C O R R E C T E D V E R S I O N

STANDING COMMITTEE ON FINANCE AND PUBLIC ADMINISTRATION

Inquiry into the business case for water infrastructure

Shepparton — 21 August 2009

Members

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Ms C. Broad
Mr M. Guy
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Mr D. Drum for Mr P. Hall
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Witnesses

Ms J. Beer,

Mr K. Pattison, and

Mr R. Ridd, Plug the Pipe.

The CHAIR — I welcome representatives from Plug the Pipe Ms Jan Beer, Mr Ken Pattison and Mr Rodney Ridd. As I indicated earlier, all evidence being taken at these hearings is taken pursuant to the Constitution Act 1975 and the standing orders of the Legislative Council and is protected by parliamentary privilege from judicial review. However, any comments you make outside the precincts of this hearing are not protected.

All evidence is being recorded by Hansard, and you will receive a proof version of the transcript in the next couple of days for any corrections you wish to make. I now invite you to make an opening statement, if you wish, and we can then proceed to questions.

Mr PATTISON — Thank you very much, Chair. I welcome you all here today. We appreciate your coming past the tram tracks to have a look out where it all happens. We thank you for the opportunity to make a presentation to you, which we hope will add value to your deliberations on what is happening in regard to the modernisation impacts and the outcomes that we see coming forward.

We believe we live in a democracy. We have acts of Parliament, including the Water Act. Governments make legislation and they make changes to it, they sign interstate agreements, and they make commitments to carry out programs, initiatives and undertakings as the elected government. The setting aside of the government gazetting of this matter last week was the result, in our opinion, of the government not adhering to provisions in the Water Act, provisions of interstate agreements and commitments and undertakings given as a result of the food bowl modernisation project, which included building a pipeline to Melbourne.

It was not designed in any way, shape or form to deny the people of Melbourne their water — in no way was it designed to stop Melbourne getting its water. It is about honouring commitments and undertakings as per the Water Act, as per the food bowl modernisation and as per interstate agreements. For example, there was a food bowl promise that an independent audit process would take place to establish the savings. Also there was to be an amendment to bulk entitlements in the Water Act. A whole set of provisions in that act have to be fulfilled before the bulk entitlements are amended.

One of the bulk entitlements that has been advertised, which is water for the rivers, is part of the Snowy agreement, and that agreement clearly sets out that before alterations and allocations are made there has to be an independent audit. None of these things has taken place. The government has just proceeded in the way it has been going about this process, and that is why it was set aside last week. It was set aside because the environment movement is not happy with the process, as I heard from the delivery last week in Parliament, and the irrigators and the customers and so on are also not happy with the process.

What is wrong with the process? The press releases, the minister. We have a technical audit manual. It has been prepared by DSE, Goulburn-Murray Water and NVIRP — the semi-government company that has been formed to carry out the modernisation project. It has no public exposure in any way, shape or form as to the context of that technical document, on which one of the clauses in the government gazetting said, 'based on technical advice from the department, the minister can amend the bulk entitlement'. There is the document. It has been developed. We have had no exposure to it. I have attempted over many months to say, 'Let it out. Put 'Draft' on it. Let everybody have a look at it and see what it says. Ground test it'. You will not make everybody happy, but I was saying people should be given a chance to have a look at it. But, no, that did not happen.

Being well aware of what it would attempt to do, we asked other members in this democracy to set it aside. We are asking for that technical audit manual to be withdrawn, to have 'Draft' put on it, and for it to be open to public scrutiny, so that the environmental movement, the irrigators and the community can be satisfied that it is sound. That document becomes the bible for the independent audit, and quite frankly it would not matter whom you got to do the audit, no matter how honourable they were — and they would be honourable — if they were obliged to audit to the technical manual, the answers would be simple. I see just in one aspect alone how 100 gigalitres will be removed from the production of food because of the way the technical manual determines metering will be assessed.

I will not plough the same paddock, because it was in part of one of the member's speeches in Parliament last week, but there has been a gross exaggeration of the formulas used, which is in effect taking water from productive agriculture and transferring it somewhere else. Likewise, regarding the environment it was very well said last week that now if you have a megalitre of saving, where that was to be a megalitre going to the

environment, the government has cut that into three, and now we get about a third back. It does not sound like a good deal.

It is not a good deal, and so I would like, hopefully, to add some value in the course of this hearing to answering questions on that. I will ask Jan Beer, who has done a lot of work in preparing the material on the social ramifications and impact from Yea and the people there of the way the government has gone about things there. That is still being played out and will be played out, with the government coming onto the land under the Water Act without providing compensation, and everything else.

Ms BEER — I would just like to quickly alert you to the fact that in this document there are a couple of typo errors. In the first sentence $6 billion should be 3.

The CHAIR — In which document is that?

Ms BEER — It is the one with benefits and costs.

The CHAIR — Is that the document that was sent in — —

Ms BEER — It is the one that I have handed in.

The CHAIR — On Wednesday night?

Ms BEER — Yes.

The CHAIR — Okay.

Mr DRUM — Just now?

Ms BEER — No, this one.

The CHAIR — That is a different one, is it?

Ms BEER — It is about an 8-page document. It refers to pipeline and food bowl modernisation totally integrated inter-dependent projects costing nearly $6 billion. The figure should be 3.

The CHAIR — Okay, thank you.

Ms BEER — The typist was very busy at the time! And on page 4 it should be 1500–2000 megalitres, not 1500–200 megalitres.

The CHAIR — On page 4?

Ms BEER — Yes.

The CHAIR — Sorry, whereabouts is that?

Ms BEER — Page 4, about halfway down, in the largest paragraph there, it should read that typical releases last year were only in the vicinity of 1500–2000 megalitres per day.

The CHAIR — Thank you.

Ms BEER — Sorry for that. I will just take a minute to quickly give a little presentation and then leave the rest for questions, which I think is probably more important.

You have heard very little about the social, economic and environmental impacts in the upper catchment and on the communities there; there seems to have been quite a large focus on the food bowl area. When the architects of this food bowl pipeline deal — that is, the Shepparton group of lobbyists who took this deal to Melbourne — went and did a deal with the government not one thought was given to the upper catchment, because I asked Mr Corboy at a meeting in our shire hall in Yea, 'Did you think about the impacts on us in the upper catchment?', and the reply was, 'No, we didn't'. They did not give one thought to it. And we have suffered enormously.

There has been an enormous amount of emotional stress. We were not even deemed worthy enough to have a socioeconomic benefit analysis study done, and we were told that at the project impact assessment hearing by Ms Cramphorn, who is the social analyst. She said there were only disbenefits, not benefits to the people who would be affected by the pipeline, and we have certainly found that out. Nor has there been a socioeconomic benefit analysis study done in the food bowl area, I believe, but there is enormous social engineering taking place here and rationalisation of farms. I find that appalling. Good governments should look after their people; that should be their highest priority.

The Murrindindi shire has absolutely struggled to cope with such a massive project, and then, of course, the Black Saturday fires had such an enormous impact on us too. As a community we have been overwhelmed by the jackboot tactics that have come with this pipeline, and we have felt totally powerless and disenfranchised. Consultation means you take into account people's feelings and interests. That did not happen. We were told right from the very first meeting, 'This is a fast-tracked project and it is a done deal'. I cannot tell you how bad that made people feel right from the start.

We have seen our rivers, streams, forests, farmlands, wetlands, flood plains all devastated by this project, with the easement part of the pipeline never to be reinstated with native shrubs or trees. We feel that we have been lied to, ignored and treated with contempt, and I can give you plenty of examples of that in question time, if you would like. That is all I would like to say for now.

The CHAIR — Thank you, Ms Beer. Mr Ridd, would you like to add anything before the committee proceeds to questions?

Mr PATTISON — Rodney wrote the technical manual. He is an expert in pipelines. It is way out of my field, and Jan's. Rodney has come to answer any technical questions in regard to his paper and the power requirements and all those things; he can support that.

Mr RIDD — Mr Chair and members, thank you for undertaking the hearing. I am a farmer now, but 10 years ago I was a construction manager — building mines throughout Australia for 32 years. I have built some pipelines, so I am aware of what is involved. I first became involved with the VFF when it was quite worried about the fact that water was going to come away from the food bowl.

By the way, I think it is mandatory that the food bowl be updated. It is the best thing that could ever happen. It needs to happen; it should have happened long ago, but taking water from the food bowl via the pipe is the wrong thing. My property does not lie on the pipeline, so I have no vested interest, but that pipeline should never have been built. From 20 July 2007 when it was first going to happen it was quite obvious that none of the work that should have been done had been done to justify taking it. It only pumps water from the north to the south. It is quite obvious from rain records that more water falls in the south than in the north. I have talked to the chief designer at the various meetings we have had. He says that, yes, the alignment of the pipe in the north is large — 1.75 — and down in the south it is 1.4, much smaller. Yes, water could be pumped from south to north but it would need multi-stage pumping et cetera. None of that has occurred. So it would appear that, although it could be possible, there is no intention ever of using the pipe to bring water up to assist in the food bowl and in the Murray-Darling Basin.

The power recovery — the designer at that time said that. I do not think it has ever been done before that somebody has pumped water over a mountain. This mountain is 250 metres high, the pressure in the pipe is huge, and when the water comes down the other side of the mountain it has so much energy that you could generate — that is what we did in the Snowy. By the way, I worked in the Snowy tunnels — that was my first job — so I am quite aware of what happened in the Snowy. I was in the Island Bend digging the tunnels and so forth and surveying up there. They have not considered this.

They said that as an independent program, possibly in 2018, they might put in a mini-hydro to recover power. One of the submissions I put in was about the huge amount power on a yearly basis that is needed to pump water over the mountain. Northern Water put out just recently the cost of pumping up along the pipeline up north there, and I have estimated that the power required to pump water down to Melbourne is probably 6.5 times as much as that just to pump water over that pipeline. There is no power storage. There are none of the things that are integral to the Snowy system. I have a book, *Snowy — The Making of Modern Australia*, in

which there are all the details of the Snowy costs: which contracts were there, the contracts that were let, the cost of each contract et cetera.

It added to $375 million over the 25-year period, way back when it happened almost 40 years ago. That is about $1.2 billion in today's dollars, which is about the cost of this pipeline, but so much more was put in and done in those times than we have for this pipeline. The difference is extraordinary. The pipeline, in my opinion, was rushed, and it did not have the planning that is needed for such a huge project or to spend so much of taxpayers money.

The water savings are not available for the Murrindindi shire. I was asked to evaluate the water savings that were done up here on Dethridge wheels. They did some tests on Dethridge wheels. I went through their report. If you look at the executive summary, it says something like 10 per cent of water could be saved because irrigators were getting 10 per cent of water that they should not have got. However, if you look at all the detail and the huge effort that these people went to to do their work properly and record what had happened, most of the Dethridge wheels they tested had not been maintained — they could not find records of them being maintained; they were not recording the water. In my opinion, these savings by just changing out Dethridge wheels and so forth do not exist. I question whether the savings that this pipeline has been based on actually exist. There are more people coming out to say that. And, as Jan said, there is insufficient socioeconomic data.

The food bowl: Mr Pearce indicated that $2 billion was going to be spent. I hope that is the case because $1.2 billion has been allocated so far. The rest is dependent on the commonwealth government giving that money, and it has not so far. The actual cost of the food bowl modernisation project was $4.4 billion, and the extra $2.2 billion was going to be put in by irrigators. I hope all that money is spent and that it can go ahead, but I very much doubt that is possible under the current economic situation and the current lack of water et cetera. That needs to be taken into account.

I do not think the north–south pipeline costs are correct. In the original design criteria that went out on the internet they said, 'Goodness, we are going to have to use 10 megawatts of power to pump water over the mountain'. After they started the design the chief designer came back and talked to us at one of the meetings. He said, 'It is now 17 megawatts to 19 megawatts; somewhere in there'. The amount of power needed to go over the mountain almost doubled. The size of the pumps almost doubled. The size of the motors almost doubled, and the size of the transformers almost doubled, but the cost that has now been reported has not changed. It is still $750 million.

I have been estimating — one of my jobs was estimating, and there are many ways of estimating but one is to do a factored estimate — —

Ms BEER — Rodney, let them ask questions.

Mr RIDD — Okay. Please ask questions. But I must say that the costs are certainly not definitive. Mr Gillevidis of Melbourne Water said they had used the cost of a pipeline up north — the super-pipe up in the Wimmera — so they know how much it costs to put in a pipe. The difference between that pipe and the north–south pipe is chalk and cheese; it is completely different. I think the cost of this pipe has not yet been given to us. In my opinion, it is likely that the cost will blow out.

Mr PATTISON — Thank you, Rodney.

The CHAIR — Thank you, Mr Ridd. The committee has around 35 minutes remaining for questions, and I know there is a lot of interest, particularly from members representing this area. I ask Ms Lovell to start the questions.

Ms LOVELL — Jan, you talked about there not being any social and economic impact studies done, and we know there has to be an economic impact if we are moving 75 gigalitres of water from the agricultural production area. I wonder if you could expand on the social and economic impact for those properties along the pipeline route, and the impact it is having on those families.

Ms BEER — Yes, and it is not just the properties along the route: it is the entire community that has felt the impact of this. We live in a beautiful and very pristine area that has a high level of tourism. I am sure you have seen the photos and the FOE documents that were given to you, and you would have been along the pipeline

route and seen the devastation in the forest. That has had a big impact on people locally. Economically we have had rental properties in the local towns that have gone up enormously. That is okay for the landlord, but it is hugely difficult and expensive for local people, including single mothers with children, trying to rent $300 to $400 houses. I know that is a short-term impact but it is still very, very difficult for people.

I will just run through some of the impacts that we have seen. Farmers were very stressed about biosecurity and the lack of it, and we absolutely had to stand there and demand that certain biosecurity protocols were adhered to. What made it more difficult was that there was one dairy farmer at Glenburn in the middle of a lot of beef properties which are feeder beef herds to Lawson Angus, which is under a market assurance program. That is a worldwide program, and you have to adhere to certain biosecurity. People were very stressed by that because you only have to get one animal outbreak of Johne's disease and your business is devastated — completely gone.

The project consultative group that Mr Madden recommended be established was supposed to be an avenue for complaints from locals. It has never, ever seen the light of day. We had nowhere to take complaints. We were told to ring the 1800 number, and usually you did not get an answer or you were fobbed off. It was completely unsatisfactory. We found that no-one was accountable for anything. It was very hard to get things done. At the Killingworth site there was an enormous amount of noise in the early part of the construction. There is a house directly opposite on the hill — I do not know whether you saw it — where we used to live years ago. It is a beautiful spot with a mile-long straight to the Goulburn River right in front of it. For those people the noise was absolutely unbearable. We could not find the independent noise auditor who was supposed to be available. We made many, many phone calls, but we got absolutely nowhere.

Mind you, unless you are on the route of the pipeline, you get no compensation for anything. It is simply not possible. I do not know how but some people managed to sell their property to Melbourne Water or to the alliance or whoever, and you will notice out on the Killingworth Road that the Yea shire spent a lot of time making a lifestyle area of small blocks. The pipeline has gone right through all of those, and I would say it has devalued them enormously. I know one property there has been bought by Melbourne Water.

What was extremely stressful for everyone was that the pipeline alliance worked every total fire ban day right up to Black Saturday. We had people trying to blockade gates to not allow them in because they were using slashers, machinery and welders in long grass.

The only regulation that they needed was a 9-litre knapsack. We could not seem to get through to these people working that one spark and it is away; you cannot stop it. For landowners in particular who would not work in 40-degree days with 35 kilometre winds happening — and if you remember last season this happened a lot; there were a lot of total fire ban days — they had to stand there and watch these people working on their property with heart in mouth thinking, 'Are they going to burn me out?'. The only reason I believe they did not try to work Black Saturday was I personally send them David Packham's fire forecast, which was horrific and which came to fruition unfortunately.

I cannot believe that our own government would do this to people. You could not stop them going onto your property because under the water act they were allowed to. Many times we had the police come out and were threatened with arrest. On other occasions people did get arrested, so the emotional trauma has been huge.

Environmentally I think locally people take ownership of all of those areas of their flood plains, their rivers and their forests, and they care for them. We have many groups like that in the area.

I will quickly read something, because I do not want to take up too much time for questions you may have about water. This appeared in our local paper yesterday:

> … what a toll it has taken on the mental health of all the landowners along the route, and the many precious things they have lost on their properties as a result of it, not to mention the ugly scar through the pristine bushland over the mount and the horrible industrial sites on the Goulburn and along two of our once-beautiful entrances to Yea.

I could go on and on and on — —

Mr PATTISON — But they are not going to let you.

Ms BEER — No. We need to hear some other questions.

Ms BROAD — Thank you for your presentation and your attendance today. Mr Ridd, in your evidence you indicated that you believed the food bowl modernisation project and the investment in the infrastructure had to happen, and that it is very important that that modernisation does occur?

Mr RIDD — Yes.

Ms BROAD — Could you explain to the committee why you think it is important that that does occur, does proceed and that investment does happen?

Mr RIDD — Taking the evidence from Mr Pearce, it creates a huge amount of food, and I think food is a necessity. In this time the amount of exports that came from this area is huge. It is necessary. Without this area, or without any work inland — before the Snowy Mountains and before the means of getting water into this area — things were very dire during droughts. If you go back through history, it was a dire place. It needs irrigation to make the whole area work and be sustainable.

A lot of Australia, and the world for that matter, depends on it, so it is very important to be upgraded. I think it is wrong to virtually undo what has been done in the past by taking water back again when in fact people in the past, our ancestors, have tried to bring water from where there is water into this place.

Ms BROAD — Mr Ridd, given that this area has had irrigation for a long time, could you explain what it is about the investment and about the modernisation you think is important? I am asking the question of you because you have something that many of us do not have — that is, an engineering background.

Mr RIDD — I do not know that engineering is going to solve it, but the upgrade is beautiful where it has happened. My problem with it is that it is only for a small amount of it. I am not an irrigation person — perhaps others are better able to — but I understand there are about 7000 kilometres of channel, and the amount that is going to be upgraded is relatively small. It is only the large backbone, as they call it, and the amount of money that has been allocated so far is only for part of that, so only a part of the backbone is being currently upgraded.

It is possible that since I went to school black plastic has become much more reliable than it once was. I understand that the current black plastic is going to last about 30 years. That is fine, but there have been seven droughts since 1813, and the next drought is due in 30 years time. I hope the upgrade that is now being done will survive for the next drought. In other words, had they been putting in pipes which last for hundreds of years, fine, I would be very happy. They could have used all the pipes they did for the north–south pipeline and put them up here for a permanent solution to the thing, but to use black plastic in channels and hope that it is going to last for hundreds of years — I do not think it is going to.

Mr TEE — I think they are saying the plastic is going to last 30 years, not hundreds.

Mr RIDD — Does that answer your question?

Ms BROAD — Yes, it does. Thank you.

Mr DRUM — Mr Pattison, I would like to focus on the savings. Effectively we understand that under the current government policy a third of all the savings are going to Melbourne, a third are going to the environment, and a third of the water that is saved is going to go to the farmers. Politician after politician, including our last two premiers, have effectively said there is going to be significantly more water available for the farmers.

In relation to the work that is going on around Dethridge wheels, in the technical document you are talking about, which is the government's own document, they have effectively picked up three areas where around the Dethridge wheels there were significant losses. They have effectively said that there was about 0.09 of a loss associated with unauthorised use.

In effect that means the farmers worked out how to steal water through the Dethridge wheels, and by getting rid of the Dethridge wheels we are going to stop that loss of 0.09 megalitres per annum. They had also said there was a loss around the service points of around 0.4, which effectively meant cracks in the concrete, yabby holes and so forth, and by getting rid of the Dethridge wheels we were going to get away with that, so we are going to save another 0.4 megalitres.

They also said in their own document that there was 1.9 megalitres that was leaking through the waterwheels. If you put them together we have effectively 3.2 megalitres of supposed losses through the Dethridge wheels and that by getting rid of them we are effectively going to save — 3.2 by 18 000 wheels that were in the system equate to 54 000 megalitres that we are going to save.

They also said that the Dethridge wheels were about 0.8 per cent inaccurate in favour of the farmer, in favour of the irrigator, which again equates to about 850 or 900 gigalitres, which is the intended allocation. That is another 64 000 megalitres that they are going to save out of the system. We have leaks around the service points, leaks through the waterwheels, unauthorised use, inaccurate savings, inaccurate measurements, and they effectively equate to what the government is saying through its own technical document: that there will be 120 gigalitres of savings by getting rid of the waterwheels and replacing them with flume gates. Can you explain to me how that is going to create more water for farmers by effectively taking the 120 000 in losses, taking 40 for the environment, taking 40 of that for Melbourne and giving back the farmers 40 of the 120 they took away from them?

Mr PATTISON — The proposition that the savings will create new water and that it will be equally divided between the environment, agriculture and Melbourne is fundamentally flawed in the first place. There is no such thing as new water in the hydrological cycle. Water can be used more effectively, but in this case water is effectively being rebadged. This is where the environment is missing out, and the production of food and fibre is missing out.

In the case of the Dethridge wheel, the authority in the Water Act is required to or can install a meter. Having installed a meter, it is required to maintain that meter. The Dethridge wheel has been allowed to run into disrepair. In the district where I live there has not been a coordinated inspection and maintenance program on the Dethridge wheel for 18 years.

The Dethridge wheel is a relatively low-cost, simple device to measure water. The measurement of bulk water is a very difficult thing to do. We are getting better and we will get better all the time. But the Dethridge wheel, in the whole-of-life costing released by Goulburn-Murray Water just a few days ago, is said to cost just under $100 per annum to maintain. The new metering devices are said to cost $800 to $900 per annum to maintain.

So the cost going forward on this sophisticated technology will be horrific. They are now running at a cost in excess of $30 000 per meter. Many meter outlets have not turned at all for five years. We are seeing the replacement of outlets where, and I will give you an example, one has turned twice and when it does turn 20 megalitres flows through; the Dethridge wheel has been pulled out and a $25 000 meter put in.

Even in the whole-of-life costing from Goulburn-Murray Water they are seeking to grandfather the Dethridge wheel; and when it falls into disrepair to have it replaced with the appropriate meter at the time. We support that. However, we are getting the wholesale removal of meters based on, as you explained, the concept that there is water not being measured and that therefore there will be savings.

Under the bulk entitlements there is an allocation of water. There are losses. The price of water is set on what it costs to run the system. Currently if there are improvements in the system, that gives you a better entitlement. Certainly if the Dethridge wheels were made accurate or the new metering system installed, there would be more revenue. But the water still would be there to be allocated to farmers.

That is not what is going to happen; that water is going to be removed from production of food and it is going to go somewhere else. We assert this is based — and David Constable in one of his papers questions the validity of the stated inaccuracies of the Dethridge wheel — on the deliberate run-down in the maintenance of the Dethridge wheels.

Quite a few inspections of Dethridge wheels have been made in the last couple of years and quite a lot of work has been done; a lot of work could be done where small amounts of water are involved and people do not want the higher volumes. If someone wants to go to sophisticated metering with higher volumes and different ways of getting the water delivered to their property, then I have no difficulty with them asking for a new installation to take place. However, the problem is that all the Dethridge wheels are being pulled out and they are being pulled out when the community is under incredible stress.

So with the second tranche of the $1 billion and the agreement between the Victorian government and the commonwealth that 450 gigalitres will leave Victoria, most of it will come out Goulburn-Murray Water's district. We have already lost 91 gigalitres to the commonwealth purchase.

The commonwealth is now targeting high security water entitlements in northern Victoria, and tragically because of low allocations and the collapse of the dairy market people are offering up water in incredibly increasing amounts. So, on the one hand, we have a modernisation project taking place and, on the other hand, we have the commonwealth government buying water at a massive rate.

Mr DRUM — Mr Pattison, I just want to keep you on the subject of Dethridge wheels and the philosophy or the theory that by removing the Dethridge wheels we are in fact saving water in the system. Are we saving water given that I have government documentation here that says 90 per cent of the wheels that were tested did not leak, only the ones that were let go into a state of disrepair were the ones that leaked? In fact, of the 637 that were tested, the government's own documentation says that 7 of the wheels were really in a bad state of disrepair and accounted for 50 per cent of the losses across 637 wheels.

In effect you are saying any water wheel that is let go into a state of disrepair is going to leak significantly; but if a water wheel is maintained, with proper clearances and the fins in good condition, then they are not going to leak at all. The government's own documentation says that 90 per cent of them effectively accounted for 4 per cent of the losses. So they do not leak?

Mr PATTISON — That is correct, Mr Drum, and that is the nub of our not agreeing with the technical manual and the formulas used in that manual.

Mr DRUM — If they are kept up to a high level of maintenance, they do not leak. However, the government says that by ripping them out and replacing them with flume gates in a process that is going to cost about $400 million to $500 million, we are going to save 54 000 to 56 000 megalitres. If you say there is $2 billion out there, we are spending about 25 per cent of the entire project replacing water wheels for effectively no benefit?

Mr PATTISON — That is absolutely correct.

Mr RIDD — Can I make a statement? You said '600' but the earlier tests that were done on which the basis of the 10 per cent saving was allocated was done on 47 wheels, and in that case there were many more that were leaking — there was up to 19 to 23 millimetres under the wheel where the water was not being tested. There were bearings which had failed and fins that were all wrong.

The same people tested the new flume gates and they found that the software was not right; it was not recording correctly. So they had to wait for the software to be upgraded to properly test the amount of water. Then when they did test that and they compared them, the flume gates were plus or minus 4 per cent, the Dethridge wheels were plus or minus 5 per cent when they were properly maintained, and the benefit, in my way of thinking, is about 1 per cent, not 10 per cent if you take that into account.

But the Dethridge wheel was erring on the side of the irrigator, the flume gates were erring on the side of the — —

Mr DRUM — The system?

Mr RIDD — The system. The flume gates were actually robbing the irrigators from the amount of water that they were expecting. When I go down to the service station, that is against the law. So I do not think the savings are there, whatever meters you have.

Mr BARBER — A question for Ken. As you have said, there is no way to really create new water. There are ways to catch it, measure it, shunt it around and so forth. Even if everything you say about the meters not being inaccurate and the leakage around meters being less than someone might argue is true, that in and of itself is not what matters, is it? If 100 per cent of these so-called savings were going back to the same group of irrigators, then there may be a lot of cost and there may be a lot of confusion, but it would just mean that more water was still available up in the dam?

Mr PATTISON — That is correct.

Mr BARBER — Your issues with measurement arise out of the fact that 75 is going off to Melbourne and 75 is going off to rivers, the environment and so forth. Is that correct?

Mr PATTISON — Out of this process we would suggest that the substantial amount of water that has previously gone to the environment and formed part of the run of the river or part of the environment that has been created or that was there is being cut off. There are lots of environmental areas that have received water out of the modernisation; they will be able to better coordinate that and the better management of the system, but in dry times a lot of the environment has been cut off too.

Mr BARBER — It still will not create more water though, will it?

Mr PATTISON — No, it will not.

Mr BARBER — There have been these sorts of savings projects before: big and small, in the Wimmera and all over the place. I understand you think the technical manual which they will rely on is not up to scratch now. Is there a standard that you have seen somewhere, or are you able to describe for us a standard that would satisfy you?

Mr PATTISON — Plenty of people have — I have posted my direct comparison, but I do not know if that paper was provided to you. System losses and post-modernisation are problematical because of various other factors. As I think I said before, the measuring and the auditing of water is an incredibly complex thing. We would say in a drying climate that the last thing you would do would be remove water from the Murray-Darling Basin. If there were any savings, efficiency gains and improvements to the system, the water should remain in the environment and in the Murray-Darling Basin. That is the fundamental problem we have had with the announcement of the project.

Mr BARBER — But we are all saying we want the irrigation upgrades. As I said, projects like this have been done and will continue to be done, and there is a second phase of this project with more money behind it. If the issue is measurement, what is the right standard for measurement, taking into account that it is very complicated?

Mr PATTISON — The first thing is you have to do it properly. The manual says that the meters that were tested were better than the average. They were not. Goulburn-Murray Water was incredibly careful to pick meters — only 100 have been tested, and we have not got the results of the last 56 — that were equivalent to what they felt was out there.

Mr BARBER — So decent metering calibration, in other words, with a decent sample size?

Mr PATTISON — The Dethridge wheel, for example, is yet again based on a formula. If the meters were put in order and the formula given is generous to the farmer, it is quite a simple matter to alter the formula. All the doors and everything are based on formulas done by independent testing. There is no independent testing being done of the hundreds of millions of dollars worth of equipment that is currently being installed by the modernisation project.

Mr BARBER — And the estimates of seepage and leakage and evaporation and theft and all those things, do you have issues with those particular measures or do you think there might be — —

Mr PATTISON — Plastic lining, while it stays intact, clearly does not leak and seep. Evaporation continues anyway. They hope to get 30 years out of plastic lining, but it is already cracking in Virginia in South Australia after 10 years. Plastic lining — if I am wrong, I am sure people later on in the afternoon will say so — is now running at about 18 per cent of the cost of rockwalling and clay lining channels, which will give you 80 or 90 years, according to a Goulburn-Murray Water document I read the other day. I think plastic should be avoided at all costs, except in a very limited set of circumstances, and the channels should be remodelled in the way that gives you 80 or 90 years of life.

Tragically, someone is going to drown in these channels; we are currently seeing animals — kangaroos, possums and others — drowning in the channels. I believe the insurance policies of the authority will need to be very good. People can still drown in open channels — we know that — but they do have a chance of getting to the bank and hanging onto a rock and so on. If a child falls into these plastic channels, I fear they will drown.

Environmentally I think plastic is going to come to an end at another period of time much the same and at a huge cost to the system when it needs to be replaced.

Mr BARBER — I think you are right.

Mr PATTISON — We would be seeking a proper long-term solution — except in exceptional circumstances. I think plastic is not going to be good.

Mr BARBER — Silicon chips are not much better, I am sure?

Ms BEER — Could I just say one thing to Mr Barber on water savings, and again our upper catchment has been totally ignored economically here? The way to achieve the largest water savings is to have the irrigation closer to the source, I think you would agree, because you lose all that in the downstream effect. The upper catchment has export stone fruit orchards, vineyards, berry farms and myriad other things, and we depend on tourism and water sport industries enormously. This government, in its mad rush to come up with a project in an instant and then not have a business case to go with it, has completely forgotten all the other options.

The CHAIR — Thank you, Ms Beer.

Ms BEER — I just wanted to say that our area used to be an extremely successful dairying industry area, and if you wanted to make real water savings, that is where you would make them — by having the irrigation closer to the source.

The CHAIR — Thank you. We have got a little over 5 minutes and two committee members to ask questions.

Mr TEE — Thank you. As I said earlier, we have spent the last day and a half having a look. We have seen the easements and seen them being replanted. We have heard how a community in Yea has benefited from some $200 000 a week being put in. In Goulburn we heard about the effort they put in during the fires. We have heard it, and I suppose there is a very different perspective out there, and I have certainly seen that.

I also understand that 95 per cent of the pipe is now in place, so in a sense I am worried about what is left in the debate. The pipe is in place. Mr Drum quibbles about Dethridge wheels and so on, and I suppose we could argue about that for hours, and there are experts out there who I am sure have views.

I suppose it seems to me that the issue in relation to savings — and that is whether or not plastic works; again that is a matter for experts — will be sorted out in time, and we know that it will be independently audited — again, you might argue about what 'independence' means, but that issue will be resolved in time.

I suppose I am really left unclear as to what role this committee is here to play. The work is done, the savings will be measured in the future, and we will have that debate then. I am just wondering what real role this committee has. As much as I have enjoyed having a look at the infrastructure — I think it is great and will set up the region for the next 20 or 30 years and keep you on the map; I think it will lead to significant innovation and that is all very interesting — again I come back to the issue that frankly, I am not sure what we are doing here.

Mr PATTISON — I disagree. I think the committee does have a role, and one of its roles should be to assess how the money is being spent and how effectively it is being spent to achieve the outcomes. You probably do not have to stress yourself too much with that, because the Auditor-General is currently going into all that and those aspects are being fed to him. He is truly independent and the process is confidential. Assessing the way the money is being spent is what his job is, and that is what he is doing.

Mr TEE — I know I am running out of time, but again that is right. The issue is being investigated there. I suppose the question again is: what is our role?

Ms BEER — Mr Tee, I really think you need to be extremely concerned with the environmental aspect. As I have said in the paper that I handed in, I think there is only now 18.8 per cent left in Eildon Weir. We have been told we are looking at another El Nino season. If in the upper catchment we got 25 millimetres every week for the rest of the year, we would still not get our average rainfall. You need to talk to the people in the upper catchment — they will tell you that their streams are simply not getting the inflows they were — and to look at

the extraction of water that will now go to Ballarat, Bendigo, Castlemaine, Harcourt, Geelong and all the growth northern suburbs, to extract that water out of the system which simply does not have the water in it. If taking the same stream flow as last year in the irrigation season up to 2000 megalitres a day — —

Mr TEE — Sorry, I know I am cutting you off, but I know I am going to be cut off by the Chair in a second, but it comes back to the quibbling about the Dethridge wheel. At the end of the day savings will be independently audited. We can quibble about it all day, but it is not really an issue we have control over. Sorry, Chair, I might leave it at that.

Ms BEER — Whether or not you have any water savings, I would think that by February next year there will be very little left in Eildon Weir. There will be very little left to put down any pipeline regardless, and that is what it is all about. There is no spare water to take, savings or no savings. It is not there.

The CHAIR — Thanks, Ms Beer. I am keen to give Mr Kavanagh to ask questions. Do you have a quick comment, Mr Ridd?

Mr RIDD — I was just going to add that I think the panel needs to take into account the cost, because there is evidence, I am sure you will find, that they will not be able to take the 75 gigalitres of water through the pipe. If you take the EPBC act approval from Mr Garrett and the limitations on when water can be taken, and you turn on the taps only when there is irrigation, there has not been irrigation in the last seven years for the 240 days that is necessary to pump the amount of water they want down, so it is very expensive water. I have even heard of one expert saying perhaps they will only get 10 gigalitres of water down the pipe.

Mr KAVANAGH — I would like to thank you for your presentation today. Although I do not have much time I would like to ask some questions. You said there will not be any new water created; you said the new meters will not make a difference; and you said there will be evaporation from the plastic lining. But there still will be major water saved effectively by the plastic, won't there?

Mr PATTISON — Obviously if it remains intact there is no leakage and seepage in the plastic.

Mr KAVANAGH — Okay. So there will be some water savings there. Is that right?

Mr PATTISON — Yes, but if it is not made up in the environmental flows to accommodate, that goes into the aquifers, people use the water out of the aquifers, the aquifers go back to the rivers and the environment suffers, or the run of the river suffers. Eventually it has to be made up by another source.

Mr KAVANAGH — You are saying that even saving the seepage does not help much.

Mr PATTISON — Seepage can be very harmful. There are places where seepage should be avoided at all cost. Plastic will stop the seepage in those areas. They are attempting to target those areas.

Mr KAVANAGH — You said clay or stone was an alternative?

Mr PATTISON — Yes.

Mr KAVANAGH — What percentage of the cost of plastic is it?

Mr PATTISON — I can see enough experts sitting around the room. If you ask them they will give you more exact figures than I can give you.

Mr KAVANAGH — Did you say 80 per cent?

Mr PATTISON — I believe the plastic is 80 per cent of the clay lining and rock walling of a channel system, but I feel they will correct me if I have got it wrong. They will have the figures.

Mr KAVANAGH — Obviously from what you have said it is much better value to use clay and stone.

Mr PATTISON — That has been the traditional way of renovating channels for a long, long life.

Mr KAVANAGH — Why don't the water authorities see that?

Mr PATTISON — In some of these areas it is difficult to obtain suitable clay to line the channels. Therefore, it gets to be more expensive. They have chosen the option of using the plastic. We feel that not only is it dangerous, but it is relatively short term when you get 30 years — hopefully — against 80 years or 90 years.

Mr KAVANAGH — You mentioned the devastation in the forest that we must have seen. Can you explain that?

Ms BEER — The clear felling of that easement — and I do not have the figure in front of me of how many acres, but it is definitely in the Friends of the Earth document — none of that native vegetation or trees will be reinstated. That has to be kept clear at all times, so you have the fragmentation of the environment which has an effect on the fauna.

Mr KAVANAGH — Finally, you mentioned biosecurity protocols that were not followed. Which ones in particular?

Ms BEER — Particularly the MAP or market assurance programming. We asked them to have particular biosecurity documents individual to each farm, and farmers wanted to receive that in their hand to then know whether they were adhering to what they felt they should. They were never given anything else, other than — I think — a two-page document that was on the internet, and it was very general.

Mr KAVANAGH — This is for selling seeds or something like that?

Ms BEER — Over on the southern side it was to do with phylloxera and grapes, but on the northern side of the Divide it was mainly to do with ovine and bovine Johne's, because the Yea area had been devastated by ovine Johne's only 10 years prior, and thousands of head of sheep had had to be killed.

The CHAIR — Thank you. The committee appreciates your written submission, and the documents we received a couple of days ago. We have not had an opportunity to look at them in detail yet, but the committee will do that. We will have a draft version of the transcript to you in the next couple of days for any corrections you wish to make. In all probability we will have some follow-up questions arising from today's hearing and the documents we received. Thank you for your time this afternoon, and for your submission.

Witnesses withdrew.