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SENATE

STANDING COMMITTEE ON RURAL AND REGIONAL AFFAIRS
AND TRANSPORT

Reference: Options for additional water supplies for South-East Queensland

TUESDAY, 17 APRIL 2007

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**SENATE STANDING COMMITTEE ON
RURAL AND REGIONAL AFFAIRS AND TRANSPORT**

Tuesday, 17 April 2007

Members: Senator Heffernan (*Chair*), Senator Siewert (*Deputy Chair*), Senators Hogg, Joyce, Ian Macdonald, Moore, O'Brien and Trood

Participating members: Senators Adams, Allison, Barnett, Bartlett, Bernardi, Boswell, Bob Brown, Carol Brown, George Campbell, Carr, Chapman, Crossin, Eggleston, Chris Evans, Faulkner, Ferguson, Fielding, Hogg, Hutchins, Joyce, Kemp, Lightfoot, Ludwig, Lundy, Ian Macdonald, McEwen, McGauran, McLucas, Milne, Nash, Nettle, Parry, Payne, Polley, Robert Ray, Stephens, Sterle, Trood, Watson and Webber

Senators in attendance: Senators Bartlett, Boswell, Heffernan, Hogg, Joyce, Ian Macdonald, Moore, O'Brien, Siewert and Trood

Terms of reference for the inquiry:

To inquire into and report on:

All reasonable options, including increased dam capacity, for additional water supplies for South East Queensland, including:

- (a) the merits of all options, including the Queensland Government's proposed Traveston Crossing Dam as well as raising the Borumba Dam: and
- (b) the social, environmental, economic and engineering impacts of the various proposals

WITNESSES

BLACK, Mr Ronald Lewis, Chairperson, Mary River Riparian Landholders Group (Lower Catchment)	90
BOYER, Mrs Gillian, Private capacity	2
BURGESS, Mr Stephen John, Research Officer, Save the Mary River Coordinating Group	11
CAMPBELL, Mr Kenneth, Coordinating Counsellor Kandanga, Lifeline Sunshine Coast.....	34
DeVANTIER, Dr Lyndon, Private capacity	77
FESL, Dr Eve Mumewa Doreen, Spokesperson and Treasurer, Gubbi Gubbi Dyungungoo	73
FREDMAN, Mr Robert Alexander, Director of Engineering, Council of Mary River Mayors	45
GIBSON, Mr David Francis, Member for Gympie, Queensland Parliament	30
INGERSOLE, Mr Kevin John, Chairman, Save the Mary River Coordinating Group	11
KLUPFEL, Mrs Lynette, President, Tiaro and District Landcare Group	90
MASON, Mr Kenneth Andrew, Chief Executive Officer, Council of Mary River Mayors	45
McHUGH, Mr John Thomas, Private capacity.....	62
MORAN, Mr Phillip Lester, Private capacity	77
PICKERSGILL, Ms Glenda, Environmental Section, Save the Mary River Coordinating Group	11
SCHOEN, Miss Hazel, Private capacity.....	2
SHERIDAN, Mr Alan John, Private capacity	62
SHERIDAN, Mr Alan John, Secretary, Save the Mary River Coordinating Group	11
SINCLAIR, Mr John, Honorary Project Officer, Fraser Island Defenders Organisation.....	90
VENARDOS, Councillor Minas Joseph (Mick), Chairman, Council of Mary River Mayors	45
WATT, Reverend Iain Douglas, Minister of the Word, Uniting Church in Australia, Queensland Synod	34
WHITE, Professor Stuart, Director, Institute for Sustainable Futures, University of Technology, Sydney	45
WICKS, Mr Gregory Graham, Private capacity	2
WOODLEY, Reverend John, Minister of the Word, Uniting Church in Australia	34

Committee met at 8.59 am

CHAIR (Senator Heffernan)—I would like to welcome everyone here. I declare open this public hearing of the Senate Standing Committee on Rural and Regional Affairs and Transport. The committee is hearing evidence on the committee's inquiry into water supplies for south-east Queensland. It is a public hearing and a *Hansard* transcript of the proceedings is being made. Before the committee starts taking evidence, I remind all witnesses that they are protected by parliamentary privilege. It is unlawful for anyone to threaten or disadvantage a witness on behalf of evidence given to the committee and such action may be treated by the committee as a contempt. It is also a contempt to give false or misleading evidence to a committee.

The committee prefers that all evidence be given in public but under the Senate's resolutions, witnesses have the right to request to be heard in private session. It is important that witnesses give the committee notice if they intend to give evidence in camera. If a witness objects to answering a question, the witness should state the ground upon which the objection is taken and the committee will determine whether it will insist on an answer having regard to the ground which is claimed. If the committee determines to insist on an answer, a witness may request that the answer be given in camera. Such a request may, of course, be also made at any other time.

On behalf of the committee I would like to thank all those who have made submissions—we have had 180-odd—and sent representatives here today for their cooperation in this inquiry. I would also like to thank those representatives of the Queensland government and the Save the Mary Coordinating Group who assisted the committee on its site visit yesterday. I would also like to add that, as the chairman of the committee, I will not tolerate political commentary or political grandstanding. We want to deal with the facts and the information and then I think those facts and that information will speak for themselves.

[9.01 am]

BOYER, Mrs Gillian, Private capacity

SCHOEN, Miss Hazel, Private capacity

WICKS, Mr Gregory Graham, Private capacity

CHAIR—Welcome. If you would like to make an opening statement we would be delighted to hear it and then we will go to questions.

Mr Wicks—I have been running a successful fencing business in the area for longer than I care to remember. The announcement of the proposed dam caused the cancellation of all the contracts I had. I was about to start one of these and had bought the materials when the announcement was made, hence no work and no money. Then the first map was released showing our property was to be affected by the dam. So then, I would have no work, no money and no property. In the way this whole proposal was handled another map appeared and our property is just out of the proposed water level but we are only one of many affected both financially and mentally by the arrogance of Peter Beattie and his bureaucrats.

Miss Schoen—I am Greg Wicks's partner and partner in the fencing contract business.

Mrs Boyer—I run a small but successful dexter stud in Kandanga. I have lived there for 12 or 13 years and the first phase of the dam is affecting me. I have so far been offered so little money that I could not possibly get another place to run my farm so I am in a position of probably having to leave the area eventually. I am here to say whatever it is that I was brought here to say.

CHAIR—Witnesses need to know that we are not here to bite you or give you a hard time; we are here to listen patiently to your concerns. The committee has a splendid record over many years of dealing with the facts and not playing the politics. Obviously, there are a lot of people who for all sorts of reasons have concerns about the dam. At the same time, it has to be recognised that, over many years, south-eastern Queensland has developed because it is a great place to come and live. It is probably obvious now—and it is easy to be wise after the event—that over many years not enough thought was given to infrastructure contributions. We continue to build, develop and pump people in. Obviously, they have to be fed and watered. We are here to investigate in a very calm, careful and fair way everyone's concerns, including those of the government.

Senator IAN MACDONALD—Mr Wicks, have you been offered any compensation arrangements as a businessman not directly impacted by the water? You are a property owner and you are going to have compensation there, but what about in relation to your business? Have any arrangements been made?

Mr Wicks—Yes, we have been offered compensation. Originally I was offered some labouring jobs by the state government, which would have meant travelling over 100 kilometres

a day to get to those labouring jobs, so I did not really want to accept them. Then we went ahead with the business exit plan and we are negotiating at present with the business exit man.

Senator IAN MACDONALD—Is that negotiation going as you would hope? Do you have legal advice to assist you?

Mr Wicks—It is in the hands of my solicitor now.

Senator IAN MACDONALD—Is that in relation to your business as well as your property?

Mr Wicks—Just the business.

Senator IAN MACDONALD—What is happening with the property?

Mr Wicks—At this stage we are not affected by the dam—unless it floods.

Senator IAN MACDONALD—And what about stage 2?

Mr Wicks—No. We are one of the first properties above the stage 2 level.

Senator IAN MACDONALD—Okay. I ask the same question of Mrs Boyer. What is your experience with the compensation negotiations?

Mrs Boyer—I have had one offer from them for my property. I have 40 acres and I am running 35 breeders at the moment with two bulls and about 20 calves.

CHAIR—They must be lazy bulls if you need two!

Mrs Boyer—It is to do with the blood lines—it is a stud. It is a particular crossing of particular blood lines. One is a young bull; the other is an old one. I feel that I am here to represent the over-70s who, I think, have been given a very rough deal by the government. I have been messed around for 12 months and I know of other people who have had the same sort of treatment. We have even had absolutely rude and unkind treatment like: ‘Don’t you think it’s time you went and signed into an old folks home?’ Most of us are very active people and have no intention at the moment of ending up in a nursing home.

CHAIR—The Prime Minister is on your side.

Senator IAN MACDONALD—I would not have thought that you would be able to speak for the over-70s.

Mrs Boyer—Thank you. I am feeling very old at the moment because of blundering around this whole complex, not knowing where I was supposed to be. But, now I do. When I first came here I was 59 and I can tell you that there is a lot of difference between being 59 and 72, which I now am. I have suffered at the hands of the water people. Initially—and I mentioned this in my submission—we were more or less scared into selling or putting up our properties for sale to the government. We were told that if we did not come to some agreement by the time they started to build the dam, we would get nothing. We would just be resumed and we could take whatever

tiny bit they would offer us. In your 70s, you have not got time to reorganise yourself to move to other areas, make new friends and things like that. We have not got the time, so quite a few of us thought, 'Let's go while we're still young enough to resettle.' One of the hardest things for the over-70s is they have not got time to resettle into homes, make friends and join other communities.

Senator IAN MACDONALD—Have you been offered any sort of counselling by the government?

Mrs Boyer—Yes. There is a man called Ken down at the one-stop thing—I think he got sick of seeing me actually. Every time I could not handle things I would roar down there; I only live five minutes away from his office in the main street. He would make me endless cups of tea and stuff while I sobbed and cried, but I was not alone in that. I represent all the other people in my age group. It is not just me who is sad and sorry and full of angst and everything; it was jolly nearly everybody and not only women. There are men in their 40s, who I have spoken to down at our anti-dam office, who have said to me that their heads are permanently full of all the worry, the differences, the yeas and the noes and what is going to happen 24 hours a day. The effect it has had on people is quite amazing, but I think the government and Mr Beattie do not realise that we are not talking about houses, bricks and dirt; we are talking about homes, and there is an enormous difference between the two. When you rip a home away from people, you are ripping out half their soul. I know I am sounding a bit dramatic but that is how I feel.

CHAIR—We have only got half an hour—

Mrs Boyer—Sorry: I can talk for hours on this subject, so shut me up.

CHAIR—so we will have to share this around if we can. Before we move to Senator Siewert, is there a price at which you would say: 'Heavens! That was a good deal'?

Mrs Boyer—I have researched properties. None of them have got exactly what I have now.

CHAIR—But do you have a price at which you would be happy?

Mrs Boyer—Yes. I have researched possible prices and I have not found anything that even matches my place that is under \$750,000 to \$800,000.

CHAIR—In any event, you said that if you did not step up to the line you would only be paid a small resumption fee. At the finish you say that you would like enough money to relocate in a way that you would like. Would that be fair enough if it came along?

Mrs Boyer—Yes. But I have not had it so far and it has offered—

CHAIR—That is all right.

Senator SIEWERT—I will pick up where Senator Heffernan left off. In what order of magnitude is the difference between what you have been offered and what you require to satisfactorily move?

Mrs Boyer—I have been offered somewhere in the region of \$450,000. I can tell you, around Gympie, you cannot find a farm like mine for that price. I have had agents taking me around and the ones I have looked at are all \$700,000-plus; more towards \$780,000 than \$720,000. None of them have got everything that I want to replace my property.

Senator SIEWERT—I presume you have told the government this in negotiations. What is their response?

Mrs Boyer—Over and over again. They have sent another valuer, who has just been. I contacted a Mr Herd the other day to tell him that I did not want to wait six months this time. Last time I waited six months before they sent me a proposition. In the meantime, possible properties passed me and I missed out on them. I spoke to Mr Herd on Saturday and asked him would he please get it moving—thanks to Senator Macdonald who thinks I am a bit younger than 70; I feel younger than 70 at the moment—because it is a good time, if I have to make a new start, to do it now.

Senator SIEWERT—Are you aware of your experience being reflected in that of others?

Mrs Boyer—Very much so. Only the other day, I heard about a lady who had to speak to the water people to stop harassing her mother. The lady herself was not in the dam area but her elderly mother, who I believe was in her 80s, was. They had been harassing her so much that she was about to have a complete breakdown. This lady had to speak to somebody in the water business to tell them to leave her mother alone, because she was worried that she would collapse.

CHAIR—I have had a bit to do with this in the town that I live in. With compensation, there is more than just the valuation of the property; there is stress, relocation, broken hearts and all the rest of it. All of that has to be part of a compensation package. But at the right price, you could turn adversity into opportunity. I have seen it done. You could say, ‘Wow! That was a bloody good deal.’

Mrs Boyer—I don’t think I would, because I love where I live.

CHAIR—That is fair enough.

Mrs Boyer—I don’t really want to go. But if I have to go, I am not going to change my life for the sake of people who want to wash their cars, quite frankly.

CHAIR—We’re not going to argue with you on that. Senator Trood?

Senator TROOD—Miss Schoen and Mr Wicks, you said in your evidence that you had in the vicinity of \$130,000 of forward orders for your business at the time the announcement was made and that these were cancelled almost immediately. Is that right?

Mr Wicks—Yes.

Senator TROOD—What explanations were provided for these cancellations?

Mr Wicks—All the property is going to be underwater if the dam goes ahead, so there is no longer any point in people spending the money they were going to spend on improving their properties.

Senator TROOD—So pretty well everybody said this was about the dam?

Mr Wicks—That is right.

Senator TROOD—Have you received any orders since then? Has there been any willingness—

Mr Wicks—From those properties, no.

Senator TROOD—Anybody else? Are people building fences around the place at the moment?

Mr Wicks—Yes. I built a big set of cattle yards, but they are all steel. I don't normally do steel cattleyards. I was forced to employ a boilermaker and three other employees to do the job.

Senator TROOD—Is your experience unusual or is it typical of the kind of reaction that the announcement has had in the community?

Mr Wicks—I would say it is a typical reaction, yes.

Senator TROOD—Can you give us any examples? I realise you are in a particular business and you don't know the details of people's financial circumstances but can you give us a feel for the kind of impact that it may have?

Mr Wicks—Generally, I know everybody is very upset about the whole thing. There are the fuel distributors, saleyards—the whole infrastructure of the valley is going to be affected by this. I am basically out of business in the valley itself. As the dam gets further advanced, the same thing will happen to everybody in the valley.

Senator TROOD—The Queensland government in its submission makes the point that there will be economic opportunity if the dam is built—that there may be lost economic opportunities now, and perhaps particularly in fencing, but other opportunities will emerge during the course of the building of the dam and perhaps later on. What is your reaction to that proposition? Can you give us some sense of the general community view of that?

Mr Wicks—I have been trying very hard to think of something that might come from the dam that would improve everything, and I can't. Once the dam is built, where are all the advantages? Where are all the jobs coming from? Everybody I have spoken to is of the same opinion: once the dam is built, that's it.

Senator TROOD—What about during the construction phase of the dam?

Mr Wicks—Naturally, there will be people employed during the construction phase of the dam, yes.

Senator TROOD—Would that be of any particular assistance to you, in your business?

Mr Wicks—No. How long is this doing to drag on for, anyway?

Senator TROOD—That is a good question. Miss Schoen, do you have any particular experiences of people talking about these economic impacts?

Miss Schoen—It is pretty hard to see your partner's business—and we have had a comfortable living for the last 20 years—just totally destroyed overnight because of a political stance that a dam has to be built basically for Brisbane residents. The Sunshine Coast has plenty of water. They have just humiliated whole communities—not just businesses but whole communities.

CHAIR—Have you worked out in your own mind what would be adequate compensation, if it is inevitable?

Miss Schoen—We are actually not getting compensated by the government.

Mr Wicks—They did an independent value of the business and they want to buy the business for what it was valued at after the announcement of the dam. There is no compensation for loss of work or anything of that nature.

CHAIR—But have you worked out what you would like?

Mr Wicks—Yes.

Senator JOYCE—I want to ask you three questions. Some would say that you are just anti dam, that you just do not want a dam at all, and that if it was not in your backyard you would not have a problem with it. Do you know of any other sites in your backyard—in the area—that would be an alternative?

Mr Wicks—Borumba Dam.

Senator JOYCE—Can you tell us about that through your knowledge of it?

Mr Wicks—My understanding is that the state government already owns most of the land up there. To take water from Borumba all you have to do is take it across Jimna and straightaway you are running it down towards Brisbane. There is no major work involved in it other than building a new wall or raising the wall.

Senator JOYCE—And Borumba Dam is in the area?

Mr Wicks—That is right, yes. As far as filling it when it is low, there is no reason why you cannot pump water from the Mary when it is in flood up there.

Senator JOYCE—You were talking before about your experience of the negotiations with the state government. You have all had a bit of experience in life. Have you ever had an experience

at any time in your life previously where people have treated you in the way they did during the negotiations for the forced acquisition of your land and your business?

Mr Wicks—No bloody way.

Senator JOYCE—So this is a unique experience in your life with respect to how you have been dealt with personally?

Mr Wicks—Yes, and one I will not have again.

Senator JOYCE—You talked about the discrepancy between valuations. I noted your accountant's valuation of your business and what you have been offered. Has any correspondence been entered into as to why they will not look at a reasonable valuation that takes into account your forward cashflows which were obviously present at the time this proposed dam was announced?

Mr Wicks—No.

Senator JOYCE—Finally, you talk about not only the financial but the mental consequences—the psychological consequences, for want of a better term. Can you give me an example in your case, Greg and Hazel—because I have already heard Gillian's—about how it has affected you, and do you think that experience is typical for other people in similar businesses?

Mr Wicks—It is definitely typical, yes. Ken at Lifeline has been very good to us. He has helped a lot. For me to see Hazel in tears over it makes me pretty angry.

Miss Schoen—When the dam was announced, it was only landowners directly affected who were going to have their land purchased by the government and be compensated by the government. No business was going to get any compensation whatsoever. It was not until we rallied and wrote letters that it was legislated in parliament in November last year that they were going to give some sort of compensation to businesses. This is from corner stores to milk bars to takeaway shops to people who do the service industry in the valley. We put in our application in early December and we did not hear from the government until the middle of January whether we would be accepted for an exit plan or assistance plan. So businesses were not even thought of by the government.

Senator JOYCE—How do you plan for a future when you have no idea about what you are going to get?

Miss Schoen—It is very difficult to plan anything at the moment, the way it is.

Senator JOYCE—So your future has been compromised?

Miss Schoen—Yes, very much so.

Senator JOYCE—Thank you very much, Miss Schoen.

Senator TROOD—Can I ask a question? The legislation was brought down in November. How much time did it take before you heard that there was going to be a business compensation package?

Miss Schoen—Early December.

Senator TROOD—That is in relation to your business?

Miss Schoen—Yes.

Senator TROOD—But, generally, how long was it before there was a decision from the state government about—

Miss Schoen—The dam was announced on 27 April—right?

Senator TROOD—So how much time did it take?

Miss Schoen—We wrote them a letter on 22 June telling them of the circumstances our business was in. We did not get an answer from them until the following month that they were looking into it. Then it was legislated in cabinet in November. It was the middle of December when we put our application in for an exit plan. That had to go to a committee, and it followed through from there. We are now at a stage where we have done a valuation on our business, the government has done a valuation of their business, and we are that far apart it is not funny. So it is now negotiation time. They have ruined our business, totally.

Senator TROOD—So they have ruined your life.

Miss Schoen—Yes.

Senator SIEWERT—Mr Wicks, you mentioned where your property is. If I heard you right, you said it is not affected by stage 1 or stage 2 but it is by potential floods.

Mr Wicks—That is right; yes.

Senator SIEWERT—We heard yesterday of a concept called the water storage easement which, as I understand it, is put over a property where they think they might want to store water. Has one of those been placed on your property or any that you are aware of around you?

Mr Wicks—I do not think they know where to put them. I really do not know.

Senator SIEWERT—Does your comment that you do not know if they know where to put them mean that you think that they have not planned that or—

CHAIR—A better question might be: do you know what a water storage easement is?

Mr Wicks—No; not at all.

Mrs Boyer—No.

Senator SIEWERT—So in respect of planning, you think that they do not know where some of those flood lines are going to be?

Mr Wicks—I am sure they do not know.

Miss Schoen—They do not know. With respect to the amount of water that comes down, when we get heaps of rain at the back of the Obi Obi and at Conondale, which is then going to hit that dam water, where is it going to go? Back out over the flood plains again? Who builds a dam in the middle of an alluvial flood plain? No farmer would, but the government is planning to.

CHAIR—Thank you very much .

Mrs Boyer—Could I add something?

CHAIR—Yes, you may.

Mrs Boyer—There is a young man of 30, who I have known since he was a teenager. He is a contractor doing farm things. I had a dead cow on my front lawn yesterday and I called him to come and bury it. He has all the machinery. He was telling me that, in the last 12 months, he has lost \$150,000 worth of business. He is a young man I usually use for slashing and fertilising. I have not used him in the last 12 months because of the dam. He said that, with respect to the number of people that he just has not had the work from now, it represents \$150,000 in this first year.

You were talking about relocating your business, but that young man has an enormous amount of money to be paying off on his heavy machinery, which is now just sitting and doing nothing. He may not even be able to last the course to restart because he may have to abandon the whole thing and clear his debts. Goodness knows what will happen to him. It is really affecting all those sorts of people very badly.

CHAIR—Thank you very much. We have a pretty tight schedule. I do not want to be seen to be hurrying people along.

[9.29 am]

BURGESS, Mr Stephen John, Research Officer, Save the Mary River Coordinating Group

INGERSOLE, Mr Kevin John, Chairman, Save the Mary River Coordinating Group

PICKERSGILL, Ms Glenda, Environmental Section, Save the Mary River Coordinating Group

SHERIDAN, Mr Alan John, Secretary, Save the Mary River Coordinating Group

CHAIR—I think it would be fair to say that because we do not want to turn this into a media event—though some people might want to—I promised the cameras could stay here for enough time to get some footage. I think that time has now passed, so I would like the cameras to pack up and leave.

Interjector—Senator Heffernan, the people in this room want the media to stay here so that the rest of this state can hear exactly what is going on. I am not just speaking for myself; I am speaking for the people in this room. People have waited months for this to happen.

CHAIR—Thank you very much for those comments. I have asked the cameras to leave, thanks very much.

Interjector—No, they should be allowed to stay.

CHAIR—Excuse me! I am the chair and we are running this committee. I welcome representatives of the Save the Mary River Coordinating Group. Do you have any comments to make about the capacity in which you appear?

Mr Sheridan—I am a professional engineer with about 30 years experience in the water industry and I am here representing the group.

Ms Pickersgill—I am a landholder within the stage 1 proposed area. I am a long-term landholder—we have had our land for 30 years. I am a second-generation grazier. I have also had 18 years experience in environmental management in the mining industry. I am here to represent the environmental section of the Save the Mary River Coordinating Group.

Mr Burgess—I am a landholder in the Mary Valley. I have been working with the research group of the Save the Mary River Coordinating Group since the dam announcement. My background is in agricultural science. I would like to take the opportunity to make an initial opening statement.

CHAIR—Thank you. Please go ahead.

Mr Burgess—There is going to be a lot heard about the social impact of this proposal and there is going to be a lot heard from very eminent people, I am sure, about the economic

inappropriateness of this proposal. We are the Save the Mary River Coordinating Group, so I would like to make statement about the state of the river and, if you like, speak for the river and for the people and the country that it supports.

At the moment the Mary River is not flowing to the sea. The water level is about half a metre below the crest of the barrage, which is the limit of the definition of the stream on the main trunk of the Mary. This is not unusual. Over the last five years the Mary River has not flowed over the barrage for about a quarter of that time. In those five years the water quality in the river has not met the Queensland water quality guidelines for things like salinity in particular but also dissolved oxygen. In that time there have been insecure water allocations for town water supplies. For example, the town of Tiaro has been very worried about its town water supplies recently, and irrigators also have not been able to receive their resource security from the river.

At that barrage, according to the government's figures, we are receiving 93 per cent of the pre-development, long-term average flows. If, to use Senator Heffernan's term, we wake up the sleepers and dozers—the people who might have water allocations out of the river but are not currently using them—the figure at the barrage, from the government's own work for the water resource plan, falls to 90 per cent. So we are saying that if we wake up those people and use all the allocations out of the river, the flows at the barrage are going to be 90 per cent of the pre-development state.

That situation does not exist, but the government has modelled it intimately. It has done a lot of excellent work on looking at impacts on the river. SunWater, the river operator, wrote to DNR and said, 'If that situation occurred, we could not meet the environmental flow objectives in the draft water resource plan.' I have that correspondence here and I am prepared to table it. It is also referred to in the consultation report on the water resource plan. Also, in that situation, the government's own report shows that it cannot provide water resource security for irrigators or town water supply. I have the figures here from the government's reports which show the times when it cannot provide the security either for high priority town water supplies or for medium priority irrigation supplies.

Senator IAN MACDONALD—Is this pre-dam or post-dam?

Mr Burgess—This is still pre-dam. We will believe the government's figure. They say that they will only reduce flows at the estuary to 85 per cent of the pre-development flows. That is the figure they are pushing. They are saying, 'This is going to be beaut and it is not going to impact on the river.' If you reduce flows at the estuary to 85 per cent by putting a dam on the main stream of the river, you reduce flows at the barrage to about 80 per cent. At the moment we are about seven per cent below the pre-development state and already the river is in trouble and irrigation supply is tricky. We are talking about three times the water removal from the system at that end if the dam goes ahead. The government is expecting us to swallow that that is not going to have an effect on the communities on the river or in the valley or on the environmental flows.

I can go through all of these figures. We have asked to go through these figures repeatedly with the proponents. We have invited the state government to forums and they have not attended. So, just in terms of the impact on the river, we think it will have an extraordinary cost to the people and the communities, particularly downstream of the dam. This is in addition to the obvious impacts on people on the dam and also upstream of the dam, because their land use is

going to be impacted by the fact that they are in a catchment. So it affects communities for hundreds of kilometres, from way upstream in Kenilworth right down to the Great Sandy Straits.

Given that it is going to have these impacts, we look at the government's economic justification for it and they still bring forward the GHD preliminary desktop study as their major justification. Even to the Senate, it is their major economic justification for the dam. I have handed out some information. If you take the figures that they use there, the yield figures—and you can check them; I have put them in my submission—bear no resemblance to the yield figures of the current proposal that they have put to the federal government for approval. Also, the cost figures bear no relation to the costs which they have put for approval under the EPBC Act.

If you put the actual yield figures and the cost figures that they have put to the federal government together with all of the water resource options that they looked at in the GHD report—I have produced that for you in a graph which you have there—you will see that the Traveston Crossing proposal is by a large margin the most economically inappropriate proposal of all of the dam and weir options that they looked at. It is the last of all of the ones in the consideration of—

Senator IAN MACDONALD—Do they agree with your figures and what you have here?

Mr Burgess—We get very poor feedback from the government when we talk to them. I will qualify that. We have had very good communication with some of the hydrologists in NRW. We have had very poor communication with QWIPL. So the scientists we think are doing a very good job and they are very professional. But the people in QWIPL—

Mr Ingersole—Queensland Water Infrastructure.

Mr Burgess—Yes, sorry.

CHAIR—Is this the opening statement still?

Mr Burgess—I am finished now, so you can ask questions.

CHAIR—Would other people like to add to that?

Mr Ingersole—We are here really to answer senators' questions.

CHAIR—Could you tell the committee what the mean annual run-off of the Mary River catchment is?

Mr Burgess—In millimetres?

CHAIR—No, in megalitres.

Mr Burgess—Yes, I have those figures.

CHAIR—Perhaps you could table them.

Mr Burgess—Yes, I can table all of those figures from the water resource plan technical report.

CHAIR—Do you also have the rainfall graph for the catchment?

Mr Burgess—Yes.

CHAIR—One of the things that is quite apparent is that some parts of the catchment have much higher rainfall than other parts. Some of the proposed sub-dams in the sub-catchments are in much lower rainfall country.

Mr Burgess—Yes, that is right. I have included a map of the catchment in some of the material I have provided. There is a map of the catchment, which comes from the water resource plan, and I have included an excerpt from the water resource plan.

CHAIR—Do you have the figures on the licences that have been issued? My understanding is that something like seven or eight per cent of the run-off is tied up in entitlements—farming and others.

Mr Burgess—It depends on where you look at it, because there are entitlements all the way. If you look at the end of the main trunk of the Mary River, seven per cent of the total water going down the river has been taken out. But that is not just entitlements; that is unregulated water as well. Off the top of my head, water entitlements total about 67 gegalitres, but there is also all the unregulated stuff.

CHAIR—And stage 1 is destined to take five per cent back the other way?

Mr Burgess—If you look at their modelling, they have not specifically given us stage 1 and stage 2.

CHAIR—I will put it to you in different language. As I understand it, stage 1 will divert 70 gegalitres and stage 2 will bring that up to roughly 100 or 110 gegalitres.

Mr Burgess—Yes, about 110 gegalitres. If they do that with raising Borumba, they are talking about taking 150 gegalitres out of the river a year. They are pretty set on taking that whole strategic reserve out of the river. Combined with the raising of Borumba and stage 2, they have taken 150 gegalitres out of the river altogether. But that is only the yield they take out and send to Brisbane. There are losses on top of that. There are evaporation and seepage losses from the dam, so the total losses from the dam are going to be a lot more than that.

Senator BOSWELL—Mr Burgess, you said you have a letter. Has that been tabled?

Mr Sheridan—Yes. It is also in the submission from Noosa council.

Senator BOSWELL—Yesterday I was down at the mouth of the Mary River. The main channel going into the straits, which, I might mention, used to take warships down to the straits, was about one metre deep; you could walk across it at low tide. In your opinion, what would be the impact of a Traveston Dam on the channel going into the straits?

Mr Burgess—The low-flow situation where the river flows into the straits is already pretty bad, so you could not make it much worse by putting the dam in. The main impact is on any of the small flushing flows which come through every two years and give the river a bit of a rinse and clean it up. These are the flows this dam has to take to get its economic yield. It is going to clean those flows out of the river and that will be the main effect it will have on the river all the way downstream—200 kilometres downstream from the dam and all the way out to the Great Sandy Straits. It is those flows which the dam has to harvest to get its yield. All the government's figures and all the government's modelling show very clearly that that is where the dam is going to take its yield.

Senator BOSWELL—When I was down there yesterday there were some birdwatchers there. They made the point that before this dam was to go ahead the government should have found out what impact it would have on Ramsar bird communities. Are you aware of that being done?

Mr Burgess—Glenda is probably best to answer that.

Ms Pickersgill—No, I do not believe there are any environmental base studies being done down in that area. They have really focused their environmental studies back up in the proposed inundation area.

Senator BOSWELL—Is that a Ramsar area down there?

Ms Pickersgill—Yes.

Senator BOSWELL—And there are no impact studies being done on that?

Ms Pickersgill—I am not aware of any work that is being done there at the moment.

Mr Burgess—I will add to that. They do not even measure any more how much water goes past the barrage into the sea. They do not monitor that at all. There is a lot of stuff in their water resource plan saying what the flows are going to be at the river mouth. You cannot measure flows at the river mouth. It is tidal. They have never measured flows there. All that stuff is just hypothetical; it is a virtual thing. And it is not covered by the Water Act anyway. Them talking about what they are going to protect in the legislation at the river mouth is all BS because it is not covered by the Water Act 2000 at all and they cannot measure it. Any statements they make about what is going on there are just BS.

Mr Ingersole—The Water Act finishes at the barrage, doesn't it?

Mr Burgess—The scope of the water is covered by the water resource plan. It goes as far as the Mary River barrage. That is very, very clear if you read the legal definitions in the Water Act.

CHAIR—Have you provided to the committee the issued licences?

Mr Burgess—No. You could get them from SunWater. I imagine that the state government would have done that.

CHAIR—In the ROP, the operating plan, have you given thought to the waking up of the dozers and sleepers and the impact of full water trading up and down the system?

Mr Burgess—If people start selling that water to someone who is going to use it then it is going to bring it down to 90 per cent of current flows at the barrage. SunWater submitted to the state government that in that situation they could not meet environmental flow objectives.

CHAIR—So at the present time the licences, unlike in New South Wales, are tied to the land.

Mr Burgess—That is right.

CHAIR—And we have a full trading market in New South Wales which is coming to Queensland in due course. One way which would be just as controversial as what is being pulled on here to put some water back into the system if they wanted to send some water another way would be to close down all the sleepers and dozers.

Mr Burgess—Yes, they could do that.

CHAIR—Do you know what proportion of the licences are sleepers and dozers?

Mr Burgess—Not off the top of my head. I could look that up from the documents I have.

CHAIR—That would be helpful to the committee.

Senator IAN MACDONALD—Ms Pickersgill, if this dam does go ahead, it requires approval under the Environment Protection and Biodiversity Conservation Act—which is a federal act, as you know—and conditions would be placed on any prospective future action. Do you have any confidence that any conditions imposed would actually be honoured by the state government and do you have any reasons for whatever your opinion might be?

Ms Pickersgill—I will answer first and then Kevin can add a few comments. We have grave concerns about them being able to meet the commitments of mitigation that could be proposed here. I will highlight three examples. One would be the example of Paradise Dam being used as a model for the fish passage. We are aware that they are not meeting the EPBC requirements there and would encourage that there be an environmental compliance audit on the meeting of their requirements. There are a number of issues that we are aware they are not meeting. There are environmental offsets. The plantings have died, there is certainly not any confidence in mitigating the risks with the fish passage for the lungfish and the turtle hatchery is not functioning as was planned. There are the costs associated with all of that.

Mr Ingersole—In summary, the conditions of consent that were provided to the Queensland government by the federal government on the EPBC Act have basically been ignored.

Ms Pickersgill—The other thing that concerns us there is that the CEO and a number of the directors of the proponent, Queensland Water Infrastructure, were directly associated with Paradise Dam.

Senator IAN MACDONALD—With regard to the Ramsar site, the state government must have some obligations under the Ramsar arrangements. Are you familiar with them? I see that Senator Siewert is.

Senator SIEWERT—Yes, I do know about Ramsar.

Senator IAN MACDONALD—So do we all, but I am just wondering why the Queensland government is not doing something about possible impacts on Ramsar values.

CHAIR—I think the answer is that the full responsibility for Ramsar and the EPBC is a Commonwealth process. I have some questions for the state government in Brisbane along those lines, which are technical.

Senator IAN MACDONALD—That is quite appropriate, Chair. One of you mentioned seepage out of the dam. What do you mean by that? What do you anticipate the seepage might be and how does the seepage occur?

Mr Burgess—Alan will take that question; he is the engineer.

Mr Sheridan—Very early in the process Associate Professor David Williams, from the University of Queensland, who is the individual whom I believe SunWater uses to do their assessments of seepage and evaporation losses from water storages and who is very well respected in that field, publicly advised that the level of seepage from the proposed Traveston Dam, because it is on an alluvial flood plain, could be anywhere between 0.3 and three metres in depth per year. If the evaporation losses in that area are 1.4 metres and the dam is an average depth of five metres, it does not take much of a rocket scientist to work out that there is a very big risk for a shallow dam in this location.

Senator IAN MACDONALD—Yesterday, when you were taking us around—for which I thank you—you were talking about some geological faults in the area. Does that have an impact on what gets out of the dam?

Mr Ingersole—Very much so.

Mr Burgess—It could have a huge impact on how much actually seeps out into other areas, but we have seen no evidence that the government have investigated this impact and we have seen no evidence that they have investigated risks of seepage anywhere else other than at the dam wall site itself.

Senator SIEWERT—I would like to touch on the fish lift and the ladder. It was raised yesterday, and Paradise Dam was used as an example of how effectively it works. Can you give me your opinion on the ladder?

Mr Sheridan—It does not work.

Senator SIEWERT—Could explain why you do not think it works?

Mr Sheridan—I can raise in evidence a study undertaken by the department of primary industries at Walla Weir, on the Burnett River, in 2002 where they electronically tagged 1,285 lungfish to ascertain how effectively that fish lift worked. They monitored it 24 hours a day for 12 months, and in that period of time seven lungfish successfully navigated the fish lift at Walla Weir. We are aware that Paradise Dam was constructed to provide water and it is almost empty, and because of very low water volumes and the unreliability of the equipment we are not aware that the fish lift in that location has actually operated effectively at all. We would be very interested to find out if the government has some information that contradicts that.

Senator SIEWERT—My understanding of the lift is that it is a series of big buckets that go up and take the fish over to the other side. What about fish that want to go back up?

Mr Sheridan—There are a couple of things about providing the fish lift. The lungfish, for example, will live in impoundments but it will not breed. The riffles which it uses to spawn do not exist in dam impoundments, so somehow the lungfish has to get up the dam wall and then right up to the headwaters of the river to find a place which is natural for it to breed again. It just does not happen because this creates a huge barrier.

A lot of these creatures go back to the things they remember and when the dam is there all those places are destroyed, so it does not remember any of those things. Look at what has happened in a lot of other rivers. The Stanley River in Brisbane, which was dammed for the Wivenhoe Dam, is one example. There were fish species that grew bigger and bigger because they did not migrate up and down the river anymore and they eventually died out. We feel that for a number of species in the river this is going to be the eventual result of the proposed Traveston Dam.

Senator SIEWERT—Are you aware if there has been independent analysis of the lift at the Paradise Dam?

Mr Ingersole—I am not aware of it.

Senator SIEWERT—It has been irregular in operation and they have not been able to do any replicate analysis or find scientific evidence to say that it performs at all well.

Mr Burgess—I think there have been some statements recorded in the *Hansard* of the Queensland parliament—I cannot quote exactly; you would have to look them up—to the effect that they are not happy with the way the fish lift is working and that there has not been enough water for them even to test whether it works.

Mr Ingersole—We have some clarification on that.

Ms Pickersgill—Yes, to give some clarification on that, Andrew Berghuis is a fisheries biologist. He was actually the person responsible for monitoring fishways.

CHAIR—Do you have something that you would like to table for the committee?

Senator SIEWERT—It is an email.

Ms Pickersgill—Yes, we can table that.

Senator SIEWERT—Could I ask about weeds?

CHAIR—You had better be quick because the people down the other end are getting a faraway look on their faces.

Senator SIEWERT—Yesterday we saw quite a bit of weed in various locations. My understanding, both from your submission and from what you were saying yesterday, is that you are deeply concerned that weed is going to be a significant issue with the dam. Could you briefly outline your concerns and say how the dam will exacerbate that problem.

Ms Pickersgill—We have someone, Phil Moran, who is going to speak to that a little later.

Mr Ingersole—He is an aquatic weed specialist.

Senator SIEWERT—Then I will save that question for then.

Senator BARTLETT—A lot of the recommendations in your submission understandably are asking the committee to ask the state government to do various things, which I am sure we can look at trying to do, one step removed, but I note recommendation 13, which is seeking an EPBC Act compliance audit of the Paradise Dam. Every catchment and every dam is different, of course, but this does give some opportunity for assessing impacts after the fact and monitoring compliance with mitigation requirements after the fact. Have you asked for that to be done at federal level, that being something that the federal government can respond to? Are you aware of what has been done to date?

Mr Ingersole—We have not made that request. We included that in the submission because that is a request. If what we did was not appropriate then we are quite happy to go directly to DEW in Canberra and make that request formally.

Senator BARTLETT—It is totally appropriate. Because it is about a federal matter, it is probably even more appropriate than all the other things.

Mr Ingersole—Is that the course of action we should follow?

Senator BARTLETT—I was just asking that to see what response you had had. It is not a problem. It is totally appropriate to put it here. You may want to emphasise it directly yourself, but it—

Senator IAN MACDONALD—The committee might recommend that that is done.

Senator BARTLETT—Yes. As that is something that is directly for the federal government, it is something that we have even more direct opportunity for, should the committee wish to reinforce and pick up your recommendation. I was just wondering whether you had taken any action on it. Linking on from that—because it obviously goes to a federal level and it is the EPBC that provides the correct federal leverage—do you have any data on the promises for the Paradise Dam with regard to water yield and the like compared to the reality? Do you have any

data on the promises or reassurances about environmental impacts—whether it is on lungfish or other things—that we could see?

Mr Ingersole—No, we do not have the data. Our point would be that the conditions of consent for Paradise Dam were quite clear. From site inspections and discussions with local people, it is also quite clear that those conditions of consent have not been met. Our point is that the government and the people who hold major management positions in the building of this proposed dam are the same people who were involved in the Paradise Dam. So we are actually questioning whether they are the appropriate people to take this project forward if it were to receive approval.

Senator BARTLETT—The other part about that is that it did receive the go-ahead. It was assessed under the EPBC and was approved with conditions, so there is that federal level of responsibility as well. Regardless of the individuals behind it, it was a government approval at state and federal level and one that, from memory, was not a political-partisan one. I think both major parties supported that one. Everybody enthusiastically embraced that particular dam. Could you point us to any other data or perhaps provide any other data about what has happened after the fact compared to the promises beforehand?

Mr Burgess—It is not scientific data. We are not privy to collecting scientific data on the Burnett. If you just want to have some idea, there are plenty of good photo essays about the Paradise Dam. You could look at those. There is a photo essay on a website. I do not think I should advertise websites here, but I can give you the reference. There is an excellent photo essay on Paradise Dam so that everyone can see what it is like now. You can compare that with the glossy artist impressions that the state government put around beforehand when they were trying to talk everyone into believing what a good idea the Paradise Dam was. It is probably fairly similar to the ones that the state government has been showing people about the Traveston Crossing dam. We have seen the glossy presentations and the reality, and the picture paints a thousand words.

Senator BARTLETT—The lungfish is one of the species affected at the dam?

Mr Burgess—Yes. The crucial thing is that there are two major breeding habitats for the lungfish on the planet: the Burnett River and the Mary River. To put it bluntly, the Burnett is already stuffed for the lungfish. It would be an awful shame to see that happen to the Mary.

Ms Pickersgill—To put a figure around that, if the Traveston Crossing dam were to go ahead, there would be a loss of more than 80 per cent of the lungfish spawning grounds—that is, its breeding grounds.

Senator JOYCE—Because this inquiry is about the whole of south-east Queensland, I just want to go through a couple of things to do some comparative analysis. The costing that the government puts on building the dam is about \$1.7 billion. Is that about right?

Mr Sheridan—That is for stage 1.

Senator JOYCE—And about \$900 million in piping on top of that?

Mr Sheridan—Yes—on top of that.

Senator JOYCE—How many kilometres of roads do they have to move—about 30 kilometres of roads?

Mr Sheridan—I do not know off the top of my head.

Mr Ingersole—I do not think that has all been worked out yet.

Mr Burgess—We have never seen a breakdown of any of the costings. We have asked for them but we have never seen a breakdown of the costings.

Senator JOYCE—We are building about seven kilometres for \$2.3 billion in Brisbane. If we say there are 30 kilometres, with all the resumptons and everything it would be about \$2½ billion. That would be a project for about \$5 billion for 150,000 megalitres. That is \$1 billion for 30,000 megalitres of water storage. Do you know of anywhere else where it would cost that sort of money to put in 30,000 megalitres of storage?

Mr Ingersole—Nobody would do that.

Senator JOYCE—Do you know of anywhere on the planet? If it is \$1 billion for 30,000 megs, surely that would start to exacerbate this graph. It would go from the worst option to the worst option by a magnitude of 10.

Mr Ingersole—We have been very careful to use facts and data that are available on the public record, since we have not been able to get that information from the Queensland government. The graph you have in front of you shows that, originally, the forecast was around \$3,500, roughly, a megalitre from Traveston Crossing dam; it is now roughly \$24½ thousand a megalitre, a factor of seven in error. This is using the government's data. Your point is very valid. If you were to look at the probabilities of those sorts of numbers being right, we would need an A3 page to put it on.

Senator JOYCE—I am using the government's numbers so far. Let us talk about \$1 billion for 30,000 megs of water and then look at what we have. How much do you say is lost by seepage—about 1.3 metres, do you think?

Mr Burgess—I do not think anyone has done a seepage estimate at that site. The government uses a foot a year—in nice, round figures—for its seepage estimates.

Senator JOYCE—A foot or a metre?

Mr Ingersole—A millimetre a day.

Mr Burgess—They use a foot a year—300 millimetres a year—in their modelling of the yields they have done for it.

Senator JOYCE—From your knowledge, what do they base that seepage on? Where is the data for that?

Mr Burgess—When I asked that question of the hydrologists doing the modelling, they said that that is the general figure they use throughout south-east Queensland. I said, ‘Did you take any specific account of that specific site?’ They said no, and I asked whether they had any reason to suggest that that site would be different from any other site.

Senator JOYCE—So this is not the baseline for alluvial flood plains. If they were to put it into Borumba Dam would they also come up with the same number?

Mr Burgess—I think most of the dam modelling is somewhere in that order. We have asked them to consider high levels of seepage, and we have obviously considered high levels of seepage.

Senator JOYCE—What is your belief of what you think the seepage may be? How many metres of the subduction zone are below the footings of the dam?

Mr Burgess—We are not qualified geologists. There is a geological profile on the QWIPL website; you can have a look at that. There is in the order of 26 metres of alluvium underneath the dam site.

Senator JOYCE—How many metres?

Mr Burgess—There is in the order of 26 metres of sand and gravel.

CHAIR—Senator Joyce, can I interrupt. We are going to get a lot of the technical information from the government tomorrow.

Senator JOYCE—I will go to some other areas then.

CHAIR—You asked: where else in the globe? Some desert communities in the United States pay \$US500,000 per megalitre for their water.

Senator JOYCE—Thank goodness we do not live there.

Mr Ingersole—Dr David Williams will be presenting to the inquiry, and he will have a much more informed view of seepage.

Senator JOYCE—What happens below the dam wall once this goes through? What is the reliability of flow to the people of Gympie and Maryborough? What other towns are there—Hervey Bay, Tiaro?

Mr Ingersole—Are you talking about flows below the river bed?

Senator JOYCE—Below the dam wall—once the dam wall goes in and you have taken out the 150,000 megalitre storage, with all the seepage, evaporation and everything. It will be more than 150,000 megs, because there will be seepage and evaporation. That is all finished now. It is not as though you are going to be stopping 150,000 megs; you are going to be stopping 150,000 megs plus seepage plus evaporation, so what will the flow be to the mouth of the river?

Mr Burgess—You will have to ask the state government that question. We have tried to get the results of all that modelling, and we cannot get it. We have got some early stuff from the modelling that was done for the water resource plant. It took us an awful long time and an incredible amount of effort to get hold of that. They were very obstructionist in trying to get hold of that technical information, but we do not have any of that information on the current dam proposal. They just will not give it to us.

Senator JOYCE—Is there any reason why they would not give it to you?

Mr Burgess—I do not think they are particularly happy about what it would say.

Senator JOYCE—If you take away 80 per cent of the breeding area for the lungfish, what effect would that have? I do not know who to address this question to—maybe Alan Sheridan.

Mr Sheridan—Dr Lyndon DeVantier is giving evidence this afternoon and he is an expert on that area. He would be able to answer that question for you.

Senator JOYCE—Finally, how many megalitres are currently in sleepers and dozers in the area?

Mr Burgess—I answered that question earlier. I do not have the figures on hand now. I could look that up for you and research it.

Senator JOYCE—Would it be more than 150,000 megalitres?

Mr Burgess—I do not want to comment on it until I have the licences in front of me.

CHAIR—Senator Joyce, those are questions that we will put on notice.

Senator BOSWELL—Mr Malcolm Turnbull says it will take three per cent of the flow in the Clarence River to fulfil south-east Queensland's water needs. What percentage of the flow of the Mary River is needed for Traveston?

Mr Burgess—I talked about that in my opening statement. If we look at the important point, which is at the end of the main trunk of the Mary, because that is where this dam will take the flows from, currently we are taking seven per cent of the predevelopment flows with the current development. If all the current allocations are used, we will be taking 10 per cent. If you look at the figures from the government's reports on what is happening at the end of the river, if they say they are going to maintain 85 per cent at the river mouth then we are going to be down to taking 20 per cent of the predevelopment flows.

CHAIR—What we were told yesterday—you were not there, Senator Boswell—was that it would be 15 per cent. What Malcolm Turnbull is talking about for the Clarence—which we are going to have a look at because this committee has in its terms of reference alternative plans—is somewhere between five and 15 per cent diversions from those New South Wales northern rivers.

Mr Burgess—I will clarify that 15 per cent too. I have given you a map of the catchment. You will notice that you have a major coastal stream and two other rivers coming in before the river mouth. The most important place to look at the impact of this is at the Mary barrage, which is the end of the freshwater and the main trunk. The figures there are slightly different. I have back-calculated them to there. The government's 85 per cent figure at the river mouth equates to 80 per cent at the barrage.

Senator BOSWELL—Do those figures include seepage and evaporation?

Mr Burgess—Those figures include some very detailed dam modelling that the government did when they looked at different scenarios there, and they looked at a number of different dam options. We have seen the earlier stuff, which they released to us—anything that was used in the formulation of the water resource plan. They will not give us any of the later stuff that is specific to the current Traveston proposal.

Ms Pickersgill—I would like to add there in regard to percentages of stream flow that we have a situation in the river now where it does not meet the requirements for salinity. It has higher levels than what is acceptable under the Queensland guidelines. We already have some signals in the river saying that we have potential salinity problems. The Mary River has been already identified as a high salinity risk, particularly the location of the proposed Traveston Crossing dam. When we talk about \$1.7 billion for our project that does not include the compensation that will have to happen downstream if we turn the Mary River into the Murray.

CHAIR—For the committee's benefit, I would like to add—Senators Joyce and Boswell were not there in the flyover yesterday—that there is obviously plantation forestry in some of this catchment. One of the things we have discovered, much to the distress of everyone, is that when you put plantation forestry in the high rainfall parts of any catchment—and there is some furphy around that somehow trees help salinity—the trees actually increase salinity because of their interception of the run-off. So one of the things we will be looking at is the environmental planning that occurred with some of the plantation forestry in this area. One of the ways that you could improve the salinity flows of this system is to be much more careful with your plantation forestry.

Senator IAN MACDONALD—That self-serving statement should not go unchallenged. There is a difference of view on the benefits of forestry.

CHAIR—I am talking about the interception argument. We can come to that later.

Senator O'BRIEN—I am entirely happy to challenge that at the appropriate time.

Senator MOORE—We have had a number of comments about the difficulty of getting information and the difficulty of communication between various groups—yours in particular, Mr Ingersole, and the government. A couple of times in your submission you identified documents that you have requested. I would like to get some information from you on the record of about the processes in terms of trying to get information—trying to talk. The most important thing is that people are able to talk and share information and see if there are facts that need to be addressed, challenged, agreed to or whatever. Your submission touches on that a little bit. It gets to that point a few times and then goes on to something else. For the record, we would like to

find out your experiences as community members in trying to get information and talk to people in the government and in going through their processes.

Mr Ingersole—We will give you the most relevant in respect of those things that are likely to have the greatest impact on the outcomes.

Senator MOORE—That is fine.

Mr Burgess—I would be happy to table my entire email correspondence with the Queensland government if the Senate would like to request it.

Senator MOORE—We do not have enough time to deal with that.

Senator JOYCE—Are they the ones you have sent or the ones you have received?

Mr Burgess—Both.

Senator JOYCE—One is a big pile and one is a small pile?

Senator MOORE—I want to find out the processes you used and the responses you got. You said a couple of times in your submission that you had difficulty. I want to find out why, and you cannot answer that. We will be asking the government that, of course. I want to know about the responses you got, how long it took and the way that you were treated. That is what I am trying to establish.

Mr Burgess—I will give one specific example. In the documents for the water resource plan, there is an environmental flow scenario report. In the contents page, which is still available online, it says that there is a hydrological report that is available on CD on request.

Senator MOORE—You have mentioned that.

Mr Burgess—I have mentioned that. I went to the local NRM office and said, 'I'm requesting this CD.' That started a process of nearly six months. It involved two state MPs having staff sitting in the foyer of Mineral House refusing to leave until they got the CD. It involved them being given a CD which did not contain the information. It involved me having to get software licences from interstate to look at text files which I could put up in a normal word processor. It involved me knowing exactly which modelling scenarios I was requesting, which was interesting, because I had no idea which ones had been done; nominating which points in the river I wanted the data; and then not getting any of the background information at all but just getting daily flow data, from which I have had to back calculate all the assumptions that were used to do it. This is pretty well documented in correspondence. I got a little bit upset by about month 5 and documented that. You could confirm this with David Gibson, our local MP, who is very involved in trying to do this. You could also confirm this with any of the staff in the water resources branch of the NRW. I would be happy to table all the correspondence which documents this.

CHAIR—In other words, to brief it up a bit, you had a bit of trouble.

Senator HOGG—Just a bit!

Mr Burgess—In the colloquial, we had a shitload of trouble.

Mr Ingersole—We have two more examples which I think will be interesting.

Mr Sheridan—The Mary River Council of Mayors was so concerned about this after a few months that they got together and commissioned their own study which you will hear about later from Professor Stuart White of the University of Technology Sydney. As part of that study, I had a personal meeting with the Queensland Water Commission to request certain documents that were vital to the undertaking of that study and I wrote on two separate occasions to the Department of Natural Resources and Water and got fobbed off to the Queensland Water Commission. I wrote to the Queensland Water Commission and never received any of that information. It is information that should be freely available to the public, so Professor White, in undertaking his study, had to make various assumptions because the government and the Queensland Water Commission refused to provide the actual information. It is documented in the Noosa Council's submission. Those requests were simply not answered.

Senator MOORE—So there was no response at all?

Mr Sheridan—We got one response referring us on to the Queensland Water Commission but then no response at all from the Queensland Water Commission. Very early in the piece, just after the dam announcement, there was absolutely no information provided whatsoever and someone sympathetic to our cause provided us with a copy of the executive summary of the GHD dam options report. That was about a month after the announcement. We put a Queensland state government representative on the spot at a meeting and said that we were aware that this report existed and asked when it was going to be released. That eventually resulted in the release of that report in July, I think, last year. I just wonder whether, if they had not known that we had a copy of the report, they would have released it.

Senator JOYCE—Where was Traveston Dam on that report?

Mr Sheridan—There are a number of tables in there, but I will go through it. I am speaking again later on, so I will go through that further then. It was No. 4 on a list in terms of cost effectiveness, but you have seen from the table that Steve produced before that, when you use the correct figures, it is last. The whole report is completely discredited because the information in it is wrong.

Senator JOYCE—Why would they pick the dam that is last?

Mr Ingersole—It was not last at the time—it was No. 4.

CHAIR—Can we return to the question?

Mr Ingersole—I think the final example is that in about June 2006 the state government facilitated an information sharing process. I think they described it as a consultation process. There was no consultation. Basically we were invited to turn up and ask questions and be provided with information. There were about 19 of these meetings, as I recall. At each of these

meetings a representative from the Save the Mary River Coordinating Group was present, so we had intimate knowledge as to the items that were discussed. Most of the items of importance were not able to be answered at those information meetings and the purpose of those meetings was to provide information. So part of the process was that there was a professional facilitator and there were the butchers chart pads around the wall and it was explained that the process was that any questions that were not able to be answered at that time would be recorded and the answers to the questions would be sent to the community. We had to sign a record book and all the rest of it. Five months later, after continually asking and asking, through the efforts of Victor Hill, one of the people on our committee, we got answers to 288 previously unanswered questions. A lot of the answers to those questions were unsatisfactory. This was from June until just before Christmas. I believe that the only reason we were able to get those answers was because we went to Peter Arnison of the task force and said: 'We are getting nowhere here. You're supposed to be the bridge between the community and the government—please see if you can get this information for us. We were promised it. It has never been delivered. Every time we try to ask where it is, we get fobbed off.' I cannot provide you with any further details but I am sure that if I ask Victor Hill he would be able to provide you with a much more accurate summary of the time lines and who those requests were made to.

Senator MOORE—Has your organisation, which has had a very high profile and been involved in community activities, ever been offered a discussion?

Mr Ingersole—No, and we have asked for that. Further, at a public meeting on 5 July in Gympie, I asked the question of Peter Beattie—would he commit to basically changing the rules of the game so that we had an open and transparent process so that members of the community and their advisers would no longer be frustrated by a lack of information—and I was given an undertaking. I asked a secondary question: will that be from today, going forward, not in six months time? 'Yes, I give that undertaking.' Nothing changed.

Senator MOORE—That was on 5 July?

Mr Ingersole—On 5 July, publicly, in front of about 2½ thousand people he made that commitment.

Senator MOORE—Thank you.

Senator O'BRIEN—I understand that your committee does not have confidence in the Environment Protection and Biodiversity Conservation Act process in terms of the consideration of this proposal.

Mr Ingersole—No, that would be most inaccurate. I think we are in fact very comfortable with the act and with the process. We made it our business to meet personally in Canberra with people in the then Department of the Environment and Heritage that would be responsible for taking a look at the assessment that will come forward from the Queensland Coordinator-General, and those people will be providing advice to the minister with respect to that EIS. So that those people may be better informed, we invited them to come to the valley. We actually hosted a visit on which we took them around the major parts of the valley where we were concerned with environmental issues. We feel very confident about the professionalism, the

qualifications and the integrity of people in the department of the environment and water that will provide that recommendation to the minister.

Ms Pickersgill—Could I just add a little bit to that. The concerns we have are more in the process of the bilateral agreement, where the state government Coordinator-General's office has the responsibility to do the environmental impact statement, and we do not see that there is independence between the proponent and the Coordinator-General's office in that they are assessing their own project there. The other limitation would be our concern about the referral of stage 1 and stage 2. We see the project as being stage 1 and stage 2 and the proponent is only proposing stage 1 at this stage to be considered under the EPBC Act.

Senator O'BRIEN—So, in terms of the process after the Queensland government has handed its box of material to the federal department, what do you understand will happen then?

Mr Ingersole—Do you mind if I just back up before that process starts in train. We do have some concerns about the fact that there was a draft terms of reference document and public comment requested on that document. There were over 200 submissions. Some of them were very detailed submissions. Our concern now is that the Queensland government Coordinator-General basically is required to take a look at those submissions and then perhaps make changes to the draft terms of reference and then hand that over to the proponent, which is Queensland Water Infrastructure Pty Ltd. Our concern about this part of the process is that, whereas the community has invested an incredible amount of time and money and effort into those submissions, there will be no final draft given to the public before that document is handed to the proponent to prepare the EIS. So what is going to happen is basically that we are not going to actually understand until that EIS becomes public, which is when it has been handed to QWIPL, whether the issues that the community has raised as part of the process have actually been included.

The government stated that it does not want to delay this process, and neither do we. We have just had a gutful of all this. We want this to go as fast as we possibly can. So we are not in delaying mode. But we want to see that final draft before it is handed over to QWIPL, because, if there is a whole lot of stuff in that that we disagree with or a lot of the information and requests that we have made that have not been listened to and included, we want the opportunity to have that discussion with the Coordinator-General, to say, 'If not, why not?' As part of that initiative we actually requested a meeting with the Coordinator-General's department, which was held last week, and we specifically asked that the process include this particular public release of the final draft, and basically the answer is, 'That's not part of our process and it is not going to happen.'

Senator O'BRIEN—Perhaps I should have asked my first question again. My last question was: what is your understanding of the process after the documentation goes from the Queensland government to the federal government?

Mr Ingersole—My understanding of the process is that a review panel within the Department of the Environment and Water Resources will look at the assessment of the EIS provided by the Queensland Coordinator-General and will do at least two things. It will check to see whether it is complete and accurate, and any missing information will be requested, and it also may request that further studies be undertaken for clarification. Following that, a recommendation will be

made to the relevant minister in respect of whether an approval should or should not be given and, if an approval is given, the conditions of consent that might attach to that approval.

Senator O'BRIEN—Are you happy with that part of the process?

Mr Ingersole—I am personally happy with it.

Senator JOYCE—Do you think in the selection of the site they took into account that this area has only ever voted for non-Labor members since 1956?

Senator MOORE—That is a scientific question, is it?

Member of the audience interjecting—

Mr Ingersole—I do not believe I can comment on that.

CHAIR—Being interrupted is not the format that I would like this to be conducted in. We want to be civilised, listen quietly and be respectful of all opinions. I am not going to put up with political grandstanding. Could I ask a drop dead question. There is an alternative plan with subcatchments in it. Is that as unhelpful as the Traveston Dam plan?

Mr Ingersole—Within the Save the Mary River Coordinating Group there would be a range of views. If you are asking me the question, personally, I am not in favour of dams as a first option for anything.

CHAIR—Then, if you were in charge and you had this problem, how would you solve it?

Mr Ingersole—I would seriously investigate non-rainfall-dependent solutions. I think there is plenty of scope to provide the water for south-eastern Queensland on a go forward basis without any problem.

CHAIR—Thank you very much.

[10.33 am]

GIBSON, Mr David Francis, Member for Gympie, Queensland Parliament

CHAIR—Welcome. If you would like to make a brief opening statement, you have 15 minutes for this whole process, so get stuck into it.

Mr Gibson—First of all, thank you all very much for coming along. I think it is incredibly important that the people have this process. It is something that, unfortunately—and I think the number of submissions shows this—has not been provided to date. Whilst this may be seen as more of a state than a federal issue, it does give the people of Gympie and of Queensland that opportunity to be heard.

My background is not as an engineer or a farmer; I have experience within Defence as an Army officer and I then moved into business management. So the only area that I feel even vaguely competent in speaking about is how you deal with your people and how you deal with the social impact on this area. From the local member's perspective, I have had the privilege of dealing with a lot of people as they have come forward with their concerns on how they have been dealt with within the process. We have heard some remarks this morning already, and I would like to touch on some of them because I believe that the process has been fundamentally flawed.

When we look at major infrastructure projects anywhere across this great land of ours, we see that governments of all political persuasions usually follow a process that ensures that there is proper consultation, that their information is freely available and that their constituents—the people who are affected—are dealt with in a manner that can be confidently said to be fair. We understand that each time people will have to move on who may not necessarily want to but you would like to think that the process that those people go through is one that is fair and allows for that.

From what I have seen, I have some grave concerns based on the very process. If we go to a date before 27 April and we look at the government's media releases, which it was putting out—I think 27 January was the first one with regard to the South East Queensland Regional Water Supply Strategy—the government was very clearly and very openly talking about a weir on the Mary River at Coles Crossing. That was the public perception of what they were building. They reinforced that on 7 April with another ministerial statement saying that they would proceed with that weir. On 20 April we have both the minister at the time and the Premier committing to the South East Queensland Regional Water Supply Strategy which talks about a weir. Seven days later, they talked about a dam—a mega dam is how they addressed it—on the Mary River.

The people of this electorate were understandably very confused and incredibly frustrated at the information that became available. Why was there a change from a two-year report that the government commissioned to determine what were the best water supply strategies to then suddenly—within seven days—appear to disregard that report? It caused a great deal of confusion. From that day we have seen a great deal of social impact, we have heard about some of it today, and I would like to touch on a few quick things if I may.

One is with regard to valuations and you have touched on that, Chair. In my dealings, a lot of people have said: 'I'd be prepared to walk off the land if I knew that it was the right place for a dam for south-east Queensland. If it isn't then I want to fight against it.' People also understand that some are saying, 'Look, I want to take a compensation package for a variety of reasons.' Pre the state election—and I do not wish to be political but I use that as a time line—the department of natural resources valuations were generally either at the level of private valuations or they were in excess of the private valuations that people were obtaining. So people were looking at that and saying: 'Gee, that's good. It's on par with or in excess of what my valuation says. I'm going to take that and move on with my life.'

After the state election when Queensland Water Infrastructure got involved the process changed dramatically. I believe a fundamental flaw in this process lies within Queensland Water Infrastructure as an organisation, and unfortunately in some of the individuals in it, as well as from a leadership perspective as to how their staff are approaching this issue. I have raised that directly with the state government. I have raised my concerns with them and with the management staff of Queensland Water Infrastructure. We have seen situations where valuations are now coming in somewhere between 30 and 50 per cent below private valuations. I cannot comprehend that. I understand that when you put your place on the market there is always going to be some margin for error. I have sold a few houses as we moved around when I was in the Army. You would like to get X, you get Y and that is life, but not 50 per cent less.

Also, there is the language that is being used with people. This morning Gillian spoke about being bullied and that comes not from physical intimidation but from the language that is being used. I have seen people who have been in tears after they had a visit from Queensland Water Infrastructure staff. I went to one lady's place; she had had Queensland Water Infrastructure staff around to present their valuation to her. They looked at her house and said, 'It's not much, is it?' She was devastated. She refused to shed a tear in their presence but afterwards as I sat in her kitchen she shared with me the humiliation she had experienced by that remark.

I raised that particular issue with the CEO of Queensland Water Infrastructure. His initial response, in my opinion, was not satisfactory. He said: 'It couldn't have happened like that.' He dismissed it. I raised with him other examples of the way people had been dealt with. My concern is that those individuals, who perhaps did not make submissions to inquiries and who, through no fault of their own but through life experiences, find themselves at the lower end of the socioeconomic scale, and perhaps have not had the same education opportunities, are not able to negotiate strong packages. We are dealing with Queensland Water Infrastructure staff now who, on a day to day basis, through the nature of what they are experiencing, have become hardened to this process. That is human nature—I understand that. They make remarks that are insensitive. That occurs. Where it has been raised with me I have brought it directly to Queensland Water Infrastructure and to the state government. But I am absolutely disgusted with the way this government has dealt with the people in this electorate.

We have seen a lot of theories as to why that has occurred. Frankly, I do not care. What I would like to see, regardless of what occurs, is that we have a set of standards for future projects within this great state of Queensland—and, hopefully, within the whole nation—that ensure that people are dealt with fairly and compassionately. I can assure you that there are instances that are far too common to say that they are just aberrations and that people are not being dealt with in that way. I am open to questions.

CHAIR—I have to say, as someone who has had a bit to do with putting a jail in a town, and a naval communications set-up, that one of the things that occurred to me at the time—and I had this discussion yesterday on the plane with the appropriate person from the government—is this question of how you go about this process. I can well recall that, when we were going to put that jail there, the state government folks came down and said, ‘Oh, we’ll get the Valuer-General in; we’ll get a value and you can go and talk to the bloke.’ I said, ‘Bullshit we will.’ What we need to understand is that the valuation is one thing; why you cracked up there is another—there is also the emotional distress. I think it is fair to say that this committee, yesterday, once they were on the bus tour, recognised some of the dangers and encumbrances in the system—especially in that little town that is going to be divided. We will be having plenty to say about that, I think you will find.

But we recognise, and I think the community needs to recognise, that this committee is about hearing the arguments and being fair to everyone, including the government—but having the government firmly understand that the valuation on your house is one bloody thing; it is all the attachments in your mind and in your family’s mind that have to be taken into account. We had similar evidence here earlier this morning to this lady that you were referring to. You ought to come and have a look where I live. Mine is a pretty plain old Irish home with a lot of bedrooms and no carpet, I have to tell you. So that is one area where I think that a strong message could come out of this. Some of these things have to be done sometimes, but there has to be a way in which they can be done where most people can say, ‘That wasn’t a bad deal.’

Senator IAN MACDONALD—Have you been able to get answers to all of the questions that you or your constituents wanted in your role as a parliamentary representative of this area?

Mr Gibson—No. It has been incredibly frustrating. I recognise the fact I am a new MP, so in part it may be that I simply do not understand the political process. I am a bit naive. I tend to walk up to someone and say, ‘I need an answer,’ and expect that I will be given one. It is simple things like asking for reports that were written three years ago. A constituent came to me and said: ‘We’d like a report. It was published back in 2004. It was written by DNR. It is to do with turtles. It is freely available. Could you get that report for us?’ I asked the minister and the response I got was, ‘No; that report is now under review.’ ‘Why is it under review?’ ‘We’re not permitted to tell you that.’ We then went to the author of that report and he said: ‘I have got a copy. Here, have that.’ We have had to be incredibly creative. It is frustrating to believe—

Senator IAN MACDONALD—I am not sure what the state of the parliamentary estimates committee process is like, but are you able to ask for these things through that process?

Mr Gibson—I intend to ask a lot of questions as we come into estimates about following the money. I have been asked a range of questions as to how this process has been gone through. One of the real failings of this—and I was asked this this morning in a radio interview—is there are a lot of conspiracy theories going around. A crusty old warrant officer once told me that if you have got a choice between a conspiracy theory and a stuff-up, take the stuff-up every time. It is good advice, but the problem is that when people approach someone drilling or when there is any activity in the Mary Valley—and people are very sensitive—the immediate response is, ‘We can’t discuss that.’ Rather than saying, ‘We’re here because we want to move that road and we’re looking at it,’ or ‘We’re here to try and determine whether this is a hatchery place for turtles,’ and being honest about and revealing what they are doing, we have a culture of secrecy. All this

does is create rumours from there being a nuclear power plant sited in the Mary Valley to a land grab. It does not help the process at all.

Senator BOSWELL—We have put millions of dollars into dairy adjustment packages. What is your take on the dairy industry?

Mr Gibson—My view is that Queensland will go from a water crisis to a food crisis if this dam is permitted to go ahead. What we will lose in dairy production, we will not be able to replace elsewhere within this state. I know of dairy farmers who wish to continue farming, and their view is that they will have to relocate and it will not be in Queensland. I think we will see a food crisis and in five or 10 years time we will be scratching our heads wondering why the price of milk has gone through the roof.

Senator BOSWELL—Can you give me any numbers?

Mr Gibson—I do not have the numbers off the top of my head as to how many we are going to lose. I know the Queensland dairy organisation has put in a submission. The figure on production varies depending on who you speak to but it is in excess of 10 per cent of the state's dairy production.

CHAIR—I will add a note of caution to those remarks: I told the cotton growers of New South Wales and the paddy rice growers of New South Wales that any 50-year plan for New South Wales would exclude both of them because of the cost of water. People have got to come to terms with—and this is not just gratuitous advice; this is a statement of fact—the fact that once you untie licences from the land and you have free trade, full market power and speculation in your water, the first ones that will fall off the rank because of the cost of water are dairy farmers. Dairy farmers will go downstream, and we have already got three applications in New South Wales for 5,000-cow dairies downstream on ethanol plans. People have got to understand that changes are out there, but the great news is that part of the northern task force role is to come to terms with all that. We will now have a short break.

Proceedings suspended from 10.49 am to 11.10 am

CAMPBELL, Mr Kenneth, Coordinating Counsellor Kandanga, Lifeline Sunshine Coast

WATT, Reverend Iain Douglas, Minister of the Word, Uniting Church in Australia, Queensland Synod

WOODLEY, Reverend John, Minister of the Word, Uniting Church in Australia

CHAIR—I call everyone to order. I have allowed for the cameras to be in for another 10 minutes. If the camera operators want to come in for 10 minutes to get a bit more footage, they may do so. Some people think I have been a bit unreasonable about that, but I think I have been quite reasonable. I welcome the witnesses. If they wish to make an opening statement we would be delighted to hear from them.

Mr Campbell—Chair, I have a statement as an addendum to the papers that were put in by my associates. With your permission I would like to talk to that after my associates' introduction.

CHAIR—Yes, Mr Campbell.

Rev. Watt—Chair, I have an addendum. I bring apologies from David Pitman, the Moderator of the Uniting Church in Queensland, who has been unable to come today.

CHAIR—Thank you.

Rev. Woodley—Chair, I am here to support my colleagues. I am a minister of the Uniting Church resident in Gympie.

CHAIR—In fact, you used to chair part of this committee.

Rev. Woodley—I did, Chair.

CHAIR—You are a well-known fellow, John Woodley! Thank you, gentlemen. Please proceed.

Mr Campbell—By the way, Chair, a copy of this paper is in the hands of Trish. I would like to start with a preamble, firstly, about the Department of Communities in Queensland establishing the one-stop shop in Kandanga. It opened in June 2006. The object of it was to provide a central location where community members could contact the shop and get information on the dam. There will be more on that later.

The Department of Communities requested that Lifeline Community Care Sunshine Coast take on the role of providing counselling support to the community as an integral part of the one-stop shop. Lifeline has previously provided this sort of counselling support in the one-stop shops that were set up in Cairns after Cyclone Larry. It was perhaps that model of counselling support that was duplicated with the Kandanga one-stop shop.

The Lifeline Community Care counselling service has operated from that facility since June 2006. It now has a staff of three, including me, with a coordinator of counselling, a social support worker and an administration support person. The Kandanga service also works in with Lifeline counselling staff in Maroochydore and Gympie. We have quite extensive coverage through specialist counselling people that we can enlist and bring in at any time.

The service includes face-to-face counselling with Lifeline officers at the Kandanga one-stop shop office. Encouraging community members to contact us there has not always been an easy thing to do. Obviously, we have had to do a bit more than that and have gone along with the outreach model. We have been doing outreach work at homes and farms. I keep away from some of the literature that refers to them as 'houses'. To me they are homes and farms.

Immediately after the announcement of the proposed dam, the shop became a focus for members seeking information about its potential impact on their lives. Bear in mind that DNRW—the Department of Natural Resources and Water—and others from State Development were there. Everyone came down to find out whether they were in the dam or whether they were out of the dam. Lifeline's function at that point in time was to try and connect with people as they were coming in and get some concept of where they were with the emotional side of it—the anger. In some cases, people were coming in feeling reasonably under control but were leaving with their lives devastated because they had found out that they were in the dam.

Whilst Lifeline's association with a government office had its negative side, it also had its advantages in that it put us in the front line of being able to identify the issues that were impacting on the community. The role of Lifeline focused on working with the community in relation to stress management, areas of confusion and issues of uncertainty that were affecting the future of individuals in the community as a whole. In addition, Lifeline provided referral information, advocacy and liaison support in relation to the government services that were operating from the OSS. In other words, my background is in financial counselling and, as a financial counsellor, I am quite used to getting involved in advocacy roles in support of clients regarding credit, banks and other things. We have a role in trying to get the best outcome from various departments when it comes down to individuals as well as a role in the counselling and support side of it.

In the June to July period, 79 members of the community established contact with Lifeline Kandanga about emotional wellbeing and advocacy support. By the end of March 2007, we had 150 individuals on our client records who had contacted us. There were a range of issues that we were being asked to deal with. Some were directly related to the frustrations of people who were trying to get information and advice about how they might go about getting it right, through to issues of extreme stress and depression.

I would like to go through some of the basic background things that we have viewed as being stress motivators that we have heard from the community as they have been coming in. What I call the 'generic factors' were there, right from day one, when this announcement was made. The fact that it was a proposed dam with no conclusive evidence of its viability was quite clearly a major issue for the people in the valley. I heard Kevin Ingersole on the radio this morning mentioning the fact—and this would be true of 100 per cent of the people that I have dealt with—that if in their hearts they truly believed that the place for this dam was the Traveston Valley then they would find a way to deal with it and move on. But the fact is that the people in

the valley do not believe that that is so. This is a very important fact in relation to the stress levels.

There was no previous discussion or consultation with the community—that goes without saying because it was like a bombshell falling on them when they found out about it. In fact, from the time of the first announcement on 27 April through to the end of June, there was quite clearly a feeling in the community that this would not happen. There was a real expectation in the client base that I have talked to that when Peter Beattie came up in June he was going to tell them that it was not going to happen. So when that meeting happened there was a tremendous feeling that this was the end.

There is still confusion about stage 1, stage 2 and the buffer zones. That was there right from the start. They could not confirm exactly who was in and who was out. There was no concept of road relocations in the months following the announcement. So where some people had confirmation that they were not in the dam site but were on the border of it, they became very concerned: ‘How am I going to get to the places I normally go to; how will I get from A to B; where are the roads going to be; is that going to impact on my life and on my family and on my farm and on my property?’ There were all those sorts of questions in their minds. The continuation of the unknown factor and the disempowerment from all of that was building stress in their minds.

The last generic factor is about the community expectations raised by government statements that no-one would be disadvantaged by the proposed dam. I think there was a period when people really believed that. As the process has gone on, people that I am dealing with do not believe that to be a statement of fact anymore.

There are some examples of community sector stress that I thought the committee might be interested in. I cannot be too definitive about this obviously because of confidentiality but I can give you some generalist examples. For the elderly and infirm living in the valley, they have feelings of isolation and fear about how they would cope with the enforced change in their lives and the loss of community support, and they feel vulnerable. Some of these people are not extremely mobile. Some of them are really tied to wheelchairs or walking frames and things like that. They potentially have to live for the rest of their lives with this disruptive change. As far as they are concerned, with the time schedule—if this dam goes ahead—of five, 10, 15 or 20 years, they will be pushing 86 or 88 and they know they will not be around by the time the dam wall is up, or there is little potential that they will be. It is pretty desperate thing for them to be thinking that they are going to spend the rest of their life in an environment where they feel a big letdown. Tragically, some of them hope that they will die before they have to move. That happened to at least one of my clients. He really did not think he would live to see the dam. He was not particularly well, but prior to it he certainly was managing to find some resources within himself to keep going but in fact he just caved in and died.

For long-term residents of the valley, there will be a loss of community, loss of lifestyle, loss of family tradition and history, loss of connection with the land and regret that their children will not be able to access what they have enjoyed. There will be a loss of inheritance for some people who are looking forward to passing their property on to the families; they will no longer have that possibility. We are not talking dollars here; we are talking lifestyle, landscapes and family stories about how the property has been developed over decades. Those recently retired to the

valley will lose a lifestyle that they have worked long and hard for. They will lose the community spirit that attracted them to the valley and the rural ethos will be all gone.

We tend to forget about residents on the fringe of the dam. There are a lot of them right on the very edge of this dam and they face the prospect of living for many years with social and environmental upheaval. They cannot sell to QWI because QWI will not buy properties outside the dam, even on compassionate grounds. I know of a number of families who have members with disability or mental health issues, or children with mental health issues who need access to special services. People now realise that to avail themselves of those services means adding at least half an hour, 45 minutes or an hour more of their time than currently. I cannot begin to explain to you the feeling that the mothers in those families have about that. They feel so disempowered about it all and there is nothing they can do at this present moment. They cannot put their house on the market to sell, not that they wanted to in the first place. If they had that alternative, they possibly would at this stage but they simply cannot because there is no market for homes in either the Traveston Dam area or in the adjacent area where the market has totally collapsed.

There are others engaged in community activities. There will be a loss of enthusiasm for the operation of community organisations, sporting and recreational clubs, the loss of members and finances due to people leaving the valley, and the frustration and anger about the loss of social fabric. We are talking about a very broad range of people in this community who are under some of the stresses I have just mentioned.

I would like to talk briefly about the compounding stress sources that are affecting people I am dealing with—capacity and financial ability, physically and emotionally, to fight for best outcomes. People are terrified by the very words ‘solicitor’ or ‘lawyer’ because they have never been there before. Yet in the very process of trying to fight for those things, they have to rely on their own capacity. They get tied up with an accountant, for example, who has absolutely no experience in negotiating the kinds of outcomes they are looking for. They get involved with a solicitor who may or may not have any of the skills they need. Talking about QWI, it has resumed—I use the word ‘resumed’; I do not think there is such a thing as a voluntary resumption in the valley. Those who are selling feel the pressure to be so great that they have to sell. They are not voluntarily selling—there is a big difference.

These people are up against a negotiating team that has negotiated, if that is correct, some 300 or 400 different settlements and yet they are trying to negotiate for the first time. They are so disadvantaged it does not even need mentioning, I suppose. There is a lack of compassion from government and QWI and from the negotiators in particular, who are so tuned in to the professional process of getting a property for the minimum price that when it comes down to compassion and understanding for the people they are negotiating with there is no room for negotiation—it is a hard-ball game. They are standing in the market, they are buying in the market, as anyone would who is buying a house for the first time.

There is a sense of being bullied and dictated to by QWI. QWI might say that is not the case, but I can assure you that, as I mentioned, just the very fact of a person walking into a room and trying to deal with an authoritative force like that is intimidating and, to them, it represents bullying. Then, of course, the ongoing language substantiates that, on the basis that you realise that if you do not go along with this then you know your property will eventually be resumed.

CHAIR—Can I, with great reverence, suggest that what you are saying there is, in short language, that people have got the rough end of the stick.

Mr Campbell—Yes.

CHAIR—If Reverend Watt also has an opening statement, we are going to run out of time for questions. Do you have an opening statement, Reverend Watt, that you would like to make as well?

Rev. Watt—I do, yes.

CHAIR—I am sorry to have to impose some discipline on this. They are all important points, but the statement will be received as a document by the committee. If you like, we can table that.

Mr Campbell—Yes, okay.

Senator IAN MACDONALD—Is there a final comment you would like to make?

CHAIR—If there is something burning a hole that you especially want to say.

Mr Campbell—Yes, I think the point about the themes we are noticing would be of interest to state here. There is evidence of a growing trend for clients to be accessing GPs for related disorders including anxiety and depression. Stress levels due to the dam are creating relationship issues for otherwise stable relationships. Couples are fighting over whether to stay in the valley or go because they are not at a level where they can cope with it anymore. Individuals are losing resources that form part of the normal toolbox of coping skills. With people leaving the valley, the resources they had have gone.

There are suicidal ideations reflections, reflected by expressions of concern in relation to having suicidal thoughts. As the stress levels have built up, people begin to think about that possibility of solving the issues. I am not saying that I am expecting that to happen in the valley, because I am not. Lifeline are actively pursuing training programs and working with the community to try to reinforce the coping skill areas for that sort of thing. But it is still a very big event in a person's life when they are suddenly confronted with the fact that they even think about that, let alone whether they could actually do it. There is also the financial crisis brought on by the loss of employment and the decline in social capital. Those are basically the main points I wanted to get across. I thank the chair for extending the time.

CHAIR—Thank you very much.

Rev. Watt—I would like to add a paragraph to my statement, adding it to the paragraph headed 'QWIPL'. I want to state that, in spite of the regrettable placing of Lifeline in the one-stop shop and the initial hesitant approach of the community, Lifeline has been and will continue to be a significant help for people in the Mary Valley. Ken Campbell has succeeded in gaining the trust of people and has found that the level of requests for help has been steadily growing. He is certainly seeing the devastating social impact of this proposed dam face to face.

CHAIR—Thank you very much. Reverend Woodley, have you got anything you want to add?

Rev. Woodley—My colleague may want to make another statement on top of that.

Rev. Watt—Yes, I do. I am a family man and I have a son, 24, a daughter, 21, and another daughter, 18. I was living in the Mary Valley and had just bought a canoe in April before the announcement. People thought, ‘Hello, it’s another Noah!’ because I got this canoe. I thought, with the announcement of a dam: ‘Great! I’ll be able to take my canoe down the heart of the valley and really go wild.’ But I was soon to see that this dam did not have anything to do with joy or pleasure. In fact, there was no way that any of my previous training or experience could prepare me for what has happened in the valley. Ken Campbell has outlined pretty well some of the impacts that I concur with and am meeting on a daily basis.

The thing that has been the hardest is to understand why the government is doing this. I have come to the conclusion that either it is grossly incompetent or it is doing it on purpose for some spiteful reason. I suspect that it is the latter. The people of the valley have a rural mindset, and they are not prepared for this sort of fight. They are people who love their work and their lifestyle. There are also people who are hoping to retire, and those who are struggling with the fact that they will not get value for their land to relocate. If they live where they are, say in Kandanga, and in five years time they need to get closer to a hospital or something, they will not be able to relocate then. So their lives are in turmoil.

I believe I have witnessed a crime by living in the valley and seeing what I am seeing, and I am struggling for a voice trying to get this message wider, to be heard. It is incredible to see the power of large government to control so much of what is reported in the media, and especially on prime time TV. The torment seems to continue, and it is not getting any easier or better. I am extremely concerned about the long-term health of the community. It has already been decimated. There are already families that have split up, and we need to consider a whole group of people who might be settled and in an area together with their families; if they are relocated they will never be able to relocate in the same way.

I have never been adequately prepared for something like this, and I am just so excited that the Senate is having an inquiry so that people can have a voice and can be heard, so a wider community of Australians can hear just what is going on.

CHAIR—Thank you very much.

Members of the audience applauding—

CHAIR—It is obviously a very emotional issue, but I have to say as the chairman that sometimes you can turn adversity into opportunity. I am hoping that this process will do that. Recently a young nephew of mine went out for a pushbike ride one morning and he got run over by a four-wheel drive and smashed to pieces. He got to the hospital in Wagga and the doctor did him the biggest favour that he could have done him. He said to Michael, ‘Michael, I don’t think you’re ever going to walk again,’ within half an hour of arriving at the hospital. And from that moment on Michael, who is now in full rehab, was able to think: ‘Well, I have got no brain damage. I am a paraplegic, not a quadriplegic. I am going to go to the Olympics and I am still alive.’ So there are ways to manage.

Recently a young bloke near me out at Hay said to his wife, 'I'm going down the paddock to round up the sheep,' and he went to the front gate and shot himself. So I say this to you, Mr Campbell: I think it is very important that you actually are proactive and do not wait for people to come and see you. You have got to go and see them, because these people who are at risk are the ones who do not want to leave home. So you are on to that, aren't you?

Mr Campbell—Yes; that is exactly what we are doing. We realised very early on in the process that while the community has a fair amount of resilience it really did not have a lot of resource capital in terms of that. It was very thin on the ground in terms of the structures that it had. It is not like a big city, where there are a multiple number of people with certain expertise. When those people drop out of the system the system tends to collapse a bit. So we have been trying to put forward training programs for the community, where people can access basic communications skills so they can actually hear what each other is saying and the unsaid in what their neighbour is indicating to them.

We had a session prior to Christmas in Imbil on stress, suicide and suicide intervention. We are currently running a program every Monday night and have almost 20 people engaged in that. That goes right through from basic counselling skills and communication skills to dealing with depression and anxiety to dealing with relationship issues and all of that sort of stuff. Subsequent to that, we will be linking in with another two suicide awareness training programs of two days—two in Imbil and two in Federal. It is something we just have to keep working with, and every time we work with anyone on outreach work that is exactly what we are trying to do.

CHAIR—I am reasonably confident that out of the process of this Senate committee will come some direction in turning adversity, regardless of what the outcome of the dam decision is, into opportunity. I think, Reverend Watt, part of what you are coming to terms with and that you cannot deal with is that if you are in public life, the more you know, the worse you feel about what you know.

Mr Campbell—I think one of the biggest things in the valley about that is that before recovery, you have to get some form of closure, and the closure is not available to the majority of people there at the present minute. Until such time that there is no longer any doubt as to whether this dam is going ahead or not, those people are going to be locked in this place, which is not the best.

CHAIR—We are fully appreciative of what this is all about, and of the emotion and the heartache. I can guarantee you that every farmer who goes through a five-year or six-year drought goes through the same thing. There is no closure. You say, 'If I can get through this year, it will rain next year,' and then it does not rain the next year, so you end up at the garden gate.

Senator IAN MACDONALD—If it were absolutely essential for Queensland for these people to be moved, how should you go about dealing with that process?

Rev. Watt—I think the whole process has been jeopardised in that there has been absolutely no consultation. As I said, it is like slapping someone or sticking a gun in their face and then saying, 'Let's talk; let's negotiate.' The process has caused such an uproar. I think that if this dam were to go ahead and was essential—and I do not believe either of those is correct—then the time line would need to be extended. These people need to be given—

Senator IAN MACDONALD—Let me put words in your mouth: do you mean more open and more transparent process, more consultation, more generous spirit in what has to happen and longer time lines?

Rev. Watt—Yes.

Senator IAN MACDONALD—I am trying to look to the—

Mr Campbell—It is the lack of transparency and uncertainty about the process and the feeling that the actual process itself is not designed to compensate them, either financially or emotionally. The underpinning of it is not there. That is the basic problem.

Rev. Woodley—I think Senator Macdonald's question is a very important one. The premise of the question is a real problem itself. That is that somehow or other a minority, a small group of people, need to make a sacrifice for the sake of the common good—in other words, to supply a resource such as water to the people of Brisbane. In this case I believe that premise is false and that in fact it is a great injustice to ask people to sacrifice their lives, their livelihoods and their homes in order to supply people in another place with a resource that can be supplied from other sources.

Senator IAN MACDONALD—I have to declare that I have no interest in this. I come from North Queensland where we have plenty of water and plenty of rain.

Senator JOYCE—And there's the answer!

Senator BOSWELL—Have you expressed these views to the body that is taking over these farms and doing the negotiations? Reverend Watt, have you expressed the concern that you are expressing to us to QWIPL? Have you gone to them and said, 'Listen, guys: you are going over the top and being a bit rough'? Have you expressed that to them?

Rev. Watt—No, I have not. I have left negotiations with QWIPL to others and I have tried to invoke the powers of our state church by working through our moderator, Reverend Dr David Pitman, who has taken up our cause directly with the Premier on several occasions. Reverend Pitman said in a press release yesterday:

I have personally asked the Premier to explain the basis on which he could publicly commit to these projects before any significant investigation had taken place and in the absence of any prior consultation with those most directly and adversely affected ... He has been unable to provide a satisfactory response.

Senator MOORE—I am interested in the process that has been put in place. It got some publicity because of the government acknowledging that there was a need to have some social support for the local community. Mr Campbell, from what you have identified to us, it seems that your area is particularly busy. Have there been sufficient resources provided to do the work that is desperately needed to be done and have you talked with government about what else is needed? That is an entirely different question as to talking with the government and justifying the whole project. That is on one level and that of course needs to be done but, with the experience you have with Lifeline, do you have effective resources to provide the range of services that are required to deal with the immediate impact on families and people?

Mr Campbell—The resourcing of Lifeline is an interesting question and one that I have been asked several times about in the Mary Valley. In terms of people on the ground, we are about as well-resourced as we need to be. In terms of systems that we could engage with to get outcomes for our client base, we are not well-resourced. You and Senator Boswell were just asking about whether or not we had approached QWIPL. I definitely have. Through the Department of Communities I have registered several concerns about the attitude that was being displayed by negotiators in relationship to my client base. Perhaps to some extent there has been some amelioration of that. There has been some change in attitude. But when you already have half of them in the bag you are not so much inclined to be worried about backing off from the previous approaches.

In my normal role and facilities as a financial counsellor, I usually have sources that I can go to who are independent of the person with whom my client has an argument, such as an ombudsman or an ombudsman service who is not only in place but also has appropriate powers to be able to do something about it. That resource is not available to any counselling facility in the Traveston Valley. We cannot find a place that we can go to where even on the basis of extreme compassionate grounds we can have a decision enforced on any of QWIPL's operations.

Senator SIEWERT—I have a lot of questions and I know I will get cut off but I will see how far I can get. We have heard a number of stories about people being bullied, as you have said, and told things that have affected the state of their mental and physical health. Have your clients been reflecting similar stories to you through Lifeline?

Mr Campbell—Yes, definitely.

Senator SIEWERT—We heard a story this morning from Mr Gibson and from a lady yesterday about how they felt humiliated. Yesterday we heard of people being offered less money than is required and being told, 'If you do not have enough to buy a property yourself, you could club together with others.' Have you heard similar stories?

Rev. Watt—Yes.

Mr Campbell—I have got many clients who fall within that range. I have one client—and I can probably tell the story without identifying who it was—who, whilst in negotiation with QWI, was very much of the opinion that the offer they were getting for the property was far below the value that they really needed to maintain their lifestyle elsewhere. They were being told, 'You really haven't researched it well enough.' I know this woman had driven herself into the ground, driving around and following up for ages on prices outside the valley. When she got involved in that argument with the guy, after the meeting the chap dropped in at a local real estate agent. He was actually getting a cup of coffee next-door, saw in the window a house that fitted the price bracket that he really thought was appropriate, rang the client and suggested: 'There is a house that verifies my argument. There are houses out there.' She rang the agent and the agent said, 'There isn't such a house in the window.' She said, 'He says there is.' So the agent went and looked in the window and came back and said, 'Sorry, it shouldn't be there because we've already sold that property.' Do you know what the final punchline is? QWI bought it.

Senator SIEWERT—We have a submission from Mr Hales, who is doing a social impact assessment, and his conclusion is that the Queensland government's handling of social issues was found to be substandard. Would you concur with that conclusion?

Rev. Watt—Absolutely.

Rev. Woodley—It is obvious.

Senator SIEWERT—One of my other questions—and you started touching on it, Mr Campbell—was about the impacts that are already becoming evident. You started touching on it before in terms of increased visits to the GP. I am particularly interested in the impact that it is having on people's mental health. Is that becoming evident? You touched on the fabric of the community. Is it starting to have an impact on people's interaction with each other and on the health of the community?

Mr Campbell—It most definitely is. As the thing has gone on, one of the basic problems is that people cannot find any refuge within the community from discussion about the dam. It is there all the time. The person that operates the shopfront has their own problems because their property is subject to possible resumption in the end and they have people coming in all day talking to them about it. There is even something as simple as the local pub that is falling apart—where there used to be dart nights it then became dart nights about the dam and eventually the communication and the need to go there were not there any more. There was no de-stress factor. It just continued to stress all the time. And that is the same whether you are talking about bowling clubs, soccer clubs, swimming clubs or anything like that. It really is interacting in a negative way in the community.

Rev. Woodley—The other problem with the breakdown in the social fabric is that you put people against one another. When they have a different way of solving the problem and then discuss it with someone else, of course, you get the breakdown in the community itself. That is a big issue that is going to become bigger.

Rev. Watt—The farmers looking for new land in other areas are pitched against each other and they cannot discuss that with each other because they might be bidding against each other. If they are having negotiations with the government and one decides to take money then there is a real odium about that and people feel guilty about that and avoid each other. That is happening all the time.

Mr Campbell—Everyone that enters into negotiations with QWI has to sign a confidentiality agreement in respect of the final agreement, so they are not allowed to discuss that agreement with a third party outside of QWI and their own solicitors. There have been many instances where that has created real stress for people. I know of one couple who were in the process of doing that and obviously she had connections with neighbours and friends and she did not even—for the reasons you have just mentioned—want to tell them next-door that she was actually looking to sell her property. But in the event she signed a contract that said she could not discuss it with anyone, and it meant that if any of the neighbours came up to her and said, 'Are you looking at selling?' she would have to say, 'No, I'm not doing that.' She was not going to put herself in the position of doing that so she did not go out of the house. She stayed in the house and would not go out.

Senator JOYCE—Reflecting on the chair's story, which is a tragic one about his family member who had an accident, I think the point there is that between the accident and getting to hospital the die was cast. You could not do anything about it. But you are actually heading towards an accident and you can see it coming, and you cannot do anything about it. It is as plain as the nose on your face.

Rev. Watt—No, Senator, the person driving the other car is ramming us on purpose repeatedly.

Senator JOYCE—I would like to reflect on the counselling section and go through some of the things that you said. When you have bullying by an authoritative force, when you have depression caused by heading towards a pointless calamity, when you have decisions driven by spite rather than reason, when you have that relationship one person to another on an individual basis where you have an oppressive person who stands over another person, is it ever possible in that sort of psychopathic relationship to counsel the perpetrator? I am serious about this. Is it possible? Because that is the person we have to convince.

Rev. Woodley—I think the answer is that, as far as the church is concerned, our moderator has a very good channel to the Premier and has been pressing the Premier on these issues on our behalf. That really is the answer we would give. I am not sure what answers other people might give.

Senator JOYCE—Are you alleviating the problem in any way, shape or form?

Rev. Woodley—Not at this point.

CHAIR—I would like to just counsel everybody that part of what we are here for is to put the facts on the table. I am sure, as we are learning this morning, the facts will speak for themselves.

Senator JOYCE—How long will people carry this for? In your experience where people are put in this position of, for no apparent reason, having to head towards a pointless decision which will affect their lives completely and utterly, how long do they carry that for?

Rev. Watt—One of the people who was fighting the dam initially was a Vietnam veteran. He said he believed that post-traumatic stress disorder would be affecting people for 20 years, as was the case with returned soldiers. I have no reason to doubt that.

Senator JOYCE—Finally, I would like to commend you on the work that you do. You are probably the only hope that a lot of people have.

CHAIR—There you go. I have to say that, once again, you really have to think about a positive on this. It makes me very gloomy listening to you. There is a positive side and you have to turn adversity into opportunity. I am hoping that today will do that. I got burnt out last January. The smoke was still there, the bloody joint had gone, and my son rang me up. He said, 'Oh, by the way, dad, I just thought I'd give you the forecast for the year: it's not going to rain this year.' And I thought, 'Oh, shit.' Thank you very much for your evidence. The work you do is just fantastic. As I would like to emphasise once again, we are very sympathetic to what is happening here.

[11.54 am]

FREDMAN, Mr Robert Alexander, Director of Engineering, Council of Mary River Mayors

MASON, Mr Kenneth Andrew, Chief Executive Officer, Council of Mary River Mayors

VENARDOS, Councillor Minas Joseph (Mick), Chairman, Council of Mary River Mayors

WHITE, Professor Stuart, Director, Institute for Sustainable Futures, University of Technology, Sydney

CHAIR—Welcome, gentlemen. If you have opening statements, now is the time to make them. Do not be distressed that we are behind schedule because you will still be allocated your 45 minutes and we will have less to eat at lunchtime.

Prof. White—Thank you, Chair and thanks also to the committee for the opportunity to appear. I was commissioned by the Council of Mary River Mayors late last year to undertake a review of the decision, particularly looking at the question of the need for the dam and the alternatives to the dam.

By way of opening remarks, I want to make five points. You have seen in the submission both a copy of the report that we undertook, which is publicly available as well, and a one-page summary of that. There is also a response to some material put out by the Deputy Premier at the time—a point-by-point response to a press release that was released on the day of the launch of our report here in Gympie.

By way of summary—and I want to make five points in relation to this—the Traveston Dam is not designed to solve the current drought. This is an extremely important point, and certainly the senators will be aware of this. Unfortunately I am not sure that that understanding is shared within the wider south-east Queensland community, and it is extremely important in assessing this dam. This dam must be assessed on its contribution to the medium- to long-term supply-demand balance for south-east Queensland, not on its ability to solve the current drought. This is despite the fact that it is included in the emergency legislation as if it were part of that drought response package, which, as many of you realise, is quite anomalous.

The first of the five points I would like to make is that the existing measures the Queensland government are rolling out are actually a comprehensive package of demand- and supply-side measures. The demand-side measures are \$120 million of demand management, one of the largest scale rollouts, in speed, of any program in Australia. The diversity of supply options include refurbishing old storages, the Tugun desalination plant, some groundwater sources and recycling—a range of different options to deal with the current drought situation. Of course, we hope that the hydrology permits and that we move out of this current drought fairly soon. The prospects seem more positive than they have for awhile. However, the Traveston Dam is not part of that package and is not useful for that package. So, as I said, we really need to look at the supply-demand balance in the medium term to long term.

The very fact of putting in place that package of measures means that their supply-demand balance will be met out to about 2026 to 2030, despite the fact that it is almost certain that the demand is being overestimated by the Queensland government and the supply availability from storages is currently being underestimated. We have not questioned those figures in our work. We did not feel that it was possible to do so within the scope and we did not want to draw that particular fire, so we accepted the supply availability figures despite the fact that they significantly de-rate the supply system.

We can meet the supply-demand balance out until 2026 to 2030. If it were deemed necessary to provide that long-term supply security out to 2050, there is a range of measures available to do that which are less than half the unit cost of Traveston based on the current known costs of Traveston Crossing dam. Demand management options are significantly cheaper, particularly if they deal with the very issue that is driving the potential increase in demand, which is the rapid population and housing growth in south-east Queensland. For every house that is built that is not best practice efficiency, either we will have to spend a lot of money trying to improve its efficiency in 10 years time or it will sit there for 50 to 70 years as a source of inefficient usage before the housing stock turns over. So the most important thing is to look at measures which reduce the water use and improve the efficiency of new houses.

It is true that we need to consider what might happen if this drought worsens or what might happen in the next most serious drought. Do not forget that in the Wivenhoe-Somerset region this drought is the worst on record, which is a situation that is not necessarily being faced in other eastern seaboard towns. The drought in Sydney, for example, is not worse than the 1930s and 1940s drought.

So, if we need more water in an acute situation—a future drought crisis—the best options are not a single, large-scale rain fed supply. The best options are those which can be rolled out on a more rapid basis. In fact, in our report we identified that the lowest cost options, the best options in terms of rolling out in the short term, are actually further indirect potable reuse up and down the coast. I strongly emphasise the fact that Traveston Crossing must be assessed as a long-term supply-demand balance measure and not in terms of its drought response because it is actually no use in that context.

The other issue is that if we are thinking about the future impact of climate change on our water supply, there is great uncertainty about what that will mean. It could mean a reduction in average rainfall; it could mean more volatile rainfall patterns. Certainly, we need to be prepared for an increase in the level of uncertainty. We already have significant uncertainty in our hydrology and a sensible strategy in terms of dealing with that uncertainty is not to spend over \$2.5 million on a single large rain fed supply as part of the system. That is a highly risky strategy in terms of meeting a demand-supply gap, even if it were necessary, which it is not.

While we are talking about climate change I will make one additional point. This is covered in the report but I emphasise the fact that there are significant greenhouse implications associated with the Traveston Crossing dam relative to an alternative strategy. We often think of desalination plants as being significantly high energy consumers and therefore greenhouse gas emissions sources, and they are indeed, but Traveston Crossing itself is quite a significant energy consumer, particularly because the demand is not located where the dam is. This is an issue that would apply to any system like this. Any source of water that is a significant distance from

where the demand is will have a significant pumping cost. In the case of Traveston these costs are quite high. We estimated that the difference between a strategy which looked at demand management for the period from 2030 to 2050 compared to Traveston Crossing dam was about 900,000 tonnes per year, which is the equivalent of taking 15 per cent of the cars in south-east Queensland off the road. That is the difference between a strategy which involves Traveston Dam and one which involves demand management.

The final comments I want to make go to the heart of the decision-making process itself, which I know the committee is quite interested in. I have been absolutely staggered by the lack of transparency involved in this decision-making process. I have dealt with a lot of state governments and I have dealt with a lot of non-transparent processes, believe me, but I have never quite seen anything like this. There was the difficulty of obtaining information. As I said, we used publicly available information in all of our work so that it could not be challenged on that basis but there are dozens of reports which have not seen the light of day, despite being paid for by Queensland taxpayers—and probably a fair bit of New South Wales tax money too. The important thing is that these reports have not been seen and it is not possible therefore for the community to see what decision-making process has been gone through to come up with this decision.

The second question is about the level of community engagement in the decision-making process. One of the key questions is that the yield or supply availability from storages has been significantly de-rated by making assumptions about the level of restrictions that south-east Queenslanders are prepared to put up with and yet they have never been asked what the level of restrictions is. These are value trade-offs; they are not about hydrology, they are not about engineering or science; these are questions of whether the people of Brisbane, if they knew, would be prepared to trade off a slightly different restrictions regime for not damming the Mary River or for a different level of cost structure in their water bills. These questions have never been asked yet that decision has been made behind, presumably, closed doors.

Indeed, that seems to be the pattern—you would have heard evidence from others—with the whole decision. It has not been made on the basis of an open, transparent process where you throw all the options up in the air and ask questions like these: what do we need to provide? What should the level of water security be? Should we ask the community? Let us make decisions. There is no rush for this decision. This decision is not about the current drought, despite being included in the emergency legislation.

As a final point, a lot of this goes to the heart of the decision-making process itself and its flaws. If there is one thing that can be achieved out of this it is to highlight the fact that when we make these decisions, which are not just an incredible impost on the public purse but obviously have significant social and environmental impacts on the community, they need to be transparent and involve the community in the process.

Councillor Venardos—I will read a prepared statement. The proposal to construct a mega dam at Traveston Crossing is ill-conceived and flawed. The adverse social effects will be felt by thousands of residents, not only in the Mary Valley but throughout Queensland. In view of the available evidence, the proposal to construct this dam is irresponsible. A number of scientific and expert opinions offer many better alternatives and cost-effective solutions. The Queensland department of water resources, in a report entitled *An appraisal study of water supply sources for*

the Sunshine Coast and Mary River Valley, dated December 1994, revealed that the Mary River, and Traveston Crossing, was not chosen for investigation even though the preliminary hydrology estimates revealed that it would have a capacity of 660,000 megalitres and a yield of some 296,000 megalitres annually. This has been revised to 150,000 megalitres annually. I would like to table a document that came from that report.

The five reasons for the rejection were: the extensive alluvial flood plain on the right bank; the cost of the dam updated since 1977 was \$125 million—currently the government estimates \$1.7 billion; the dam site was considered unsuitable because of the high capital cost; it would inundate prime agricultural land; and it would displace the rural population. Isn't it ironic that the reasons put forward 12 years ago by Premier Wayne Goss are still valid today in 2007?

On 23 August 2006, this council was issued with a notice from the department of primary industries that it faced a penalty—which I understand was \$150,000—for the construction of an 87-centimetre-high weir on the river not far from the proposed dam site. The notice said that the weir 'created a long-term barrier to the migration of native freshwater fish species, two of which are threatened: the Australian lungfish and the Mary River cod'. I would also like to table that document and our response to the government. Our response to the government was that, if a barrier of not quite a metre high would cause a problem to the migratory fish, what would a 30-metre-high wall do?

Senator IAN MACDONALD—Could I interrupt you there? Are you tabling the letter from the Queensland government telling you about your little weir?

Councillor Venardos—Yes, I am, and our response to it.

Senator JOYCE—The minister for the environment would be very interested in that letter.

Councillor Venardos—Since 1994 the state government, independently and through joint efforts with non-government bodies, investigated and reported on various projects which would assist to guarantee water for the rural producers and urban communities in south-east Queensland. Among those previous reports are the Montgomery Watson report, which I understand is six years old, and one from the department of natural resources, which was completed six months ago. In essence, both reports strongly recommended measures to reduce the impact of drought and provide water for the burgeoning growth of the population in south-east Queensland. Since the announcement in late April 2006 to construct a mega dam, the nine councils which have a connection with the Mary River—that is, councils for the cities of Caloundra, Maryborough and Hervey Bay, and the shires of the Maroochy, Noosa, Caloola, Kilkivan, Tiaro and Woocoo, with a combined population in excess of 500,000—formed the Mary River Council of Mayors.

The council of mayors commissioned the University of Technology Sydney and Cardno to independently review and assess the Queensland government's strategy for meeting the long-term water supply-demand options for south-east Queensland, of which the Traveston Crossing scheme is a major and controversial component. This review was publicly released in February 2007. We heard Professor Stuart White talk about that a moment ago. This report showed in very clear and precise terms a number of vital alternatives and cost-effective options, but most importantly it revealed that the Traveston Crossing dam will not help in the current drought and

will not be needed once the drought is over. Additionally, this report referred to the readiness options. A desalination plant for the northern end of Bribie Island and indirect potable reuse was suggested. The findings in this and other scientific based reports have shown ways to provide certainty of water supply for south-east Queensland to meet the demand during prolonged drought and have a capacity for the rapidly growing urban population in south-east Queensland. It is shown that a dam on the Mary River at Traveston Crossing is not the answer.

It is of great concern that the determination of the Queensland government to ignore sound scientific and economic advice—for example, that of Professor Stuart White and the DNRW report—will cost the people of south-east Queensland very dearly. There is no doubt that the exorbitant price per kilolitre of water from the proposed mega dam is a prime factor in the prediction of massive water price hikes for south-east Queensland water users.

As a matter of public record thousands of people, residents and visitors alike, to the Murray River basin, from the headwaters to the Great Sandy Straits, are appalled by the lack of public consultation and the lack of consideration for their future. There is the failure by the state government to inform people that their lives and livelihoods would be adversely affected—even now, 12 months after the announcement, it appears that the state government has no clear and definite strategy on how to deal with the huge social, economic and environmental impacts on the affected communities. There is no real or tangible evidence from the state government to implement its commitments to build new infrastructure or to relocate existing facilities and amenities. There has been no demonstration of good faith in carrying out its intentions, in responding to the wishes of the affected communities or in doing those things that will reduce the pain of the shock announcements.

The threat to residents of being deprived of their homes, businesses and lifestyles cannot be ameliorated. Whilst a number of residents have entered into negotiations and contracts to sell their homes, there is still a very large number of people who are traumatised by the prospect of being forced off their lands and out of their homes—people who are farmers and rural producers of many generations and people who have bought into a lifestyle to spend their remaining years in an area of their choice, for whom no amount of compensation would be adequate.

Almost on a daily basis, especially on those occasions when I have visited the rural communities, many residents continue to express serious concerns about the lack of appreciation of their plight and how the situation can be remedied. Notwithstanding that the state government has acquired a little more than 50 per cent of the land required, reversing a decision not to proceed with this project is not setting a precedent. This happened after 1994, when the proposed Wolffdene dam was cancelled by the Goss Labor government and the purchased land, which at that time was almost 85 per cent, was put back onto the market. This should be the case in Tallulah and the process regarding the dam should now stop. That concludes my prepared statement.

CHAIR—Thank you very much. Professor, the London publicity on climate change the other day said something pretty significant: 50 per cent of the world's population will be water poor in 50 years time. South-east Queensland has a serious water problem. Do you think one of the reasons they have that problem is that a series of governments over many years have been influenced by what is unkindly known as 'the white shoe brigade' and that they did not demand stronger contributions from developers to build the infrastructure that development needed?

Senator BOSWELL—Oh, come on! Let's back off here a bit!

CHAIR—Do you think there has been enough infrastructure contribution over the years?

Prof. White—Generally speaking, around Australia, it is true that there has not been enough infrastructure contribution in terms of developer contributions. That is generally true, and what that means is, effectively, a cross-subsidy between existing users and new users in the system. It also distorts the level of development and the location of development. Perhaps what is more important is the question, to the extent that you use those developer contributions and to the extent that they exist, about what you use them for. Part of the problem that we have had historically is not so much that we have not had enough infrastructure charges in order to build new dams but that we have not until relatively recently paid attention to the fact that the real issue with demand growth is the inappropriate level of efficiency of water use.

CHAIR—I was not referring to dams, necessarily.

Prof. White—In that case, I think a broader interpretation of the term 'infrastructure' is needed—and, indeed, that is the basis for what we are suggesting in the report. To be fair, this is happening around the country at quite a rate. We are in significant catch-up mode in terms of those issues so, with that broader interpretation of infrastructure, I would agree that, around Australia, we have not put away enough for infrastructure.

Senator TROOD—Professor White, you seem to have been worked over by the Deputy Premier in her responses to your report. She says that the plan fails to take account of population growth and seems to suggest that the population of Queensland will live with knife-edge water security. She says you are overly optimistic about being able to control demand and that the piece de resistance is that you offer the good people of Bribie Island a desalination plant—which I am sure they are looking forward to! I know you have a specific refutation of these particular items in your evidence, but could you respond generally to these 'observations'—to put it generously—that have been made about your report?

Prof. White—I must say that I was quite surprised by those observations because they seem to miss what we had often stated in the report, which is that we used Queensland government figures in coming to our conclusions. I found it quite significant that the Queensland government submission to this review has neglected to show the time series graph of supply versus demand, which actually does appear in the long-term water options paper. One of the reasons is that it shows quite clearly the long-term supply-demand balance for a significant number of years. It is worth remembering that the surplus in the supply-demand balance comes at a significant cost; it effectively represents schools and hospitals that will not be constructed in Queensland because of that level of investment. Of course, if you add Traveston to that, it is a significant issue and impost. So the first conclusion I would draw in terms of the Deputy Premier's response is that it has failed to recognise that we used demand and supply figures that come from their work—and that includes population growth as well as demand and supply.

On your question about Bribie Island, I note with interest that, in the last couple of days, there have been media reports about the fact that there has been a report released—which, I think, the *Courier-Mail* obtained under freedom of information—which is the Queensland government investigation of desalination at Bribie Island. I want to emphasise that our report is not

recommending the construction of a desalination plant at Bribie Island. There are a series of options which could be rolled out as readiness strategies in the very unlikely circumstance that this drought worsens or that future droughts are worse than this drought. The first cab off the rank in that regard would be indirect potable re-use from the remaining sewage treatment plants—in addition to those which are part of the Wivenhoe-Somerset scheme, which, of course, has been announced.

Senator TROOD—The data you have used is data that is available on the public record. You have not conjured up particular statistical information for your own purposes; you have basically relied upon the information that is in the public domain. Is that right?

Prof. White—Yes, exactly. That mostly comes from the material published in terms of long-term water futures. What we have done is use those data but then question them. We have said we are of the strong opinion that, as I said before, the demand figures are overestimated—for a whole series of reasons which are too numerous to mention but are in our submission—and that the supply availability is significantly underestimated, primarily because of the question about the deemed appropriate level of restrictions for the people of south-east Queensland. As I said, the community should be involved in making that decision. They are the most low-key restrictions that are faced by any capital city around Australia.

Senator O'BRIEN—I think you mean mainland Australia.

Prof. White—Yes, excluding Tasmania.

Senator TROOD—I want to ask about your observation about the demand being overstated. I realise that could involve a lengthy answer, but it seems to me a rather critical question in terms of trying to work out the overall balance for security of supply. Could you quickly explain to us why you think the demand is overstated?

Prof. White—There are a couple of key factors that influence what we called the reference case or business as usual demand. This is the demand that we expect to occur in the absence of any investment in demand management activities. It is important to know that because then we can determine the impact of those demand management activities and say, 'This is the corrected line.' You will see several examples of that in our submission. One of the key influences on that is urban consolidation, so as we see more flats and units being developed, particularly around Brisbane—and do not forget there is not too much land available in the Brisbane City Council area itself—a lot of the growth will be achieved by urban consolidation. Of course you take that down to the Gold Coast and even up to the Sunshine Coast. As much as people may have concerns about this, it is actually a trend that is occurring in most capital cities. We believe that that trend is not adequately taken into account. We have seen it result in significant reductions in demand, for example, in Sydney.

The other effect is the natural improvement in the efficiency of appliances. The most obvious example is the humble dual-flush toilet, an Australian invention, which uses 70 per cent less water than single-flush toilets. They are gradually being replaced as people renovate their bathrooms and as new houses are built. This makes a significant difference to water use. We will never use as much water in toilets in Australia as we did in 1990, despite population growth, so that one effect is important to take into account. We chose, as I said, to make sure that we used

the Queensland government figures and not to take into account these trends. That is an extensive modelling work. This work has been undertaken by the Queensland government but it is not publicly available and was not accessible to us.

Senator TROOD—So your conclusion is that there are things in the system, if I can put it that way, which are likely to reduce demand over time—is that correct?

Prof. White—That is absolutely right.

Senator TROOD—So the kind of analysis which leads to the need for a crisis solution by spending \$2 billion approximately on a dam is unjustified in the context of these changes that are already in place—in part, anyway.

Prof. White—It is unjustified but not for that reason: we did not take that into account in our analysis. We felt that was—

Senator TROOD—But if you took those things into account, we would be in a better position.

Prof. White—Absolutely. My estimate would be that the demand-supply balance could be met until well past 2040 but we took the Queensland government figures and even those figures show that the supply-demand balance is met until around 2026 to 2030.

Senator TROOD—What sort of assumptions do they make on a per person litre usage on a daily basis?

Prof. White—This is an important point: the figures are very high relative to, for example, Sydney and Melbourne.

Senator TROOD—Can you state what they are for the purposes of the committee?

Prof. White—The figures that are being assumed are 300 litres per person per day and that then being reduced to 250 litres through the mechanisms which are already taking place. They are slightly anomalously stated because they refer to residential per capita usage. Most other jurisdictions refer to per capita usage for the entire system, so it is a little difficult to compare cities if they are using different metrics. But, nonetheless, the consumption in south-east Queensland is higher than in Sydney or Melbourne and part of the reason is that Brisbane has only relatively recently introduced the kind of volume based charging that other cities have introduced, so there is a lag effect. As people's efficiency improves over time as a result of that pricing reform, the demand will come down.

Of course, we are in an unusual situation being in a most severe drought and facing significant levels of restrictions, so we actually do not know what will happen in terms of bounce back when those restrictions are lifted. It is almost certain that a lot of the practices which have been built in as a result of these restrictions will also suppress demand for some years to come, and then it depends on what programs are invested in by the different water utilities and the Queensland government to try and capture those practice changes.

Senator TROOD—So do your assumptions and calculations assume in relation to demand that the south-east corner of Queensland would have to remain on level 5 restrictions forever to gain the kind of advantages you are saying are here?

Prof. White—No. This was another rather disappointing observation by the Deputy Premier in her statement. The report assumes the supply availability that the Queensland government states. That supply availability makes the assumption that the restrictions would be no more than three per cent of the time. They would be only to level 2, which is, as I was saying earlier, an incredibly light level of restriction.

It is often hard for us to compare this, which is about the medium- to long-term future, with what is currently happening, where there are quite severe restrictions in place because of a drought which is worse than the worst drought on record. However, in the long term, the hydrology and the supply availability is based on those relatively light restrictions and we have therefore assumed that. So, far from it being an assumption that we would remain in deep restrictions, which is the claim by the Deputy Premier, we are in fact claiming, exactly as they do, that the restrictions would be very light.

There is a very important difference between restrictions, which are a temporary curtailment of people's level of service, and demand management, where you satisfy the amenity, you satisfy the level of service by improving the efficiency of equipment with efficient cooling towers, efficient urinals, efficient toilets, efficient washing machines and fixing the leaks in the system. The Queensland government is currently spending over \$50 million repairing the leaks in the system and reducing the pressure in the mains through working with local councils on this. It is a cooperative arrangement with local councils. These are stunning programs in world terms. Sydney Water is probably also leading the pack in Australian terms. Those are demand management measures which do not affect amenity. Restrictions are a different thing.

CHAIR—Did you say earlier that, with the things that are in the system now of a non-infrastructure nature, water is okay until 2026 or 2030? What do we do after that?

Prof. White—In this report we have proposed to look at the period between 2030 and 2050. Assuming the Queensland government figures are correct—and we have serious reservations about that—in that period you would need to look at some measures which will reduce demand. We have outlined a series of measures which in many cases are extensions of what is currently being done on the demand side. One of the most significant measures in that package is to improve the efficiency of new developments. Queensland is one of the leading states in terms of those kinds of initiatives. At Pimpama-Coomera on the Gold Coast there are now some proposals, and on the Sunshine Coast, to ensure that all new developments not only improve their efficiency but also maximise re-use in order to reduce consumption.

CHAIR—The question really is: do we need to find, in the next 30 to 50 years, a new primary source of new water, rather than fiddling around with the older water?

Prof. White—No, we do not. That is a very clear conclusion of our work. Not only is it not necessary it would be quite dangerous to buy, particularly at this point, a single large source of water which is rain fed. That would not be the right strategy. It is not needed and it is quite risky.

CHAIR—Thank you.

Senator IAN MACDONALD—I am fascinated by this letter from the Queensland Department of Primary Industries and Fisheries which tells you that your unauthorised waterway barrier works will have an impact on fish migrations upstream—and congratulations on your very succinct and meaningful response to that. I will put this to the Queensland government when they appear tomorrow, but have they given you any response to the fact that your little barrier is such a problem and their big barrier apparently is not.

Councillor Venardos—We have a response. I believe that the committee may have it on hand here. It has been some months since we advised them of our response.

Senator IAN MACDONALD—In summary terms, how do they make the distinction between your little barrier and their big barrier?

Councillor Venardos —My interpretation of that is that they have claimed that we built it without a permit and without approval and we thereby endangered the species. But, if we had received approval, that takes away the threat.

Senator IAN MACDONALD—The fish could understand that!

Senator JOYCE—Because we all know that fish can read!

Councillor Venardos—I am a bit confused by it but that is my analogy. That is my interpretation of it: without approval it is a threat and with approval it is okay.

Senator IAN MACDONALD—Their real issue is that you did not apply for approval, and the thing about the fish was just a throw-in to try and say you were naughty boys.

Councillor Venardos—If we get penalised, that is \$150,000 that will go into the state coffers.

Senator IAN MACDONALD—If they were serious about the concern for the fish, this is quite a remarkable letter from the Queensland government; admittedly the Department of Primary Industries and Fisheries as opposed to whoever is giving approval for the Traveston Crossing dam.

Councillor Venardos—You mention that it is an 80-centimetre high weir across the river to assist in our water supply system, but we challenge the state government in our response. While they see an 80-centimetre high barrier as being a threat to the endangered species, just upstream from that they are going to put a 30-metre high wall, which is not a threat.

Senator IAN MACDONALD—It is fascinating stuff, and we will look forward to having them explain the inexplicable.

ACTING CHAIR (Senator Siewert)—Excuse me; I am in charge at the moment, because I am acting chair. I was going to go down to this end of the table now.

Senator O'BRIEN—Thanks very much. I am interested in the recycling of water proposal, given the history of that in Queensland and the Toowoomba experience. What do the councils that you represent think about that as a primary source of water, or does that just not arise for this region?

Councillor Venardos—The Cooloola Shire Council was written to by the Deputy Premier, who asked us for our views on the use of indirect potable reuse. Within a very short time we informed the Premier that we would support indirect potable reuse, because we recognise that south-east Queensland is facing a crisis. We will do our best and our part in trying to alleviate that problem, but it should not be at the sacrifice of over 2,000 lives in our inner neighbourhood.

Senator O'BRIEN—How does the reuse of potable water work in your region?

Councillor Venardos—It is the indirect reuse of potable water.

Senator O'BRIEN—It is recycled and put back into the supply?

Councillor Venardos—You go back upstream and have your outflows from your primary treating and the other treatment plants upstream, so it mixes with the millions and millions of litres of water before it goes into your water treatment intakes.

Senator O'BRIEN—What sorts of quantities would it be possible to recycle here with that method?

Councillor Venardos—In Cooloola Shire it is about 4,000 megalitres per annum. We consume about 8,000 to 9,000 megalitres, and we put back in about 3,000 to 4,000 megalitres annually.

Senator O'BRIEN—What are the energy issues in that proposal—the available energy and the cost of energy?

Councillor Venardos—I will get Mr Fredman to answer this one, but most of it is gravity. Nevertheless, our sewage water—the effluent—goes down to other communities downstream, so it mixes again with the water.

Senator O'BRIEN—You were going to give me some figures on power, were you?

Mr Fredman—The relativity of cost is becoming a more and more difficult equation. If you look at the true cost—the full cost—of the Traveston Crossing dam water in Brisbane, it starts to mean that there are more options on the table that are of equal or lower cost, that we would not have looked at previously. There is no doubt, given the true cost of Traveston water in Brisbane, that indirect recycling and desalination come into their own all of a sudden. We have not had this situation in the past, but all those options are now on the table and they are all necessary for the future. Basically, the dam answer is a dinosaur answer. It will be extinct within a short period of time.

Senator O'BRIEN—In relation to your comments about the need for Traveston for south-east Queensland, do I take it that you would have the same view about the proposal to take water from the Clarence?

Prof. White—Absolutely. In the Clarence scheme, it is about the same distance from the Clarence up to join into the Logan River, which is one of the proposals, as it is from Traveston down to the demand centre of Brisbane. Leaving aside the question of what the Clarence people think about it, I agree with the Prime Minister and the minister for the environment that it should not be a state issue, that we should be considering it Australia-wide. However, that does not mean that it is a sensible idea. It is not a sensible idea within Queensland to take Mary River water down to Brisbane, and it is not a sensible idea to bring Clarence water up. It has nothing to do with state borders; it just does not make economic sense. It has the same risk of becoming a stranded asset. You will build that pipeline and, because it is the most expensive water you have available, as indeed the Mary River would be, if you had a merit order or an order of dispatch in terms of where you get your water from, it is the last place you would get it from, because it costs so much to pump it up, and therefore the pipe would be dry most of the time. So you would have a significant economic problem with a stranded asset in both cases.

Senator JOYCE—I am going to run through a couple of things. The other day I heard about a report that came out that said that, with the water from the Traveston Crossing dam, they could give everybody in south-east Queensland a water tank. I want to get your views on that as an alternative. Also as an alternative, did you look at policies to get people to live elsewhere in the state? Obviously the hub of the problem is that everybody wants to live down here. What about policies to get people to start moving to—

CHAIR—What about St George?

Senator JOYCE—I was thinking of getting people from Junee to live up in Arnhem Land! Can you run through those? They are two things that have lately happened. It seems to be stating the obvious. Why doesn't everybody in south-east Queensland have a water tank? If they have got money to throw away, why don't they buy them one?

Prof. White—If I can deal with the second question first: we deliberately took the population data from the official forecasts, which are the same as those used by the Queensland government, and we did not question those. Essentially we figured that that is a question for a different area of public policy, in terms of regional development and so on. Of course, if you reduced the population growth, you would have a consequential reduction in demand. However, most of the demand actually comes from the existing customers, and you can actually do a significant amount to reduce that. If you can improve the efficiency of new customers, new houses, by over 60 to 70 per cent, then you make a significant reduction in the impact of each new person who comes to live here. So population growth itself is only half of the equation. The second thing is: what are the water use processes and practices that those new entrants bring to the system? But, as I say, we did not go into the question of whether you could use some other form of regional development to reduce population growth, because we thought that it was better to stick with the published figures.

The first question, about rainwater tanks, is a very good question, and, as you say, quite timely, given the recent report of the Australian Conservation Foundation done by Marsden

Jacobs Australia. As you will see from the report, one of the options that we are looking at for the post-2030 era is an extension of the existing rainwater tank rebate program. The Queensland government currently has a rainwater tank rebate program, and in some cases the councils also match that. So some people can install tanks at a very low-cost, because they can actually get a council and a state government rebate. That is having an increase in the amount of uptake. There are now new land-use planning controls which require new houses to fit a rainwater tank. So there is some movement in that area, and we modelled the extension of those programs.

The other thing that is worth mentioning is the idea of smart growth, which I alluded to earlier in terms of Pimpama, Coomera and other developments. That often uses rainwater tanks integrated into the development as a means of improving efficiency. Particularly in south-east Queensland, where rainfall levels are so high, it makes sense in a new development to capture as much of that as possible in addition to reuse. The combination of the two means that you can start to get up upwards of 75 to 80 per cent net reduction in demand on the system, which is quite powerful. Doing that alone means that you can push that date out well past 2050. Rainwater tanks are an integral part of that.

I do have some differences with the conclusions in that particular report, which has only come out in the last couple of days, but they really relate to the question about the economics of rainwater tanks in a retrofit situation as distinct from a new house situation. You are much better to try to get that rainwater tank integrated into a new house, because then you can start to trade off the capital cost of the reticulation system. Unless you do that, you are adding a significant cost. As you will see from the graphs in our report, rainwater tanks are the most expensive option. However, we have included them because it is already underway and it could be extended.

Senator JOYCE—They are less expensive than Traveston Crossing dam. In the geotechnical and hydrological work that you looked at in regard to Traveston and just in covering it, do you have any opinions on evaporation, seepage and siltation? How much would they be? We are trying to work out how much we are going to lose.

Mr Fredman—As to evaporation, in this area as an engineering principle we say that the evaporation rate per annum roughly equals the direct rainfall. So we are saying that the evaporation losses on the dam will probably equal the amount that the dam itself catches as rain from directly above and not from upstream. In relation to seepage, we have taken the line there from our investigation that there are certainly going to be seepage losses. No-one knows whether they are going to be ongoing or whether there will be an initial take-up and it will be roughly static after that. As to siltation, the council does not believe it will be a significant problem. It will be a problem, but not a significant one. The three issues of siltation, evaporation and seepage are all correct and relevant, but the issues of whether or not this dam is needed and if it should be in the middle of a floodplain are much bigger issues that council has largely been tackling. I am not taking away from those smaller issues—they are relevant—but there are much bigger issues that are much more important.

Senator JOYCE—I acknowledge that. But, actually going to the fundamentals of the numbers they have given, have they taken into account evaporation, seepage and siltation in their yields and their capacity? If we have a five-metre dam and, as we have heard, you lose one metre

through evaporation, another metre through seepage and then another metre, possibly, over time through siltation, you are going to end up with a swamp.

Mr Fredman—The design of the dam will lead to that anyway, and much quicker. Whilst QWIPL quotes the average depth of the dam to be 16 metres, any fool can divide the area of the dam by the volume and find out that the maximum average depth is 8 metres. That is primary school maths. Given that the dam will not be full all of the time, of course, because it has to draw down, the average operating depth—and we point this out in our submission—is probably going to be less than five metres. That is going to lead to much bigger problems than the actual evaporation rate or the siltation rate. The fact is that it is a dam in the middle of a floodplain—a bit like the Nile River—and the dam is strangling the river mid-length.

Senator BOSWELL—I would like to explore that a bit more. You are saying that seepage, evaporation and siltation are not particular problems and there are bigger problems. Could you elaborate on that?

Mr Fredman—The council submission which you have received is in fact the Council of Mary River Mayors submission. Unfortunately, it is under the council name, but it is a bigger submission. We cover all of those points there. Basically, we have serious doubts about the environmental capacity of the Mary River, the Hervey Bay area and the Great Sandy Straits to absorb the impact of a dam this big. Secondly, there are major security of supply issues for all of the existing irrigators. Thirdly, the cost of this water to the people of Brisbane is going to be very high. The people who will be affected by that cost may be as far north as Noosa, which is in part of the catchment. What we are saying is that a dam of this size in this location is bad science. It may well produce that water. We have not challenged the hydrological calculations. But the reality is that it is bad science when you consider hydrology but completely ignore environment, social impacts, economic costs and also the reality that, in the future, we are going to naturally use much less water than we used to. So what right does the government have to assume that our high level of demand is going to continue?

Senator BOSWELL—Could you elaborate on subduction zones?

Senator JOYCE—The area of rubble and the depth where the dam will be placed.

Mr Fredman—Yes. From council's perspective, we do not have an opinion on the geology and the physics of the siting of the dam. I am an engineer. I can tell you, and you would all know this anyway, that engineers can build anything anywhere. That is what we are trained to do. It is only money that stands between us and our doing that. The reality is that we can build the Aswan dam in the middle of the Nile floodplain and we can build this dam at the proposed location. Unfortunately, it is just irresponsible because of a whole stack of other reasons: the river system cannot take it and it is unnecessary.

Senator SIEWERT—I want to follow up the issue of demand. You have used the government's figures as to demand. If you had to use your figures, what would you use for a demand level that you would think would be fair? What impact would that have on supply options?

Prof. White—I would really hesitate to put a number to that. What I can say is that we would be much more confident saying that the supply availability is higher. As you can see from our submission, it has been derated by a significant amount—from memory, from 630 giganlitres per annum down to 450 giganlitres and in the QWC submission now 440 giganlitres per annum. That is a significant derating based primarily on this question about the assumed level of restrictions. I would certainly be confident in saying that is likely to be higher. If you really asked the community of south-east Queensland what level of restrictions they were prepared to put up with, then they would probably say that, particularly given the circumstances, we could probably add another 50 to that. In terms of the demand, it would require quite a bit of detailed modelling and analysis. As I say, that modelling and analysis have been done but have not seen the light of day. It would almost certainly be a reduction. As to the quantity, I would be hesitant to say without actually having seen that modelling or having undertaken it myself.

Senator SIEWERT—You referred earlier to the cost per litre and you said that Queensland had relatively recently introduced that. How does the cost per litre here compare with that of other cities?

Prof. White—It is on a par. It is slightly lower than that of Sydney. Many cities have quite complicated pricing structures. Perth, in particular, has a relatively complicated inclining block tariff. Brisbane's could certainly do with an increase. We are now reflecting all over the country on the historically low price of water. Indeed, there have been some suggestions that in Brisbane that there will be a significant increase in price at least as to the bill. The question of how much you translate that into the price and into the fixed charge is then up to the appropriate price-setting agency. My personal preference would be that a lot of that be set in the prices, and if prices rise then that is another significant influence as to the reduction in demand.

I think that once we move out of drought—and this is for south-east Queensland in particular—there will be a period of a slow return to pre-drought demand levels. But if at the same time a series of programs are put in place which can help the community to improve the efficiency of outdoor water use—which is after all what is mostly reduced during restrictions—and if part of that would be to increase the price then almost certainly these figures which have been assumed would be far too high.

Senator SIEWERT—In Perth from the eighties and the nineties the community was engaged in significant discussions about the future of our water supply. That was particularly so in 1995 when everyone realised that climate change was having an impact. Has that sort of dialogue been carried out in Brisbane and in Greater Brisbane?

Prof. White—No, unfortunately, and we have drawn attention to that. There was a major exercise which was undertaken by the South-East Queensland Water Corporation. That was the regional water supply strategy study. It is highly likely that that may have led to that process. Some councils have undertaken significant consultation. I single out the Gold Coast in terms of a major exercise of consultation by Gold Coast Water and the Gold Coast City Council. But overall in the development of key decisions which affect the level of supply availability and key decisions about the expenditure of \$2½ billion worth of public money there has been no community engagement. There has been none about those kinds of decisions at all. There was about to be, in relation to indirect potable reuse, before the decision was made to proceed with it regardless but there has been nothing else, yet these are questions which could have had that

because, unlike the emergency legislation, you do not even have the excuse of saying we are in too much of a rush and we do not have time for that. In this case there would have been.

Senator BOSWELL—When do you estimate that this dam will be up and supplying water? Further, you said that we are not in a desperate situation. One of the problems we have is that Wivenhoe dam will be down to five per cent, I understand, in another couple of years. If we put recycled water into a dam with only five per cent of water, what effect will that have?

Prof. White—You are alluding to the dilution resulting from indirect potable reuse into the Wivenhoe-Somerset system. It is true that they are not ideal circumstances for indirect potable reuse—and this is a situation that is being faced in a few jurisdictions around Australia. It proves that drought is often not a good time to make these decisions. However, in terms of a response to a drought which is the worst on record, needs must to some extent and you need to look at the fact that the treatment process involved in indirect potable reuse means it is producing water of a higher quality than almost anything that would be drunk around Australia, particularly in areas along the Murray-Darling, where it goes through several sets of kidneys before it gets down to Adelaide. The issue is more about what you would need to do to deal with the current drought crisis. That needs to be dealt with. As I said, the Traveston Crossing dam is not about that. It is not helpful. But responsible governments need also to look at dealing with declining levels in the current drought circumstances and then, having done that, put in place readiness strategies for the next drought should it happen.

CHAIR—I do not want to distress you with this but, given the high evaporation, the ponding and all the environmental reasons on the lower, shallower reaches of the dam, you could retain the water at 10 metres or something simply with some earthworks, which might be cheaper than the road works and the town exclusions et cetera. It would be possible to do it, wouldn't it?

Mr Fredman—Building a hole to build a dam is probably the most expensive option of all in relation to the cost of supplying water. For a start, you have to dig out an enormous amount—hundreds and hundreds of thousands of tonnes—and then it has to be put somewhere.

CHAIR—No, I am not talking about that. One of the obvious problems with this proposition is that some roads would be cut and there would be no access to the valley; I do not know what you could do about that. But it would be possible to engineer it so that you did not do that; you could simply have a levee.

Mr Fredman—The problem with levees is that when it rains you get water stuck on the other side of them. They work in Holland.

CHAIR—Wagga Wagga City Council has a levee, and we deal with stormwater.

Mr Fredman—To be honest, levees to keep out seawater and rivers are quite different from levees to hold back dams, because you always have catchments above levees. It is a different circumstance.

CHAIR—But you said that, as an engineer, you could do anything if you had the right amount of money.

Mr Fredman—I lose!

CHAIR—Thank you very much.

[12.54 pm]

McHUGH, Mr John Thomas, Private capacity

SHERIDAN, Mr Alan John, Private capacity

CHAIR—If you would like to make an opening statement, we would be delighted to hear from you.

Mr Sheridan—I am a professional civil engineer. While I am appearing in a private capacity, I am the Director of Works at Noosa Council. I was previously responsible for major metropolitan water supplies in Pine Rivers Shire Council and Ipswich City Council, which are two of the biggest local governments in south-east Queensland. I have worked overseas on water supply projects in Vanuatu, Papua New Guinea and southern Africa.

I do have an opening statement. I want to go through some basic statistics so that the committee is aware of what we are talking about here. This is a dam on an alluvial floodplain midstream on a river system. It is not where you would normally construct major storages. You normally try to put them where you can minimise evaporation losses. You do that by constructing dams in places where you have solid rock, where you can minimise seepage and where the surface area of your dam is small by comparison with the volume of water stored so you get an efficient storage. You normally try and put them in places where you can ensure good water quality.

This is an area that has been used for years and years for dairying and cattle industries. It is not a pristine catchment and it will certainly be subject to aquatic weed infestation, which you will hear about later. The surface area of this proposed dam is 1.3 times the surface area of Sydney Harbour. Most people have seen Sydney Harbour, they know how big it is. That is the surface area that we are talking about. You normally try to have these things in headwaters as I said before. Also, when you have them in the headwaters of river systems you can mitigate to some extent the environmental impacts associated with them because you are not damming rivers midstream and you can also get a good clear catchment so that you have good quality water stored.

This proposal has been sold to people in Queensland initially as the saviour for the drought, because people did not really understand what was going on, and secondly as a saviour for the long-term water supplies for south-east Queensland. I want to give you a few figures, which actually demonstrate how this is being sold. The current demand for water in south-east Queensland is 400,000 megalitres per annum. A megalitre is roughly the size of an Olympic swimming pool so it is 400,000 Olympic swimming pools.

The unconstrained demand for water in south-east Queensland in 2050, according to the state government's own figures, will be 930,000 megalitres per annum. Traveston stage 1 will provide 70,000. Less than 10 per cent of the demand in 2050 is going to be provided by Traveston stage 1. I cannot see for the life of me how creating a new source of supply which provides for less than 10 per cent of the demand in the year 2050 is securing the future water supplies for the

south-east Queensland region. Traveston stage 2 at 110,000 megalitres is not much of an improvement on that. The 150,000 megalitres that the state government is talking about—I am sure you are well aware by now—is only made possible by two dams, so this whole scheme is not one dam but two dams and it is made possible by the raising of Borumba Dam, a separate dam in the Mary River catchment.

In the 22 years since the Wivenhoe Dam was constructed, the south-east Queensland population has grown by 70 per cent but the water supply has not grown at all. One of the first things that the Queensland Labor Party did when it won power in 1989 was to stop the Wolffdene Dam, which would have provided an additional secure source of water for south-east Queensland. But as a result of that they did go ahead and identify four other dam sites around south-east Queensland: Borumba and Amamoor, both in the Mary catchment, Wyaralong in the Logan catchment and Glendower on the Albert River; they spent \$50 million acquiring that land for those dam sites. How many were built? None.

One of the state government's primary documents that they used to support this proposal is the GHD dam options report. The report is fundamentally flawed. It is a report on dam sites rather than a report on providing water around south-east Queensland. It should have been a report about we have a water supply problem, where are we going to find the water, not about we have a water supply problem, where are we going to build a dam? As was mentioned earlier on, I have the figures which I can table, the table in that report is being referred to by the government as the justification. I have highlighted the proposed Traveston Dam on that table and it appears as No. 4 on that list. You will see that the yield listed on there is 215,000 megalitres. We know that it is 110,000. The cost is listed as \$1 billion, we know it is \$2.5 billion. When you combine those figures, the unit cost is \$22,727 per megalitre of yield not \$4,695, which is listed in that report.

So the report is fundamentally flawed on two accounts, specifically in relation to the Traveston Dam and more generally in relation to the fact that it is just a report on dam sites, not a report on providing water. Using the correct figures, makes the proposed Traveston Crossing dam the most expensive of any of the dam options considered by the state government.

I want to touch briefly on the performance of the dam. The state government assessments have been based on catchment data from 1893 to 1999. The average person would say, 'That's pretty reasonable and responsible; we should use long-term flows to estimate how things are going,' but they have produced no dam performance curves for the years 2000 to 2007, during the supposed worst drought on record. If you were going to spend all this money on a rainwater-dependent supply, you would surely want to know how it was going to perform during the worst drought on record. That has not been done. You might ask that question tomorrow when you are speaking to the state government.

We have done our own modelling. Stephen Burgess, scientist by background, has done independent modelling using flow data from the Mary River—actual flow data; this is not rainfall data—downstream of the proposed dam which suggests it would have performed very poorly over the last seven years. The Deputy Premier made a comment only a few days ago that if the proposed dam had been built a few years ago it would now be full. We cannot see how that is a correct statement. We have done the actual modelling ourselves—and it is in the PowerPoint presentation that I submitted with my submission—that shows that it would now be close to empty.

This is really no surprise because, when you look at the low flows and the low rainfall patterns that have occurred in the Brisbane River, they are mirrored almost identically in the Mary. So when you have low rainfall and low reliability of the dams for the major water supply for south-east Queensland, which is the Wivenhoe-Somerset system, you have exactly the same thing occurring in the Mary catchment. They are only separated by a row of hills and basically the same clouds service both areas.

I can go over the alternatives a little more in question time, because I have some more information in relation to them. The report by the University of Technology, Sydney, into the water supply/demand balance was a proper report looking at how to provide water for south-east Queensland, not just where to build dams, and it found that water could be secured through to 2050 without the dam, which was a high-risk, high-cost option, and that those resources should be diverted to solving the current drought.

There are a couple of things that Professor White put up as contingency options if you had a drought worse than the one that we have now, and I am prepared to talk about those in a little more detail. Desalination is one of those options, and I have a bit of knowledge of the proposal to raise Borumba Dam, which was always going to occur anyway. The water supplies for the Sunshine Coast were not secure, and the primary way of securing those water supplies into the future was the raising of Borumba Dam. It was always something that was on the cards for many, many years. It was something that was expected, and it was actually in fact sheets and reported by the state government up until the time of the announcement of the dam. In fact it is still part of the proposal.

Mr McHugh—I am a little on the other side of the fence. I worked on these dams. I worked on 11 major projects over 43 years. I spent 39 years with water resources and four years with the contractors. The first thing I found very much different with this one, in comparison with any of the other dams I have worked on, was the consultation. When the Wivenhoe Dam was first announced, it took 6½ years of studies, tests and consultation with affected families before the first property was resumed. This one has been done all back to front.

I believe that Traveston Dam is not the best option. I have done a couple of comparisons. Wivenhoe Dam, with this latest levy, will hold up to three million megalitres, and it covers over 32,000 hectares. Another dam which will be the same size as this is Monduran Dam, at Gin Gin. It holds about 585,000 megs, which is about equivalent to stage 2 of this one, and it covers only 5,000 hectares, in comparison with 30,000-plus for the same amount of water. So what this tells me and everyone else is that this is just too shallow.

These other dams that I worked on, such as Perseverance Dam, are all built in big ravines where the water is kept cool, which eliminates evaporation, and they are all on hard country. My parents owned a property at Kandanga for 65 years, and we saw the amount of silt that came down the Mary River. There are suspect foundations there; I know a chap who drilled that dam some years ago and the designing engineer wrote, 'No dam can be designed on these foundations at this time.' I cannot see where they could be much different. You can just imagine the amount of extra pressure that will be put on this structure with all this silt washing down. The Mary River certainly carries a lot of sand and gravel.

Before we built a dam like Wivenhoe Dam it was completely modelled. We had the laboratory at Rocklea. We had to go down and look at the finished model of the dam, and the unsuspecting, the first-timers there, would say, 'Why are those creeks looking upwards?' The idea is that, as with Kandanga and Yabba Creek, in a flood event, when the water's exit is stopped by the dam, this water does not back up level it spikes upwards. These levels will go much higher. We talked about two and three metres higher, which is going to cover over a lot of good pasture flats. All this modelling was for public viewing before the project started. Everyone had a look at it and you could see the finished article before the construction started. Nothing has been thought about for this dam. This project is so much different to the others.

My view is that our best option is to raise Borumba Dam. The land has all been bought. I was relieving, and I looked after Borumba Dam for some time, and all that land up there has been bought. The people that own it are quite happy to go when the dam is ready to be built.

All the land at Coals Creek for the weir has been bought. We should raise Borumba Dam. If it runs short of water, we could pump water from that weir into Borumba Dam. I will just show you these figures: this is Somerset Dam and this is Wivenhoe Dam. I have not got the exact figures. I was going to find them but the boys were stopped from telling me. The idea is that, once you get it up here into the Stanley, you have got full gravitation, which does away with all the pipelines. So you gravitate in here, Somerset empties into Wivenhoe and then you have got the water straight back into the Brisbane River and into Brisbane.

I see that as a much cheaper option. I laid pipes all around Bundaberg with the irrigation scheme there, and the big problem was that you had all the underground amenities. You are dodging powerlines and telecommunications and water lines. These projects cannot go fast. They talk about having a timed schedule. You just cannot do it. My personal opinion, as previously stated, is for people to keep fighting because I know for a fact that 85 per cent of Wolffdene Dam's property was bought. There are only between 46 and 50 people here, so keep going as you are going.

Senator JOYCE—If this proposed dam were to go forward—I think it would be good to get this on the record—with all the knowledge you have, how long do you think it would take to build? When would it be complete? The reason I ask that question is so that we can show people in Brisbane that it is not a solution to their water crisis and that, if it were completed, it would be long after they ran out of water. When would it be completed?

Mr Sheridan—I will hand over to John in a moment as he probably has more experience than I, but the state government's plan is to have it finished by the end of 2011. Assuming it takes a couple of years to fill, it would not provide water before 2014—2014 is a long time away from now. That is the very best, most optimistic timescale you can put on things. You also have to be aware that the project is going to be drawing on the resources around Australia that are available to construct large civil projects like this, and they are all currently flat out doing other things. My question is: where are the resources going to come from to do it? Then there is a compressed timescale for the environmental studies, and if there is any hiccup in that process it is going to mean that being finished by the end of 2011 will be put out of kilter. In terms of the actual process, John would know better than I.

Mr McHugh—I think the hardest part of building this dam is going to be how to find foundations, and when you do find them you are going to have to seal them off. It is going to take a massive amount of grout. When we did the Bjelke-Petersen Dam we found a lot of underground limestone caves and it cost another million dollars just to grout and seal them off. We built Monduran Dam in probably three years. The plan that I have seen for this dam is that they are just going to build the piers and not put the gates in until stage 2. So the piers will be built before the gates. I think it would take a minimum of three years, and then it would have to be filled. The major thing that I see that attracted the government to this dam is that they can raise Borumba and still have this dam. Borumba Dam has to be released through this dam. That gives them two dams in one. The release of Borumba Dam will have to come down the Mary River. It will be released out of this dam. For that dam to be full there would have to be nothing left in Borumba because they will collect all the losses from Borumba into that to cover that dam. If we get on that water grid the No. 1 thing is that we will be on the same restrictions as Brisbane. For the cane farmers and other farmers down stream towards Maryborough there is not a bit of water in it for them. They are going to be restricted. You have to have a certain amount of water to grow cane, haven't you?

Senator JOYCE—If this is not going to be right until 2014, why is there hell's own rush to try and get it through now?

Mr Sheridan—I think that is a good question for tomorrow.

Senator JOYCE—Okay. I have another question on a completely different issue. It was reported to me recently that, after test drill sites were put in around the site of the dam wall, there was an incident of stock dying. In fact there was one, and then two and then all of a sudden seven or eight cattle just dropped dead in the area. Wouldn't it be a little bit dangerous to find something that is killing cattle and then fill the place with water and pump it to every house in Brisbane?

CHAIR—Can I just say with great respect, Senator Joyce, that that is a bit fanciful.

Senator JOYCE—No, it is not.

CHAIR—They might have died of a bellyache or carsickness. Who is to say what they died of?

Senator JOYCE—There is one thing for certain: they are dead. Something killed them. Do you have any idea what it would be? Obviously it was caused by whatever they were digging up.

Mr Sheridan—I do not know the specific details of that. It is quite common knowledge that there are hundreds of arsenic cattle dips, and there were other sorts of chemicals used in them. Most of them would not be registered. The area has been a dairy industry area for well over 100 years. When the dam is impounded, the water will cause those chemicals to come to the top and they will end up in the dam. But I do not know whether, when diluted in that amount of water, that would have any impact. I just do not know.

Mr McHugh—I will explain that. At Wivenhoe there were at least 13 arsenic dips that I was involved with. They were strategically pumped out and it was taken to Willawong, to a special

area. Then all the concrete and so on was overexcavated by X amount and then it was backfilled with clay. They realised then that with the little bit there would be no traces left. All the septic tanks were pumped out and sealed off.

Senator JOYCE—Have we sealed up all the arsenic sites in this dam—in this site?

Mr McHugh—They are all mapped. As far as I know, all the dips in this area are on a map, because we had a property at Kandanga and you could go and check. They have been mapped.

Senator IAN MACDONALD—Mr McHugh, when we were with QIPL yesterday they said to us that the reason they are interested in this rather than Borumba—and that shows the catchment of Borumba and this is the catchment for Traveston—is that it is no good going to that, the catchment of Borumba, because it is a far smaller catchment. What is your answer to that?

Mr McHugh—Well, I have got to admit that since all the scrub was felled up around Jimna it has lowered the rainfall—when they planted all the pine up there.

CHAIR—Oh, that's a sensitive issue!

Senator IAN MACDONALD—Yes, I don't know that I wanted you to say that!

CHAIR—Yes, you might be going to get the wrong answer there!

Mr McHugh—But I know the old Mary—and there is nothing much flowing down it. I have been on another site upstream on the Mary, but I am not going to say this site because there would be someone knocking on my door tonight!

Senator IAN MACDONALD—But their point was that, if the rain comes, it is a far bigger catchment and so that is more sensible than to rely just on Borumba by itself. Is there merit in that argument?

Mr Sheridan—You cannot compare the proposed Traveston Dam to the dam at Borumba. They are two different catchment sizes, obviously; one is going to capture more rain on the other. If your only criterion was 'the biggest you could find anywhere', then the proposed Traveston Dam would be the one. It is the biggest you can find anywhere. But surely, in the year 2007, that is not enough justification for making a decision to build a water storage facility—that it is just the biggest you can find—when the economic, social and environmental issues totally outweigh the logic of that. There is not much doubt in my mind that you would not get the same amount of yield out of a dam at Borumba and Traveston.

Senator IAN MACDONALD—Sorry, you would get the same yield?

Mr Sheridan—You would not, no. One is a smaller catchment.

CHAIR—I was given a rainfall chart yesterday which showed the higher rainfall is not in this Borumba catchment, it is in the other catchment.

Mr Sheridan—In the presentation that I provided to you which is in your reports you will find that the state government produced a performance curve for a one-million megalitre capacity dam at Borumba which quite clearly showed that it would have performed satisfactorily for the last 50 years. The government has ruled that out because it would have been dry in 1945. Queensland is the only state that I am aware of that uses the last 110 years of rainfall data to justify the construction of a dam in the year 2007. In Western Australia, for example, because of climate change they use much shorter periods of rainfall and catchment flow data, for the last 10 or 15 years—I think it might be data for the last 10 years—to justify the building of a dam. When you have your meeting tomorrow, you should put to the government some of these things, such as: where are the performance curves from the years 2000 to 2007?

I have no doubt that you can build a good reliable dam at Borumba but it will not provide 150,000 megalitres a year; it will provide somewhere between 50,000 and 70,000. So if we want an alternative for bulk water supply, let us just put aside all the discussion that Professor White put forward about not needing extra dams, and say: we need a bulk water supply for south-east Queensland and we need 150,000 megalitres. My solution to that would be: raise Borumba Dam, harvest water from the Mary River in times of high flows and construct a second desalination plant. The desalination plant that has just been commissioned in Perth went through a fairly extensive process.

Senator IAN MACDONALD—I might have to stop you there. I am going to get cut out on my next question. You have a lot of that in your submission, which I appreciate. You mentioned that the government had bought land at the other dam sites that you mentioned. Do you know if they still hold that?

Mr Sheridan—I believe so. I think I saw that they own 95 per cent or 98 per cent of the land for the Glendower Dam site on the Albert River.

Senator IAN MACDONALD—I will ask them that question.

CHAIR—What about the Kidaman Dam on Obi Obi Creek? Is that a proposition?

Mr McHugh—You have the rainfall. You are up around Maleny and Kenilworth.

CHAIR—They tell me it is a steep sort of a set-up with deep water.

Mr McHugh—It is in a big gorge.

CHAIR—And it has a 36,000 yield.

Mr McHugh—Yes.

CHAIR—So that proposition is all right.

Senator SIEWERT—I want to ask you, Mr Sheridan, about one of your recommendations. In your submission you mentioned the *South East Queensland Regional Water Supply Strategy: stage 2 interim report* and highlighted that it did not recommend the Traveston Dam. You asked why it is now. Have you thought about that?

Mr Sheridan—I know the exact answer to that. There was an election coming up. The Queensland state government had done nothing about water supplies in south-east Queensland. They had to win the election and they sold it on the back of water supply, establishing a water grid and building a mega dam at Traveston.

Senator SIEWERT—I would like to quickly touch on one of the other issues that came up a little bit this morning and that you also raised, and that is salinity. I am from WA, and salinity is quite a big deal over there. I understand that here it is becoming an issue. I am particularly interested in what impact you think it is going to have on the river and the Ramsar wetlands.

Mr Sheridan—I know it is mapped as an area of concern. I am really not across the issues enough to know the impact it is going to have. I just cannot answer that question, I am afraid.

Senator SIEWERT—I will try and find out somewhere else then.

Mr McHugh—I do not think I can answer that one.

Mr Sheridan—If it is a problem salinity area already and you create an artificial water table by constructing a dam, you are going to increase the problem because you are bringing the water that is trapped below the ground and contains the salt to the surface. That is about all I know about it.

Mr McHugh—We did hundreds of bores in Bundaberg when I was on that scheme before I retired. We did something like 180. We checked the salt level all the while and, as soon as the salt got to a certain level, we restricted the irrigation. When we did the Bundaberg irrigation area, there were certain areas down towards the ocean that had a massive quantity of underground water. So the scheme was not put there. They did not want to disturb it. It is all monitored now. We have the correct devices—you just measure the salt every month.

Senator SIEWERT—My understanding from reading Mr Sheridan's report was that salinity is a potential problem.

Mr McHugh—It is a potential problem.

Senator SIEWERT—If I understand what you just said, you cannot articulate it clearly. I will take from that that I should ask somebody else with a bit more expertise in that area.

Senator O'BRIEN—In relation to the Traveston Dam site, the Queensland Water Infrastructure Pty Ltd project update talks about rock at various depths but at all levels under the proposed dam site. Have you seen that document?

Mr McHugh—No.

Mr Sheridan—I have seen that document.

Mr McHugh—It was taken off the website. Is it back on?

Mr Sheridan—No, this is a recent newsletter, John.

Mr McHugh—Okay.

Senator O'Brien—I received this yesterday so I presume it is current.

Mr Sheridan—Queensland Water Infrastructure and the state government have been digging bores around the proposed Traveston site since 27 April last year. So they have been there for almost a year. The location of the dam wall actually changed about three or four times during the course of the last year. I can only assume that they found various sites that had problems and are so determined to actually construct this monstrosity that they persisted until they found somewhere that was suitable.

Senator O'Brien—That was my question essentially. Are you in a position to tell us that this is not accurate? That is the reason I am asking this question.

Mr Sheridan—I am not. I am only a person in the community. I do not have the millions of dollars that the Queensland state government has to employ consultants and do geotechnical work. We can only surmise that the information that they put in there is accurate and truthful. Given the history, we have some concerns.

Senator O'Brien—So you are aware that there have been a variety of drilling rigs on the site. We were there yesterday and they showed us the core samples of the rock from some of the drilling samples. Is that something the community has had access to?

Mr Sheridan—No. There have been a couple of snippets of bits and pieces released after much badgering, but not detailed information about every bore drilled on the site.

Senator O'Brien—There was five metres of rock core that we inspected yesterday—at one point I think it went from six to 11 metres.

Mr McHugh—I had all the drill logs sent to me from Brisbane from two sites but I have not had that information from the latest site. The chap who originally drilled it cannot see how it could have changed in that distance because, as he said, it is all so similar looking across on that hill.

CHAIR—They moved it uphill.

Mr McHugh—Yes, they moved it.

CHAIR—We were told that it did change.

Mr McHugh—Okay, well you can only go on what you are told. As I said, I was always directed by a geologist, who told me to start cleaning those foundations down there because they were suitable.

Senator O'Brien—In terms of construction methods, do you have any experience with roller-compacted concrete dams?

Mr McHugh—Yes, the first one in Queensland was done at Bucca Weir. They go down about 300 layers. It leaked quite a lot. It took a lot of sealing off. It is the cheaper part. It comes out of the pug mill, of course. That one was done by Abigano at that time. This other one done up here now was done by Wagners. They supplied all the concrete from Toowoomba. It seems to be the way they are using it in America. It is obviously cheaper than using concrete.

Senator O'BRIEN—It is concrete though?

Mr McHugh—Yes, it is concrete. It is just that instead of being produced out of a batching plant it is produced out of a pug mill. I think that is going to be the trend of the day.

Senator O'BRIEN—At Borumba Dam we were told yesterday that, because of initial faults in the construction of the rock base, to raise it to the level proposed you would actually have to build another dam in front of the existing wall.

Mr McHugh—Borumba has a hand-placed rock face. I worked there and looked after a section of that. You have a hand-placed rock face coming up the upstream side. In that you go up so far and then you step in with what is called a horizontal keyway, and then you have vertical keyways in it. They had a slip form then. You just kept pouring concrete and this form kept moving upwards very slowly and vibrating. There was some movement there but it has not moved for quite some time. I am not sure whether you noticed that crack up on top of the wall.

Senator O'BRIEN—We were not that close.

Mr McHugh—I monitored that when I was looking after it for a while. They monitor that probably two or three times a year. But, no, it is not a structure that could be built on; it is going to have to be a completely new structure.

Senator TROOD—My questions follow on from Senator O'Brien's in relation to Borumba. So there will be a new dam wall. What sort of cost would that be for the kind of yields that you are talking about, Mr Sheridan?

Mr Sheridan—The government have figures in their document, *Water for South East Queensland: A long term solution*. As far as I know they are still talking about raising the existing dam wall by 25 metres.

Senator TROOD—When they say 'raising', they are not building a new dam wall?

Mr Sheridan—No, they are building on top of the existing structure—that was my understanding. It was \$250 million. I do not see that you would build a new dam wall these days for \$250 million.

Senator TROOD—Mr McHugh's evidence seems to show that that would be difficult.

Mr McHugh—I only saw a sketch of the proposed one. That was quite a long time ago, when it was first proposed. The spillway was going to be turned around through the old quarry section. Things could have changed. I have not heard anything for a few years.

Mr Sheridan—You would have to ask the government. Whether it is raising the existing wall or it is a new dam wall, the cost that they had for it was \$250 million in their own documents.

Senator IAN MACDONALD—We were told yesterday that they could not build on the existing wall, that it would be a new one downstream a bit.

Senator TROOD—So that is \$250 million?

Mr Sheridan—Yes.

Senator TROOD—It is pretty cheap, really, isn't it?

CHAIR—It is a bloody big pile of mud. I thank the witnesses and the audience, so far, today. I think it has been a pretty good set-up. Tomorrow we have increased the size of the venue in Brisbane to a venue that will hold 400 people—so if you all want to go down there!

Proceedings suspended from 1.31 pm to 2.03 pm

FESL, Dr Eve Mumewa Doreen, Spokesperson and Treasurer, Gubbi Gubbi Dyungungoo

CHAIR—Welcome. Do you wish to make an opening statement?

Dr Fesl—Wunya mulum Gubbi Gubbi Dyungungoo. I have the honour to greet you all and welcome you here in the language of this area. It says: welcome to Gubbi Gubbi country. Also, wunya nyindo to Senator Joyce. It means: happy birthday.

I am here today to speak on behalf of one particular theme, but at the outset let me say that I appreciate all the fears and anxiety expressed here this morning. My people were removed from this country; they were forcibly removed. We know what it is like. My mother was born on the banks of the Mary River at Imbil. My grandmother and my other family lived at Kenilworth. We were all moved away, so I understand the angst and the sorrow that you are all feeling.

Today I am going to concentrate on the one thing that I believe can stop the dam. I refer to *neoceratodus forsteri*, the Queensland lungfish, 'Dala' to us. If this dam proceeds, it will be an international disaster. This morning I received emails from London giving support to the saving of Dala. Thirty-eight million years ago, this animal, this fish developed a lung and a vertebrae and was the start of all the vertebrated animals in the world, including humans. To the international society of scientists it is a living fossil. After 38 million years, the dinosaurs have come and gone but the lungfish is still here and its only viable habitat, as you have heard today and as we have researched, is in the Mary River. Why is the Mary River so important? With the dam, the Premier has told me, there will be a 15 per cent reduction in flow. That 15 per cent reduction in flow will kill habitat and breeding areas of the Dala. People across the world are very concerned about this.

We tell the international community that the Japanese must stop whaling. We cannot do a lot but appeal to Japan and the United Nations, but we can do something about this here, right in our own country, in our own state. Okay, Dala is our sacred animal. We did not know it is so important in the world. The ancients of my people have told us since we were very small children that we must care for this creature. We must not eat it. We must not let anyone hurt it. We did not know why, but we found it to be a friendly fish. If you go in a canoe, it will come up and you can stroke it. It lives to be 100 years old and grows to 1.5 metres in length.

Even if studies of their breeding were started today, we would not know for 15 years whether Dala is able to breed with the 15 per cent reduction in flow. I do not believe it will be. It cannot breed in the deep waters of the dam. The so-called 'fish traps', originally designed for American salmon, are not useful for Dala, this great long fish. Its places are heritage places to my people. If the Queensland government proceeds with this, it will be abrogating its own South-East Queensland Regional Plan 2005, section 7.4 of which says the government would:

Recognise, protect and conserve Aboriginal cultural values in land, water and natural resources.

The breeding places of Dala are natural resources and are of Aboriginal value. If you cannot breed, you do not live. So we see the places as important. The places can be declared a cultural

and heritage place. The federal government has legislation to declare it a national heritage place and can stop the dam. That is the legal side of it. There needs to be willingness, of course.

So many animals have been lost in this country due to European invasion of the land. I emphasise that we now know that this is the last breeding place of Dala in the world. Will we be worse than the Japanese killing whales? I think we will be a lot worse. Therefore, I appeal to everyone to save Dala, my sacred fish and a living fossil to the rest of the world. This morning I had emails from London saying, 'Good luck today,' from people I do not even know. Professor Ahlberg from Sweden sent me a long email. There are people overseas watching and waiting.

I say the federal government should declare these Dala breeding places to be national heritage areas. The government cannot declare a living thing to be part of our national heritage but it can declare the breeding places of the Dala to be heritage places. I have some photos here to show you. In fact, I had some photos blown up for you, but I have left them in my car. I will get them for you. But here is a photo of below the dam, which I took a month ago. You can see the hatchery with the small lungfish. They will not all grow, because they have predators. The Mary cod, when it is around, is a voracious eater. I am here mainly to call upon you, if you can, to make recommendations on declaring the breeding places of the Dala as heritage places. Thank you.

Senator SIEWERT—The Dala is already endangered. Looking at the Mary River yesterday, and also from the evidence we have received, it seems to me that the Mary River is already suffering from some adverse environmental impacts. In your opinion, what impact is that already having on the Dala? The Dala is already under threat because it is endangered and because of the poor health, on occasions, of the Mary River. Would the dam add to that threat?

Dr Fesl—Yes, because the flow of the river will be reduced by at least 15 per cent as a result of the dam wall going up. I will show you some photos which will show that the breeding places are very close to the edge of the banks—the water has to be shallow. If you reduce the flow, it will just dry up. We have the hazard of the drought, anyway. The dam will wipe out those breeding places and it will be the end of the Dala.

Senator SIEWERT—I think you were here this morning when I asked about the fish lift, which you have said does not meet the needs of such a large fish. I also asked this morning about the fish getting back over the dam when it is coming back the other way. What is your opinion on that?

Dr Fesl—As has been shown, only a few fish can get out there. The lungfish is 1.5 metres long. The fish lift was designed for salmon, which spring up and down. It is not very suitable for a lungfish, which is a long, gliding creature. It cannot breed in the deep waters of the dam. It also needs long, shallow riffles in which to swim, and these exist in the Mary River at the moment. I wish I had brought the photos in; I will bring them in later. The fish ladders are no good to the Dala. If they were useful I would not be here today. But I am so concerned about the whole thing that I have come up from Brisbane to be here today.

Senator JOYCE—Have you communicated to the state government the things you have said about the Dala and the connection that your people have with the land and this unique resource?

Dr Fesl—Yes, I have. When I heard the first announcement, I communicated with the state government. I did not get any response for about four months—and then it was just the sort of stuff I could have read in the newspapers.

Senator JOYCE—What was the context of the response that you got?

Dr Fesl—They said they were looking at the dam. To be quite honest, I cannot remember the whole thing. I was a bit disgusted and threw the letter away.

Senator JOYCE—Did you grow up in this area?

Dr Fesl—No, I did not grow up in the area, but my mother did. She was born on the banks of the Mary River. We visited the area quite often and we were told the stories. There are also the cultural heritage aspects of the valley which have not been done. There is talk about establishing an ILUA, an Indigenous land use agreement. I do not know whether you know the processes for that. They advertise and everyone who puts their hand up and says they have an interest can go in. But I believe that the environmental study and the cultural heritage study should have been started before they even made the decision. What if we have burial sites along the river? That has not been established yet. But my main concern at this stage is Dala.

Senator JOYCE—On Dala but also on the cultural heritage sites, do you have a belief that your people would have cultural heritage sites along this river?

Dr Fesl—Most definitely, yes. People have lived along the river and had campfires. We have all the stories.

Senator JOYCE—For the purpose of the record, in what form would they be?

Dr Fesl—There could be burial trees with bones in them. We cremated and broke up the bones, tied them in parcels and put them in trees. Quite often the trees were big trees along the riverbank. My name, Mumewa, is a heritage of the rainforests. There would be artefacts and camp sites. We have been looking at the core drills, because we are the Indigenous party to do this, and we have discovered what we believe are the remains of a campfire, but this has to be tested. I have kept the charcoal remains. They have to be sent to New Zealand for testing and dating, but that fire could be up to 100,000 years old. So there would be camp sites. But we will not know, until we have done the cultural heritage study, just what we will find.

Senator JOYCE—For the record: there is a specific relationship between your tribe and the Dala fish and you believe, on good grounds, that that is under threat?

Dr Fesl—Yes, I do. We did not know why we had to look after it but if we remember back in time my people were very good at anatomy and physiology because they had to know this of animals in order to survive. They have told us to look after it and care for it. They knew something, and it is only recently that I realised that it was a living fossil. I learnt this from people in Sweden.

Senator JOYCE—Thank you very much, Dr Fesl.

CHAIR—Thank you very much. Can I just say, I think your mum and dad did a great job with you.

Dr Fesl—Thank you.

[2.18 pm]

DeVANTIER, Dr Lyndon, Private capacity

MORAN, Mr Phillip Lester, Private capacity

CHAIR—Do you have opening statements or any comments to make on the capacity in which you appear?

Dr DeVantier—I am an ecologist. My heritage certainly does not go back as far as Dr Fesl's, but my grandfather and father grew up in this area and worked in the Mary River, so I have a reasonably long connection. In fact, the only reason I am here is that my dad survived a flood as a child when he had to swim through the Mary River. So I have a local link that I am concerned with.

The reason I am here today is that when I went along to the original information day that was given on the environmental impact statement, I asked a couple of questions about how the people who were doing the work were going to address the risks of extinction. As Dr Fesl said, the lungfish is particularly important. It is now listed as vulnerable in Australia. The Mary River cod is listed as endangered in Australia and it is critically endangered globally under the IUCN red list. There are 18 species in this catchment in the area in which the dam is to be built that are on Australian registers of threatened species and some of those are on international registers. Along with the Aboriginal concerns for the lungfish, I think that Australia has national and international obligations. As Dr Fesl said, this fish goes back to well before the dinosaurs. Its genetic heritage is crucial to all kinds of studies that will come through in the future. If we are not extremely careful, we are going to lose a whole swag of important species in this catchment and the mitigation measures that have been put in place to date in the Paradise Dam to my knowledge are not working.

Those were a couple of questions that I put at the time of the first EIS information day that the Queensland government's people hosted in Kandanga and I basically got blank stares from the people who were there on behalf of those conducting the environmental impact statement. I asked them about a particular form of analysis that is a standard method of looking at risks of extinction and which you would expect to be automatically included in any environmental impact statement where there are globally and nationally threatened species involved, which is called population viability analysis. Again, I just got blank stares.

My key concern in this process is that, at the end of the day, in the draft terms of reference for the environmental impact statement—unfortunately, contrary to the state government's original intentions, we have yet to see the final terms of reference for the environmental impact statement—there was no mention of any formal assessments of risks of extinction to these species. If these are not conducted, and if this proposal goes through, I think we will have abrogated our responsibilities nationally and to the international community, particularly under our agreement to join the United Nations Convention on Biological Diversity. In article 8 it states explicitly:

- Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;

That is clause (d). Clause (f) says:

- Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species ...

Both of those clauses of article 8 are absolutely critical in the current issue because, first of all, on maintenance of viable populations, there is a mathematical method that can be used to assess whether or not those populations are going to survive the dam process. To date, the Queensland government and the people who are conducting the environmental impact statement have not given any indications that population viability analysis studies will be conducted. I think that, if they are conducted—and they need to be conducted correctly—there are two issues. One is the time that it will take to do them. Certainly six months is not enough time. If the government intend to produce a complete environmental impact statement by October this year, which is their stated intention, then those analyses are not going to be done or, if they are, they are going to be done in a very half-hearted manner. Again, the risk is that such an analysis is not going to deliver the answer to the question of whether or not these species really can withstand further impact to their already threatened population sizes.

If I could just go to the Mary River cod. The best estimates I have available to me are that there are 600 fish left in the wild.

Senator JOYCE—How many?

Dr DeVantier—There are 600 altogether. That is the total population in the wild. In terms of their distribution in the Mary River—they only occur in the Mary River and associated tributaries—they are now pretty much limited to three tributaries: the Coondoo tributary, which is below the weir that is already in place on the lower reaches of the entrance to that into the Mary River; Six Mile Creek, which is between the weir and the proposed site of the dam; and Obi Obi Creek, which is actually above the proposed dam site.

So, already, one of those subpopulations is effectively isolated from the other two because of the weir. If we put in a dam between the other two populations we will basically split what is already an endangered species on our national register, and listed as critically endangered on the global register, into three tiny remaining populations. The chance that any of those three can continue indefinitely in terms of viability is extremely open to question. I hope that this environmental impact study that the state government intends to do actually looks at this issue, because if they do I think they will discover that, for the Mary River cod, there is virtually no chance of survival into the future if its population is fragmented to that degree.

The other aspect that I would like to draw your attention to is the idea of mitigation. There have been all sorts of aspects to mitigation, one of which is hatcheries. The hatchery for the Mary River cod in Lake MacDonalld was almost wiped off the face of the map by a severe storm. The remaining few brood stock of the species is down to several fish. So hatcheries are not a really secure means of ensuring the safety of threatened species. In that respect I have one other point to make, which has just escaped me for a moment.

CHAIR—While we wait, perhaps we will move on to Mr Moran.

Mr Moran—I am here in a private capacity but I work for a local Landcare group and I am Vice-President of the National Aquatic Weed Management Group. Thank you, Eve, it is always a hoot to hear you speak. Thanks also to you guys for coming up; I have to admit to you that we have been feeling a bit neglected in this part of the world and to see senators take the trouble to come up is appreciated.

I am trying to scare you about aquatic weeds, which should not be too hard. There are many negative effects of aquatic weeds, including on recreational activities. This can mean the complete closure of water bodies to any sort of recreational activity, which I might touch on briefly a bit later. There are public safety issues. In relation to Lake MacDonald, which was just mentioned because of the incredible storm, I have to concur with those comments. I was at the hatchery the next morning and it looked like Iraq. It was completely wiped out. One of the main reasons the Mary River cod died is that the exotic pines fell into the breeding ponds. That one weed killed one of our wonderful fish. It leaches a chemical from the exotic pines, and Dr DeVantier is correct in that only three or four were actually saved. Aquatic weeds block intakes and pump valves. Lake MacDonald, which is Noosa's main potable water supply, constantly has to be cleared. Mosquito breeding is greatly increased because the weed upsets the wave action on the top of the water.

I would like to talk about transpiration. Earlier today I heard some people talking about the average depth of this proposed water body and the evaporation rates, and they were quite scary. If you add a weed such as water hyacinth you can multiply that result by a minimum of three because it sucks out the water. It is like a pump. I have started with water hyacinth and I would like to show to the committee a photograph that I have here which was taken in the Mary River three months ago. Water hyacinth has been around for a long time. I take it that the committee went to the Traveston Crossing Bridge yesterday. If you had peered down one side you would have seen a magnificent riffle that Eve alluded to. If you had looked over the other side you would have seen water hyacinth and salvinia. So this little number in this photograph is in the Mary River right now.

It was first introduced last century so it has been around for over 100 years, and there are still huge problems in trying to get rid of it. There are a couple of biological controls, which I can take questions on later, but the main way of dealing with it is either by harvesting or by herbicide. Water hyacinth is a huge problem. As I say, it sucks out enormous amounts of water and it has a seed viability of 15 years, so it is not one that you are likely to get rid of. Tomorrow you might hear the word 'eradicate' from my colleagues in the state government. I think I just saw a pig fly past. You cannot do it. When you get aquatic weeds you have got them. You do not eradicate them but you might control them.

The next one that you are likely to meet, which is also at the bridge crossing, is a beautiful little floating fern called 'salvinia' and, appropriately, 'molesta', which you can see in this photo. This fern is a recent introduction. Just a little older than I it was introduced in 1952 as an aquatic and ornamental pond plant. I am sure you are probably aware of it. There has been a huge outbreak of it in the Hawkesbury River between 2004 and now. This photo I am showing you was taken at the Hawkesbury River.

In my role with the national weed group I have been privileged to fly around Australia and have a look at the effects of some of these. That was mind boggling. In this photo it all looks

green with some houseboats in it. That extended for 88 kilometres. There were 140,000 tonnes of compacted salvinia removed over a period of eight months. It is back. The conservative cost of that operation was \$1.8 million. Salvinia is in the Mary River at the Traveston Crossing Bridge now.

The next one that I would like to bring up in my cast of all stars is cabomba caroliniana, not a Latin dance but an aquatic weed from South America. We have many firsts in Noosa. One of them is that we have 36 per cent of all the cabomba in Australia. It was first noticed in Lake MacDonald in 1993 and after a period of 13 years we are now harvesting 10 tonnes of it per day. Seventy-five per cent of the lake is completely choked by it. We do not allow swimming because of accidents. We used to do underwater transects. One of the divers almost drowned after getting all tangled up in it. Now we have to have two divers doing any transect work. In fact, for the last year we have not bothered, because it is just so bad that you cannot measure anything.

Its optimum growth depth is from four to eight metres. Now that might ring a bell. That is 15 kilometres away from the proposed Traveston Dam. It reproduces vegetatively, which means just a small bit on a boat trailer or a canoe and we have got that problem. There are no controlled methods at all currently available for cabomba. Noosa council is currently spending about \$130,000 to \$140,000 a year harvesting it, which is just like mowing your lawn. All we do is harvest it. Because heavy metals naturally occur in the geology around Lake MacDonald, that harvested cabomba, which is compacted, has to get taken to the dump and buried. It is an enormous cost. One council is bearing that cost. This thing is huge and so close to being one of the heaviest outbreaks in the shire.

I have some quick points. The other options that you might hear for control include herbicides, which really have some problems. For a long time in Noosa we have been fighting against using herbicides in the lake, because we consider it to be a potable water supply. The state government does not consider it potable until it comes out of a tap. Our local councillors and the people there are not that keen on dumping herbicides straight into the lake.

The other problem with herbicides—and herbicides have been used a lot with salvinia, for example, and they were used in the Hawkesbury—is that you kill a mass of vegetation and that as this vegetation rots down that decreases dissolved oxygen levels, which increases greenhouse gases from rotting vegetation and also results in fish kills. It is a bad look, so I think herbicides have some problems. Incidentally, they were using 24D on cabomba in the Northern Territory until just recently. However, our councillors have shied away from that.

Harvesting is the other option. There are many harvesting machines available. Their costs vary from \$287,000 to \$450,000 to purchase, and to operate them is very expensive indeed. One of the big problems we had at Lake MacDonald was that none of the trees or fence pickets were removed before it was flooded, and harvester blades do not take kindly to a star picket. It makes it extremely difficult to harvest when standing timber is in a dam area, particularly in a dam as shallow as this.

Another problem is biological control. I take my hat off to people such as Alan Fletcher and those in CSIRO. They are great. They have done some terrific work. But biological control is not a silver bullet. It is a control, and you have peaks and troughs. We used biological control very successfully in the Hawkesbury but we have still got the problem today. It is not the silver bullet

that people think it is. There is great work being done. The federal government has been funding some work on cabomba biocontrol, but a solution is probably about eight years away if we can achieve it at all. Thank you very much. I think that sums it up.

CHAIR—Have we got that weed up here?

Mr Moran—No. We have *hygrophila costata*. We call it the northern alligator weed. Noosa has the heaviest infestation in Queensland.

CHAIR—Has this sent our bloody alligator weed down there?

Mr Moran—No. It is interesting you mention that because at the Hawkesbury—and I will finish, I am sorry—when they harvested all the salvinia they had the same problem of disposal. So one of the local councillors, who used to be boss of the RAAF base down there, a great guy, said, ‘You can put it on my place,’ so they did and it was full of alligator weed. So now he has got salvinia rotting and alligator weed. So *hygrophila* is a class 1 pest plant. It behaves the same as alligator weed. It is all around the lake. We have got 72 hectares of it. We have recently been trying to burn it because we do not want to dump chemicals on it, but that is a fairly slow process. The last thing I would say is, obviously, aquatic weeds I am passionate about and very interested in. The very informative read of the state government’s submission did not mention aquatic weeds at all. I find that a bit strange.

CHAIR—That is for tomorrow.

Dr DeVantier—I have a couple of final points. I think there is at least the potential for a conflict of interest in the environmental impact study process. Because of the federal-state bilateral agreement, the federal government has passed this over to the state to conduct. That would be fair enough if the proponent was a third party like a mining company or whatever so that the state government acts as an objective arbiter of the environmental impact process. But in this case, in effect, if not in practice, the state government is the proponent of the project. They are going to get a company—I think Sinclair Knight Merz—through another company that they have formed to conduct the EIS for effectively the state government, then the Coordinator-General of the state government is going to assess it. So I cannot see that there is any opportunity for objectivity in there.

Unfortunately, in this case, the EPBC Act has designated this a controlled action, so there is some degree of federal government supervision of this. It is at a stage where the whole process has basically been completed. To me at least—and I am not a lawyer—the intent of the federal-state bilateral agreement is not being met. If it was a third party that was causing matters of national environmental significance to be raised as in the case of a mine, you would think that the state government would be a fit and proper body to be conducting the environmental impact statement because they are not the ones that are proposing the development. But, in this case, they are proposing the development. They are doing the EIS effectively through passing it out to a company to conduct on their behalf and then they are going to assess it as well. So I think there is a grave chance of a conflict of interest here and I would like to raise that issue with you.

In relation to that, my final point is that it would be very informative to have a thorough environmental audit of what has happened with Paradise Dam in terms of the environmental impact study and where they are at now. At the moment, it has got 10 per cent of water—

CHAIR—We got that message earlier in the day.

Dr DeVantier—I was not here earlier; I am sorry. It has got 10 per cent of water in it. In the supplementary EIS for Paradise Dam, there are eight recommendations with regard to the lungfish. I would be very interested to know how many of those recommendations have been put into place and, if they have been put into place, how successful have they been?

The only other aspect is the downstream effects. I would like to mention in passing, before I finish, that there are significant ramifications for the Ramsar wetlands if this dam is put in, given that we are experiencing climate change and that water security in this area in terms of environmental flows is going to be severely restricted. The evidence is already in in terms of Paradise Dam: it is 10 per cent full. My understanding is that this dam would have virtually no water in it either, had it been built in the last few years. Further reductions in flow downstream are almost certain to impact on our Ramsar wetlands and, again, on Australia's international obligations. We have signed on to these international agreements. It is seriously time that we met them.

Senator BARTLETT—Flowing on from your comments about Paradise: firstly, are you aware of any sorts of studies that have been done by anybody, including at the federal department level, the EPBC assessment unit?

Dr DeVantier—Several studies were done in the late nineties and early 2000 by the state government scientists. Brooks and Kind is one study that is cited quite widely in regard to lungfish, but studies are quite thin on the ground. Of those that have been produced, most have not been published in a final sense. There are drafts floating around, so there is very little information. This is also a serious concern in terms of the environmental impact assessment because they are not going to have time to conduct their own studies if they intend to have it produced in six months and they are not going to have decent background information on which to make a valid assessment.

Senator BARTLETT—Obviously you cannot totally transfer one to another, but there would certainly be valuable lessons that could be learned by assessing what has happened in Paradise, whether it is with lungfish or anything else. I am just trying to focus on the federal aspects here and the EPBC and those endangered species components, and I guess Ramsar wetlands and World Heritage values—assessing all those things. In your submission you noted a recent report highlighting the lack of capacity currently in the federal Department of the Environment and Water Resources to adequately administer the EPBC Act.

Dr DeVantier—I have tried to find that but I have been unable to find it. I heard on ABC local radio on the date that I have noted there that a report had been produced to that effect. I thought it was by the federal coordinator, just from memory, from what was said on the radio, and I have been unable to find it subsequently.

Senator BARTLETT—The Auditor-General, I suspect, from memory.

Dr DeVantier—Unfortunately, I have not been able to verify that.

Senator IAN MACDONALD—They looked at the inquiry into the EPBC Act amendments?

Senator BARTLETT—They did that as well, yes; that is on the record. I think the Auditor-General's report was confirming that. I guess I wanted to get your response with regard to that. Given your comments initially about concerns with the EIS process in Queensland, it will be the federal department that finally assesses that EIS, sees whether it is adequate, sees whether there is other information. What is your level of confidence about whether they have got the resources and focus to be able to do that?

Dr DeVantier—It seems at the moment, from the auditor's report, if that was quoted correctly to me from what I heard on the radio, that there are concerns in that respect. My real worry is that there will be an environmental impact statement produced that will be this thick, and to really analyse that thoroughly is a huge job. If the bilateral agreement is accepted as being a valid way to go, I have really grave fears that the recommendations that come through from the state will be accepted by the federal government without a really thorough assessment of it. That is why, in my submission to the state government, I stressed the need for them to conduct these population viability analyses of the threatened species, because without them, there really is no way of knowing if the lungfish, the Mary River cod, the Mary River turtle—those 18 threatened species that we have listed—are really going to make it through this process.

CHAIR—You can be sure that by tonight Mr Turnbull will know all about that.

Senator IAN MACDONALD—When the Save the Mary River people came down to see us in Canberra, this particular issue was raised, and certainly the former environment minister was considering the options of the royal commission provisions of the EPBC, not necessarily relying on the bilateral agreement. It will depend. I only raise that to say that it will be very closely scrutinised. Whilst the department does not have the manpower to do the Paradise Dam audit without a bit of pushing from this committee, it does usually look very closely at all assessments. Anyhow, that was not my question. My understanding of the lungfish is pretty limited, but does the existing dam, the Borumba Dam, have any impact on the lungfish habitat or breeding?

Dr DeVantier—Not so much, I think. It is a fair way up in the headwaters, more so than where this one would be located. I think the issue here is that we are just going to fragment what is a really key part of their habitat. The Borumba Dam is tucked up further into the headwaters, so it probably had some impact, particularly in terms of flows down the river system. However, in terms of actual loss of habitat, it would be nothing compared with what this one will do, particularly in relation to fragmentation.

As Dr Fesl mentioned, lungfish are not like spawning salmon. They do not have a great urge to get to the headwaters of a river to spawn, so they are not inclined to go into fish ladders—and in my opinion that was a lot of money that was badly spent. In the Paradise Dam EIS there is even a suggestion, in the supplementary material, that they would catch and carry lungfish. If it is getting down to that level, then it is lost; you can forget it for those species. If we are going to be catching and carrying them into what is left of their spawning grounds that is really silly.

Senator IAN MACDONALD—I saw in your submission or in someone else's—and we have heard about the magnificent seven on the Walla Weir—that in the other dam which I think you mentioned—was it Paradise?—you do not really know whether it has had an impact on the lungfish.

Dr DeVantier—The dam is down at 10 per cent. The water flows in the Burnett River must be drastically reduced. I would be surprised if there are many lungfish actually still surviving in areas of the Burnett River. I have not been there, so I cannot really comment on that other than by speculation. But you have got 10 per cent water in Paradise Dam and I do not know how much they are releasing for environmental flows—if any—and what those impacts are in terms of the riffle areas that, as we well know, are crucial for lungfish spawning. That is the other aspect of these dams: there is no point in having a fish ladder that is going to take the lungfish. Even if they went in there, into a dam, they are not going to reproduce in there. Lungfish could well live in there but they have got to get into riffle habitat as far as we are aware—and that is the best scientific information available from Professor Joss—for their spawning. While it is well and good to have fish ladders that take them up into a dam, what are they going to do there?

Senator IAN MACDONALD—Dr DeVantier, what is your PhD in?

Dr DeVantier—It is in coral ecology. My main line of work is as a coral ecologist. I have worked for the Australian Institute of Marine Science, the Great Barrier Reef Marine Park Authority, the United Nations Development Program and various agencies over the last 20 years.

Senator IAN MACDONALD—Are there people in Australia, particularly Queensland, or the world who actually know the answers as to lungfish? I ask that, and Dr Fesl was talking about this in evidence, because we need some precise scientific evidence on what impact a dam might have on a very fragile species.

CHAIR—Could you provide that, Dr DeVantier?

Dr DeVantier—I would give you the name of Professor Jean Joss. She is really the expert that I am aware of in Australia.

Senator IAN MACDONALD—Where is she located?

Dr DeVantier—I think she is located at Macquarie University in New South Wales—and people could correct me if I am wrong. She has written quite widely on lungfish and has been quite concerned about this dam in this respect. But it is not just the lungfish—that is the point—as the Mary River turtle lives only in this one river system. There is a swag of them.

Senator IAN MACDONALD—Secretary, do we have a submission from that scientist?

Secretary—No, we do not, Senator, but you could invite evidence from her.

Senator IAN MACDONALD—Will we do that, Chair?

CHAIR—Yes, we will do that.

Senator IAN MACDONALD—Chair, can I ask one question of Mr Moran before my time has expired?

CHAIR—Your time has nearly expired.

Senator IAN MACDONALD—Mr Moran, given all your comments about Lake Macdonald, I want to declare that it has nothing to do with me—although it is spelt correctly, unlike my restaurants!

CHAIR—Come on, get to the bloody question!

Senator O'BRIEN—What's your infestation!

Senator IAN MACDONALD—Mr Moran, what difference is a dam going to make to the weed infestation in the Mary River? Given you say, quite rightly, that it is there now, how is a dam going to make it worse?

Mr Moran—The main thing is this. If you have got a shallow, slow moving or stopped, high-nutrient, in full sun situation, that equals the optimum environment for aquatic weeds and algal growth. When you have a moving water body, they eventually get to the salt—in this case it is a long way away—but they do not proliferate and they do not become too much of a problem. There are only a number of attached aquatic weeds—and we do have one called egeria—that can grow in flows. Most of those that are real problems are when they are in slow moving or impounded waterways. You get explosions. For example, take that photo I showed you of the weir. When you have got a weir, behind it you have dense aquatic weeds; below it you do not have them. So it is merely stopping it.

Senator SIEWERT—I want to follow on from that point. There is the potential for weeds in the Mary River because of the reduction in flow with the dam. There are certain weeds that will take off then and, if I understand you correctly, there is also the problem in the dam, if the dam goes in, because of Cabomba. That is likely to take off in the dam because its optimum growth depth is between four and eight metres and the average height of the dam is going to be five, so the potential exists to get that weed in the dam. You went through some of the problems with the weeds, but it also then affects other species and biota in the river because of the reduced oxygen flow and transpiration. You are saying that evaporation is increased as well. They are all adverse impacts. In the information we have already received, dissolved oxygen levels are already low. What are the salinity levels like?

Mr Moran—I am not an expert on salinity levels. There were some comments by a previous speaker, but I cannot talk to you about that. One thing I would mention, though, is that with any of these aquatics they tend to shade out everything. They are like a schoolyard bully. I do a lot of schoolkid talks and that is an example they tend to connect with. When you get something like Cabomba, for example, you get nothing else. It just takes over. It is like a complete nightmare to watch the underwater transects of this. It is pitch dark and everything dies. It is a monoculture; it is the way that weeds work. There are tremendous detrimental effects.

One point was that there are two in there that will definitely expand once the wall is there. Given the fact that there is a national weeds group, the fact that the federal government and state

government are aware of the enormous problem that these weeds are having on our limited water supplies, it surprises me that there is nothing mentioned about it at all. I do not bag the state government people; we have LPOs, land protection officers, in Queensland who work really hard. Our guy from here, Troy Criddle, has nine shires to deal with.

To give you another example, I went to a market at Cooran. You guys should visit Cooran, it is the centre of the world. It has a population of about 200. We had a market there recently and there was this lovely little old lady selling water lettuce. Water lettuce is a class 2 declared pest plant. The only person who can bust her, and it is a \$30,000 fine, is this poor bloke who is dealing with nine shires. How can you do it? So there is another one to add to the list. The aquatic weed problem is huge. It is recognised federally and by lots of governments. I do not know how our state government can claim that they can control it or not even mention it in a submission.

Senator SIEWERT—I want to ask a question about herbicide use. You mentioned some of the issues around herbicide use. I thought there was also an issue around its impact on insects, for example, and frogs.

Mr Moran—Yes, it kills them. I think that is an issue. There are herbicides that are registered for aquatic use. People in the room would be aware there is one particular one that is actually called a frog friendly Roundup. I think that is an interesting term. I did mention 2,4-D, which was regularly used in the Northern Territory and registered until just recently when it was taken off the list. There are enormous effects, you are right—anything that is there is likely to end up with two heads. We do not know that; the research has not been done.

Senator SIEWERT—If the research has not been done you cannot answer this question but I am also interested to know what impact it would have, for example, on lungfish.

Mr Moran—Yes, that is a good question. The only herbicides we have that have any effects are on the floating ones. We do not have any herbicides that work and translocate below the level. There is research being done on one particular one that I am aware of and there is a big problem at the moment as to the off-target impacts of the chemical. That is why it has come to a bit of a halt in Australia because they have done some research in the US, but they do not believe that is going to be transferable to Australia. The people, who I am working with, who are developing it say we should use the precautionary principle. That is actually something that the state government says in some of its documents. It says to use the precautionary principle, and I do not see it often used.

One other thing is that people asked before about the purchase of the land by the government. Twelve thousand hectares of land have been purchased over four sites already owned at about \$38 million. This is on page 8 of the Queensland coalition's submission. It was a previous question asked by the senators.

Senator SIEWERT—You mentioned three locations on the Mary River for lungfish.

Mr Moran—It was the Mary River cod.

Senator SIEWERT—Yes, for the Mary River cod. Are they separate populations?

Dr DeVantier—That information is not known. The degree of connectivity is probably very slim. Occasional floods that come through Obi Obi Creek could wash some of the fingerlings downstream. They are known to migrate, if they can. If they have a water course that they can swim through. The adults are known to move up to 40 kilometres potentially looking for mates. But, as I mentioned, the lower population is already on the seaward side of the weir that is in place. The other two populations have at present the potential to connect, which means maybe a 300 or 400 full population size, and to have some genetic exchange. Once this dam is put in place that will probably be split in two.

Senator O'BRIEN—How widespread are the various aquatic weeds in all of the dams in Queensland? There are quite a lot of dams. I am interested in how widely spread they are. Also, if they are spread, how have they been spread?

Mr Moran—Very widespread and increasing. How are they spread? Almost all by the human animal. Recently there have been studies done on bird dispersal of aquatic weeds. This was quite a thick study and the bottom line was 'maybe'. I have often seen dams next to each other on properties, and one dam has cabomba in it and the other dam does not. It is the same with salvinia and water hyacinth. Where are they? Wivenhoe Dam has salvinia and water hyacinth in it. They keep a pretty good eye on it down there. They would be having less of it at the moment because there has not been a great deal of water for it to float on. Wappa Dam down here is full. Ewen Maddock is full of cabomba and salvinia. They are very common.

It is interesting that Borumba, at whatever time it is now—three o'clock—does not have any salvinia or cabomba that I am aware of. We have done some early reconnaissance trials at a national level and we have found that, wherever there is human activity at bridge crossings, boat launching ramps and places like that, you generally get introductions. There are also deliberate introductions. Hygrophila, which I mentioned earlier, has been deliberately introduced right along the coast of New South Wales. Last week, I found cabomba and hygrophila in Maryborough. These things are slowly increasing. Incidentally, cabomba grows as a tropical plant but it is also found in Victoria. It can grow in minus 30 degrees C, under ice. So it is a tough plant.

Senator O'BRIEN—What are the ramifications of these weed infestations for the storages relevant to south-east Queensland, given your evidence about their impact on water quality, evaporation and water usage?

Mr Moran—Depending on the species, evaporation is greatly increased. The cost of water purification is greatly increased. There are probably no chances for recreational activities when the infestation gets to certain levels. There is the cost of maintaining dams. The proposed dam is, I believe, about 80 times the size of Lake MacDonald. As I said, it costs council about \$130,000 a year just to mow the lawn there. If you do the maths, that is a fair bit. Then you get another one like salvinia and the costs are huge. So the costs of maintaining the water quality and delivering that water are very high. It is basically a cost amenity reduction, and the other associated things like mosquito breeding and the lack of native aquatic fauna and flora. So the costs are the main ones.

Senator O'BRIEN—The fact that it is outside or above the current Mary River catchment and has not got into that dam indicates that there has not been an interchange involving boats between the catchment and the dam.

Mr Moran—Yes, but, for example, cabomba, which is a submerged attached, will not secure itself when the water is flowing but the minute you stop it, it will. So somebody could have gone to the Mary River above the dam site with cabomba on their boat but it would not get established. It is a strange thing: below Lake MacDonald we do not have cabomba. It is there for about 300 metres but there is dense shade and it does not seem to attach in flowing water; it needs still water. I do know that both hyacinths and salvinia, which you would have seen, love it, and they are there now. I can say with confidence that you will have those and I bet something that you will get some others.

Senator O'BRIEN—Dr DeVantier, your submission talks about the EPBC Act and the process there. Do you have confidence that that assessment will adequately deal with the concerns you have about the environmental impacts of this dam?

Dr DeVantier—Not given the recent report I heard over the radio. I have not had a chance to really look at it. It seems that there are concerns about the capacity within EPBC, particularly given the bilateral agreement and that most of the work is going to be done in the state with the state Coordinator-General doing the bulk of the assessment of this environmental impact statement. I also know that the EPBC has an enormous workload. It is a bit like the state government people here that Phil was talking about. They have an enormous workload. This will be one of maybe 20 major assessment projects coming across EPBC's desk. I think they might have something of the order of eight project officers in total. I am not certain about that but there are serious concerns about the capacity. Obviously, the way to do this is to make sure the study is done properly in the first place.

Professor Gordon Grigg at the University of Queensland has global expertise on that particular species of lungfish and Professor Hugh Possingham, also at the University of Queensland, is a world expert on population viability analysis. I spoke with him by email and he mentioned that it should be done for this project.

I would like to table additional information on CD to explain my concerns. I did not have the time to set them out in my written submission so I have taken some time to add to that in detail.

Senator JOYCE—I have two questions to ask. One is: are cabomba, salvinia and hyacinth in Wivenhoe Dam, and if not, why not?

Mr Moran—Salvinia and water hyacinth are; cabomba is not. There is not enough water to put a ski boat in. I have done trials putting cabomba out on a rack in the sun to simulate putting it on a boat trailer. After 24 hours in 30 degrees you put it back in a bucket and it just stretches and keeps growing. That just means that it can be transferred a long way on a boat trailer. The other two are there and they have a range of mainly herbicide controls in Wivenhoe.

Senator JOYCE—I am trying to reflect the cynicism that might be out there: with every project somebody finds something that they believe is endangered and therefore it becomes an excuse as to why you cannot go forward with it. Is the Mary River so unique that it is more

unique than a river in northern New South Wales or a river further into North Queensland? Are the Mary River cod, the Mary River turtle and the lungfish exclusive to this river? Is there something intrinsically peculiar about the Ramsar wetlands and the Great Sandy Strait that is different from somewhere else? Is it really that unique as an area? Or is it as unique as every other area, in which case no matter where we put a dam it is going to be a problem?

Dr DeVantier—The answer is yes to basically everything. It is unique. As you may know, this area is at a conjunction of two large eco regions—the Macleay-McPherson overlap—and that gives it, on a world scale, enormous biodiversity. It is recognised by the World Wide Fund for Nature in their top 200 eco regions around the world. This area is globally unique and extremely important. In terms of whether the Mary River is more unique than the Clarence or another river in North Queensland—the Tully, for instance—then they are all different. The key thing about this river, however, is that it is one of the last places in the world where the Queensland lungfish still occurs in natural populations.

Senator JOYCE—One of the last? Where is the other?

Dr DeVantier—The Burnett.

Senator JOYCE—That is it?

Dr DeVantier—That is pretty much it, and the Burnett is in serious trouble.

Senator BOSWELL—My question refers to the Ramsar wetlands in the straits. I was down there yesterday, and some people were showing some concern. Does that have to be in the state government's EIS?

Dr DeVantier—Only if they are going to address the areas of national environmental concern. That is one of the matters of national concern that make it a controlled action under the EPPC Act.

Senator BOSWELL—I will stop you there. The nutrients are not going to flow down, so the birds will not stay there. The dam is going to cause this. Would the state government include that, or should it include that, in its EIS?

Dr DeVantier—Yes.

Senator BOSWELL—Are they required to include it?

Dr DeVantier—If they do address the matters of national environmental concern I would think they are, but again I cannot speak for the people who write that report.

CHAIR—That is wonderful evidence. Our sincere thanks. We have finished.

[3.06 pm]

BLACK, Mr Ronald Lewis, Chairperson, Mary River Riparian Landholders Group (Lower Catchment)

KLUPFEL, Mrs Lynette, President, Tiaro and District Landcare Group

SINCLAIR, Mr John, Honorary Project Officer, Fraser Island Defenders Organisation

CHAIR—Thank you very much for appearing today. You can make an opening statement if you want to.

Mr Black—Firstly I would like to thank the Senate for coming up to this area to give us a voice. I am the chair of the Riparian Landholders Group on the Mary River barrage. We have not at this stage had any input or been asked to have any input into this process, and I am pleased that today I can give a voice to those people on the lower side of this wall that may or may not be built, albeit down on the Mary River barrage.

To give an overview of how and why our group was formed, in 1997 the state government proposed the raising of the Mary River barrage and riparian landholders on that system could see that their riverbanks were eroding away. Subsequently, a study by the Tiaro landcare group found that 92 per cent of the 115 riparian landholders on that system who were surveyed said that they were experiencing serious riverbank failures due to this barrage. The issue here is the soil types. Further, the group that did a study on the barrage for the state was a company by the name of Fisher Stewart. They conducted an upstream property and infrastructure study for the raising of the barrage, and in their report they showed that water levels were a metre higher than they were at the time.

It was shown through their mapping that the water levels that would be experienced when the barrage was raised were already at that height, so we looked at this and thought there was certainly some problem with the mapping. So what was the problem? We found that the water level on the Mary River barrage today is stored on freehold land. Resumption surveys were never done and new titles were never issued, and this issue has never been addressed. The ongoing problem is that the soil types on this system, which are inherent throughout the Mary River system, are of a sodic, dispersive type. These soil types are causing problems with landholders on that barrage system and, I expect, along the river entirely. Due to the ponding of the water the banks are failing and the riparian landholders experience problems when the water level is pumped down during irrigation to access water for their families and for their stock. We are recyclers. We recycle the water that is coming down the river now, which has been through the Cooloola and Gympie people. So we are true recyclers. We care for our riverbanks and we care for the way we use the water.

A report done for the building of the Mary River barrage, a Cameron McNamara report on Mary River stability, stated:

These movements began to occur immediately the river closure was made at the barrage site and the length of the bank so affected increased with time, the least stable banks being those which were first to slump.

Further, a report was done by Preen, Leelong and R Coles in 1995 which studied high turbidity levels that caused the death of Hervey Bay seagrass beds, as well as many dugongs. This followed flooding of the Mary River in 1992. Also, in 1997, Loi, Malcolm, Peck and J Armbruster reported in *Soils and land suitability, Kenilworth, Conondale area* that most of the soil types within the catchment are fragile and prone to erosion. Further, in 1994 P Charman and BW Murphy indicated that sodic, dispersive soils are highly erosive and dispersive.

We on the Mary River barrage are very concerned that, should the wall be built, the low flows that will come down the river will be stopped; hence the Mary River barrage will not be replenished from upstream. Water is now let out of the Borumba Dam as a means for irrigators to continue their enterprises with sugarcane and such. I am not sure how much water has to be released at Borumba for Maryborough or the Tiaro region. As you would be aware, Tiaro, or the Mary River barrage, is situated about 56 or 59 kilometres from the mouth of the river. I suggest that the Borumba Dam, which is on Yabba Creek, is probably another 250 kilometres away. The amount of water that is to be released from Borumba will never be released should this new wall be built, because Borumba will empty into this new dam, so that water will not travel down the system and it will not go to the Mary River barrage. I suspect that the cane farmers in that area will find it very difficult to irrigate their cane in that they will not have water to do so.

However, the system as it is today, the Mary River barrage as it stands at the moment, is one metre lower than the wall, and there is no water flowing into the barrage at the moment. The water hyacinth is on the barrage at the moment, and when I pumped water for my house on the weekend the level of the water was one metre lower than it would have been if it had been flowing over the wall. The hyacinth and salvinia were around the suction of my pump, and that makes it very difficult for my pump to supply me with water.

Approximately two months ago, before we had some inflows that occurred at the barrage wall—a quick downpour of about four inches at Maryborough supplied a bit of water—the barrage was down by about 1.7 metres by my measure. My pump's suction for the house would not reach the water. Irrigators were still pumping. From what I could gather, they could pump the water level down by a further 200 millimetres. That took the water level down to 1.9 metres from full. The Maryborough City Council has an allocation of 2,000 megalitres, which they can take below the level at which the irrigators are stopped. If this were to occur, my pump's suction will not reach the water. I do not know whether the other landholders in the area will be able to access their water.

CHAIR—Are you trying to tell us, in shorthand, that the riparian rights of the river and stream users have been overpowered by the pumpers and everyone else?

Mr Black—I am saying that we are families, we are people who are looking to supply ourselves with water, and we have not been able to give any submissions to this cause at this stage.

CHAIR—You should see how they get on in the Lower Balonne! They have the same problem. Riparian rights have been absolutely destroyed all over the place. It is a disgrace. We

have got the message. We will come to questions in a moment. Mr Sinclair, would you like to make a statement?

Mr Sinclair—The Fraser Island Defenders Organisation has been operating since 1971 and has been focused on trying to protect the World Heritage values of Fraser Island for the duration. Our concern in making a submission to this committee is that the impact of the dam is going to be felt as far away as Fraser Island and the Great Sandy Strait—which is a wetland of international significance and, in fact, overlaps into the World Heritage Area, which is 500 metres offshore from Fraser Island for the length of Fraser Island. That puts it very definitely into the Commonwealth court as far as the Commonwealth's international responsibilities and obligations are concerned. I am particularly concerned to make the point that most laypeople seem to have the view that water running into the sea is wasted and that we have to get it before it gets there.

CHAIR—You do not have to make that point; we are well aware of it.

Mr Sinclair—I want to point out that the water is not being wasted in the Great Sandy Strait, for example. I want to point out some of the impacts—I cannot give you the precise details, because I have only read about it. When Borumba Dam was built, the salinity downstream in the estuary—and I am not quite sure where the measurement was taken—increased by over seven per cent. But when the barrage was built, the salinity downstream increased by more than 17 per cent. Salinity is just an indicator of the other impacts downstream on pH and nutrients, and all of those factors contribute towards the biological diversity and richness of the estuary. So it is absolutely critical to believe that this is important.

The other thing that needs to be understood about Great Sandy Strait is that 10,000 years ago it was the ancestral bed of the Mary River. The Mary River's mouth was north-east of Double Island Point and probably about 15 to 20 kilometres offshore from where it is at present. But at that stage Great Sandy Strait would have been a huge chasm, probably about 100 metres deeper than it is at present. All of that has been filled with the sediment that has been brought down from the Mary River in just 10,000 years.

Senator JOYCE—It would not fill the dam.

Mr Sinclair—No, it could not fill the dam. It would take some time. Five thousand years is a long time.

Senator JOYCE—It is all on the way to the sea, basically. The mountains are on their way to the sea and they are going to go via a dam where they are going to actually stop.

Mr Sinclair—Anyhow, that is my opening statement.

CHAIR—Thank you very much. Mrs Klupfel, would you like to make an opening statement?

Mrs Klupfel—Yes, please. Our concern is that our community has been ignored by the Queensland government in relation to advising us as to any downstream effects of the proposed dam. They have not provided us with any facts or figures on the changes to river heights, flows or water quality. If Traveston Crossing dam is constructed, our community will have to live with

the impacts forever, yet no information sessions, brochures, fact sheets or letters have been sent to landholders.

Tiaro and District Landcare Group was established in 1997. Our river was collapsing. We all knew that we had a problem, but none of us got together until a meeting was called. That was when we found that we had big problems. Our river was telling us something. We all lived in a tidal part of the river prior to the barrage. We had a tide of five feet that came and went every day. Our river banks were sandy and our water was fresh.

When we say to people that we lived in a tidal river, they say, 'Oh, but it must have been salty.' But it was not—it was fresh, because our river was flowing. When the tide comes in the salty water is heavy so it comes in underneath and the fresh water rises. We had barramundi and mullet—great schools of them. We had sandy beaches. We were told when this barrage was going to be erected that there would be no problems. We would see nothing different. The environmental impact study was one-half of one page.

We are here today to say to the people of the top part of the Mary: do not believe what you hear and do not believe what they say. There will be impacts. When those impacts start to be seen and felt and you ask for help, you will not get it because everyone will be running for cover. That is my opening statement.

The other thing is that the Tiaro and District Landcare Group is probably the only group that has tried to save the Mary River turtle. This turtle was brought to our attention in 1998 when a young girl—a little, slight thing—who was camping on her own in a tent on the banks of the Mary River doing her masters came to our landcare group to tell us that she was doing her masters on a very unique turtle. It was a turtle that was a bum-breather. Just like the lungfish, it could extract oxygen out of the water. We heard how this turtle had been exploited by local fishermen in the sixties and seventies. They found that this turtle's little hatchlings would hatch out just before Christmas. Tens of thousands of these turtle hatchlings were sent south to be sold as penny turtles to the aquarium market.

An amateur herpetologist spent 30 years of his life looking for where this turtle came from and every time he got near the Mary River someone sold him a bum steer. He went to Coopers Creek, the Northern Territory and New Guinea, and on the very last day of one of his holidays, in the early 1990s, he found this turtle. We have fought for and protected this turtle ever since at its nesting times every year. It will be really sad if there is no oxygen and no fresh water coming down this river to help this species survive. It must survive, and if we have our way it will survive. Thank you very much.

Senator BARTLETT—Mr Sinclair, as you say, our water use downstream is often not examined, and it is right out to Fraser Island. From your knowledge of the EIS drafts to date, even though the EPBC is triggered by World Heritage and Ramsar among other things, do you think the EIS drafts will enable adequate examination of the impacts out to Fraser Island and the sandy straits?

Mr Sinclair—I think it would be minimised, but we did make a submission that it should be addressed as a matter of high priority. We also, in our submission on what the EIS should address, suggested that it should not just be focused on the present level of stage 1 of the

proposed Traveston Dam but should go to stage 2. We are looking at what will happen if stage 2 is built, because it would reduce the flow to even less than it is now. We have heard evidence that there is no water flowing over the Mary River barrage. There is very little. I doubt if there is any water flowing over the Teddington Weir. That means that there is no fresh water flowing into the Great Sandy Strait.

Senator BARTLETT—Mrs Klupfel, I am fairly sure at a meeting I was at at Kandanga a couple of months back it was you I heard mention another weir or something that somebody was thinking of building and that, once they realised they had to put it through EPBC, they backed off. Could you elaborate on that? That to me is an indication that even a weir at that level created concern about potential—

Mrs Klupfel—That was not a weir. They were looking to move a CCA plant from Maryborough onto land which was adjoining the Mary River. We objected to that because of the endangered Mary River turtle and the run-off that would come from that CCA timber treatment plant. We put a submission to the EPBC Act and that was refused.

Senator BARTLETT—They withdrew it?

Mrs Klupfel—Yes. The local company did not take it any further because, from what I can gather, the proponent should have been aware that there were endangered species in the river that could have been impacted, it was up to them to trigger the EPBC Act and they failed to do so. They were asked to show why they had not done it, and it just died; they did not go ahead with it.

Senator BARTLETT—You and Mr Black both spoke about the perceived impacts with the barrage and sand. Mr Black, I got the impression from your written submission that it has not been properly studied yet—there is no full study of what the impacts are when all the landholders perceive these serious impacts.

Mr Black—That is right. We would like to see the impacts that have been inflicted on the Mary River at the barrage level studied now to extrapolate from that what could be expected in this new proposal. Certainly we have had a blue-green algae bloom on the barrage already. That was some years ago.

I think that the hyacinth is on the barrage at the moment and that the water is not flowing. And given that we have gone past our summer season, we could quite easily expect that we do not get any rain now before the summer season—hopefully we will get some winter rain. We have come past the time of year when we would get our flood rains, haven't we? The barrage at the moment is a metre down. There are no inflows now, and we are not talking about a dam that is up the top here that would stop those small flows, albeit that those small flows probably do not get to the barrage now. There may be some flows going through the sands into the barrage. Mind you, the barrage has lifted the water level in the river. I have said that the water is on freehold land, and that water is pushed upstream a little bit further than probably when the river would have been tidal, but not much. One of our local landholders there has furnished me with information that in 1919 the river ran dry. It is anecdotal, but I do not disbelieve the man. He has photos to prove that. There would not have been too much irrigation in those days.

Senator BARTLETT—You have all expressed concerns about riverbank undercutting and slumping and those sorts of things since the barrage has gone in. Is it pretty much accepted by council and state government that that is the consequence, or is this what you might call anecdotal beliefs by landholders?

Mr Black—No, it has basically been accepted by government that the landholders have to bear the brunt of that. The issue is that the ongoing bank failures are actually happening to private landholders. Their properties have been affected and values of their properties have been lowered. I have some documents that I will table for the Senate to read. When I bought my property in 1990, I could walk to the river's edge and put my toe in the water, and I have photos here for the Senate to view which show that now there is a six-metre drop there, and it is ongoing and it is happening, and this is a cause of the water level of the barrage being at a height made by man, above the mean spring high tide that it was meant to be built at. But they just put a metre on top of it for fun. The extra metre caused the trouble. These same types of soils exist up here. So what I am saying is that the amount of soil that is going to come down the river and affect John Sinclair's Fraser Island is going to be huge. It is going to be catastrophic, because of the type of soils that we have, albeit that it will probably fill that big wall pretty quickly. We have information—and it is anecdotal again—that, while they were building it, some chaps went across the barrage wall in a canoe or an old bondwood boat of sorts and they depthed it with a rope and it was 40-foot deep. It is not 40-foot deep anymore. The state has got areas where they have looked to do surveys across the river and they would have information on that, if you can get it. It is a serious problem.

Senator JOYCE—I am not quite sure what Balonne River had to do with it, but I heard it from outside. There is a dam in this state that we have already stuffed up, the Neil Turner Weir; they put in a dam and in a couple of years time it turned into a bird sanctuary—it completely silted up. Likewise, the dam at Beardmore was 101,000 megs and now I think it is 81,000 megs, through siltation. Has there been any measurement done in any way, shape or form of how many tonnes or cubic metres of silt move down the Mary River each year?

Mr Sinclair—No, there would not have been, and the only way that we could actually get that is to try to get an estimate of the volume of siltation at the barrage. That would be the only measure. But even then the barrage did not stop vast volumes of silt going over it during the floods of '92, which really resulted in a devastating impact of turbidity in Hervey Bay, which starved off the dugongs.

Senator JOYCE—There used to be dugongs in Hervey Bay and now they are gone?

Mr Sinclair—No, there are still dugongs. It is one of the major dugong habitats in Australia, and that makes it one of the major dugong habitats in the world. The richest part of the dugong habitat within Hervey Bay is near Burrum Heads and in Great Sandy Strait.

Senator JOYCE—Obviously there is some sort of balance. There is material going down the river and once it gets to the bottom of the river there are tidal effects, as you have shown by the undercut, carting the material away. It may be doing it slowly but it is moving the material on. If we stop all the material going down but the tidal effects still keep taking material away, we end up changing the whole ecology of the Great Sandy Strait.

Mr Sinclair—That is the summation of it, yes.

Senator JOYCE—Since the barrage has gone in, has there been any quantifiable study of what effect it has had and has that been extrapolated to what effect this dam would have?

Mr Sinclair—No.

Mrs Klupfel—There have been no studies—we have asked.

Mr Black—The riparian group in our submission have asked that a study be done on that.

Senator JOYCE—You would say that that would be a very worthwhile or sensible thing to do prior to going forward with this idea, would you?

Mr Black—You would, Senator, yes.

Mr Sinclair—The other thing I need to point out is that, supposedly, an 85 per cent environmental flow is going to continue after the dam goes in. But that does not seem to gel with any common sense or any evidence. That figure seems to have been plucked out of the air. We would like to know how that 85 per cent environmental flow is to be measured and how that figure was derived.

Senator JOYCE—Mr Sinclair, there are a lot of things about this dam that have been plucked out of the air—and plucked out of a few other places as well.

CHAIR—It is the same as with the Lower Balonne!

Senator IAN MACDONALD—Can I clarify this with each of you: none of you were in any way consulted about the dam.

Mr Black—No.

Mrs Klupfel—No.

Mr Sinclair—No. The first we heard about it was when the Premier and Henry Palaszczuk flew up and made the announcement: ‘There will be a dam here.’

Mrs Klupfel—And since then there has been no consultation.

Senator IAN MACDONALD—Have you been given any information as landowners in the area?

Mrs Klupfel—No.

Mr Black—We went to a day under a big white marquee at Brolga Theatre at Maryborough. That day was conducted by a company by the name of Three Plus, which is taking this

community consultation process forward, I believe. We looked for information from that. I asked for mapping. I have not received anything from them.

Senator IAN MACDONALD—Has the approach been that it does not affect you, it only affects those above the wall?

Mr Black—We had that opinion, yes.

Mrs Klupfel—Following on from what Ron was saying, the day that they had at the Brolga Theatre—which was called an information day—came after we actually rang up and said we would like to see something down here. They had one of these information days at Kandanga. When we—Tiaro Landcare—rang and asked, ‘When are you going to have something down this part of the river?’ we were told, ‘No, there is only going to be one at Kandanga.’ We said, ‘Well, that’s not good enough; we need to have something down here.’ Then after a couple of days, when we had lobbied a few more people, we heard that this information day was on. It was not somewhere where we could raise our concerns. There were great glossy brochures put around everywhere, and that was it. We came away feeling a little disgruntled that nobody wanted to hear about our concerns.

Senator IAN MACDONALD—Has QWIPL approached anyone you know to see if there is going to be any loss which might be compensatable?

Mrs Klupfel—No, there has been nothing.

Senator IAN MACDONALD—What about the fishermen down at the mouth?

Mr Sinclair—I am not quite sure if people fully realise the loss of fisheries—and it is hard to quantify—just because the quality of the water and the properties of the water have changed. The productivity will just gradually be whittled away. The productivity of fisheries has been declining in the Great Sandy Strait for years and nobody can actually put their finger on whether it is because there has been too much fishing effort, whether there has been too much take or whether in fact it may be due to other factors such as quality of water.

Senator IAN MACDONALD—It could be all of the above.

Mr Sinclair—Or all of them. In effect, they are not in a position to be able to launch any valid claim, I do not think.

Senator IAN MACDONALD—I think the Clarence idea is silly—although it is not even an idea; it is just a study that has been tabled at this stage. There are obviously impacts downstream there for the prawn fishermen. Mr Sinclair, you would have a fair understanding of the Ramsar wetlands?

Mr Sinclair—Yes.

Senator IAN MACDONALD—Has that issue been raised with your organisation, which I have to say has been well known for many years? Has anyone approached you for a comment or for your thoughts about how a damming of the Mary River might impact on that area?

Mr Sinclair—No. I must say, with some respect, that the Queensland government does not give very much consultation on environmental matters at all. It has a very poor track record.

Senator IAN MACDONALD—I was asking Senator Siewert why they always preference the Labor Party.

CHAIR—You can bugger off with the politics, Senator Macdonald.

Senator IAN MACDONALD—Sorry about that, Chair.

Senator SIEWERT—We can have that discussion over dinner.

CHAIR—Senator Trood, do you have something sensible to say?

Senator TROOD—Of course. There have been no public meetings down there at which ministers or others have addressed you?

Mr Sinclair—No.

Senator TROOD—Have you pressed that matter; have you requested that on several occasions? Does the reaction seem to be, ‘Well, it doesn’t concern you; we are not going to do that’?

Mrs Klupfel—To put it mildly, we have been told that there is going to be no problem downstream of Traveston because there will be an 85 per cent flow at the river mouth. The river is not flowing past the barrage and has not done so for some time. Over the last four years, I think it has flowed over only a small percentage of the time. It is very, very poor. Nothing is coming out of Tinana Creek. The other thing is that the government have no way of measuring the amount of fresh water that is going into the tidal reach of the river. They will tell you that. When we have asked for figures as to how much water is actually going down the Mary, they tell you that they do not measure it.

Senator TROOD—Mr Black, do you know how often the fresh water has flown over the barrage in recent years?

Mr Black—I would say that it has been flowing about 50 per cent of the time perhaps—because it is so far downstream. The irrigators get a flush of water. Obviously cane is a seasonal plant and the cane farmers have to irrigate heavily during the summer season. They get a flush of water from Borumba perhaps for their irrigation. At the moment it is not a very healthy system. As I said, there is no flow now and we do not expect to have any flow now until the summer season comes again. We could quite easily have algal blooms and God knows what on our water at the moment.

Senator TROOD—Do you have any independent knowledge of the populations of the Mary River turtle?

Mrs Klupfel—Tiaro Landcare has been doing surveys for a number of years now, and we have protected the two most productive nesting banks in our area. I am going to table a report today. I

suppose over the years since 2002 we have protected an average of 50 nests each year. This turtle lays only once a year and it lays an average of only 15 eggs each, so the numbers are very small now.

Senator TROOD—So, over that period of time, has the population been increasing—

Mrs Klupfel—No.

Senator TROOD—or has it been stable or declining? What has been happening?

Mrs Klupfel—Well, that is for our nests that we have protected. The concern for us is that, although we are making sure that there are hatchlings going back into the water every year, we are not seeing any juveniles down our way. These turtles are long living. We do not believe that they start to reproduce until they are either 15 or 20 years old, and they can live for up to 60 to 80 years. Although we have protected them for a number of years now, we are not finding any juveniles.

Now, we have supported, through a scholarship, a PhD student from Queensland uni, and she is looking into the diving ability of these turtles. Because they can extract oxygen through their tails, we are now of the opinion that part of their protection when they are hatchlings is that they can actually dive and stay underwater for anything up to three or four days at a time. So if the water quality is good, with a lot of oxygen in it, they can extract the oxygen out of the water through the gill type things in their tails and can stay underwater. Therefore, if they do not have to surface to get oxygen they do not get preyed upon by pelicans and other birds and the rest. If the water quality is not good and they have to come to the surface or move around under the water then they are preyed upon. So that is our concern. We do not know how we are going at this point in time.

Also, we do believe that these turtles are like sea turtles in that, wherever they are born, once they mature they will come back to that nesting bank to start the cycle all over again. If those nesting banks are lost then we do not know what will happen. So it is early days and, as we keep saying about some of these species, it is going to take a long time before we know whether or not we have been successful.

Senator TROOD—Okay. Thank you.

CHAIR—Can I ask the riparian landholders group: have you blokes asked the government about the impact of the river management plan when it frees up the water licences—if it does what it has done everywhere else, it will wake up all the dozers and sleepers—and what impact that is going to have on you fellows?

Mr Black—No, we have not. So you could imagine—

CHAIR—Why haven't you?

Mr Black—Because the riparian landholders are a group of people who are concerned about river banks and not necessarily a group of irrigators.

CHAIR—I am not talking about irrigators; I am talking about people who have a riparian right on the river system. You should be urgently—we will, anyhow—asking the government just what is the load that is being put on the river by way of its licences, both sleepers and dozers, and mature licences, given that the river plan says that they are going to free up all those.

Mr Black—The load on the river would be huge, because the licences that people had on the river in the old days, when it was tidal, still exist today with those people. So there would be people who would have licences for 300 megalitres of water—

CHAIR—So I think there is a lot of work to be done, even just to understand what the river system is going to do under the new plan.

Mr Black—I agree.

CHAIR—I have not heard anyone who could make one sentence of sense out of what is going to happen in the future. Everyone is worrying about the dam—

Mr Black—Yes.

CHAIR—but a lot of the river and the ecology and the Fraser Island stuff might be in hell's own trouble anyhow if you free up the system.

Mr Black—That is why our group has asked that a study be done on the barrage now. The state has established some cross-sectional surveys on the barrage to look at the sediment, and that was at our request—the request of the riparian landholders. They would have some papers, some studies or some information available somewhere on the sediment that would have built up, perhaps in the DNR somewhere. But, as for the effect of irrigation licences when it is freed up, yes, I am—

CHAIR—Anyhow, that is something we will take up. Senator Siewert?

Senator SIEWERT—You started a question along the lines that I was going to follow. Who from the community is involved in the resource management process, the ROP?

Mr Black—No-one.

CHAIR—We got the message. They are about to get it.

Senator O'BRIEN—I want to find out what the witnesses think about the Environment Protection and Biodiversity Conservation Act process as it applies to the Mary River dam. Do you have confidence in it?

Mr Sinclair—I do not have a lot of confidence in it. For example, we raised the question that this is going to impact very significantly on the wetland indirectly, simply by putting over a thousand residences on Inskip Peninsula. This was passed without any environmental assessment by the people in the EPBC area. When we raised last year the question of what would happen when the Queensland government cleared firebreaks about 40 metres wide on Fraser Island, in a World Heritage area, and said that should become a controlled action, they said: 'Oh, no, that's

nothing to do with us. We just have to allow this to be a cooperative arrangement. The Queensland government's got the day to day management of the area.' So, while I would like to be optimistic that the Environmental Protection Act would be more useful, I do not see it in effect delivering the degree of surety that we would like to see as far as protecting the environment is concerned. I would have thought that something like the degree of clearing that was going on in the firebreaks warranted being examined as a controlled action.

Senator IAN MACDONALD—It was not, but I think Senator O'Brien's question was: now that it is recognised as a controlled action under the EPBC Act, what is your faith in the process?

Mr Sinclair—I am more optimistic about that now. I misunderstood the question. I thought that in general the EPBC Act could be invoked a lot more than it is.

Senator O'BRIEN—So your answer is the opposite to what you said earlier—that you do have confidence that the assessment of this project under the Environment Protection and Biodiversity Conservation Act will be appropriate?

Mr Sinclair—I believe so, yes.

Senator O'BRIEN—So I take it you would be confident it would fail that test.

Mr Sinclair—I could not be certain that it would fail the test. We will wait to see how it measures up. It depends on how it looks more precisely at the impacts, particularly on the Ramsar site.

Senator O'BRIEN—I understand from evidence earlier today and your submission that there is now not much flow, if any, at the mouth of the Mary River. Will this project have any effect at all on the mouth?

Mr Sinclair—It is going to mean that what is occurring now at the height of this drought will almost become a regular, ongoing occurrence in the future.

Senator O'BRIEN—So the impact will be that there will be no flushing events? That is how I understand your submission.

Mr Sinclair—I would not say that there would be no flushing events because there are two major catchments of the Mary that escape the dam: the Wide Bay Creek and the Marodian creek on the western side. They flow down below the dam and they could still deliver some flushing of the lower streams, but generally most of the Mary River catchment has been caught.

Senator O'BRIEN—Is there any move to alter the barrage, and what would the impact of moving it or lowering it be?

Mr Black—There was a submission put in many years ago by the state that they were going to raise the barrage. That was to put a fabridam on top of it—a big rubber ball as such—to raise it another two metres, I think it was. That was one of the main reasons why the Riparian Landholders Group came together, because of the impact that was being felt on their properties. As the water at the moment is stored on freehold land, as I said, there have been no resumption

surveys ever done and no new titles issued. We were very concerned about a raising of the barrage for the simple fact that it would impact heavily on the freehold rights of the Riparian Landholders. Yes, there has been a proposal to raise the barrage, and that proposal failed. I do not believe it has officially been struck off the list; it has just vanished into the distance.

Senator O'BRIEN—So there was not a proper assessment done then?

Mr Black—There was an assessment done, yes. An environmental impact study was done by a company called Fisher Stewart and they did the relevant mapping and so forth of where the water would go to. That mapping showed that where the water was going to go to is where the water is now. Either the mapping was incorrect or the information they had to work off was incorrect. I am saying that the barrage wall is at a higher level than the state says it is.

Senator O'BRIEN—But that was not revealed by their study?

Mrs Klupfel—Yes, it did.

Mr Black—Their study did reveal it because it showed that, through the expected raising, the water would be at a higher level, but that higher level is where the water is now.

Senator O'BRIEN—Is that study publicly available now?

Mr Black—Yes, it is.

Senator O'BRIEN—How old is it?

Mrs Klupfel—It was done in 1999.

Mr Black—Yes.

Mrs Klupfel—I would just like to say one thing. The previous witnesses were talking about water weed. We are living with water weed in the barrage now. The river down our way is about 100 metres wide. We are absolutely chockers with hyacinths. The hares and wallabies can hop across it. They do not even fall through it. Even our neighbour's dogs can go from one side of it to the other. Only a few months ago, our local media got wind of this. As you know, down at Maryborough there is a marina and the man who owns it started to think, 'Oh my goodness, if all this comes down the river, I'm going to get wiped out.' So he started making a bit of noise and the government's response to this was that it is the responsibility of the landholders to get rid of the weed and if we do not get rid of it and there is damage then the marina operator has the right to sue the local authority and us for not getting rid of the weed. That is why Queensland's Department of Natural Resources and Water are not worried about water weed—they are going to put it onto us. Thank you very much.

CHAIR—Thank you. That concludes us right on time for the day. I hope everyone thinks that they have had a fair shot at it.

Committee adjourned at 3.59 pm

