIR—Thank you very much for that contribution. It has given us a lot of food for thought, that is for certain, to go into questions. At this stage would any member like to ask questions?

Mr Chappell—Can I just mention something that I neglected to raise. From a social point of view, to a lot of people the whole process seems to be widening the gap between country people and city people. Many things are being told to us by people who have no interest in or concern with the area. They are governing a lot of how our lives are being led. That is not good for our country from a federal point of view. The feeling out there is that it is becoming an 'us versus them' situation.

Ms LEY—I think it is worth noting for the committee that although a lot of what Mr Chappell says is relevant to everyone here, he represents groundwater users which is a particularly unique case in this area. We might hear a bit more about the special features of water and groundwater a bit later.

Mr Chappell—That was just a general comment.

Ms LEY—Yes, I realise that.

Mr FORREST—If there is anything positive to come out of this drought, it is that metropolitan users are now part of it. Melbourne is moving into stage 3 restrictions. I think some 13 million Australians now have some level of water restriction, so we are all in it together in one sense. I see that as something positive.

CHAIR—Yes, it is definitely a bigger picture and one that this committee sees when we go to different states. They all have very similar problems but in different areas of continuity.

Mr FORREST—Can we kick off with the water access rights issue and the compensation because that is pretty important to our people out here. If we are going to get any confidence in the debate, that question has to be settled first.

Water access rights and water trading

CHAIR—Our first roundtable discussion topic is water access rights and water trading. I believe that Murray Irrigation is going to give us a five-minute overview.

Mr Warne—I will talk to you about water access rights and trading. I am assuming obviously some level of background knowledge, and certainly the two local members would have a good understanding of some of these issues. I want to make three points about water access rights and four points about trade.

CHAIR—If I could just interrupt you, I should state something at this time which is important. You have two local members here who would understand. I come from Queensland and your water issues would be totally different. It is important to the rest of our members that you do not overlook things because you think the committee may know. They will be reading these transcripts to get a better view so that we can make our recommendations.

Mr Warne—Thank you. The New South Wales Irrigators Council completed a policy paper on water rights entitled 'Water property rights and asset security in NSW—unravelling the rhetoric' in July 2002, which has been widely circulated. I know John Anderson and others have copies of that. It outlines the position of irrigators on a whole lot of issues regarding defining the right to water. Our company has endorsed that policy. I have that paper here in a folder, which I might submit if that is okay. It very clearly states what irrigators are looking for in terms of an access right to water.

I will refer to some issues related to water access rights. Contrary to some misinformed opinion, irrigators are not actually asking for 100 per cent of their allocation in 100 per cent of years. They are not asking government to compensate farmers for droughts. That is an important point. The nature of the water rights varies from state to state. What we really want is that existing right more clearly defined.

We would like to maintain our current levels of yield and security from the rivers and storages we share. In terms of security, our long-held right to access water from the river—or our entitlement—must be more secure. Recent initiatives, particularly recent environmental and water quality initiatives at a state and a federal level, have raised doubts about tenure. These doubts did not exist 10 years ago. Ten years ago, when farmers started trading these things, they really thought they were a right in perpetuity, and the actions of state governments had actually endorsed that. I do not think there has ever been a licence cancelled in New South Wales despite the fact that, in the fine print, it says every five years they can be cancelled. So farmers had an expectation and, to a large extent, public opinion and some of the statements of governments and others have undermined that confidence.

We also need the same security for water that we have for land. Any loss or reduction in our water entitlement should be compensable through fair mechanisms, not some esoteric adjustment regime featuring well-meaning ag scientists and social workers—to date, that has been our experience. In Murray Irrigation's case, we took a very big hit when it came to sharing the pain of the cap in the Murray Valley. The state government said, 'We will be able to help you out. We will provide you with people to help you through this,' and I think they appointed two ag

scientists in Orange to help with water efficiency measures. I just think it was a very insincere form of adjustment.

In terms of water and land values, it is very important that the committee realise that, in a large number of the holdings around here, the water right is actually worth a lot more than the farm. So if you separate the two—and, by the creation of our company, we effectively did that—we have shares in the company, which is water, and we have shares in the farm. In a lot of our farms, the farm business, the water component, is worth far more than the rest of the farm business put together. When people start saying, 'We are going to reduce your water access by 10 per cent, then you will be able to find efficiency savings,' it is the equivalent to a broadacre farmer being told he is going to have less farm land next year and less the year after. It is very important that that point is realised.

We would like to make a couple of points on the trading of water. Trade has some very positive economic outcomes for buyers and sellers as individuals. However, water traded out of any region can create huge issues for local government and regional economies in terms of loss of wealth. In terms of that concept of a buying community versus a selling community, Murray Irrigation has been actively involved in water trade for almost a decade, and I think we operate Australia's only Internet exchange that is live and accessible 24 hours a day during the irrigation season.

Trade was presented to us by the New South Wales government as an answer to the reduction in our access to water which resulted from the very uneven implementation of the Murray-Darling Basin Commission cap in 1996. In the following years however, we have seen communities throughout the basin increasingly limit access to water to be traded out. There is, of course, plenty of enthusiasm to trade water into any region. So communities and farmers alike have realised that bringing water into your farm business or into your community increases the potential wealth of the community and there is enormous enthusiasm for trading water in, but there are barriers in almost every irrigation community, district and river system to trading water out. A lot of those barriers are not physical; they are simply the community recognising that they want the water retained in that community for its future prosperity.

Trade impacts on others—the implementation of the cap on extractions in 1996 has also affected remaining water users. When I say 'remaining water users', I mean those that do not even get involved in the trade. So the concept was that there would be no third-party impacts, but of course there have been. When a farmer who has never used his water, has not used it for 100 years, sells his water to someone who is going to use it, then obviously there is less water available for all the other farmers in that valley or in that community.

Sale of water typically reduces the capital wealth and income potential of a community, particularly if it is sold permanently. We have seen that particularly in the Corang region just over the river, where some eight per cent or nine per cent of the permanent water access rights have now been sold out of that community.

The last point I wanted to make was support from the environmentalists for trade. Key research environmental lobby groups and organisations such as the Wentworth Group, CSIRO and others are promoting trade as a way to achieve ecological outcomes. It is my firm view that they are actually separate issues. Trade is very important from a farming perspective in terms of

increasing the ability of your farm to withstand droughts or to increase profitability. I am at a loss to understand the benefits to the environment from trade, although it seems to have been enthusiastically embraced by the environmentalist communities. I think they see some spin-off—that is, there is going to be a tax on water on every trade; or there is going to be money raised by trade; or there is only going to be trade allowed in some particular way. But their enthusiasm has surprised me, given that I am at a loss to understand how trading in water directly benefits the environment. They are the key points I wanted to raise.

CHAIR—At this point, I will ask if there is any other person around the table that wants to add to what George has said. They are quite welcome to become part of the discussion.

Mr Howe—George referred to the benefits of trade when it is for individual buyers and sellers. Our view is that trade must be much better governed than it currently is in order to even deliver the economic benefits that we are aiming for. In particular, current arrangements allow temporary trade of above-cap water. What that means is that somebody is pocketing a financial gain from putting environmental water onto the market and the buyer of that water has no way of telling whether it is above-cap water or not. As George pointed out, it results in crowding out other water users under the cap. So we think that should in particular be addressed, and the governance of trade improved.

Mr Bramston—If I could just back up what George said: Coleambally Irrigation had Charles Sturt University do a survey of our community—that is, irrigators, business people and general people who live in town—to ask them what they thought of the potential to sell water out of the area with trade developing. The survey had a return of over 40 per cent, and the people who did return the survey questionnaire were then interviewed in person by the university staff. They have published a report under the SPIRT grant they got. The survey came back with over 98 per cent support from the community to impose some form of barrier to trade out of the area because of its socioeconomic impact.

Mr Hetherington—I just want to support what George has been saying. We have been the biggest traders in Australia, so trade is going to stay there. But I would remind the parliamentary committee to have a hard look and start coming down to the areas where the trade is going to take place. Most of these trading rules have been set up by AFFA and company and bureaucrats in Canberra that really do not have a feel for the social implications that are going to follow—the social disillusionment of a lot of the communities in shires, drying out areas and breaking up various productive areas. People such as those might lose in trade, but it is a big debate that has to take place in a proper consultative way. At the moment, we are really afraid. I just heard this morning that there has been another announcement from the Wentworth Group that trade is going to be one of the criteria that solves the lot.

George commented that he does not see how the environment is going to gain. Well, no, but our cynical view is that if you open the trade up and open all the rules up, it is easy then for the government to buy water for the environment. That is sitting up clearly in my mind as one of the reasons why the trade is being pushed so vigorously right now. Thank you.

Mr Barlow—Coming from a private irrigation district we operate under a different act altogether, and with trade we are very restricted. We may have members that want to trade water out of the system. If our system has water traded out of it, we eventually get to the stage where

we are uneconomical and the whole system would collapse. It requires an amount of water in it to keep the system going. I believe there are probably other groups up and down the river that are in exactly the same situation whereby, if the water is traded from them, they can collapse.

CHAIR—So it is not traded in your region?

Mr Barlow—We trade within our group.

CHAIR—But you do not trade out of it?

Mr Barlow—The allocation of water is allocated to the board or the governing body of the district and, from there, under a formula it is distributed amongst the farmers and it requires everybody to participate to make it work.

CHAIR—But if someone else took over that governing role, then it could be traded out. There is nothing there—

Mr Barlow—The board themselves could do it.

CHAIR—But they chose to keep the trade within the local district.

Mr Barlow—Once we start getting rid of water out of our system, it would become uneconomical because the costs would become prohibitive, and the whole system would slowly collapse.

Mr Warne—But as an example, you are enthusiastic about trade in your system; is that right?

Mr Barlow—We are, if possible.

Mr Warne—Within—that is trading into your system.

Mr Barlow—Because of the uncertainty of water and the fact that allocations are looking like being cut, we are very enthusiastic about trying to maintain where we are. And the only way that we could possibly do that is to buy more water in.

Mr FORREST—We visited western Murray this week. They have some restrictions on the trading out of water because they actually have the control of the water right, and I imagine it is the same for your corporation too, and the system manages the concept. These are irrigation districts with a lot of pipes in the ground. If someone at the end of the system wants to opt out, there is regulation on their compulsory contribution back into the scheme. They have to pay an infrastructure cost to opt out. That is one way in which the districts can manage the issue you are talking about. Are you saying that in your act you do not have the power to do that? But as a district you could control it—

Mr Barlow—As a private irrigation district, we are in a situation where all the rules are controlled by the board. The act is fairly loosely written. I do not know whether that is a good thing or a bad thing, but it means that the control of the water is pretty well governed by the

board. They have a few loose rules around where it can operate but, for the good of the community and of each member of our scheme, we have to be thinking of everyone all the time.

Ms LEY—Is it a company or a trust structure?

Mr Barlow—We are a private irrigation district which has a special part in the act.

Ms LEY—Under the Irrigation Act. So do you sense that, under the water trading free-up rules after 1 July this year, you will be forced to change that?

Mr Barlow—Well, we have to run with what is good for our area and try to make the rules to handle it. It also puts our members in a situation where, as irrigators, they are operating in a different environment from people who have direct access to the water because they do not have the right to buy and sell their water. The water is controlled by the board.

CHAIR—How many members are there in your private irrigation district?

Mr Barlow—There are about 70-odd irrigators and 40-odd stock and domestics. A portion of our allocation is high-security water.

Mr Bramston—If I can just go back to John's comment, you are talking about a thing we call excision fees, where someone takes water out and they pay an amount of money to offset the disbenefit of taking it from the area. We have done some modelling of those sorts of numbers and we cannot get them to add up in the long term.

Just by way of background, irrigation corporations plan for 50 to 100 years and then sometimes 200 years when we run our infrastructure annuity funds. If you run a discounted cash flow analysis, you can only make it work over 20 years. People put some money into the infrastructure fund and they fund it on a 20-year basis. They do not tend to look at the ongoing operational maintenance costs over the long term. We cannot make excision fees pay the disbenefit it has for the community, and it is tough to make it pay for the infrastructure. I do not see excision fees as a viable model to overcome the disbenefits caused for communities.

Mr Arthur—I think what irrigators are trying to say is that we support trade as long as the third-party impacts to other users are recognised. I would like to highlight some of the extraordinary things that can happen. I operate properties within Murray Irrigation and also have a property on the Eagle Creek system. I had a rice crop in the Murray Irrigation area and was out of water on these licences here, but I had a couple of hundred megalitres on the Eagle Creek system. So I actually applied to transfer some of that water temporarily just for this season as an extraordinary measure to finish off my rice crop. The response was, 'No, you can't do it.' So I had to go onto the exchange here and purchase water temporarily at the price of $330 a megalitre just because of a board decision saying, 'No, you can't. Our rules don't allow you to temporarily transfer water out under any circumstances. Bad luck, go and pay $330 a megalitre,' which is an extraordinary amount of money to pay for temporary water.

So there is a role for freeing up some of the trade, but I think we must be very aware that there are certain third-party impacts, particularly to permanent trades out of an area, and governments need to be aware of these third-party impacts when we are looking at any rules involving trade.

The best way to be aware of those third-party impacts is to involve the local communities and the local irrigators to identify potentially what they are in a district.

Ms LEY—So what do people think about the Wentworth Group's $150 million water trust?

Mr Arthur—There is a bit of dilemma in that, as irrigators, we have often said to New South Wales, 'If you want our water, don't come and take it off us. You buy our water.' So I think sometimes we are guilty of giving a mixed message. We would prefer to keep the water in our districts. But if it comes to a point of across-the-board cuts where, as proposed by the Wentworth Group, the government says, 'We are going to knock one per cent a year off for 10 years without any compensation,' I think you will hear that every irrigator prefers the situation whereby governments do enter the market. We would prefer them to go through a regime of looking at systems savings first and other ranges and actually entering the market as a last resort. But if it comes to that compared with across-the-board cuts, you will find that irrigators are looking for that compensation component.

Ms LEY—We have heard different views. We have heard the view that government entering the market will not affect the long-term price; we have also heard the other view that it will quite definitely distort the market.

Mr Arthur—I have spoken to one of Twynam's managers and they actually stood in the market for quite a length of time to acquire water. They found that there was a certain volume they could acquire each year that did not appear to impact the market. But if you have, for example, the South Australian government and several governments standing in the market, particularly over a fairly short time, it is hard to believe that it could not actually distort the market.

Mr Warne—I think it has already affected the market. It has been distorted by the drought, I know, because there is such a severe shortage. But I think there would be a very solid argument that just the discussion about it, the rhetoric and all the things we are hearing have led irrigators to believe that there is going to be a shortage of water in future, because governments are going to enter the market and already it is starting to move the market in a particular direction. In answer to your question, I think the government are probably the best ones to answer that. In their experience of entering markets, how successful have they been? The answer probably is: pretty disastrous.

Mr Hetherington—I would agree with George. It is supply and demand really; it is quite simple. There is a limited amount there. If you have more buyers in, the price is going to go up and it is going to put pressure on, as Lawrence said a moment ago.

Mr Warne—But in answer to your direct question, about $150 million if they are looking for a high-security product, which is what we gather the South Australian mouth of the Murray is looking for. On current market prices, you would buy of the order of 150,000 megalitres for that amount. That is about a third of the lowest benchmark figure quoted. So $150 million is not going to go far—maybe with some innovative savings method and what have you, but our experience and the observation is that the savings are in fact nearly twice as dear as the cheapest water on the market.

Mrs Kerr—There is also an issue in that I think there is a lot of confusion out there about the trade. Some people talk about permanent trade; some talk about temporary; and others talk about trade generally. So I think there is a bit of confusion over what is being discussed. If you look at the figures, permanent trade itself is a very small portion of the trade. The majority of the trade is temporary trade. It is traded on an annual basis. That is an important fact to remember when you are talking about whether governments are going to come in or environmental groups are going to come in to the trade itself, then really the only market is the temporary market. That is where the volumes are.

Mr Warne—Just to add to that on permanent trade, the MDBC pilot study looked at the trading permanently of water interstate downstream of Nyah on the Murray system. I think the study analysed 51 trades that had occurred, and 49 of those trades were people selling water that had never been used. So when you are talking about water going from low value to high value, it was going from never being used as a windfall gain to someone who was obviously going to use it because they were paying quite a lot of money for it, and that water just came out of the pool that was generally available for all other irrigators in the three states. The first cap has been taking water that has never been used and putting it into production with the third-party impact. I think it is going to get increasingly difficult to find large volumes of water for any use, let alone the environment.

CHAIR—I think you made the statement before about how a farmer can sit there through generations—over 100 years, I guess—with a licence but not use it and then sell it later. What do you as irrigators believe should be a cap on how long you can have a licence unused for?

Mr Warne—I think that battle has been fought and lost, basically. We have fought to recognise history of use and development and expenditure by communities, and I know the deep bore pumpers are having that fight right now. But basically the governments in the various jurisdictions came in and said, 'No, the licence is king.' They have some adjustment mechanisms. We have temporary access to off-allocation water for a few years. But really they have said that that bit of paper that was issued in 1932 onwards is the most important factor in determining how we share water in scarcity.

Mr Barnett—I feel there must be extensive consideration given to who can participate in water trading and I think we have to take the macro view as well. I am reminded that, about three years ago, I heard of the situation in California where water rights were up for sale and the biggest tenderer was Monsanto. I have not forgotten that, because if I think it through beyond just the news factor, that could create an enormous potential for huge corporations to get control of large parcels of water, with commercial consequences.

CHAIR—Most definitely.

Mr Chappell—Trade in groundwater complicates things because it is a completely different set of circumstances, as you can imagine. But I must agree with Bill in that the people setting the rules must have an understanding of what trade is involved and the water source they are talking about. Our state government is thinking that they can solve a groundwater problem in the same way they were trying to solve the surface water by trade by saying, 'Okay, you are losing allocation, go out and buy some more in.' It is not that simple in groundwater, because I think the water moves at about one centimetre a year through an aquifer. If you have conglomerations

of bores and water keeps coming in because of the good quality water there and people keep trading in there, the effect on the aquifer is going to be huge. The people who are saying things such as, 'You can buy water and trade yourself out of difficulty,' do not understand all this. All it is going to do is create greater difficulty in the groundwater area.

CHAIR—Does anybody have anything to add to that?

Mr Hetherington—Just one point about how trade will let water go to the high-value crops, and Trevor made that point earlier, but you have to have markets. I reiterate, and Leigh just mentioned the point again, the need for a huge debate about this and the need for politicians and those decision makers to come down to these areas.

There is one outstanding factor in this debate. We have seen hardly any politicians. We have seen our local members, Sussan Ley and John Forrest. But with respect to some of the big players we read about in the paper all the time who are making decisions, we do not see them. We have asked for them to come down. I implore you or the people that read this report to take note of that point. I would suggest it would be better to come down and discuss these things now so that they understand them better rather than at the end of the term having a big debate in an angry fashion with our communities about what you are imposing upon these communities.

CHAIR—I agree with you 100 per cent. Seeing is believing, is it not? I read everything and thought I knew about this region before I came here, but it is totally different when you actually view it, move around within it and see its complexities and its problems.

Mr Warne—If you drew a circle 100 kilometres around Deniliquin, nearly two-thirds of the water used in the Murray-Darling Basin is in northern Victoria and southern New South Wales—

Mr FORREST—Can you say that again?

Mr Warne—If you drew a circle 150 kilometres around Deniliquin, you would get about two-thirds of the average annual water use in the Murray-Darling Basin.

Mr Hetherington—We will check your figures.

Mr Warne—Only as far as the market. Once you get to Queensland, they do not need it.

CHAIR—I agree with you there. It is different.

Mrs Kerr—Bill brought up a point that I would like to make, and that is the furphy of trading to the highest value use. I acknowledge that Trevor also talked about it earlier. I think that is a perception that a lot of people do not understand outside farming. It is supply and demand again with the water market but it is dependent also on the value of those commodities, the supply and demand of the commodities that are being irrigated.

We could just trade a small 1,000-megalitre licence to vegetable production, for example, and we would decimate that whole industry just by that one trade. It is not something that is understood. The horticulture market in Australia, whether it be fruit or vegetables, is highly dependent on that supply and demand cycle. I suppose the consideration that, for example, rice

growers flood irrigate, that it is a bad way of doing it, that it is low-value use so let us trade it all to horticulture—that is not going to work because of that supply and demand for the horticulture market.

If you look at the rice industry—and there have been a lot of figures talked about from $35 a megalitre up to a couple of hundred dollars a megalitre—it is a vertically integrated industry and its growers own the production side, the Sunrice company. As a result, if you look at the highest value use for rice, you are looking in the $6,000 a megalitre market.

Again, if you look at dairy, dairy is considered to be a low-value pasture but it is in actual fact a high-value use of that water just because it is pasture, it is cows that eat the pasture and it is milk production. I think that is something that is not understood and not taken into consideration when you talk about the trade of water to the highest value use.

CHAIR—So you are suggesting that we should be wiser about what industries move into areas where the water is not as readily available as in other areas?

Mrs Kerr—I am suggesting that you need to look not just at the water market and what is currently the highest value use of water but at the products that are being produced from that water, where it is trading to and what is going to happen to that commodity or that product by taking a whole heap of water from one commodity to another commodity. In particular, the fruit and vegetables in Australia are seen as a high-value use of water, and they are highly sensitive to supply and demand in those markets.

CHAIR—So how do you compensate a farmer or a grower if you are saying that what they are doing is not productive water use? Who compensates them and how?

Mrs Kerr—At the moment, the compensation is being talked about as being the trade—let us just trade the water. The assumption is that irrigators will get wise to the permanent trade being a high price with the scarcity of water and they will trade their water. Irrigator behaviour has not been even considered in that argument.

Irrigators believe that their licence is intrinsic to their property, to their livelihood, to the profitability of their enterprise and they are not going to willy-nilly sell their licence just because somebody is offering them a higher price, because they know long term their farm is going to suffer. Irrigated agriculture is the highest value agriculture in Australia. Most of it is produced off one per cent of the arable land. A lot of those factors are not taken into consideration in any of these arguments.

CHAIR—Thank you.

Mr Arthur—In my other role, I am chairman of the Ricegrowers Association of Australia. I often hear people say, 'Why do you people grow rice when you could grow anything—bananas, vegetables or whatever?' What is not readily realised is that, when farmers produce a crop of rice, they realise within a band of about 20 per cent the returns on growing that crop, whether it is a massive crop or whatever. For example, in our biggest year ever about three years ago, we produced 1.7 million tonnes of rice and we still achieved a return of almost $200 a tonne.

You could have another situation whereby, if you go into the vegetable market, those markets have demonstrated that they are extremely volatile. In many years they will generate terrific returns to irrigators but then in the next year they are just as likely to be ploughed in. Because the rice industry markets the product to around 70 different countries around the world, we do have an ability to have an extraordinarily large crop and still achieve a significant and profitable return on that. That is the key reason why people want to grow rice.

Going to the other suggestions where possibly governments or groups will advise irrigators on what crops they should grow with their water, I think it has been demonstrated in the past that governments telling farmers what they should grow is an absolute disaster. We have had vine pulls and all these sorts of things, and then four years later they will recommend that these things are planted again. If there is a suggestion to rice growers, for example, that there should be a move away from rice growing, what you are actually saying to a rice grower is, 'We do not want you to grow the most profitable crop that suits your region. You will have to grow less profitable crops.' The reason we grow rice is that, for our region and for our situation, it is the most profitable crop we can grow.

Mr Hetherington—If I could add something to that: do not underestimate farmers' ability as business people. The farmer who was just sitting there because he loved the lifestyle no longer exists. Farmers go in and use water to make a profit to sustain their family and their communities. That is the basic reason he is there. The farmer is so versatile now.

If you travel around this district you will see all the new technologies, as Lawrence mentioned earlier. With land forming and other technologies, you can jump from one crop to another very quickly. But the farmer only jumps when the market is there that he is going to get a return from. The other day—in the *Financial Review* of all papers—I read about politicians stating that the farmer should forget about irrigating pastures and go into the high-value crops. That is totally ridiculous. I mean, we had lambs here yesterday making $120 and we irrigate grass for those. We irrigate grass for the dairy cattle for milk, do we not? Farmers are versatile in the fact that they will only use the water, and more so in recent times in drought, where they can get an income.

As far as other crops go, just in support of Lawrence's rice industry, for instance which is seen to be bad with water on the ground and the rest of it, we have stringent rules for growing rice; they are the toughest in the world; we have the highest yields in the world; we are the most efficient growers in the world. They grow rice on soils that are not suitable for many other things, so you do not have the options, and it is the staple food of the world. What is wrong with it? This great thing about how rice is bad and you waste water—that is absolute nonsense.

Those decision makers need to come down here and face people such as Lawrence and ourselves; that is what I want to see. I keep reiterating that and I will continue to do so. The basic problem is the lack of understanding of how people have to keep communities alive and keep industries alive and the fact that each community is restricted in the climate they live in. The temperate climate cannot produce rice, whereas the semiarid zone in the hot climate can, so why not grow it there? Or vice versa, we cannot produce some of the things in the temperate zone.

You have to look at the whole broad picture. You have a certain amount of water. We have a country that is dependent on our food for internal use and for export dollars, which is quite

substantial. On top of all that, something which we have not mentioned today is that we are all out there spending big dollars—half a billion dollars—on land management systems within our region and I know these fellows in other areas are doing the same thing. We are doing those things, but the Wentworth Group and others just do not want to know about it. I just hope that gets written down so that people can hear our pleas.

Ms LEY—It might be useful for you to quantify for the committee the amount of water it takes to grow rice, the yield that that rice produces, how it feeds into the vertical integration chain and the export income that it earns.

Mr Hetherington—Sure. I will leave that to the expert on my right.

Ms LEY—It is the big baddy. We need to be aware of the numbers.

Mr Arthur—The real focus of the rice industry is that, because it is owned by the growers, any of the export returns are focused directly to the growers. In fact, the return of the supermarket shelf price for rice is higher than for any other product in Australia.

One of the things we need to be very aware of is that the focus of our rice industry is to value add as much value to the raw product as we can in Australia, and we do that in Australia. We are the largest exporters of containerised freight out of Victoria, because our philosophy is that we want to packet and market our brands right around the world. The Sunrice brands are the strongest and best-known brands around the world. We are totally focused towards moving to the higher value added products. We have done the sums recently and, for example, our packs of 3-minute rice and our meal packs actually return $14,000 a megalitre to the rice that is actually directed to those products. Obviously, that is only a small proportion of our rice, but we are really focused on doing that.

Eighty-five per cent of our product is exported around the world. We are now making sure that the vast majority of that—I believe it is around 80 per cent at the moment—goes out as packaged product. We are not into the business of exporting rice as a bulk commodity. We have actually developed our brand so that we have supermarket space right around the world in places like Jordan—the Middle East is one of our largest and most profitable markets—Hong Kong and the Pacific islands. We provide the staple foods for the Pacific islands. We have focused on doing that so that, when we get fluctuations in world prices for the raw commodity of rice, we are not as subject to it because we are actually exporting our product to supermarket shelves.

This is what gives us as rice growers confidence to invest so heavily in technologies such as telemetry, laser land forming, investment in geographical information systems on our farms using laser levelling, whole farm planning, recirculation, the latest equipment and precision farming. That is all within the realm of rice farmers. It has been rapidly adopted because of the profitability rice growing provides to our communities and also to communities like this.

When you look at the mills we have here in the town of Deniliquin, if you take away the rice industry from this town then you have a completely different town. We have a huge optimism in the rice industry that, as an industry, we have an incredible future around the world if we are just allowed to access water on a fair and reasonable basis along with every other crop in Australia.

That is all we want: we just want a level playing field and fair and reasonable access to water in Australia.

CHAIR—Your growing opportunities were reduced this year, were they not, from what I have been led to believe?

Mr Arthur—They were. And it is a testament to the rice industry that, because of our flexibility as an industry and some of the decisions we were able to make—for example, we purchased rice in China—to ensure that our brands around the world were able to keep going, the rice industry is in a particularly healthy state.

We face open competition from around the world. We do not have any tariffs on imported rice into Australia, nor are we calling for them. We export into some of the most savage markets in the world. For example, for us to get a tonne of rice into Europe, we have to put $1,000 up front, whereas the average Japanese rice farmer gets about $2,500 a tonne. But we are quite happy to do that. We will compete with any industry around the world. Our markets are free and open to them, as long as we can just have reasonable access to water supplies.

CHAIR—To ensure there is continuity of supply did you say that you are importing rice from China?

Mr Arthur—No, we managed to substitute into some of our markets around the world. We have not imported it. It was quite an extraordinary situation this year where we had a 400,000-tonne crop compared with a normal average of around 1.2 million tonnes. Having that drastic reduction in raw material, we were still able to operate the business of Sunrice in a profitable manner.

Mrs Kerr—In addition to that, Sunrice is an $800 million company and it is Australia's largest packaged food exporter.

Mr Hetherington—Sussan, for your information, the question you were asking was about water usage. I do not have the sheet here but there are other crops that use just as much water as rice. You should not think that rice is miles ahead of everyone else. That is not the case. We can supply you with that in due course.

Mr Chappell—There is a chart put out that lists water usage paddock to plate, and rice does not even get into the top 10. Just because people see a paddock full of water, they think that it uses a hell of a lot of water but, from paddock to plate, it does not get into the top 10.

Mr Arthur—Another good point to make is that there is a misconception that you have paddy rice and there is inundation all year. But the fact is most of the growers in this region would have a four-year rotation. So over a four-year period there would only be inundation of the rice crop for four months. When that crop is completed, you have a full profile of moisture and the growers around here take the full opportunity and direct drill a cereal crop or a canola crop into that so that they get another return from another crop based on the moisture provided by the rice crop, as well as the disease break.

It is a system that fits very well into a region like this. As I pointed out, it is only four months of four years on like properties that there is actually a rice crop, and it sets up the whole rotation for a profitable farming business. One of the other things we have benefited from here is that we have very tight, close cells, as Bill has alluded to. We have the toughest restrictions around the world on where we can and cannot grow rice. That allows us to have some of the lowest water use around the world.

For example, in places like Italy, I believe they use up to 30 megalitres per hectare to grow their rice crops; whereas typically here in the Murray we will use 12 megalitres per hectare to grow a rice crop. It is interesting, talking to one of my almond growing friends from South Australia, that since he has put in drip irrigation, he has actually increased his water use to 14 megalitres per hectare. The good news is that his nut production has increased markedly with the higher water use, but he actually points out that going to drip irrigation does not necessarily cut water use. It certainly has increased his production but it has not actually cut his water use per hectare.

Ms LEY—I think it is worth noting for the committee, too, that the R&D goes on. There has recently been a launch of a new brand of rice that uses considerably less water with higher yields as well.

Mr Arthur—That is correct. At the moment, we have an industry average of converting a megalitre into 0.7 tonnes of rice. We have it clearly on our strategic plan as an industry that we believe within five years with the release of our new varieties—for example, Quest, with a shorter growing season—we will be up around one tonne per megalitre. Over the past 10 years we have increased our efficiency by 60 per cent and we do not believe it finishes there. We have the technology and the profitability to take it to new heights, and that is exactly what we intend to do.

CHAIR—We are going to have a 15-minute break at 10.30. We have talked about water trading fairly intensively. I would like to hear your thoughts about the water access rights and what level of security should be provided to irrigators.

Mr FORREST—If we could tease out a bit more some rules with respect to compensation. We did not go to the hard one; we skirted around it and talked about trading.

Mr Warne—To draw a parallel—and I am not familiar with the Victorian legislation—in New South Wales, there is just terms acquisition for real estate. If you were to draw a parallel and say, just as they would like to build a freeway from Melbourne to Sydney, and they have, and they went around all the towns and they bought the farmland around the towns, we would argue that the community are looking at an increased environmental flow in the Murray River and in the same way they should address the impacts of their actions on the people that the water comes from. It is a very similar philosophy. With just acquisitions, they look at the value of the acres they take and they also look at the impact on the whole of the farm business by taking that land away. That is how 'just terms' acquisition works. When we courted this idea with state governments, they seemed very reluctant to address the issue of just terms acquisition for the removal of water.

The point I made earlier is that, in some of our farm businesses, water is about 80 per cent of the value of that farm business and if you start taking it away without some sort of just terms program, you are going to cause quite a bit of dislocation. In the first place, we would like to see something like the just terms acquisition that recognises the security of the water, the yield of the water and the availability of the water in terms of compensation. For example, a town water supply that is available in the New South Wales Murray 100 years out of 100 is worth more than an irrigation general security water right where you get 100 per cent in 75 per cent of years. Farmers do not expect 100 per cent of 100 per cent every year but they do expect people to recognise their existing level of security, yield and flow rate.

Mr FORREST—The difficulty is that the Constitution makes provision that no citizen can have their property confiscated without just terms compensation, but I think what is missing is the concept that water right is a property right. That is why the states have trouble with the concept.

Mr Warne—It is not a particular Labor thing or anything. We have found this obstacle both with conservative and with Labor governments. There just seems to be a reluctance to look at it, and maybe it is the difficulty in defining the right. The paper I commended to you before, which I am going to give you a copy of, goes a long way towards defining all the different types of water rights that exist all over Australia in terms of the different criteria of security, yield and flow rate.

Mr Hetherington—Just to add to that, John: it is a comprehensive paper on that with a lot of detail in it, which you should look at.

Mr FORREST—Is it possible that I could have a perusal of that while we are talking? It might lead to some questions.

Mr Warne—Yes.

Mr Hetherington—Just to add to George's comment, there seems to be a view out there amongst some of the bureaucrats running this issue at the moment that it will be pretty easy for governments—they will be able to come in and buy, and figures were mentioned in recent times. Different states have different values because of the different hierarchy and the way it is set up. The No. 1 issue will be to try to equalise that so that the value of a megalitre of water in Victoria is worth the same in New South Wales. I realise that there will be a formula set up.

Just imagine the situation where your family had been irrigating since 1940 or thereabouts, had been encouraged to irrigate and had been encouraged to learn a new system right from the word go when your grandparents had to start a farm just with one big fence around the farm and you had to learn how to operate irrigation, and over the years your family has invested. Then 60 or 70 years later you would believe that you had a pretty substantial right because no-one's touched it, no-one's looked at it before, no-one's questioned it and you have been encouraged to produce. Now, all of a sudden, there is a question of how solid that right is. I mentioned earlier that, before any of these issues are resolved, the property right issue is No. 1. We will not be going anywhere unless we get that. You mentioned it a while ago, and I believe you are right.

Another point I want to reiterate to the decision makers and to the rest of your committee is: do not start thinking about what values of water are and working out that, to buy this, we want so much so it will cost us so much. I have read in a paper recently that they are saying, 'It was a drought year last year and it went up to $300 but we will be able to buy it for $150 or less than $100, and we will be able to get permanent water for $400 because that is what the market is now'—forget it. As far as my family goes, it is worth at least 3½ grand a megalitre. As I have been saying for the last couple of years, forget it. If I have to lose that investment of a lifetime from the family before me and the family thereafter, that is the least it is worth. You do not want to start putting figures on it. So let the government start thinking about the real values.

Not much has been said about financing a lot of this water reform. It has been an issue that has been fairly silent. The ACF put up $65 billion and all sorts of figures, and they cannot deliver. For those people who have to make decisions, let them start thinking about what it is going to cost. First of all, why should it cost so much when you actually do not know what you want? This water reform situation is crazy. We are in a position where we are looking for water, but we do not know what we are looking for and we do not know what we need it for.

Let's slow down a bit and start working out why it is needed and where it is needed. The whole river is not in total disrepair and totally dead. A couple of sections might need a bit of water but not the lot. I have run a whole lot of issues past you in 20 seconds, so to speak. But I want to reiterate the feeling of all the irrigators around here: we are not going to bail out for $200, head off somewhere and think we are going to live a life of luxury after that and leave a district in ruin—no way.

Mrs Kerr—I reiterate Bill's comments. I actually am from a property that had a groundwater bore with a licence that was issued in the mid-1990s. I sat down and worked out the position under the proposed water sharing plan at the time, including the government's proposed structural adjustment package, and the figure I came to was $3,300 a megalitre. The majority of that was for the potential lost income to the farm. So it was the net loss to the farm, not the gross amount.

Mr Chappell—I actually used Debbie's property as one of our case studies that I put in our submission. The lack of understanding when we are pursuing this compensation issue is completely mind-boggling. They do not have any idea of the long term. Ten years is a long time for them, and that is as far as they will even consider. Bankers will not even consider it, because that is not a long-term issue as far as bankers are concerned.

They have no idea of equity issues and of the effect that the loss of water would have on equity in a property. They did not even know what equity was. You are trying to explain to them that a farmer could lose his property if, by losing 500 megalitres of water valued at $1,000, that brings his equity in the property under the percentage that the bank likes, so the bank says, 'Thank you, we do not want your business any more, go somewhere else.' They could not understand that. It comes back to what Bill was saying earlier—nobody making these decisions has any idea of what the real world is like down here. It is a sad indictment of the whole thing.

The compensation that they talk about is just a one-off payment or they talk about structural adjustment. With the rules that they have in place for structural adjustment, you might as well try to get blood out of a stone as get the money for that. It is so unsuitable, because the structural

adjustment they give you is for water saving efficiencies. George and Bill might have the figures on how many farms around here have been completely land formed with complete recycling systems in them. Yet they are going to give us money to put gold-plated stocks in the things. How ludicrous is it! You cannot make some farms around here any more efficient under present technology. The decision makers are trying to solve our problems with a complete lack of understanding and with misinformation.

Mr Warne—I would like to make an important point about permanent water markets, and we have seen a bit of it on television lately. An observation I would make, having lived in the region, is that permanent water is sold usually by desperate sellers and is bought by opportunistic buyers. So if governments say, 'Well, we have got the benchmark rate in Victoria. It is $785 of water right, and then in New South Wales it is $391 a megalitre entitlement,' I think they are really focusing on a very thin market with very small volumes traded permanently and they are often desperate sellers. They are people who are being threatened by their banks, 'Either you sell your water or you sell your farm.' That is my observation based on our shareholders. So I would really question using current market prices for water sold as an independent commodity permanently as indicating the true value to a successful and viable farm business, because the market is dominated by desperate sellers and opportunistic buyers.

CHAIR—Does anyone else have anything to contribute on this?

Mr Clark—I would just like to put a community point of view across. In my local town of Finley there is a high history of use because of high development around that area of Finley, Berriquin, Jerilderie and Tocumwal. Where Murray Irrigation had a history of use at 110, I would say Finley probably even exceeded that. Since the introduction of the cap in 1995, we have been capped at 87 and of course we have had a number of low resource years.

But in that time since 1995, I have seen well over 200 fewer students at the Finley High School now. I know that, in the second-last low allocation year, which was three years ago, some 60 students left the primary school in two terms because of the low allocation. If you talk to the real estate agents, they will tell you there are up to 90 houses for sale in Finley in a town of 2,500 people. It has been very reliant on water because it is a service town with two primary schools and a high school.

I have seen some enormous impacts in that community. When you drive up the main street now, I reckon probably close to a third of the shops are empty and it is basically because of the implications of the cap. If we have more water reforms and more reduction in access to water, not only are we losing our farm businesses which have dropped in Murray Irrigation from some 2,000 to some 1,600 now, but we are also seeing our communities fold up as well. We have already seen the signs of what happens when you reduce water access, and I think it will continue.

While we implement new technology, since 1994 when I split up our family farm and took over the business, I have basically completely relaid that farm out. Every channel has been padded. Every recycle drain has been dug. I have used the best technology I can put in place for broadacre flood irrigation. But now, if water is further reduced, I have to go and look at another irrigation system and start again. So that is the impact that the reduction in water is having, and that is being felt right throughout this community because we are general security irrigators.

This whole region is basically general security. There is very little high security in the Murray Irrigation system. There have been some enormous impacts because we are the first irrigators to lose yield. Every time there is a reduction in yield, every time there is a little bit more water given back to the environment, it basically comes from this area because this is where the general security irrigators are. We are feeling the pain, I can tell you.

Mrs Kerr—It is important to note that irrigators to date have returned water to the environment. In this valley here, we have seen the Barmah Millewa forest given allocations of 50 gigalitres and then an additional 25 gigalitres. They were just general security licences converted to high security without the due conversion rate being applied.

I am not saying that that is not supported; I am just referring to the impact that has had on irrigators generally across the valley with general security licences—their yield is reduced. Therefore, they do not get the modelled amount over a 100-year period that they normally would have got. There has been a succession of things like that that have occurred basically since the 1993-94 cap. You should not think that irrigators have not actually done anything; they have. It has been imposed on them. They have worn all of that to date.

What they are looking for now, as Bill intimated before, is a secure property right that is compensable at rates that are appropriate and that all measures are taken to put into place water efficiency investments—whether they be multilevel off-take towers, fish ladders or varying the flow that goes down the river to give it a variable height in just using what water is there now, which was done last year in delivering the water to South Australia. There is a whole host of mechanisms that can be put in place before you even look at irrigator allocation or the yield on their licences.

Mr FORREST—I just want to get a clarification on this paper that George Warne has given us. In your submission, you had a summary of this paper, but is this the first time the committee has had the full report?

Mr Warne—Yes, I think so.

Mr FORREST—I think we should incorporate it in some way, because it is excellent.

Ms LEY—We do have a submission from the New South Wales Irrigators Council, and it might well be that.

Mr FORREST—We are meeting with the Irrigators Council in Sydney. We could pursue this with them.

Mr Warne—The point I am raising is that both the organisations here are represented at the New South Wales Irrigators Council, and this has been unanimously adopted. So when you are talking to irrigation corporations—Murrumbidgee, Murray and elsewhere—this is their stated public position, and I think it is quite helpful.

Mr Arthur—It is interesting that this public position has been achieved from the different river systems from the north right to the south. It was quite an achievement by the council to

actually coalesce those views into a policy. So it is backed up by all the irrigator bodies in the state of New South Wales.

CHAIR—We see the Irrigators Council on Friday fortnight. We will have a short break for about 15 minutes.

Proceedings suspended from 10.32 a.m. to 10.53 a.m.

Environmental flows and 'Living Murray'

CHAIR—Our next roundtable discussion topic will be environmental flows and the Living Murray. I call on Lawrence Arthur to give us a five-minute overview.

Mr Arthur—The current use of water evolved with government and community support and there has been a huge investment by industry and farmers, as we have heard today. But we have all become aware that we have had impacts on the environment and we must acknowledge that.

One thing I would really like to bring to the fore is that we hear reports that the consumptive use of water from the river is 80 per cent of inflows. I want to put on the public record that this is an absolutely ridiculous figure. I have brought some paperwork from the old Department of Land and Water Conservation and also the MDBC. I have never seen any reputable report that claims that consumptive use is higher than 50 per cent of river inflows. We hear from Kelvin Thomson and other recent reports that we use 80 per cent of river inflows; we read it in editorials from the *Australian*; we hear it from all over the place; and it really skews the debate on environmental flows because, if we were using 80 per cent of inflows into the river, it would certainly be an extraordinary thing. I have these reports from the MDBC and the Department of Land and Water Conservation that clearly refute those claims. I am quite happy to produce those.

We are looking for an improvement in river health. We hope to achieve it from the irrigators' and users' perspective by clear commitments that the whole community will bear the cost of the reform. One of the crucial things that irrigators are looking for is that the cost of any commitments to improve the Living Murray is going to be focused strictly on consumptive users.

We want to make sure that stakeholders are engaged throughout the entire development and decision making process and that all decision making is based on comprehensive studies of ecological, social and economic science and also that all these studies are regarded equally in the decision making process. We want to obtain scientifically valid environmental outcomes. We want to get past this 'more flows are automatically better' assertion; we want to really look at targeted outcomes that we want along the river; and we want to know how we can achieve those by a range of measures. Typically, we want to consider not only flow related options but also things like weir pool manipulation and all these other various management tools that we can have. We are looking for a decision making framework that actively includes the irrigation communities in a key role right from the beginning. We want to make sure we provide local communities with timely, comprehensive information.

One of the points I would like to raise when we are talking about the Living Murray in this area is that we still have not heard anybody in all this community consultation say, 'What impact

is the Living Murray likely to have on a town like Deniliquin?' We have talked in wide terms regarding what water might be acquired and what we might hope to do along the river with the Living Murray process. But we are still in the position where a first-step decision is going to be made in November, we hear.

Mr FORREST—No.

Mr Arthur—All right. We still cannot say to a community like Deniliquin, 'This is what the Living Murray process could mean for this town.' We want a decision making framework that allows the irrigation community to develop, evaluate and agree on the preferred options. We would also like to see the adoption and implementation of a comprehensive, transparent and enforceable public benefits test to really see who the winners and the losers are going to be out of the Living Murray process.

We would also like to see agreement on management and auditing of the options against objectives. We want to know what result there has been regarding what we have actually contributed towards environmental flows on downstream bird breeding and on invertebrates in the river. We would like to have some benchmarking to see what results are gained from any actions that we take.

We would also like clear specification and implementation by each state of property rights, as Bill has outlined, in line with the COAG framework. We want comprehensive studies into the ecological, social and economic issues with good opportunity for public scrutiny of the reports. We note with some alarm that a lot of the scientific and social studies that are being done at the moment are likely to be released in September-October with some decisions to be made fairly early on in November, as we have heard.

We would also like to look at the detailed review of the benefits of the existing cap in environmental flows. As you have heard today, there have been a lot of environmental initiatives taken as part of the New South Wales process, Barmah Millewa et cetera. We would like to be able to quantify the benefits of those in relation to any further environmental flows that we actually make.

The intention to improve the Murray-Darling Basin river health needs to be achieved without impacting on water available for productive use, and consequently the wellbeing of communities like Deniliquin. We believe this can be achieved by infrastructure investment, operational efficiency improvements and ecological measures like riparian zone management.

Lastly, we would really like to put on record that across-the-board cuts to a community like this to achieve additional environmental flows as part of the Living Murray process are totally unacceptable to a community like Deniliquin. Thank you.

CHAIR—Thanks very much for that. Does anyone else want to make a contribution?

Mr Barlow—On the Living Murray document, we really have not seen any environmental outcome for the extra 1,500 gigalitres of water that would go out there. There is no scientific evidence of what improvements would come with it. I think that is something we need to follow up.

The public perception of what is going on regarding what goes in the papers gets on my goat a bit. I would just like to tell a little story about Peter Wallace, who is from West Corrugan. He went down to the Echuca wharf one day and he was standing there as a busload of tourists came along. A woman came up and said, 'Are you going on the paddle steamer?' He said, 'No, I am here on other business.' She said, 'Oh, I don't know whether to get on it or not because there might not be enough water to come back if we go down the river with it.' He said, 'What?' She then said, 'Yeah, we had to come this year because the Murray will not be there next year.' I think that is the public perception of what is going on in the Murray. It warrants a lot of attention.

CHAIR—I agree with you there.

Mr Hetherington—Just on that, I hope you reiterate that point to your fellow committee members. We are bombarded with daily newspaper articles. If you go to Adelaide, you get a sticker stuck on you saying, 'Save the Murray.' The *Age* newspaper apparently ran a huge article. One of the most disturbing things as far as Murray Irrigation is concerned, just because we knew about it, was that the MDBC supposedly were making two videos at a cost of $600,000 on how bad the Murray was prior to this announcement in November. My informants that represent us on the various committees tell me that that has been slowed down.

However, yesterday I heard that Dermot Brereton, the ex-Melbourne footballer, was down there promoting it and that it is on again. What is totally unacceptable to our rural communities is the media campaign by government bureaucrats funded by taxpayers' money to put a one-sided view Australia wide on videos at that cost. I have been to Minister Truss about it; I have been to Minister Kemp. We believed it slowed down. But my general manager told me yesterday when he was in Canberra that it is on the go again.

The point I am making is that there is a huge amount of money being put aside for this Living Murray but it is all one-sided. I have asked the ministers, 'What about a fund for communities, private enterprise and other people to do their research?' We are actually funding five scientists at the moment to look at the principles that were put forward in the scientific position up to the moment with the costs borne by the irrigators.

But the way I see it at the moment, the opposition is doing it with our taxpayers' funds to sink us. Is that fair? I do not think it is. I think the funds should be equally distributed. This is a huge issue that affects the lives of all our communities and our irrigators, and all the funds are being put for one side of the argument.

CHAIR—Are you invited to sit down with the state government departments? Yesterday we had a tour around with the Central Murray Valley state forest representatives who showed us the wetlands. Do you as irrigators have roundtable discussions about input into the environmental flows first-hand or are you hearing everything second-hand and these meetings are going on and you are not involved? Lawrence mentioned bird life. We were told about how the bird life has increased with certain controls on the water flows over there.

Mr Hetherington—I will comment on that and then my colleagues alongside me will comment because they are actually on some of these committees. I am going to be on one soon. We do get the opportunity, but usually those committees are overwhelmed with bureaucrats.

When it comes to the end of the day, it is pretty hard to get any of our views brought forward. Probably that is an opening remark and I will let the people who actually sit on them make a comment, both George and Lawrence.

Mr Warne—There is a range of consultation processes, but the state government guidelines are really quite rigid. You go into the meeting with the pre-determined result that there are going to be losses. It is just to what extent you are going to give up some water. We have been through that process, and Debbie was talking about that before. The point we are raising is that this community has taken quite a few hits through a number of measures. We have also had a couple of very severe droughts. What we are really saying is that, from now on, let us make sure that negotiations are much fairer and that both sides are equal.

Mr FORREST—What needs to be done to achieve that though? I think that is behind the question.

Mr Warne—I think the communities on the committees have to feel—it is not that the public servants should be excluded because they provide a lot of expertise—that they are being heard and that they are influencing the final outcome.

A recent example was the Barmah Millewa watering where, after some years of negotiation in 1994 and 1995, the Victorian and New South Wales farmers agreed to give up 25,000 megalitres each to put 50,000 megalitres into the forest. The governments took that initiative and said, 'That is good. We will double that.' So they both gave up 50,000 and, since then, they have said, 'We would like a bit more to get a better result.' It has now become 150,000 megalitres between the two states. While irrigators were initially enthusiastic about their involvement in the decision making, they are now quite cynical about governments that come to them and say, 'We want to talk to you about some ideas,' because they are concerned that they have a pre-determined result.

Mr Hetherington—John, I will just give you an example. In recent days, we have heard that there is going to be a national plan for water. Well, I do not know one thing about it. I questioned Andrew Stoner, the National Party leader, who was in town yesterday and he does not know anything about it. I rang Kemp's office. He does not know anything about it. Truss's office does not know anything about it. That is an example of a lot of these decisions being made with no-one knowing much about it.

Mr FORREST—The two local members do not know anything about it either.

Mr Hetherington—I questioned Sue, too, last week. That was true, wasn't it? You were going to check it out.

Ms LEY—Yes.

Mr FORREST—Part of the struggle of this committee is that the issue is in the constitutional jurisdiction of the states, so the Commonwealth does not have much of a role in allocating water on a national basis.

Mr Hetherington—They are going to have a national plan though.

Mr FORREST—Well, all we can do is provide a bit of leadership.

CHAIR—A bit of pressure with dollars or something.

Mr FORREST—We do have the dollars. If we can get back to this Living Murray concept because I am a little bit scared about this suggestion that governments will be in there participating in the water market—with one, two, three or four state governments and maybe even the Commonwealth. It frightens the life out of me. I would like comments from the panel on the prospects of governments participating in the water market.

Mr Warne—It depends on what they are buying, too. It is a very important matter as to what they are actually buying. In terms of the environmental flows of the Living Murray, if you were to ask a scientist about the most significant feature of Australia's inland rivers, I think they would have to say floods and droughts. In South Australia, we have learnt last year—and maybe even this year—that their guaranteed flow which they got last year was not enough to sustain water quality at the bottom end. The South Australians are now demanding 1,500 gigalitres.

But I would argue that is actually not an environmental flow, that is a flow for industry, commerce and agriculture. While as an irrigator I am not going to condemn that, I think it is a bit false to dress that up as an environmental flow. If you are looking for the unique values of Australia's rivers, floods and droughts are part of the unique values of Australia's rivers. In fact I think what a community says is, 'We want American and European values of good quality water supply when we need it for communities.' They are actually at conflicting ends. The point I raise in terms of this water recovery is: let us get the science to tell us what is possible before we start determining what we are going to recover.

Mr FORREST—Let us say we got all those determinations in place and the governments are out there participating in the water market, what is the opinion of the panel on that?

Mr Hetherington—One of the things that would happen is there would be a huge boom in interest rates, I can tell you now. You would have the federal government borrowing; you would have all the state governments borrowing. As I mentioned earlier, they do not realise how much they are going to have to borrow because the prices are not going to be what they think they will be. I reckon there will be a huge boom. How long is it since the Commonwealth has had to borrow? It is a few years, isn't it? They will get an awful shock, I can tell you. The ongoing effect is that interest rates will boom, in my opinion.

Mr Chappell—Having regard to the impression you people can make on a federal level through ministerial council or whatever, I just question the whole process. If you put simple problem solving methods to the whole Living Murray exercise, wouldn't it be best to just go back to the start and say, 'Right, we want a healthy, working river, let us define that.' Get all the scientists, all the stakeholders there together and come up with a definition.

Once you have got a consensus outcome on what a healthy, working river is, because the Murray is a working river—that has been agreed upon—why can't we define a working river? I am pretty sure then that you stick an amount of water to that. Why just pick three numbers out of the air and say, 'What effect is this going to have on irrigators?' when there is no defined outcome for what this water is going to do. As George said, there is no science stuck to the water

that is going to go down the river. Or is it just for South Australia? I am a bit cynical because we have three high-powered ministers all from South Australia in your federal cabinet. It is not environmental flows, as I see it; it is drinking water and industrial water for Adelaide.

If you define what a healthy, working river is and everyone agrees to it, it is going to be easier to get water out of me to give to that river, because basically most irrigators and farmers are greenies anyway because they want to be there tomorrow. Maybe the whole process needs to be looked at, and it is something that your committee could do through the ministerial council. That is just a comment I make as a person.

CHAIR—After going around with the group of people yesterday, there was an indication that they should have a larger allocation for environmental flows at the times when they need them and then, when they do not need them, sell them off to the irrigators. I would have thought it would have been the other way round—that, when they needed it, the farmers or irrigators would be willing if it was to do with the environment to send them back that way, rather than for them to have a bigger allocation and, if not used, then they are making money out of it. That is how I saw it yesterday when it was explained to me that they wanted it for the environmental flows. They were showing us the importance of why they need it at certain times of the year, and you understand that with the growing of red rivergum. I just wondered what your idea on that is—for them to have a bigger allocation and sell it back if they do not use it later on. Or should it sit the other way with the irrigators and make sure the irrigators give it up when it is needed in times of difficulties?

Mrs Kerr—Interestingly, I had a phone call from an irrigator only a few weeks ago who said, 'Well, I have been to all these Living Murray meetings and my general view is that, okay, the environment is missing out on that third-year major flood. Don't take all my water off me. Leave me with my allocation. I can make the profit in the two other years and a medium profit in the third year. Lease my water, but only 20 per cent of it. Don't take all my water in that third year because you are going to impact too hard on my farm.' Now, that was just one suggestion from one irrigator. That has not even been thought of outside probably that irrigator's little square. But certainly that is a way that it can be done that does not impact as much on irrigators.

Mr Warne—If the environment enters the market as a legitimate player and the property rights for the rest of us are secured, it is not a confiscation, then I imagine their rights would be similar to those of anyone else with legitimate access to the water. They could buy; they could sell; they could use; but at present we get the feeling that they really want a free kick.

Now, maybe that community attitude is changing. There is a recognition that, if the water is that important for the environment, it is going to have to be purchased. But if there is a legitimate owner of water like we are and they are paying full freight annually for the water costs and what have you of re-regulating the water and owning and operating the storages, then I think as a legitimate user of the water they should have rights similar to anyone else. I do not think irrigators could object to that.

Mr Arthur—To answer Mr Forrest's question, this area has had a history post the cap of having the yield on our licences just decreasing by government decisions. If you went back 10 years ago in this region, we used to have things called retrospective off-allocations. For example,

if in November they announced all the previous usage was off-allocation, we would have things like overdraw and it was not uncommon to have a 130 per cent allocation announcement.

We have come to this date where a very defined small amount of off-allocation may be called. Retrospective off-allocation is gone and overdraw as a concept has gone. We have been told the maximum allocation we can expect is 100 per cent in any one year. Those changes came about without any form of compensation from the government. So there is a real fear that, as part of the Living Murray agenda, there will be across-the-board cuts where we will wake up and read in the paper that our yield in our licences has been reduced by 10 per cent, as proposed by the Wentworth Group and others. That is still a very real fear. We have not seen any commitment of government funds to allay that fear of irrigators.

So if it comes down to their compulsorily taking our water or going into the market and purchasing water, the lesser of two evils is where individual licences are purchased in a district and the individual actually gets to keep his amount of water. While as irrigators we prefer to investigate all the other options like infrastructure investments and operational efficiency improvements, if worst comes to worst, we would prefer the government to come into the market than to have these across-the-board cuts where all our allocations are just reduced arbitrarily by 10 per cent.

Another thing I would like to point out is there is a fair amount of cynicism when we look at the Living Murray process from this end. I was fortunate enough to go and look at the Hindmarsh Island marina, which is a massive multimillion dollar development that absolutely depends on a constant weir pool in the lower lakes. That was approved by the South Australian government.

We have just read in the last few days that they have approved a marina at Mildura. Now, a marina at Mildura is going to require a constant weir pool at Mildura. We start to really wonder about the commitment of some of the governments that are calling for increased environmental flows, when they go through EIS procedures and actually approve that sort of development. One of the strongest messages we are hearing from the environmental movement is that the manipulation of weir pools to mimic natural conditions where we had floods and low rivers is one of the most important facets of river health, yet we are seeing these things approved.

The whole debate appears to be about extra volumes of water going down the river, so there is that cynicism. But, as irrigators, we are not sitting here and saying, ‘We are sitting pretty here so we do not care about the rest of the river.’ Obviously, with taking the volumes of water out of the river that we do take, we have had impacts on the river. I think it is only fair that we do have concerns for the lake regions et cetera, but we would like to see this pain of the Living Murray process honestly and sincerely shared right up and down the valley.

For example, if we are to lose productive water from this area, I would expect that perhaps the beach houses on Lake Alexandrina et cetera will have to suffer having the beachfront of their houses fluctuating by 200 or 300 metres a couple of times a year and not just sitting behind the luxury of a constant weir pool and saying, ‘We just need more water so it will tip over the end of the barrages.’ That is where a lot of the cynicism comes from. We would really like the concept of sharing the pain to achieve the environmental goals we all know that we want to approve up and down the valley.

Ms LEY—We heard an environmental view that it is actually better for the environment for water to move from here to the Swan Hill area or to the Sunraysia area as well. What is your response to that?

Mr Arthur—I think you can see that if you had to design the irrigation communities we have and start from scratch, you would be irrigating at places like this here. There have been reports done by ABARE that have shown that a lot of the accessions into the water table have been caused by having irrigation systems sitting right on the Murray River. For example, if you would go to the Renmark area, there is a real concern that any increase in development down in those areas leads to a higher infiltration of salinity into those regions. We all have to accept that we make impacts on the river where we are but we must not forget the natural morphology of the river. We have a choke in the river, which everybody seems to forget about. There is a physical choke. You toured the Barmah Millewa; you can only get—what is the maximum flow there now?

Mr Hetherington—10,000.

Mr Arthur—10,000 megalitres. One of the things we are finding is that the development downstream is all dependent on high summer flows and just the sheer physical constraint of getting that water down there is something that is rarely recognised when we talk about shifting water to other regions. We are ignoring the physical limitations of the river.

Ms LEY—There is no doubt that the sleeper licences went down there and the development was all down there, and some people say that is a good thing. But I am just interested in whether it is a good thing environmentally because I suspect that it is not. And then I hear an argument that it is.

Mr Arthur—I think you will hear some comments here that that is absolutely not the case. I will let some others comment.

Mr Warne—You may see more water which improves the dilution flow but, in terms of environmental outcome, you can imagine that the water may have come from a wheat farmer and a pasture grower at Berrigan who was watering in the springtime, which was a time when the river would be naturally quite high, and it is sold to a farmer down in Sunraysia that is going to water his vineyard in January, February and March. With the ecological difference, you would argue that the irrigation in the springtime was far more in sympathy with the river than trying to force the water down a stressed river system in the middle of summer when naturally it would have been running at a low level. The point I am making is these things are quite complex. With simplistic notions like 'trading water downstream is good for the river,' I just think it is far too simplistic to say that that is a good result for the river.

Ms LEY—We have just seen announcements of even more development down there that have not even begun. I wonder, as you say, whether in fact the system has the capacity to deliver it.

Mr Hetherington—That is the whole problem, because everyone wants water in January and February. I go back to my point earlier about changing to high-value crops. Most of them are summer irrigated crops and you just cannot get all the water down there in January and February. As Lawrence said, you cannot get it through the system. That is a pretty important point.

Mr Warne—It is worth noting that there was a state government prohibition on the growing of horticultural crops in this region until 1994. So on these 780,000 hectares, these 2,000 businesses were actually prohibited from growing permanent plantings because governments were worried that the general security nature of their licence would mean that one year in 100 they would not be able to deliver and the infrastructure costs would be very high in losing permanent plantings. That has been lifted, and the popular notion that we need to get the water down to the high-value crops should be countered by a view—and we are working on this now—that maybe the high-value crops have got to come to our community. But high-value crops are easy to talk about and a bit harder to find.

Mr Clark—An example last year was that we had the situation where Menindee Lakes were extremely low and became a New South Wales-only resource, and I think the MDBC started sending water down to Lake Victoria in June to supply South Australia in January, February and March. That is the time frame they needed to get enough water down the river.

Last year, with the low allocations in Murray Irrigation, in excess of half a million megalitres was sent down the Millewa canal because the river capacity was not there to get the water through to the Barwon shire. If you are talking about further development downstream, it is simply not possible; it is unsustainable. So I cannot see why we are allowing the development to continue to take place.

If you are going to use the water for irrigation, the most efficient place to irrigate is near the dam wall. It takes four days to get the water from Lake Hume to here; it takes two or three months to get it down to South Australia. So you can imagine the transition losses that occur in sending the water down to South Australia. The efficiencies are simply not there because, if you measure the water in the dam wall, the most efficient place to irrigate is as close as possible to that dam wall.

Ms LEY—I think we have identified a real problem here because, from the evidence we heard down in the Sunraysia, the management of those irrigation groups are having to approve development without sufficient knowledge to know—from MDBC or whoever—whether they can actually deliver the water. But it is on their head at the end of the day if they allow these developments to go ahead. They have told us that they are very uncertain about that and they are just not getting the information they need.

Mr Hetherington—I just wanted to back up Leigh's comments. Leigh mentioned the point about the Living Murray proposal. First of all, the three options of 350, 750 and 1,500 were put up saying, 'We need that, so go out, gentlemen, and find the water or we will see what will happen with those three options.' But very little was put forward in relation to finding what would happen to communities and industries. That is what we are all talking about today.

This was all based on being told up front, 'The river is dead. What will happen if we take this, this and this.' I just want to mention this fact for the rest of the committee to read: in the last two weeks in forums in Canberra—there was one on Friday—MDBC figures were disclosed at that forum that the salinity has actually improved by 100 per cent in 20 years. Please relate that to everyone. Everyone believes, like the fellow that Mike mentioned, that we are going to run out of water in the Murray. If you repeat things often enough, people seem to believe it.

The other thing is that since starting recording in 1978 of turbidity, phosphorous and nitrate, there has been no change. Can you believe that after reading the papers during the last few months? 'We're ruined, doom and gloom. It's dead. So salined you can't move.' By the way, I just want to mention the fact that those figures are at Morgan, the area where South Australia's water comes from.

The other thing I want to mention about the Living Murray is the lack of opportunities for private enterprise to be involved. We are just starting to shift the chairs a little bit at the moment with Minister Truss on this one. It looks like we might get somewhere, after a couple of years. A proposal was put up by a private company to redesign Lake Alexandrina that would save 300,000 megalitres a year at a cost of $300 million, which is $1,000 a megalitre. Under my scenario that is cheap, but it was rejected by the bureaucrats.

George, my general manager, was in Canberra yesterday. I understand there is a bit of a movement to relook at it. It proposed knocking out a couple of barrages, putting a big river around the edge of the lake so there is still fresh water for the holiday makers—fresher even than it is today—and letting the sea move in and out of the inside of the lake. You can have a look at this in detail, because it is in print. It has been done by Halliburton, one of the biggest engineering companies in Australia. The bureaucrats would not believe it would work, so they just put it in the filing cabinet.

Halliburton contacted us the other day to see if we could assist by lobbying to get some of the money, which I said was put in the big bin on the opposition side, to model this from an American engineering company just to show that it will work. What I am trying to mention here is that private enterprise has been locked out of this Living Murray process until now. We are moving to open it up. Minister Truss agreed in a letter to me two weeks ago to look at it. The proposal we put up was to have another panel on the Living Murray that would look at productivity and investment—totally overlooked up to date. We had analysed existing industries, what dollars were attached, what communities they are maintaining, what they see for the next 10 years of development and how these three scenarios of 350, 750 and 1,500 would stand against their business. It has not been thought about. It ties in with what everyone has been saying here today, just the lack of understanding of the real world and how it would be affected in the long term.

CHAIR—We may have to move on to the next issue, but I will take a couple more questions.

Mrs Kerr—I just wanted to make the point about delivering irrigation allocations—that it just portrays the difficulty in delivering any environmental allocation as well. There is a huge issue there about whether you put a flow permanently down the river and how that is going to impact on river health as well, because it will increase the volume in the river and you will have unseasonal inundation of wetlands, creeks and whatever else, but also whether we can deliver more targeted outcomes. So we look at particular sites and see what we can do to save Ramsar listed wetlands or certain defined outcomes. I think there needs to be a discussion about what is the better mechanism, considering we have a river that you are physically going to have to get water down that you cannot.

The other point I would like to raise is that the information delivery between stakeholders and those that make the decisions is quite complex. There is very little ability for Joe Bloggs on the

street, for example, to talk directly to the people that are going to make that decision. It is a convoluted process. A lot of filtering goes on. I think that is an issue as well.

Mr Chappell—One last point: now that your committee is aware of the choke and the restrictions there—I think it is 10,500 megalitres at the moment and decreasing, isn't it?

Mr Barlow—It is 8,500 megalitres within banks.

Mr Chappell—Now, if you want an extra 15,000 gigs environmental flow, just do the numbers on how much and on how many days the Murray has to flow flat out to get that extra through there, let alone irrigation and water for uses downstream. It is pretty horrendous.

CHAIR—It is, too.

Mr Howe—I do not know whether it is appropriate but I actually have a copy of the paper here that Bill was referring to. I received it about 24 hours ago. And it staggered me when I looked at the data relative to the rhetoric. I just wonder whether it is appropriate that I give it to the committee just as a reference for the sort of issue that Bill raised.

Mr FORREST—Just for the *Hansard*, could you give us the title and background of that document?

Mr Howe—Certainly. The title of the document is 'Received evidence for the deterioration in water quality in the River Murray'. It was presented at the Institute of Public Affairs water forum No. 2 on 25 July in Canberra by Dr Jennifer Marohasy.

CHAIR—Thanks very much for that, John. We will adopt that into our inquiry. I would like to get your opinion on this particular issue seeing that we are talking about the environmental flows: should the Commonwealth government be the final authority on water management issues and how would that be achieved? This whole inquiry is looking at what role the Commonwealth could play in the sustainability of water in rural towns. I would like your opinion on that.

Mr Warne—We have seen the federal government move on gun reform in the last 10 years where they, if you like, were able to get federal government and state government legislation introduced at the one time and they were really getting involved in what is traditionally a state jurisdiction. So I think there is a model where the federal government has become involved in an issue that is important for the Australian community. That is not to say it is going to be easy; it is going to be extremely difficult to get it in; but I think it is extremely unlikely you are going to change the Constitution which gives the states the right to control water.

CHAIR—That's right.

Mr Warne—So I would imagine that the federal government is more likely to use the sort of methods that they have available to them through COAG and through convincing governments that the COAG grants are going to be tied in to reforms in water or in to common access regimes in water. I think that is more likely than waking up one day and finding that the federal government is running the Murray River. While a lot of people are advocating that, I think it is politically extremely unlikely.

CHAIR—That is right. Thank you for that input.

Mrs Kerr—Another issue is that we have two concurrent processes. We have the COAG process and we also have the MDBC's Living Murray. They are both looking at property rights, environmental flows, water trading and a whole heap of other things. At some point those two processes need to merge. There has not yet been an indication from anybody about how that might happen. There could be conflict; there could be a lot of synergies; but there has been no expression from anybody about how that might happen.

Efficiency of water use and potential savings

CHAIR—Thank you very much. We should move on to the next issue that we would like to talk about around the table, and that is the efficiency of water use and the potential savings. This overview will be by Murrumbidgee Irrigation.

Mr Howe—Thank you for the opportunity to make this presentation. As a general point of view, our board members seem to have the view that there is not much support in high places at the moment for water use efficiency as a way of contributing to a healthier river basin and maintaining social and economic outcomes for the dependent communities. And that is a major concern to the company.

A cap was established to stop further increases in water use beyond 1994 levels of development adjusted for climate and, in this context, the improvements to water use efficiency are the only instrument available to water users to stabilise and expand future income and welfare. Some of the improvements to that water use would also directly assist river basin health. For example, reduced accessions to water tables in the irrigation areas will often be of benefit to the environment. Effectively, the water goes to waste, not to the environment and, if we stop that accession to waste, we actually benefit the environment.

Finally, what we would argue is that improving water use efficiency and generating additional flows are the only way that water savings can be made for redistribution to the environment without reducing the income and welfare of user communities. As we have heard today, that is the primary goal at least of the people around this table.

One of the reasons we think that water use efficiency is being downgraded is that some commentators, such as Mike Young, have argued that water use efficiency gains will actually hurt the environment by taking water away from drainage back into the basin. I would like to make a couple of points about that. The first one is that water use efficiency means different things to different people. We heard earlier Laurie refer to the major gains that are available for water use efficiency gains on-farm—they deliver additional income, consumption and welfare for the irrigation communities. So, from a policy point of view, we need to be careful not to deter those beneficial activities that may not have any impact on water use whatsoever or on water availability for the environment.

When Mike Young comes to the conclusion that he does, he uses quite a narrow definition of 'water use efficiency' that basically involves lower drainage and water saving that way and he says that that drainage will go to the environment. At least in our system, that is not a very good representation of the circumstances. Reduced evaporation losses are an extremely important part

of in-system and on-farm flows—they are not actually a flow; it is a loss of water in-system and on-farm that, if retained, becomes a flow—and by reducing evaporation you have no impact on basin flows. You do not reduce basin flows; you create more water without impacting on the discharge of the basin. Neither does a reduction in drainage to waste, and in our system sometimes we have drainage to environmental damage. So actually stopping those drainages is both good for irrigation and good for the environment.

We have one project to modify our mid-system storage to reduce evaporation by about 30,000 megalitres per year—it varies according to the climate—and at the same time we will provide significant environmental benefits through the rehabilitation of the wetland. So it is a win-win situation. Some of the commentators are suggesting that there is not a way to redirect those savings back to the environment. In this case of the 30,000-megalitre saving, our company is negotiating with the New South Wales government about what proportion will go to irrigation and what proportion will go back to the environment. So, in many areas, it is a furphy to suggest that, by making gains to the water use efficiency, it actually hurts the environment.

The final point I am going to make was made earlier on, probably better than I am going to make it now, but we believe it is a major mistake from a policy perspective to focus expectations of water use efficiency gains solely on the irrigation industry. This just leads to suspicions that irrigators are being expected to meet the costs arising from low levels of efficiency elsewhere in this system. For example, using MDBC data—Laurie, I hope this is in accordance with your data on the run-off et cetera with the basin—the MDBC reports that on average we have a cap of about 11,000 gigalitres; we have an annual average run-off of about 24,000 gigalitres; so this leaves about 13,000 gigalitres on average of above cap or environmental water that is in the system now.

Mike Young uses an efficiency improvement of 10 per cent to illustrate his point about the irrigation efficiency improvements, so I will use the same estimate. If we had an efficiency improvement of 10 per cent by our system managers, our river operators and our managers of environmental water, that would yield benefits of about 1,300 gigalitres. That is substantial. I chose that figure through Mike Young's 10 per cent and not in relation to any target for the Living Murray.

Part of this would yield additional environmental flows through reductions in evaporation losses and reductions in flows to waste or to environmental damage. We would expect also non-flow benefits to be substantial through getting better environmental outcomes using the same amount of environmental water. I think that was mentioned earlier as well.

The key point we would like to bring before the committee is that both the irrigation and the environment are likely to yield much larger efficiency gains or net benefits than losses due to water use efficiency. There may be a particular case where you could envisage that you would have significant losses associated with a certain activity, but on average throughout the basin we think that there are massive gains for water use efficiency and that the losses are likely to be quite minor.

For example, in our system, if we make an efficiency gain, the numbers tend to suggest that, for every four megalitres of flow through the efficiency gain, we lose one megalitre to the environment if it is in that situation when there is a drainage loss to the environment. There is a

tendency to exaggerate the environmental losses associated with an efficiency gain even when it is directly a loss to the environment.

Young also questions the impact of water use efficiency gains on the cap, and we think this effectively casts doubt in people's minds over both water use efficiency and the cap. In effect, they conclude that water use efficiency gains just erode the cap. We believe that is a fallacy. We think that, as with any instrument that is currently in the debate on water reform, the cap is the one that is actually most consistent with the dual objectives of river health and economic and social health and, for that reason alone, its underlying principles should be preserved.

I am not talking there about the cap being perfect. We heard earlier that, when the cap was put in place, it actually caused quite significant distributional losses in some places. I am not saying that that is not a problem, but it is a problem of history. As we go forward, I think the principles underlying the cap are something that we should treat as a bottom line, if you like, and if something is against the principles of the cap, for that reason alone it should not be really considered.

At the very least, the potential contribution of efficiency gains in a resource-constrained system is insignificant and should be subject to really close scrutiny. The problem is that these numbers come out into the forum, into the public debate, and nobody ever really sits down and does the calculation to figure out, 'Well, if we have a 10 per cent efficiency gain for irrigation, does that really equate to a loss to the environment in numbers?' If you work through the numbers, it is not actually true. But once those figures get into the forum, they start to become almost biblical and people will probably be quoting the Mike Young figures for the next 10 years. So we think they should be subject to close scrutiny, if you do not believe the numbers that I have suggested today.

We believe it is not a good message to send out to people that we can do better by standing still or that the only issues here are distributional. There is a tendency in the current climate to think that we have to find ways to distribute the resource better. We tend to forget that there is a major contribution to be made to actually get better out of the resources that we have. Having said that, I will pass back to you.

CHAIR—Thanks very much. I appreciate that. Any other comments from our panel?

Mr Chappell—Just on actual on-farm water use efficiencies, the work by David Mitchell from New South Wales Ag in Trangie is the only work I have seen on it. He questions—it is commonsense really—that any savings made on-farm do not get back to the environment. The only savings made are in the more efficient application method because less water is being applied. But any savings that are actually made on-farm probably go back to his turkeys nest or get evaporated or soak into the drains getting back to the turkeys nest, because run-off is less than 20 per cent anyway. It makes quite interesting reading if you did want to educate yourself on actual on-farm savings. His name is David Mitchell from New South Wales Ag in Trangie. He did this study quite some time ago.

CHAIR—Thank you. If I can ask a question, John, you said in your overview that you could reduce evaporation losses. Is there a practice being done in your Murrumbidgee Irrigation area to save evaporation? Could you explain what the latest techniques are?

Mr Howe—The way that we are currently looking at reduced evaporation losses is in our mid-system storages. Those storages are necessary for the management of water within the system, but your evaporation losses fall with the depth and lower surface area of those storages. So we investigated a project to take a mid-system storage and effectively halve the area of it. That is, convert one-half back to the original wetland and use the other half. In fact, active storage would be only one-third, with a bit in addition to that for very high flow periods that would be a spill to more often 'inundated' wetland than the other 'returned to its natural state' wetland. That is the project that will reduce evaporation losses by up to 30,000 megalitres per year. Currently, we lose from that mid-system storage about 60,000 megalitres a year. With the new approach, it would be just 30,000. We have not looked at this stage, except at a cursory level, at technologies to put films on the surface of the water. At this stage we would not be pursuing that.

Mr Bramston—I would support John's comments on putting films over open channels. We have had a look at it in a cursory way as well. One of the biggest problems we face is wave action because very long sections of channel get subject to wind and they create very high waves which tend to swamp and drown the films. They are very costly and are considered to be ineffective. We have done a lot of work on replacing open channels with pipes. The Murrumbidgee River has a very high sediment load. The energy required to operate the pipes and also to clean the pipes makes them significantly not cost-effective.

Mr Hetherington—Irrigators have been able to find efficiency savings and we can show you facts and figures on that. In Laurie's industry, 30 per cent less water is used for rice, for instance. But I ask: what savings have the river managers found really? All the questions are posed to us.

I am going to suggest one that gets recorded for your committee; that is, if river managers looked at en route storages along some of the irrigation systems to avoid excessive flooding in forests and other environmentally sensitive areas when you cannot avoid it through nature—spring thunderstorms and things—it would be far more efficient and more beneficial if some of that funding that is available up there were allocated to a project such as this or at least be investigated as a priority. A lot of savings can be found in river management that have totally been neglected, in my view.

CHAIR—Should farmers receive a dividend for water saved or returned to the environment?

Mr Howe—Yes, most definitely.

CHAIR—It is a silly question, I know, but I just wanted to ask that.

Mr Warne—They are going to have to. The dividend is going to have to be greater than the benefit of using the water on their own farm because, right now, that is exactly what they are doing. If you save 10 per cent of the water that you used last year, then you are just going to grow 11 per cent more of the same crop next year. I think you would all realise that farming in Australia is a bit of a handicap event. You have to double your production every seven or eight years or you are going to go out of business.

There is this concept from the environmentalists to just give the water back, but you have to maintain your productivity, in the Australian context; you will go out of business unless your

farm is growing. Australian farm businesses cannot stand still. They have to use everything they can—their marketing skills and their efficiency—to continue to increase production. That is something that we have been very proud of as Australian farmers for probably the last 100 years.

Ms LEY—What is your sense about how the Snowy savings are going to be found? The big song and dance at the time was that they were all going to be found from water efficiencies and multimillion dollar funds set up to do just that. What is happening about that?

Mr Warne—My understanding is that they have not found any yet but they may find some terrific projects. We have heard of a couple in the Murrumbidgee that they are targeting. They will certainly make the case of finding system savings in the Murray that much more difficult, because we ought to tip the water down the Snowy for what we cynically believe were largely political ends. We all saw photographs of Mr Carr and Mr Bracks skipping across the Rubicon. I just think that, here we are a few years later, left with the legacy of that. They are committed to finding upwards of 300,000 megalitres for the Snowy and the Murray rivers—mainly for the Snowy—from system savings.

Ms LEY—But are they coming to farmers with a deal that says, 'You find us some efficiencies. You keep some and you give us some?' Has any work been done at all because they are running out of time?

Mr Warne—They have not formed the interstate corporation yet to actually find the efficiency savings to fund them. But I do understand there are some quite innovative projects in the Murrumbidgee and in Lake McCallum in Victoria. But there is quite rightly some concern that they are ever going to find them, and of course the Living Murray comes on the back of that.

Mr Howe—In the Murrumbidgee Irrigation area, the sorts of experiences that we have had is that there are the savings there. You can invest in water savings. I think George has made this point on *Four Corners*, for example, but the really low-hanging fruit is gone. With the on-farm savings in association with the Snowy deal, from a financial point of view, it is really marginal on a cost-benefit analysis for the farmers involved. The farmers are actually asking for more than perhaps the Snowy authority, when it is formed, will be prepared to pay. They are asking for very high returns per megalitre compared with the current market situation. Even with deals like that, there is a real issue about how it will ultimately be financed. There may be a case for saying governments have to pick up a portion that is above and beyond what is privately financially viable for the farmers involved.

Mr Bramston—Coleambally Irrigation is pursuing some high-tech water savings at the moment. The capital value initially is in the $700 to $1,200 a megalitre range. The problem with saving that water is that the technology that is used to save it has a very short life but a very high operational and maintenance cost. Our business view at the moment is that we would probably never, ever sell that water back into the marketplace. It would only ever be available on a lease basis, because the lease recoveries are required to ultimately refinance the replacement of the technology as it wears out.

Where we are going is that the water efficiency savings are all coming from high tech. To answer John's previous question, would we ever sell water? I think the more technical the savings become, the less likelihood the water is ever going to be sold. But that is not to say we

are not going to participate in the improvement of the overall environmental debate. The leasing option is something we would like to pursue. In particular where we have a wet cycle, the water could be leased back into it providing an environmental benefit. And when the irrigators go back into a dry cycle, they would want to draw the water back to maintain production levels.

Future research requirements

CHAIR—I think we have exhausted that particular side of the debate and I thank you. It was very good. We will move on to our next one, and that is future research requirements. I invite the representatives of Murray Irrigation to introduce this topic.

Mr Hetherington—Thank you, Madam Chair. A couple of points I make here today would have already been made, being the last cab off the rank. Thank you very much for your visit here. It is very opportune. We are pleased to see you here—come again. In this area here, you are in the centre of Murray Irrigation, so we are right in the middle of the whole issue and we have been for some time. It is really opportune for the Commonwealth to become involved in water policy. It is a really complex and challenging issue. Almost daily the public are indoctrinated with the message of doom and gloom by the media of the future of our river systems. The fact that available data are at odds—as that document showed a while ago—not only with public perceptions but also with the pronouncement of official agencies and experts indicates that something is seriously amiss.

The gulf between belief and fact on this issue will not surprise the experienced observer. It is standard green practice to manufacture problems to support their beliefs with a selected presentation of facts or, if necessary, no facts at all. We often see the big headline but there is nothing to back it up. However, it is our view that the increasingly political stance of CSIRO scientists and the involvement of some key CSIRO staff in the Wentworth Group undermines the integrity and scientific independence of this organisation.

It is imperative that the cooperation of research activities and the release of information is impartial and that researchers do not simplicity release answers before the research is carried out. I just reiterate that because the CSIRO is a Commonwealth area and its minister is in the Commonwealth government, Minister McGauran. MIL are quite concerned about this. The first Wentworth paper that came out was signed by four CSIRO scientists, and we believe it is not their role. You are the politicians; you make the policy; you make the statements. They give the advice; they go and do the research. I believe there is another Wentworth statement today—I have not seen it yet but I would not be surprised if they signed that.

Sussan has a statement from the NFF and the ACF. Four CSIRO scientists signed that. MIL wrote to the chief of CSIRO, Dr Garrett. He refers to another area of his division, and the letter was totally unsatisfactory. We are pursuing this subject because we believe that it is just another area of unfairness. I would ask the Commonwealth to do something about it.

I just mention that fact. I am supposed to talk about research, and that is the major research body in Australia. By the way, personally—and I am sure all of us do—I respect the CSIRO. It is magnificent and one of the best scientific groups in the world. But why must they get into the politics of the environment at the moment? I just leave you with that and hope you will help us do something about it to get some fairness back into the system.

We are currently employing five scientists, as I mentioned earlier, to review the principles adopted in the Living Murray project for the MDBC. From our research to date, the facts are that salinity at Morgan has actually improved by 100 per cent in the past 20 years. There has been no change in turbidity, phosphorous and nitrate levels since they were collated in 1978. As well, the Murray cod are more plentiful than ever and carp numbers have diminished considerably. The water quality to our irrigators is 60 to 80EC, which is a top world standard. So we might say: what is wrong?

Mr Chappell—With that salinity issue, if you look back in history, Sturt could not drink the water when he rode down the Murray River in parts, you just have to read his journals. Oxley went through the rivers flowing west, stopped and came back. And together they formulated the theory that Australia had an inland sea. That is historical fact. As Bill is saying now, the quality of the water since white man has been here has increased dramatically; that is not a fact that everyone knows. Sorry to interrupt.

Mr Hetherington—Really what I am saying is that there may be a section of river not in good shape but let us look at that independently. Do not look at the whole river and just pour a heap of water down there because we think it is all bad. That is not true.

That leads me to the further aspect of research. There has been considerable focus on water trading and the implications of moving water but very little research into the impact of moving enterprises and industries to areas of arguably more sustainable water quality, which we just mentioned, excellent soils with no salinity and water available close to storages. I would urge you to support this type of research.

That matter has been mentioned by some of my colleagues here today but I just reiterate the point so that we have a full understanding of it. In this particular area, as George mentioned earlier, no horticulture is allowed. The government actually put a stop to horticulture. We have great soils; we have great water; we have great sunshine; and we can do it as well as the MIA—no reference to John. I just point out the fact that Griffith is absolutely a perfect example of what horticulture has done for inland Australia. I admire the way that the whole system works up there and the way the development has taken place, yet this area was restricted. But let us move forward: we have privatised now and we are open for business.

What we are saying is we want some business and we do not believe that you are going to gain much by pushing lots and lots of water down to the bottom end of the river. We could use it here; we can produce the goods here; we can produce them more efficiently. The last point was about efficiency. Well, let the economists have a look at this efficiency side and let us do some modelling on this. This has not happened as yet. So we are just putting that point to you.

An important issue for the Commonwealth to be aware of is that, as a consequence of the current COAG water reforms and the drive for separation of the regulator from the operator of water supply businesses, a significant amount of knowledge of the issues confronting water users is no longer within the government section; rather, it is located in industry and private irrigation companies. Government released that responsibility to irrigation companies such as ours who have been privatised for 10 years, MIA and Coleambally who are present today, Mick and his team and others. Why should they not be more closely involved in these discussions and decision making? They are the people up front; they are the people that understand.

When can we tell the bureaucrats that things have changed in the last 10 years? Laurie mentioned the technology. If you come into our office, we are using the latest satellite technology for all sorts of things in irrigation. All our channel systems down which we run 10,000 megs a day are all automated. You press a button in our office and everything works. When are the bureaucrats going to find out about that? The only way they will is to bring them down, as I keep repeating.

In Murray Irrigation's opinion, the effectiveness of Commonwealth forums such as the Water Chief Executive Officers Group and many of the MDBC groups and committees has diminished because of the changes in the water section over the last 10 years, which I just mentioned. Providing structural opportunities that bring the expertise that now reside within water companies into the Commonwealth and state discussions is an important role for the Commonwealth. Madam Chair, you mentioned what roles there should be for the Commonwealth. I have mentioned two there which are very important.

Turning to market research, which is what I am supposed to be speaking about, we believe innovation on farms will be largely market driven. To encourage farmers to turn to higher return irrigation crops, research efforts should be targeted at improving market opportunities. It is not going to happen overnight just because we change to some other industry. We need government help on this, big government help, for getting access to markets, particularly international markets.

Just as an example, the research could have areas looking at preserving and transporting perishable high-value crops to educate farmers into new type industries, to assist financially in setting up these industries such as by bringing your processors to this area or Mick's area, Coleambally or somewhere else. Until you get those processes being set up, those industries are not going to take off because no-one has the capital to do it. So we are looking again at the Commonwealth. I am just putting it back to you about the Commonwealth position.

With respect to the myth about finding extra water from savings in seepage and evaporation, I know that was the last issue that John discussed, but let me say this: our research over 10 years has shown in this area, with 3,500 kilometres of open channels, that they have capacities up to 10,000 megs a day, and there is little wastage. Last year, it was six per cent seepage and evaporation, which is not what we read in the media that says 70 or 80 per cent. Maybe if you run it through a sand hill you might get that. But here is an untruth being published again. Let us not waste any more time and money on this; we can show you that our scientific experiments are world proven, just to prove that fact.

The real research, in our view, is needed on water management in the river, as I mentioned a while ago, on-farm irrigation scheduling and moisture meters matching plants to available water technologies. Last year I was in Canada and I saw that operating. It works, and a lot of efficiencies were found there.

In conclusion, this is how the Commonwealth can play a constructive role in the water debate: first, provide leadership and financial commitment. You are down here today showing leadership; thank you for that. Second, financial commitment—a little bit lacking at the moment. Third, supporting food producing industries equally with environmental policies. This has been lacking and has put many industries at risk, because all we hear about is the great need for

environmental protection but little protection for industry. Fourth, developing new water industries in existing irrigation areas, the point I just made. And, fifth, making decisions on river health on facts not hysteria.

Hopefully some of those messages are getting out now and we will go back to square one. Fundamental aspects for the success of the water policy can be put into four categories: first, river health requirements—let us really see what is needed and where it is needed first. Second, property and access water rights—let us get some real security to give people some confidence. People are not going to move forward the way the situation is today. They are just totally lacking confidence. People are not going to invest under the present scenario, and you depend on your people to make this work, by the way. Third, structural adjustment and compensation must be just terms, as George mentioned. And the fourth is trade. Sure, we will look at trade but get the others right first.

In conclusion, thank you for the opportunity. Our company has been operating for some 10 years. We have had large amounts of human resources and monetary resources looking at many of these issues over the period. We would be happy to supply you with them at any time you wish.

CHAIR—Thank you very much.

Mr Howe—I just think it is worth clarifying why it could be interpreted that Bill and I are presenting slightly different views on efficiency gains in the system. It is actually due to the characteristics of our two systems. You have heard today that we have horticulture, whereas down here it is all large area.

I would concur with Bill's assessment in respect of our large area. We have both horticulture and large area. I firstly concur with the losses that Bill stated. There is a similar experience with us. There is no simple technology or anything to apply and get the savings that even exist in reducing those losses.

The reason why we do have opportunities is that we have quite a large horticulture system and that is small area farming. Interestingly enough, it is a bit more difficult to manage than the large area, and you have higher losses associated with those difficulties. It is economic to pursue efficiency gains in small area systems. I think our experiences are similar there and, as I mentioned before, our efficiency improvements are focused on storages and things of that nature—en route storages in the system and better management.

Mr Bramston—I can support both John and Bill. During the last year with one of the worst droughts, the operational efficiency of Coleambally Irrigation was under nine per cent as well. A lot of work went into doing that.

One of the other points I want to make is that Coleambally Irrigation is not allowed to plant horticultural crops. My chairman had to go and see the state minister last year and ask again, after many requests, to have the legislation changed to allow us to plant horticultural crops. It is happening against the law but, on a wide scale, we are still not allowed to do it.

CHAIR—John, do you have anything you want to ask?

Mr FORREST—I am disappointed nobody has mentioned weather modification.

CHAIR—That is why I handed over to you.

Ms LEY—They have mentioned the CSIRO.

CHAIR—Deborah did say there was a trial here once. I would like to know why it did not continue.

Mrs Kerr—As I said earlier, it was in northern New South Wales; it was a one-off response to a drought situation in the 1980s; and it has not been continued since. It requires significant funding if you are going to be an airborne cloud seeding operation. There are investigations going on but I think, as has been hinted at, it is politically very sensitive because you have the CSIRO on the one hand which does not support cloud seeding. There are some issues surrounding that, which I will not go into too much.

However, there are very successful cloud seeding operations all around the world. There has been an exercise in Tasmania, conducted by Hydro Tasmania and its predecessors which were government based operations, that has been conducted for over 30 years very, very successfully. So it is happening. I believe from my information that Australia used to lead the world in cloud seeding back in the 1950s and 1960s. It is now way behind.

Mr Arthur—To emphasise those points: in discussions with Ian Searle who has been involved in cloud seeding in Tasmania, I believe the 40-odd projects of cloud seeding in the United States have been funded by private capital. We are all aware that these sorts of groups look very hard at their budgets. So if there were not the benefits in cloud seeding, why would these private organisations want to be funding it?

It was brought up in our submission that Irrigators Inc. would strongly support further investigations on current technology into cloud seeding, particularly when we are looking at the poor yields from our alpine regions recently. We strongly support Snowy Hydro's position to investigate some commercial cloud seeding trials.

Mr Warne—Just to clarify that, it is our understanding that the capital is much better used and more successful in the higher rainfall areas near the mountains where you do have the clouds moving over. I think Snowy Hydro said they are looking at an average of about 26 events a year that they could actually modify or have an impact on; whereas here in this landscape it might be only two or three events a year.

So clearly we are talking about increasing the yield in the catchments. They have had to do quite comprehensive work when they did the trial to demonstrate they were not actually robbing the rainfall from someone else. I believe that work has been completed—I gave the name earlier of Barry Dunn at Snowy Hydro. They are very optimistic that they have a low environmental impact, high yield opportunity there that is yet to be exploited.

Ms LEY—Do you think they would be willing to share that water with irrigators?

Mr Warne—Everyone is looking to find more water and they just think that is somewhere you can find more water, that is all.

Mrs Kerr—Irrigators do get the water eventually, Sussan, anyway. But I think the figures that have been discussed as a cost-benefit ratio are as high as 1:25. So for $1 million invested there is a $25 million benefit. There are some good stats out there.

Currently, there is a whole host of literature worldwide that supports cloud seeding. One of the things we could look at is maybe a review of that literature to see where things stand in the world. But certainly Snowy Hydro have looked at all of those things. Their EIS is now supported by the environmentalists and the ski industry. As I said, irrigators eventually get the benefit of that water.

Ms LEY—The timing is the issue though, is it not?

Mrs Kerr—Yes, that is correct.

Mr Arthur—It is also worth commenting that there is a strong view in the community that the CSIRO see any private investment in cloud seeding to be in direct competition with their access to government funds. That is a commonly put view that I have heard in various groups trying to push the cause for cloud seeding. That does cause me some concern.

Mr Howe—I would like to support John on that. We are very much interested in cloud seeding. Like Murray Irrigation, we have spoken to Snowy Hydro about what they are doing. We are also keeping an eye on other developments in the local region and on what might be appropriate in that area for the lower number of events in still trying to get a result. We will continue that research—although, having said research, we are actually just finding out about research that has been done and seeing if that can be perhaps applied in our area.

Mr FORREST—It is a bit irritating that the CSIRO are big on headlines to which I think William has referred, but on that subject it is no go.

Mr Arthur—There seems to be a shutting off of scientific investigation. It is a legitimate area. They have conferences around the world, supported by major world scientific bodies, and their proceedings are about two inches thick. But it appears to be a no-go area for Australian science. Why is it a no-go area for Australian science?

Mr FORREST—We will have to find out.

CHAIR—We will have to ask a lot more questions on that issue, I believe.

Mr Glyde—I would like to go back to the point that I probably started with, and that is my personal interest in putting a human face on all these issues. This is actually a role that the Commonwealth can take some strong leadership on because it does cross state boundaries. What I am talking about is actually legitimising the gut feel or the facts associated with the human fallout of any reform processes that are put in place.

From a research perspective, I want to raise a few comments on what is happening with respect to the fights or the debates in the media and otherwise. I would like to get a good feel for what the negative scenarios, both the immediate and the long-term negative scenarios, are associated with a decreased water supply for irrigation purposes. I can use this particular region as a case study.

I would also like to know what positive opportunities are available if the confidence is actually put back into those communities. So if people actually feel some security in their water right and water entitlement, which brings it back to the previous arguments, what sort of positive opportunities can eventuate over the medium to long term, particularly with financial backing, which is of particular interest to many individual farmers.

Associated with that, I think we can do a lot to assess what the diversification interests are; so what sort of structural adjustment can actually be driven from the farms rather than from the government. We have not started to even assess those issues. We should also assess the attitudes to compensation versus incentives. We talk about incentives and throwing money at people to provide them some sort of incentive to adjust. But we have no knowledge of the knowledge gaps that exist within those communities or on those individual farms.

We do not know really what the cost-benefit is of actually throwing money at education strategies. I would like to see pilot studies and case studies in on-farm and system efficiency potentials; in other words, really question the belief that there are irrigation efficiencies to be gained on farms everywhere, because it is not always the case. I know from personal experience in a background role that I had, which was involved in sales of technologies for creating irrigation efficiencies, one of the things that a lot of people learn when they implement technology to generate efficiencies with, for example, trickle systems is that they actually find they need to use more water than they did previously to generate the sorts of economic returns from the yields that they need to pay for those systems.

The other fact is that, if they can generate savings, those savings stay on farms. I would like to look at some pilot or case studies in terms of where those savings will actually go, because I do not believe that data exists. I would like some sort of assessment, based on all of those things, about what the trade-offs would be. We talked about the obvious ones such as closing of shops and school numbers decreasing and so on, but what are the trade-offs outside that that will ultimately influence our city populations? They are some ideas.

CHAIR—Thank you.

Mrs Kerr—I would also like to bring up another issue, which comes back to the science and what the Commonwealth can do from that perspective. I think an opportunity was missed when the MDBC cap on diversification was put in place in 1994-95 as at the 1993-94 levels. There was no physical research program put into place to actually collect physical data on the improvements in the river system. Everything that we are basing our knowledge on now is modelled. It is literature review and it is modelling of what could happen if we tweak this and tweak that.

With the opportunity missed in developing a benchmark scenario at 1993-94, we have lost 10 years worth of data. In our present situation with the discussion on the Living Murray

environmental flows et cetera, we would have been in a better position to make an informed decision about what is the condition of the river system. In any of the discussions going on at the moment, there has still not been any discussion about: how we are going to benchmark it; what is the impact of the cap; what is the improvement in the riverine health; what has happened with the New South Wales water sharing plans. What have they contributed to the improved river health as well?

So I think there is an opportunity for the Commonwealth government to take a lead role in developing a benchmarking program as it crosses state borders, because the Murray-Darling Basin does cross state borders. That should be put in place immediately so that, whatever the result of the Living Murray is, whether it is targeted river health, whether it is improved redgum health or whether it is improved fish species, the data is then there to see where we have gone to.

CHAIR—That is a good point. It is an issue that has been brought up many times to this committee—the lack of being able to get your hands on data and lost resources. As you said, money has been put into all these different surveys and programs over the years but not collated or collected to be at your fingertips when you need that extra information.

Mrs Kerr—It certainly would have relieved some of these communities' concerns about the alleged science, if you like. We would have had 10 years worth of information to know what has happened.

Mr Arthur—I would also like to bring up the point that I believe there is a role for the Commonwealth to look at the compliance issues as far as monitoring actual extractions along the river. When you get an area like Murray Irrigation, for example, it is easily done and it is well done with the latest technology.

But from Irrigators Inc.'s point of view, talking to the four basin states, we find there are some concerns about the lack of a standard right across the basin on how extractions are measured. There is a real role for the Commonwealth to set the standards for the states to comply with so that all the states are very confident that everybody is complying with the extractions that the states take. For example, some pumps pump directly out of the river, some have different sorts of meters—some require time and event meters. In all those issues, I think there is a real role for the Commonwealth to set a standard for all the states to comply with.

CHAIR—Do you have anything else you would like to add, not particularly on this issue, before we close the hearing, to ensure that we get it in our record?

Mr Howe—Earlier, I mentioned a point in relation to a distortion in the current arrangements that enable trading above cap water on a temporary basis. It is quite a complicated thing to actually discuss. However, a speech by our chairman, Dick Thompson, shows in greater detail what that is about and I was wondering if it is appropriate to table that.

CHAIR—If you would not mind tabling that, then we will add it to our report.

Mr Howe—The other thing that I wondered if it is okay to table is an update of our original submission because quite a few months have passed.

CHAIR—Do members agree with accepting the additional information? Thank you.

Mr FORREST—I know it has taken nine months to get out here.

CHAIR—But we got here.

Mr Bramston—I think Laurie's comments about metering before are very significant and warrant a good deal of attention. There is a sleeping problem there and people do not understand the size of it. If you just run through some problems that we had last year with the drought, the water market is accelerating people's need for timely information. With the systems that we have in place, the mechanical systems are basically 1920s technology and, because some of the policy issues are moving so rapidly, our management systems cannot keep up with them. This is creating a backlog in information to farmers who want to make timely and cost-effective decisions. I would support Laurie's comments because they need a lot more work.

CHAIR—Thank you, everybody. I am sorry the time has run out but we have a plane to catch. I would like to thank each and every one of you for your submissions but, more importantly, for your presence here today. You have taken the time off from your farms and so forth to be here, and we really appreciate that.

You have given us a very strong message that you want to be responsible partners and that you want to be included more in the consultation process, and you have talked about your willingness to share in the pain for the river's gain. I appreciate your contribution also, Scott, on the social problems and the support needed to ensure the viability of smaller communities.

I particularly want to thank the local member, Sussan Ley, because she wanted the inquiry to come to this area, and we have to have submissions to ensure that that happens. So I think she diligently got out there and made sure that you all put your submissions in. We really appreciate that. It will be a valuable input into our findings. We hope by the end of the year that our report will be finalised and recommendations will come down but, be assured, you have played a major role in that.

I would like to also thank John Forrest, who is your neighbouring politician in Victoria. I thank him for the time he has given us because he actually only came back from three weeks overseas looking into cloud seeding in America, Israel and a few countries like that and he came straight back to travel with this committee. I thank him for that, because I know he had a very busy time back in his electorate at the same time. So he has been travelling in between.

I thank Hansard for coming all the way out here and I especially thank our secretariat who have brought all this together. This is a new concept for this committee as far as having a roundtable discussion is concerned. We really appreciated it because we had a cross-section of ideas and you had the opportunity to have your input at that time. I hope that you realise your time with us is not going to be ignored, that we have taken on board your comments. All that you have said has been recorded. Again, on behalf of the committee, I appreciate your valuable time and your contribution to our committee inquiry. Thank you.

Mr Arthur—On behalf of the participants here, we would like to thank you all for taking the time to come and seek our views.

CHAIR—Thank you. That is the first time we have had a clap and we appreciate that. The transcript from this meeting today will be on our web site within about a week. So if you would like to check what has been said and take back to your organisations what you have said, it will be on our web site.

Resolved (on motion by **Ms Ley**):

That this committee authorises publication of the proof transcript of the evidence given before it at public hearing this day.

Committee adjourned at 12.30 p.m.