### Inquiry into the business case for water infrastructure

Melbourne — 19 November 2009

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Chair: Mr G. Rich-Phillips  
Deputy Chair: Mr M. Viney

### Substituted members

- Mr B. Tee for Ms C. Broad  
- Mr D. Drum for Mr P. Hall  
- Ms W. Lovell for Mr M. Guy

### Staff

- Secretary: Mr R. Willis  
- Research Assistant: Mr S. Marshall

### Witnesses

- Mr G. Wilson, secretary,  
- Mr D. Downie, general manager, Office of Water,  
- Mr G. Turner, director, allocation and licences, Office of Water, and  
- Ms J. Doolan, executive director, sustainable water, environment and innovation, Department of Sustainability and Environment.
The CHAIR — I declare open the Legislative Council Standing Committee on Finance and Public Administration public hearing. Today’s hearing is in relation to the inquiry into the business case for water infrastructure; specifically the committee is examining the estimated benefits and costs arising from the north–south pipeline and the modernisation of irrigation infrastructure.

I welcome Mr Greg Wilson, the secretary of the Department of Sustainability and Environment; Mr David Downie, the general manager of the Office of Water; Mr Graeme Turner, director, allocation and licences at the Office of Water; and Ms Jane Doolan, the executive director, sustainable water, environment and innovation.

For the information of witnesses and the committee I point out that we have the following substitutions on the committee today: Mr Damian Drum is substituting for Mr Peter Hall, Mr Brian Tee is substituting for Ms Candy Broad and Ms Wendy Lovell is substituting for Mr Matthew Guy.

All evidence taken at this hearing is protected by parliamentary privilege as provided by the Constitution Act 1975 and further subject to the provisions of the Legislative Council standing orders. Any comments made outside the precincts of the hearing are not protected by parliamentary privilege. All evidence is being recorded by Hansard, and witnesses will be provided with a proof version of the transcript in the next couple of days.

I now invite you to make an opening statement if you wish, and the committee will then proceed to questions.

Mr WILSON — Thank you for the introduction, Chair. We do have some slides to get through, which will only take about 5 minutes or so. I begin by thanking you for the opportunity to attend today’s hearing in relation to the inquiry into the business case for water infrastructure, more specifically the inquiry into the estimated benefits and costs arising from the north–south pipeline, the desalination plant and the modernisation of irrigation infrastructure.

Overheads shown.

Mr WILSON — I will commence by recapping. In the decade prior to 2007 Victoria experienced record low rainfalls, with 2006 being the lowest in history. If we move to the next slide, you will see from the chart that the average inflows in the decade prior to 2007 were 385 gigalitres, with inflows of only 165 gigalitres in 2006 compared with an historical average of around 590 gigalitres. So in light of this background the government responded with Our Water Our Future, the next stage of its water plan. This is a $4.9 billion investment program which involves the construction of a desalination plant which will provide 150 gigalitres to Melbourne and areas surrounding Melbourne; modernising Victoria’s food bowl irrigation infrastructure to capture water losses for farms, the environment and Melbourne; expanding Victoria’s water grid; increasing recycling, including upgrading Melbourne’s eastern treatment plant and assessing a range of alternative uses of what will amount to 100 gigalitres of recycled water; and finally, supporting and extending conservation programs for homes and industries.

Earlier this year the department provided a whole-of-government response or submission to the inquiry, which covered a summary of the threats to water supply, an overview of the government’s policy response to implementing new infrastructure projects and some information on expected costs and benefits of each project under consideration by this committee. Since we made that submission good progress has been made on the projects, with more benefits being realised as work is completed. Despite the global financial crisis and a range of other challenges, the projects continue to be delivered on schedule and on budget.

I will just make a few comments on each of the three projects and also perhaps take the opportunity to bring the committee up to date with developments since the submission, starting with the desalination project. As I mentioned, the aim of this project is to provide Victoria with a secure, guaranteed supply of 150 gigalitres of water that is independent of rainfall. Our submission covered the expected scope of the project and also outlined a range of projected benefits to the state and local economies, in particular employment and business opportunities. The submission also talked about the importance of community amenity and the boost to renewable energy that would result from the government’s commitment to have all the energy used to operate the plant offset with renewable sources.

Of course at the time of making the submission to the inquiry the tender process was still under way and there have been a number of developments since then. Members may be aware that AquaSure was announced as the winning bidder in July this year, with financial close achieved on 2 September. The competitive tender process...
has achieved a number of benefits in addition to the original proposal, including secure underground power. This was a key issue for the community there, with a number of stakeholders concerned about the amenity impacts of above-ground power. So AquaSure will be locating an underground source with the pipeline route.

The second benefit is community broadband cable; fibre optic cable will be installed with the pipe, which will save time and money down the track with the rollout of broadband. The next benefit is a two-way transfer pipe with off-takes for local water supplies; that two-way pipe means that if for any reason the desal plant is not operating, water from the Melbourne system can go back down that pipeline, therefore providing more security to the regional systems around Melbourne. A further benefit is world-class architecture; visual amenity was a key priority for the government and the community. And the last benefit is a landmark ecological restoration program, including a coastal park, recreation area, shared pathways, restoration of dunes and so on.

Renewable energy for the project will be sourced by AquaSure through a partnership with AGL, which is developing the Oaklands Hill wind farm. The project will add a significant boost to both the Bass Coast and South Gippsland regional economies and the state economy as a whole. This boost is already being felt as construction commenced on 30 September 2009. Direct economic benefits are already flowing to the Victorian manufacturing sector through supply contracts with Victorian companies, including direct benefits to the local Bass Coast and Gippsland communities.

In addition to the benefits from the construction of the plant, the ongoing operation of the plant will also provide economic benefits to the region, mainly through the jobs required to operate, maintain and service the plant once it is constructed. The advice I have is that estimates are in the order of 150 jobs — 50 direct and 100 indirect. Of course the chief benefit of the desal plant will be a guaranteed source of rainfall-independent water equivalent to about one-third of Melbourne’s annual water consumption. As our submission outlines, this, together with the other water plan projects, will enable a move away from frequent and severe water restrictions, and this in turn will also have flow-on economic benefits. As mentioned, the benefits of this reliable supply will extend outside the metropolitan area through more direct connections between Melbourne, South Gippsland, Western Port, Barwon Water and wider connections to the water grid.

Just finally on the desal plant, you might have noticed there was some media today reporting that AquaSure had announced that it would refinance debt which would otherwise have been subject to a guarantee after three years, I think, by the government. That process is complete.

I will turn now to the food bowl project, also known as NVIRP, which is being carried out in the Goulburn-Murray irrigation district in our state’s north. The aim of this $2 billion project is to secure the future viability of the Goulburn-Murray irrigation district, create a best-practice delivery system and generate water savings for farmers, Melbourne and the environment. Our submission gave a description of the rationale, scope and funding of the project and outlined a range of benefits to both regional and state economies from the construction of the project and the operation of the modernised system. I should mention that the government has decided to release a summary of the stage 1 business case to provide more details behind the assumptions used around costs, benefits and savings, and that this release will occur in the near future.

Since we made our submission I can say that there has been considerable progress on the project with capital works being delivered on time and on budget in accordance with the stage 1 business case. This year’s winter works program included the installation of over 1000 gates and the aligning of 15 kilometres of channel which required the engagement of 77 construction crews on site and more than 300 contractors employed on a daily basis. In addition to these on-site contractor jobs, we should point out that the NVIRP works have generated significant new opportunities in northern Victoria — for example, in the manufacture of equipment and technologies and gates and so on in places like Shepparton and Stanhope and for engineering firms in neighbouring areas. I should also note that there has been some international interest in the project, with visitors from the US, China and other places looking carefully at the technology that we are using here in Victoria. That is a summary of the works.

In terms of the water, the committee will be aware that the savings for stage 1 of the project are expected to average 225 gigalitres per annum which will be shared on a one-third basis between Melbourne, irrigators and the environment. The savings for stage 2 of the project, which is funded by the commonwealth, are expected to average 200 gigalitres a year, which will be split equally between irrigators and the environment. These water
savings will contribute to water security for both Melbourne and the Goulburn-Murray irrigation district in terms of availability of water for irrigators.

In terms of the environment, the expected 175 gigalitres of water per annum from the overall project will help maintain and enhance environmental assets in northern Victoria, mainly by providing a large volume of additional and highly reliable water for flexible, targeted use in waterways and wetlands. It is recognised, however, that the operation of the modernised system could have an impact on some high-value wetlands and waterways that would otherwise have received water through the operation of the existing system. We have developed a water management framework that identifies these areas and ensures that watering regimes are in place such that no adverse impacts of modernisation will occur. These are being independently assessed by an expert review group that was approved by the Minister for Water in August; it forms part of the package which is currently being considered by the commonwealth for approval.

The other point I would make is it is worth noting that before these water savings are allocated anywhere, they will be audited, and we expect that process will be wrapped up and results released in the near future as well.

Finally, I will just turn to the Sugarloaf project. Construction of the 70-kilometre pipeline has run on schedule and on budget also. Construction of the main pipeline was completed in August. Topsoil has been reinstated along that route and the majority of vegetation replanted. We outlined a number of benefits from the construction of the pipeline in our submission, including economic, social and environmental. I can inform the committee now that approximately 1200 full-time direct and subcontract staff were employed on the Sugarloaf pipeline at its peak, with around 700 to 800 staff employed for a substantial period over 12 months. This has had a flow-on effect for the regions as well.

In terms of community benefits, we outlined in our submission a Melbourne Water $5 million regional benefits grants program. As announced on 10 September, 31 projects ranging across sport, tourism, education and the environment have been successful in their applications and will receive grants under this program. Another benefit of the project has been Melbourne Water’s purchase of an 826-hectare property northeast of Mount Buller as part of the native vegetation offsets requirement. The site, which is considerably larger than Melbourne Water’s obligation, will become part of the adjacent Alpine National Park and provide a natural habitat extension.

Just in conclusion, with below average rainfall over the last 13 years we have seen a significant reduction in inflows. The government responded with a water plan that includes a $4.9 billion investment program, and the continued progress of the projects included in that plan will not only help ensure our long-term water security but will also provide a range of other benefits to the community, the economy and the environment. With that, I am happy to take questions, Chair.

The CHAIR — Thank you, Mr Wilson. I will start with the issue of the desalination plant. That is something the committee has not taken evidence on previously — this is our first hearing with respect to that matter. Could you give the committee an overview of how the PPP model will work for the desal plant?

Mr WILSON — All the financials associated with that are made public through the Partnerships Victoria framework. Details around any and all of that as required will be released by 2 December, so I am not able to comment on the specifics of the financial details. The government has decided it will undertake that partnership process and so on in accordance with that policy which, as I said, requires the government to release details by 2 December, and that is what the government has decided to do.

The CHAIR — Can you talk about the structure, though — how the actual model works — without talking about the numbers, just the structure?

Mr WILSON — I would have to take that on notice, Chair, because it is one of those things, with probity and the tender process and value for money, where the policy itself requires those financial matters to be held tightly. I am not absolutely clear on what components can be released through a discussion like this and what exactly the policy requires in terms of the release of the public sector comparator and other details. But I do know that it is done in accordance with that policy, including the requirement of that policy that it be released three months afterwards, which brings us to 2 December.
The CHAIR — Can you tell the committee what the state’s obligations will be under the desal arrangement? Is it an obligation to purchase 150 gigalitres of water from desal on an annual basis? Can you tell us how that mechanism works?

Mr WILSON — There is some information in the initial request for the proposal, but the actual structure of that I would have to take on notice and clear that in terms of probity requirements, confidentiality requirements and the Treasury policy on releasing the public sector comparator, contract summaries — that sort of information. I am not aware of the specific information requirements, but I am aware that they will be released in accordance with that Treasury policy.

The CHAIR — If I rephrase it another way: what can you tell us about the desalination plant today?

Mr WILSON — As I have said, the contract was awarded. There are additional features as part of the AquaSure bid, which have been released. Today it was reported that a significant proportion of long-term debt was successfully refinanced, therefore not potentially requiring the government guarantee in three years time. But with respect to other matters around the financials, the contracts, the terms and conditions, the release of that will be in accordance with the policy by 2 December.

The CHAIR — You spoke about the inclusion of a broadband rollout in the pipeline easement. Was that one of the undertakings of AquaSure, or is that an additional, separate cost to government?

Mr WILSON — As I understand it, it is one of the undertakings by AquaSure, a bit like the design of the architecture and the landscape around the plant — those sorts of features. My understanding is that those are actually features of their bid that go over and above the kind of base case reference project. Therefore, I should add, it was built into the actual price and the financial arrangements of that winning bid.

The CHAIR — Can I ask you then about the project benefits that were outlined in the submission from DSE earlier this year. At page 22 of the submission, section 2.2.4.1 on state economy refers to an increase in gross state product of just over $1 billion. It then goes on to break down sector impacts: trade services, $1.4 billion; construction services, $700 million; business services, $220 million. I was wondering if you were able to reconcile those sector impacts with the overall impact, because clearly the sector impact as shown is substantially greater than $1 billion.

Mr WILSON — I can only assume that the overall impact is expressed as $1 billion in gross state product, and the industry sector benefits are identified in value-added terms for those sectors. But I am happy to get back to you with a better — —

The CHAIR — Presumably they should all add to — —

Mr WILSON — I am not sure. I am testing my memory on economics and input, outputs and multipliers and whether you can just sum them all together, but I am happy to take that on notice and get you that reconciliation.

The CHAIR — My understanding is they should sum together.

Mr WILSON — Yes, and if that is the case, we will correct that. If it is not, and there is some other explanation, we are happy to provide that on notice.

The CHAIR — The commitment as outlined in this submission was for the desal plant to be operational by 2011. Can you provide some more detail on that 2011 time frame? Does that mean the building completed or the unit actually commissioned and producing water? And when in 2011?

Mr WILSON — My understanding, Chair, is that it is toward the end of 2011. It is expected that it would be fully operational and providing water at that date.

The CHAIR — Pending the release of the 2 December documents, when we might reconvene a further hearing on these matters, I will move to the issue of water savings. On page 27 of the submission, which is the NVIRP section, the submission states that up to 800 billion litres of water in the Goulburn and Murray systems is currently lost through leaks, evaporation and other inefficiencies. You then go on to say in the last line of footnote 21:
Combining this data with inflow patterns of the past 10 years of drought, modelling indicates that even with reduced irrigation diversions following climate change, losses will still generally range from 700 to 800 billion litres in most years.

Can the committee take from that that DSE’s assertion is losses in the system are not dependent on inflows?

**Mr Wilson** — No. Certainly as the secretary I would not make that inference. I think inflows will depend on rainfall. Losses will depend on water that is shifted through the channel system, which is a combination of both in the sense that the allocation of individual irrigators will depend on what is in storages. What is in storages will depend on what was there last year, plus inflows during the year. The losses that would then be some function of how much water is pushed through the irrigation system in the delivery, I guess. That is how I see the linkages, Chair.

**The Chair** — But if there is limited water flowing through the system, then the losses, it would follow, would also be less. I am just trying to get a handle on the assumptions. You are essentially saying that losses will be 700 to 800.

**Mr Wilson** — Yes. I think my inference from that — and I am not an expert, Chair, in the hydrology of this — is that the losses will be less, but they will still be significant and it will not be a proportionate reduction in savings because of a proportionate reduction in the water pushed through the system.

**The Chair** — In the last decade of reduced inflows, is it DSE’s estimate that there was still 700 to 800 billion litres lost out of the system in those particular 10 years?

**Mr Wilson** — I am not aware of an estimate of last year, but certainly this suggests that this is referring to most years in the last 10 years, but I might take advice on that from Graeme Turner.

**Mr Turner** — What was done here was that we took the last 10 years and the mean flow from those last 10 years, and applied that mean over the long term, and adjusted down the long-term record to the mean over the last 10 years, which allows the respective previous droughts to be picked up in that process. So we have actually adjusted the long-term record to reflect the conditions that have happened over the last 10 years, and running the models showed that the losses were between 700 and 800 GL.

**The Chair** — And over the longer term that is — —

**Mr Turner** — That is over the longer term. So we will always get some individual years with very low allocations where the losses will be less than that, but there are other years when they will be greater, and so there are still going to be wetter and drier years because of the nature of the climate, but the average over the long-term record was 700 to 800 under a drier scenario.

**The Chair** — What about estimates for losses in actual low allocation years?

**Mr Turner** — They will range.

**The Chair** — The last four years, for example?

**Mr Turner** — I do not have the detail of that here, but the last couple of years have been quite low allocations and the losses have been less than 700 over those years, but on average — when we know we get wetter years and we will continue to get wetter years, even though we are in a drier sequence — the average losses were between 700 and 800.

**The Chair** — The evidence we took from Goulburn-Murray in Shepparton a couple of months ago showed that to use the Murray system for an example, 2007-08 allocations at the end of season were 43 per cent; in the Goulburn system they were 57 per cent. What would the losses have been associated with those actual allocations?

**Mr Turner** — I do not have that detail here. I am happy to provide that.

**The Chair** — Thank you. Are you able to estimate? Would it be towards the other end?

**Mr Turner** — I would be just guessing, and I would rather not just guess.
Mr DOWNIE — I understand that GMW said at that hearing that over the last 16 years, which included 6 years of extreme drought, distribution losses have averaged 720 gigalitres or around that figure. Obviously we could bring you more details.

The CHAIR — It would be good to get the actual figures for the low allocation years. Given you are speaking collectively here I do not know who would like to answer this: with your experience in this area, would you expect that in a particularly low allocation year savings would be still close to that long-term estimate or would they be dramatically impacted by that long-term estimate? If you got 50 per cent allocation, would you expect 50 per cent of the average losses, or 70 per cent or 90 per cent? What approximation?

Mr WILSON — We would be reluctant to make a guess on that because we know that there are some systems that have zero allocations and so on and they will all be a bit different, and it may be a much more complicated answer. But as Graeme Turner said, we can follow up with some more modelling and so on.

Mr TURNER — I am happy to make one comment, which really reflects the nature of losses in the irrigation distribution systems. We know that when we operate channel networks there is a high proportion or a relatively high proportion of relatively fixed losses in that system simply from leakage and seepage in that network when you have the channel full. The only thing that varies on that is the length of the season, when you do not have the channels filled up.

Once we get to a 1 per cent allocation, and assuming you operate the system normally, then those fixed losses are going to be there in those years. What will change will be the variable losses, which are associated with the flows that actually run through the channel network. The variable losses are around about 50 to 60 per cent, which is dependent on the allocation levels and the flows through the network, but there is a very high proportion of fixed losses even with very low allocations, which are going to be there every year.

The CHAIR — On that issue of the breakdown between the fixed and variable losses, against the stage 1 target savings of 225 are you able to tell the committee what proportion is allocated to each type of loss — and I do not mean fixed and variable, but I mean seepage versus metering versus outflow losses — in the breakdown of that 225?

Mr TURNER — That detail is in the business case. The business case has not being released yet.

Mr WILSON — Yes. The government has decided it will put that information out from the business case. As I explained to the Public Accounts and Estimates Committee, the business case is quite a voluminous document and includes things that we would regard as commercial-in-confidence, and because these things go to cabinet there is a cabinet-in-confidence dimension which binds me as the secretary.

Having said all that, we are keen to get the information out. NVIRP has been working on that, and all those sorts of details will be included. I do not feel that I could rightfully take bits and pieces of that and make them public, given that the government has decided that is what it is going to do and that is imminent, but I am happy to help with whatever information we can.

The CHAIR — What is the time frame for that, Mr Wilson?

Mr WILSON — Well, it depends on the thing being finalised. As I said to the Public Accounts and Estimates Committee, as soon as possible would be our view. There are some steps we need to go through, but I would hope in the next few weeks.

The CHAIR — Going back to Mr Turner’s point, you estimate 50 to 60 per cent as the fixed.

Mr TURNER — As the variable.

The CHAIR — Well, 50 per cent fixed, 50 per cent variable. We will talk about it in terms of the fixed. So seepage and leakage would be in the order of 110 gigs of the total target savings?

Mr TURNER — Again, the detail is in the business case and I do not have the business case here. Rather than speculate on those numbers — I do not have them in my memory — we would be happy to make them available when the business case is available.
Ms LOVELL — Can that information be made available to the committee on notice?

Mr WILSON — The business case?

Ms LOVELL — Not the business case, but the information?

The CHAIR — The breakdown.

Mr WILSON — It is a bit like the desalination plant. With respect to the desal plant, I am bound by all sorts of confidentiality issues like the stage 1 business case. Having said that, I am happy to take on notice these things that have been discussed here and get them to the committee to support this inquiry, rather than wait. With the desal information coming out by 2 December, my hope would be that we would get the stage 1 summary business case out and that a lot of the information in that would satisfy the committee’s concerns as well.

The CHAIR — Going back to the point of the fixed and variable, if you accept — and we will use the 50 per cent figure, just to keep it simple — 50 per cent fixed and variable, are those variable losses proportionate to allocations; is it a fixed relationship?

Mr TURNER — They are proportionate to the volume of water that passes through the distribution system. To some extent water trading in and out makes a slight adjustment to that statement. Generally that would be the allocation. The only other reservation I would have about that is in terms of what water is carried over and those sorts of things. Generally the concept is that it is proportionate to the flow that is running through the channel network. Whether it is directly proportionate to the allocations, there are some other things that impact on that.

The CHAIR — Mainly carryovers?

Mr TURNER — If you allocate a lot of water and it is carried over, not used and not run through the distribution network, clearly that is a variation.

Mr VINEY — I think the figure you used was $4.7 billion worth of infrastructure on water projects in Victoria; was that it?

Mr WILSON — It is 4.9.

Mr VINEY — It is $4.9 billion. Are you aware of any other jurisdictions that are investing at that level, certainly in Australia, and what are they doing? Are they doing anything different?

Mr WILSON — There is certainly a lot of investment in infrastructure going on around Australia. You hear of desal plants and other pipelines and so on. I am not aware of anything of this scale. Certainly the desal plant being constructed in Victoria, as I understand, is one of the largest in the world. The food bowl modernisation project, with $1 billion from Victoria and up to $1 billion from the commonwealth, is certainly not only the largest irrigation project that I have ever known but a quite unique one.

I should also point out that in Victoria, unlike in some other jurisdictions, we have a number of water corporations that cover the state that have their prices regulated through the Essential Services Commission and through that process they have established four and five-year price paths that also include a significant amount of investment. Then there are things like the Victorian Water Trust and other sources of funds. So there is a quite significant amount of investment, and I guess the government would say in its water plan and so on that that is necessary for the security of water supplies, environmental improvements and a range of other things like, on the environment side, sewage treatment plants.

There is a massive amount of investment going on in Victoria, across the state. There are investments in East Gippsland around water quality improvements because of fires and so on, and interconnecting pipelines: Grampians down to Hamilton, the Bendigo–Ballarat super-pipe and the Sugarloaf pipeline. It is a large investment program. There are others that the state has undertaken through its water corporations, so it is a quite significant point in time and I guess the challenges we face warrant that sort of investment.
Mr VINEY — What about internationally? When I was on the environment committee we went to California, and they were a bit surprised to see us. They reckoned that they had more to learn from us than we did from them. That was our experience in other parts of the USA as well. I am just wondering what view the department has internationally. Are things being done anywhere internationally that are different from what we are doing in Victoria?

Mr WILSON — Certainly, as I said, the scale and the nature of the technology around the irrigation upgrades is quite unique. I would say that over and above that the whole legislative framework around water, which has been a product of decades, and then the subsequent approach of post-1997 and several years of really extreme below-average rainfall, the actual setting up of sustainable water strategies and those kinds of things — the strategies to identify these projects and deliver — are, I would argue, somewhat unique as well. I might ask David Downie, who has just been to California, whether he has any comments.

Mr DOWNIE — Yes. In fact I have a couple of representatives from America here today informally, who are looking at the Australian system, including in Victoria. The impression I had on a recent trip to America, including to California, was that they are entering the second or third year of climate change impacts and they are looking in a very interested way at what has happened in Australia after 13 years of climate change. In particular they are looking at everything, including consumption reduction. They are very interested, for example, in our target of T155, which is 28 to 29 gallons a day. The average consumption in California is probably around six or seven times that: 180 gallons a day. So comments about how we have managed to achieve that were interesting. The long campaign of reducing consumption, rebate schemes, our education programs et cetera were of interest to them.

The NVIRP program in particular was of interest because there are many similarities with Victoria. California has a lot of water in the north and a large population in the south. The large amounts of water in the north are used by irrigation; up to 70 to 80 per cent of water is used by irrigation. A lot of that water is lost. There are significant environmental consequences, so they were looking very hard at what we were doing. They were interested in how we had developed the NVIRP project to try to improve the efficiency of those systems, given the vast amount of water that is used there. They were looking also at desal, because I think the government has struggled to get a desal plant approved in California. They looked with interest at how we had planned a desal plant within the short framework; how we had managed to achieve community acceptance of that broadly. In fact just in the last week or so California has put in a major program, I think it is $11 billion or $12 billion, to try to fix their water problems. So they are like us, if you like, a few years ago; they have got to that stage where climate change is happening and they must react to improve security and manage the environment. The parallels were quite interesting.

Mr VINEY — In talking publicly in my electorate on these issues I have described the Victorian strategy as being based on using less, reusing more and trying to create some water, if you like. Am I missing anything? Is there a fourth bit?

Mr WILSON — I think at the end of the day it is balancing demand and supply over time, and traditionally for our supply we rely on rain — and we still will do, I guess — and traditionally our demand, given the climate of Victoria and Australia more generally, has been quite high, the way cities have developed in places like Mildura and others; we have liked the image of the large backyard with sprinklers going and that sort of thing. Over the last 10, 15 years that consumption has been wound back, through a whole bunch of demand-side initiatives around rebates and getting information out there — from the old days of the 1980s, I guess it went back that far — like ‘Don’t be a Wally with water’ and that kind of thing.

But those efforts have certainly been ramped up since 1997 to get the demand down and then really to complement that with the markets in the north, water trading and so on. There is a long history to that to say, ‘What is demanded can be rationalised in a better way’, and then on the supply side, as you say, to find new water through desalination plants and so on but to also have a suite of different supply-side measures — recycled water, rainwater tanks or whatever — to help get that in balance and to be, I guess, less reliant on big infrastructure, big rainfall for big demand. So it has been a bit of an evolution.

Mr VINEY — I have often described the northern irrigation project as actually creating water in a way, because I know the water is there but in fact the savings being generated from that process, if you like, are creating new water.
Ms LOVELL — Only God creates water.

Mr WILSON — In the sense that it is a modernisation program; it is modernising a large irrigation district that is vital to Victoria’s prosperity as well as the towns and the region and so on. In a modernisation process you make things more efficient. I know there are debates about where water would have gone and so on, but I guess productive use is what is delivered at a farm and used by farmers to produce food and other agricultural products, and it is water that does not get to that purpose.

Mr VINEY — Yes. Some people in the debate over the northern irrigation project and the north–south pipeline have argued for a dam on the Mitchell River. Has the department considered the issue of additional dams?

Mr WILSON — My last stint in DSE was in 2003, 2004 and 2005, and at that time, which was six years of below-average rainfall, people were starting to worry about security of water supply, and those sorts of propositions were being made back then. So we embarked on a public consultation process and so on with a range of different policies, and I think the government concluded at that point of time that it was not the answer for Melbourne and that we needed to broaden the suite of supply options and we had to just basically stop relying on rain. But from memory there was a report produced — it might have been late 2004 or 2005 — and I think the view was taken that there was a lot of speculation around what these things might cost, and a lot of perhaps non-engineering people were saying, ‘Well, why can’t you just dig a hole, and it will fill up with water and then put in a pipe and send it to Melbourne?’ I think the view was taken that a more definitive engineering study should be put out there to inform the public of what these things actually do cost. Of course that was 2004–05; we have had another four or five years of the same below-average rainfall, and as we said in the opening remarks, 2006 was the lowest on record.

Mr VINEY — Is there an environmental or another rationale, apart from cost, for not proceeding with dams?

Mr WILSON — I think so. I think it might be worthwhile getting that report. But it was certainly looking at the social, economic and environmental aspect of dams. And of course a narrow economic view is that it is the cost of construction and the concrete used and those things, and perhaps jobs created and what have you.

Mr VINEY — Is it fair to say that most of the available catchments already have dams on them and they are not full? Is that part of the rationale?

Mr WILSON — Correct me if I am wrong, gents — and I am not sure of what the status of all those storages are; I have just been out to the Wimmera, and things are looking a little bit better out there — but certainly over the last 10 years you would have to conclude that with most of those storages, like with water carting in the Wimmera and those sorts of things across 263 towns on stage 4 restrictions, there would not have been much water lying around in dams because it would have been used to alleviate the impacts on communities. So I think, as I say, the government considered it six or seven years after the 1997 low rainfalls but concluded that we need to broaden the supply-side solutions and we cannot keep relying on rain. The community generally, from my experience going to a range of different public forums and so on, said, ‘You should be doing all sorts of things. Industry, farms, schools, governments — everyone — should be looking to conserve water, and we should be looking at all sorts of supply-side options, including recycled water and so on’.

Mr VINEY — I just want to go through some of those three things I said in terms of using less, reusing more and creating new water. In terms of using less, where are we at in terms of the reduction of demand for water? Is it on a per capita basis, or however you advise us it is best measured?

Mr WILSON — I do not have the actual figures here. I am not sure.

Mr DOWNIE — We have reduced residential consumption in the Melbourne area by around 30-plus per cent.

Mr VINEY — Over what time frame?
Mr DOWNIE — In the last 10 years, say. I can give you a more precise figure if you like, Mr Viney, but it is in that order of magnitude, and it is the same for commercial and industrial.

Mr VINEY — So commercial and industrial has been coming down as well?

Mr DOWNIE — Yes.

Mr VINEY — Because there is often a public perception that commercial and industrial users are not pulling their weight like residential users are. But you are saying that is not the evidence?

Mr DOWNIE — That is not correct. Their reduction in consumption over the same time is similarly over 30 per cent, and that has been achieved through a variety of cooperative programs, including everything from rebates through to what is called the water MAP program, where the large commercial and industrial users have sat down with the water authorities and experts and looked at their water usage and examined ways of increasing water efficiency. That has been a very successful reduction, as observed internationally, where we have very low consumption in Melbourne.

Similarly in regional areas consumption is reduced. I do not have at hand the figures for our regional areas, but they have also undertaken similar kinds of programs, from Mildura to East Gippsland, and reduced consumption considerably.

Mr VINEY — And where are we at in terms of the use of stormwater through domestic tanks, mainly, I guess? Where is that?

Mr WILSON — Again, with the rebates and so on and other incentives to take up water tanks, that is one dimension of stormwater. There are also various grants programs through the Victorian Water Trust, through local government. There are a range of things happening on that front. I do not have the figures and the details with me, but I am happy to provide them to the committee.

Mr VINEY — It would be useful.

Mr WILSON — Similarly to David’s comment about reduction in water consumption, if the committee wants any of those statistics and facts and figures, it is probably better that we provide them formally.

They will all be on our website anyway, but we are happy to pull them together and provide them to the committee rather than having a guess here. But with that in mind, I think the take-up rate has been quite significant in the last five or six years on rainwater tanks and, again, various new initiatives from industry, new developments and so on. Water-sensitive urban design has been a significant change, which has a permanent effect in the sense that houses with more drought-tolerant plants and so on are there for good. Also, fittings such as smaller cisterns and water-efficient shower heads, water-efficient appliances and the whole water efficient labelling scheme established five or six years ago have meant a lot more viable alternatives. Water-efficient washing machines and products are now made in Australia; 5 or 10 years ago the only options were more expensive imported washing machines, for example. So I think across all of those fronts there has been a very strong, positive response by the community, the industry and so on in the last few years, and that has had a positive impact on demand.

Mr DOWNIE — In terms of stormwater, we can get the details, but I think there are over 60 different individual stormwater projects in the Melbourne environment region.

Mr VINEY — And that is not just roof run-off; you are talking about pavement run-off as well?

Mr DOWNIE — Yes. Drainage and — —

Mr VINEY — The big problem, as I understand it, with the pavement run-off in terms of the reuse of that water is that it essentially needs to go through the equivalent of a desalination process because of the oil and other contaminants that get in it from the pavement use. Is that correct?

Mr DOWNIE — I would not comment on precisely what process you would need to clean it up, if that is the right expression, to improve its quality, but the issue with stormwater run-off is the pollution and nutrients
that end up in our major waterways — the Yarra or the bay — and the costs of that; so that the stormwater program and the rainwater tanks, for example, are two ways of ameliorating those costs of nutrient pollution.

Mr VINEY — Capturing the water before it gets to that level of pollution, though, is what you are saying?

Mr DOWNIE — Yes. That is one of the objectives of our integrated suite of projects.

Mr WILSON — I have just been handed some figures here. Per capita consumption is a 38 per cent reduction compared with the 1990s average.

Mr VINEY — 38 per cent, did you say?

Mr WILSON — 38 per cent. Industry in Melbourne reduced its consumption by around 41 per cent compared with the mid 1990s. Leakage, which is another factor — so Yarra Valley Water and the other retailers are getting onto that — has reduced by 33 per cent since 2002–03.

A total of 257 000 rebates have been claimed across Victoria, including more than 36 000 for rainwater tanks. David was not far off: there have been 66 stormwater projects out of the urban water conservation fund at a cost of $10 million — that is in places like Traralgon, Mansfield and other places — and then there was $28 million out of the Smart Water Fund for 170 different smaller projects across the state. But we are happy to provide you with the facts and figures to assist with the inquiry.

Mr VINEY — How does Victoria stack up with those sorts of savings compared to other places in Australia and what is happening elsewhere?

Mr WILSON — Again, we might take that on notice as well, but I recall the National Water Commission put out a report — it might be their annual report — and it may concern Melbourne rather than Victoria, but certainly it compares quite favourably to most capital cities around Australia; but again we will provide the facts and figures around those water conservation and stormwater issues to the committee.

Mr DOWNIE — In recycling, we are well ahead there compared to interstate.

Mr WILSON — Particularly in regional Victoria. Most of their waste is recycled.

The CHAIR — Thank you.

Mr DRUM — Thank you, gentlemen. I wonder if we could be a little more specific about some of the actual projects that are out there and have been for quite a while. Are you gentlemen familiar with the reconfiguration project, which was a $50 million investment by the state government in 2004?

Mr WILSON — I remember the commitment, Mr Drum, to make it, and I think it was in return for 25 gigalitres of water. It was part of the Living Murray initiatives.

Mr DRUM — Sure. Documents that we have would suggest that in 2009 total savings at that stage, early this year, were less than half in relation to highly reliable water — what you have achieved. You achieved about 11.

Mr WILSON — I would have to follow that up.

Mr DRUM — For five years you have been trying to create savings through the reconfiguration within the Goulburn Valley, and you have come up with half the savings that you are in fact obligated to come up with?

Mr WILSON — If I can make a general response, Mr Drum — Graeme is more across the technical aspects of that — my sense and understanding is that the 25 gigalitres, the savings for the Murray, I think, would have been calculated and committed to on the basis of what is called a long-term cap equivalent, because there are New South Wales projects and so on and there are all sorts of different water rights with different reliability, which means that in any given year those numbers will move up and down. I will ask Graeme to confirm that, or we could confirm that on notice.

Mr TURNER — I can confirm it. The high reliability water that Mr Drum refers to, the entitlement, has been created. It was created in June.
Mr DRUM—For 11 500?

Mr TURNER—There was a 25GL high reliability water share commitment as part of that total project. The total project came out of an agreement between the previous minister and the irrigation community to deliver in total 145GL of long-term savings, if you like, to the Living Murray. It was in two components. One component was, as people would be aware, I think, what used to be known as the sales component.

Mr DRUM—We do not want to talk about that as such, Mr Turner. I just want to talk about the reconfiguration project—25 gigs—and after four years, five years, you have come up with 11 500 gigs, and what have you done to pick up to the 25 000 gigs? My understanding is that you have taken 6 gigs out of the Shepparton irrigation modernisation project; is that right?

Mr TURNER—The relevant components of where it has come from, I would have to take on notice.

Mr DRUM—Sorry, surely you know where you have taken the water from to make up the 25 gigs?

Mr TURNER—We know that.

Mr DRUM—You know that and I know that.

Mr TURNER—But I cannot give you the actual number right now.

Mr DRUM—I have got 6 gigs written in front of me for the Shepparton irrigation modernisation project. Are you aware of that?

Mr VINEY—He is not saying 6 gigs. He is saying he cannot give you a precise number.

Mr DRUM—Mr Turner says he knows.

The CHAIR—Order! Mr Turner is about to answer.

Mr TURNER—I simply want to put it into the context of what the project was. It was an agreement between the government and the irrigation community to return a volume of water. As I said, there were two components to that project. One was the reconfiguration project. There was, I think, a sum of $6 million set aside to do the investigative works associated with that, which really became the forerunner to the modernisation program. Those investigations took three or four years to collect the data and set up the whole modernisation program, so the reason for the delay really was in doing all that investigative work early on in that process, and then the project started to roll out seriously in the 12 months previous to the June period. But there was a clear agreement between the government and the irrigation community to deliver a volume of water for an amount of money within a certain time frame, and that agreement was delivered.

Mr DRUM—Sure, and it was delivered by taking 6000 megalitres of savings that were set aside under the Shepparton irrigation modernisation project and adding that to the 11 500 megs; and it was also achieved by taking 4000 megalitres that were saved under the Central Goulburn 1 to 4 project and adding that to the mix; and it was also achieved by taking 3400 megalitres from the Goulburn strategic measurement project, where I think you actually purchased the water savings.

Mr TURNER—I believe that the reconfiguration program was adjusted so that there was no water taken out of the Shepparton project, but we are happy to confirm that.

The CHAIR—Thank you.

Mr DRUM—So you are putting on record the fact that you did not take 6000 megalitres out of the Shepparton irrigation modernisation project for the reconfiguration project?

Mr TURNER—My recollection—and that can be confirmed later—was that once this project was identified and we identified that we were going to do a Shepparton modernisation project for the Living Murray, we adjusted where the savings would come from in the reconfiguration program, and none of it was coming out of the Shepparton—

Mr DRUM—And none of it was coming out of Shepparton?
Mr TURNER — Certainly not from the Living Murray commitments.

Mr DRUM — Not from the Living Murray commitment, but from the growth commitments?

Mr TURNER — The Shepparton project has three funders — or two funders.

Mr DRUM — The Shepparton project is quite simply, as Mr Thwaites announced it, 38 gigalitres to be returned to the environment and 12 gigalitres to be used for the environment or for growth. That was as Mr Thwaites announced the project in 2007 — 38 gigalitres for the environment and the other 12 to be either used for the environment or for growth; is that right?

Mr TURNER — The project delivers 29GL for the Living Murray. It was a 50GL project in total.

Mr DRUM — It delivers 29 for the Living Murray?

Mr TURNER — For the Living Murray.

Mr DRUM — So that is down from 38?

Mr TURNER — No. On top of that there is another commitment, which was the 12 which you talked about.

Mr DRUM — For growth?

Mr TURNER — No, effectively that was the Victorian government investing in that part of the project which was not a Living Murray component, and then there was an additional amount which took it up to 50GL of total savings, which now has been rolled into the NVIRP program.

Mr DRUM — But that is simply not the way the program was announced. When was this changed?

Mr TURNER — The project, like all projects, as you roll them out, there is some rescoping of them. I am not aware of the detail of that rescoping, but there has been some rescoping of that project.

Mr DRUM — Who would be aware of the detail of the rescoping, as you call it?

Mr DOWNIE — We can provide you with the detail of that.

Mr DRUM — Surely you are aware when government has changed the goalposts as to what you are going to do with the savings?

Mr DOWNIE — In the recent times — —

Mr DRUM — In recent times?

Mr DOWNIE — In recent times; I cannot remember exactly when, but we have satisfied investor needs — that is, the 29 for the Living Murray, and the other investment that has found water — —

Mr DRUM — Quite simply, the minister — —

Mr VINEY — Why do you not let him answer?

Mr TEE — I am just trying to listen to the answer here.

Mr DRUM — I understand that.

The CHAIR — Mr Drum, let Mr Downie answer.

Mr TEE — You have asked the question; let’s hear the answer.

The CHAIR — Mr Tee! Mr Downie?
Mr DOWNIE — There is no doubt, Mr Drum, that the original announcement of who was investing in the program has changed since 2000 — whenever Mr Thwaites announced it — I think it was 2004, 2005 or 2006; something like that.

Mr DRUM — 2007; I am sorry.

Mr DOWNIE — That has changed. And over time, as more work has been done, the commitment to the Living Murray — 29 gigalitres — has been confirmed. I think it might have been 30 originally, but 29 is the current figure. The 30 was always an estimate — and we deal with the investors, which is the Living Murray and the governments that manage the Living Murray. The remaining part of the project, the money has been provided and the water up to 50 gigs, 12 of which is callable. There is an investment coverage for that, and the investor is the Victorian government, and how the Victorian government is going to apply that water is still being examined, but essentially it is water for the environment, and the form of where that will be precisely expressed will be finalised. But the concept is the same; it is just that the investment pattern has changed.

Mr DRUM — The investment pattern changed, so that the state government put in more than $38 million? Is that what happens?

Mr DOWNIE — I cannot answer exactly what the figure is. I am just saying that the investment pattern has changed and it has not affected the concept of the project; it might have affected where the investment is.

Mr DRUM — It just affected where the water went at the end?

Mr DOWNIE — But it does not affect the costs and benefits of the three projects that we are discussing here today.

Mr DRUM — But it affects where the water goes when you create the savings?

Mr DOWNIE — I think the only relevance of it from our perspective, Mr Drum, is that the Shepparton irrigation project, and other works that were done prior to 2009, starting with the strategic measurement project which was issued earlier, are all about improving the efficiency of the irrigation system. They were precursor projects. They had different investors. At the end of the day now the $2 billion-plus project, which is aimed at refurbishing, renovating and rationalising the total system, has to contemplate how the Shepparton irrigation project fits into that total agenda, and that is what we have been doing. We are integrating the CG 1 to 4s, the strategic measurement programs, the Shepparton irrigation projects, into making sure it all works and everybody gets equal treatment out of that, so naturally it meant some variation in the original objectives, but it is just time picking up those projects and integrating them.

Mr DRUM — Sure, and taking savings from projects over here and bringing them across to fulfil your obligation under the reconfiguration project because you cannot achieve the savings that you wanted to achieve originally?

Mr DOWNIE — No, I disagree with that. The whole purpose of the integration was to ensure that the original investors were satisfied and all the savings are found, so the net result is that the original objectives, albeit changed for the particular investors of each project, will be met as varied, and the overall levels of savings expected by the investors will be met.

Mr DRUM — For the 3.4 gigs that you achieved through the Goulburn strategic measurement project which was brought across to reconfigure the 25 gigalitre commitment, was that done by purchasing the water savings from another project?

Mr DOWNIE — As Mr Turner said, I would have to get back to you on those levels of detail. I did not come here today with a refreshment of the detail of those projects. I certainly know those projects, but the detail of that I would need to refresh myself on.

Mr DRUM — Does anyone on the panel know whether that was the case?

Mr DOWNIE — No, I doubt that anyone — —

Mr DRUM — You do not know whether that was purchased water from NVIRP?
Mr DOWNIE — I do not know. I do not believe we purchased water.

Mr DRUM — You do not believe you purchased water from NVIRP?

Mr DOWNIE — That would be my immediate push. I would say that is not true.

Mr DRUM — Does anyone else know if that is the case or not?

Mr WILSON — Not to my knowledge, no.

Mr DRUM — None of you would know?

The CHAIR — Mr Downie, can you come back on notice?

Mr DOWNIE — Yes.

The CHAIR — Thank you.

Mr DRUM — Could I also ask about other forms of supposed savings? Are the Kerang Lakes going to play a major role in producing savings with the work that NVIRP is doing?

Mr DOWNIE — Probably it is best for the NVIRP representatives that you have spoken to to talk about the works program, but the business case for stage 1 we have talked about. The summary will be produced. The stage 2 business case is being developed. That includes a comprehensive review of the GMID and the work that would be undertaken. It is probably premature to mention what work would be undertaken in some areas until we have completed that assessment, because quite properly we will not make decisions about where we make the investment until we have looked at the total program and checked that we can deliver it for the — —

Mr DRUM — Sure. I have a document here which is addressed to NVIRP that suggests that one way of achieving savings would be to take 93 gigalitres — 93 000 megalitres — of losses that are currently listed as irrigators’ losses, and we could maybe make that become an environmental commitment, and that would therefore give us 93 gigalitres of savings, because the evaporative losses on the Kerang Lakes could be reclassified, not as irrigators’ losses. If we were to classify that as an environmental commitment, that means we would all of a sudden have found 93 gigs out of thin air. Are you aware of this proposal?

Mr DOWNIE — No.

Mr WILSON — No. I am not sure what areas — —

Mr DRUM — So that consultant’s report to NVIRP would be, what?

Mr WILSON — I am not aware of it. You are quoting from a letter. I have not seen it; I have not heard of it.

Mr DRUM — And totally ridiculous?

Mr WILSON — I would not say that. I have not seen it. You are asking — —

Mr DRUM — We could not possibly consider doing something like that, could we, ever?

Mr DOWNIE — I have probably got more detailed knowledge of some of those things. Certainly we understand those propositions have been put forward.

Mr DRUM — Who by?

Mr DOWNIE — I assume people with a knowledge of the Kerang Lakes system or in that local area. No doubt NVIRP will look at all suggestions put forward in their deliberations with their communities, which include very active involvement with water service committees and all the people in the area. There are day-to-day conversations, as you are probably aware, Mr Drum, so we would expect them to look at any reasonable proposition like that, but I am not aware of whether or not that has got any — —

Mr DRUM — Do you think that is reasonable, Mr Downie? Do you think it is reasonable.
Mr DOWNIE — I do not know.

Mr DRUM — On the scenario I have put forward to you, do you think that is a reasonable scenario that we could take? The evaporative losses on the Kerang Lakes, which are currently listed as — —

Mr DOWNIE — That would be an opinion.

Mr VINEY — Since when do we ask witnesses about what is a hypothetical scenario when they have had no chance to think about it?

Mr DRUM — It is not hypothetical.

Mr VINEY — Or even look at it.

The CHAIR — We are not seeking Mr Downie’s opinion, Mr Drum.

Mr DRUM — Okay. I have one more question, and it deals with — —

Mr VINEY — You would not be allowed to ask that question in the Parliament, so why would you be allowed to ask it here?

Mr DRUM — I have one more issue to talk to Mr Turner about in relation to comments made at the PAEC in relation to the backbone. Do you stand by your comment at PAEC, made in response to a question from Dr Sykes, that there are no moves afoot to force irrigators to start metering their water at the backbone, on which you were very clear when you were being questioned. I have the transcript here; effectively you were saying that the losses will remain with the water authority until the point of meter moves. If it does not move, it remains at that point. Are you effectively saying that there are no moves afoot to move the metering?

Mr TURNER — No, I think you are interpreting my answer differently from the way in which it was given.

Mr DRUM — Okay. Are you saying the answer is no?

Mr VINEY — That is pretty standard here; he can interpret what you say in all sorts of ways.

The CHAIR — Mr Drum, if you have the transcript there, will you read the section that you are referring to.

Mr DRUM — Certainly. I will start with Dr Sykes, who says:

But just a basic principle is the change — it is not ownership. Is the irrigator going to take delivery of the water at the point that it leaves the backbone in future? Is that a fundamental principle of the modernisation strategy?

Your answer to that is:

The answer is no, they will continue to take delivery at their farm off-take. Whether their farm off-take has moved as a result of the connections program — it could have moved back towards the backbone — it will always be at the meter off-take to the farmer.

So you are effectively saying wherever the farmer’s meter is, that is where they will continue to take their water metering from.

Mr TURNER — I stand by that answer.

Mr DRUM — Okay. Would it concern you if, at its meetings, Goulburn-Murray Water is saying this:

Within 10 years every customer will be connected to a common user system (‘the backbone’) by a connection which is owned by one or more landowners and then managed by them?

Mr TURNER — It still goes back to the meter off-take point, which is what I was talking about.

Mr DRUM — It quite simply says they will be connected to the backbone.

Mr TURNER — I think the principle here is that the losses up to the meter off-take are with the water authority. Any losses from the meter off-take onto the property are the ownership of the irrigator. That is the principle. I do not think anything that has been raised there is anything different from that.
Mr DRUM — That is right.

Mr DOWNIE — Perhaps I could add, Mr Drum, that the objective I think from many perspectives, in terms of achieving the modernisation objectives, achieving the savings and better on-farm performance, is to get as many of the connections as close as possible to the backbone. But there has been no requirement that that is the case. NVIRP and GMW are working together to try to achieve as much of that as possible, but arrangements have to be put in place to ensure that people have service. So government has not been asked to do any more than that, and we expect NVIRP and GMW to keep examining how to best improve efficiency, how to best improve the regional development opportunities, and that will be consistent with getting as many farmgate connections as close to the backbone as possible. That is the objective.

Mr DRUM — Quite simply, Mr Downie, you would be very much aware of the fear that is out there that the government is going to hand over the losses on the spur channels to the irrigators. That is where I am coming from; you know where I am coming from. We have Mr Turner saying that simply will not happen. We have Goulburn-Murray saying that within 10 years every customer will be connected to the backbone by a connection which is owned by one or more landowners and managed by them. There are very conflicting views about who is going to have responsibility for the losses and the maintenance of the spur channels going forward.

Mr DOWNIE — I think NVIRP will be sitting down with every water service committee and every farmer and going through the options. They are well aware of the options that they are developing. They have not finalised every single option, as I understand it. Mr Smith will no doubt be able to answer that in a more technical and relevant way than I can. But he, Mr Stewart and their staff will work out arrangements with each particular farmer.

Mr DRUM — What do you mean by ‘work out arrangements’?

The CHAIR — Mr Drum, we need to move on to Mr Barber.

Mr DRUM — Sure. We can come back to it.

Mr WILSON — Chair, can I just add there is a reference there to a characterisation of what Mr Turner had said. I do not think he accepts it.

Mr TURNER — I do not. I do not accept your interpretation of what I said and that what I said is as you describe it.

Mr WILSON — For the record.

The CHAIR — Thank you, Mr Turner.

Mr DRUM — Is there a certain part that you do not accept, Mr Turner?

Mr TURNER — You were categorical that I was contradicting other statements, and I do not believe I have been. My point is that the point of measurement, wherever it is, is the point where it differentiates between who gets the benefits of those losses or who gets the benefits of the savings of those losses. Downstream of that meter is the farm side; upstream is the water authority side. That is all I am saying.

Mr TEE — It is a statement of fact.

Mr BARBER — I would like to take the witnesses to a document called Augmentation of the Melbourne Water Supply System — Analysis of Potential System Behaviour, which I think you provided anyway as part of your submission to us. I believe it was released some time after the government’s announcements about the desalination plant, the north–south pipeline and the whole new ball game. I am interested in how this modelling operates and what it tells us about our future water supply system. Round about page 21 there is a little chart where it models initial storage recovery — it is figure 5.4, ‘Initial storage recovery for the 3-year and 10-year inflow scenarios and demand scenario A’ — involving 150 gigalitres of water per annum from the desalination plant. Earlier, I think, in the other key assumptions, it says a key assumption is 75 gigalitres via the north-south pipeline. Can you tell me whether current planning is working on the 3-year scenario or the 10-year inflow scenario?
Mr WILSON — Current planning? I just want to confirm the actual planning is the central region water strategy and that, I guess, as the Auditor-General and others pointed out, a range of different variables have changed since then and there was a view that that plan should be updated. Separately, or subsequent to that, there was the desalination request for proposal, which had some parameters in that and some assumptions and so on.

Mr BARBER — That is what I am trying to get to. There are a lot of different assumptions, and I want to know where our thinking is at now in moving forward with these two big augmentations.

Mr WILSON — I will turn to David Downie for a more comprehensive answer, perhaps, but my sense, as the head of the department, is the thinking is, ‘Complete these projects’. We have identified them as the response to, in the main, a general reduction in inflows since 1997, with the extreme year 2006, so the emphasis was to get on with those projects, get more information out around costs, benefits, savings, modelling and so on, and that we would, as a department, continue to advise the minister, together with Melbourne Water and those with a statutory responsibility for this stuff, on how things are tracking. In terms of the specific question, is it a 3-year versus a 10-year, in my mind it is a constant looking at the situation and taking advice from water corporations and making sure these projects are on track, on budget and that type of thing, but I am happy to hear if David has anything to add.

Mr DOWNIE — I would agree with Mr Wilson’s comments and just add perhaps that we keep reviewing that on a continuous basis as an annual review process. The objective of course is to make sure of Melbourne’s water supply security. Unless those projects had been undertaken, there would be issues and difficulties ahead for water security — increased restrictions possibly with obviously all the economic and environmental involved in that. The environmental objectives that were set in the 2006 central region water strategy remain part of the objectives, and so we continue to monitor inflow conditions. They have not been good. In fact they have been very close to what we considered as the bad, the low side of a 3-year scenario. It is comforting in one way in the sense that we have committed large amounts of money for these capital projects, and it is clear that climate change has been so dramatic that we needed to do that, but on the other hand it has not yet given us the upside in terms of rainfall to satisfy all the conditions that we wanted to do.

Mr BARBER — Yes, but what I am asking is, when we sit down to design a specification for a desalination plant, or when we negotiate a contract to take the water from that desalination plant — and we may even negotiate for some take-or-pay component versus a higher charge for a variable component — what is the current thinking on the likely scenario? Is it the 3-year scenario, which you say is what has been coming to pass, or is it the 10-year scenario, which is being modelled here?

Mr WILSON — In terms of the actual contract provisions, and I may again include this in the question on notice earlier, those sorts of questions were addressed, as I understand it anyway — the rate of filling, fixed, variable, different scenarios — but because it is part of a PPP, they are all quite important commercial considerations, and as you are pointing out, they are quite important considerations generally for the community and those that would use that water.

Mr BARBER — Which is what we are having an inquiry into right now.

Mr WILSON — The details, in accordance with Treasury policy, will be released by 2 December. If I can just add, Mr Barber, should it be a 3-year scenario or a 10-year scenario, it was a lot more detailed than that. It was not just picking one or the other, it was quite a comprehensive bit of work that went into that particular issue.

Mr BARBER — Okay, because the essential services commissioner has been working on a price review, and in that price review, the ESC has to make some assumptions about the sales of water; there has been a bit of back and forth about that. It seems more recently that the ESC has commissioned PricewaterhouseCoopers to do a study of the likely consumption, and I would just like to ask you about some of the assumptions in that.

At page 18 of that document, table 4.2, the author notes that the bids put forward by the water boards were that we would be in stage 3a water restrictions in 2009–10, moving to stage 2 by 2010–11, stage 1 by 2011–12 and permanent water saving rules by 2012–13. The recommendation here is that it is adjusted slightly, but nevertheless we would be back to stage 1 by 2012–13. We are allowing these water boards to go ahead and
make a whole range of decisions, not to mention setting their prices, on these assumptions. The assumption here is that by 2012–13 we would be on stage 1 water restrictions.

If I go back to your model here on page 21 and I look at the 10-year scenario, then it is clear by 2012 that we are well above stage 1 and somewhere back towards permanent water saving rules. What I put to you is that the scenario that is being used by the ESC for water pricing, and all the other spending that goes along with that, relates to this document’s 10-year inflow scenario. Is that fair enough?

Mr WILSON — Yes. I should point out I was a former chairperson at the Essential Services Commission so I am aware of how these things feed into prices and so on and the general debate around the need to predict four or five years out how much water is going to be used in order to set prices. Just a couple of things: my understanding is the PricewaterhouseCoopers report was commissioned to provide an independent view to test the propositions put forward by the water corporation that were subject to this particular price determination. Secondly, given the probabilistic nature around all of these sorts of things and given the consequences of prices either being too high or too low if you get it right or wrong, there would have been a provision included in the decision on prices that if those assumptions are proven to be incorrect a few years down the track, they can come back and actually get an adjustment to those prices with a better estimate at the time.

My view at the time — and I was not involved in this particular decision, but I was involved in the regional urbans — was that we could spend a hell of a lot of money doing a lot of modelling to set a five-year price path and find out that it is wrong, such that they have got some viability problems or consumers are paying too much for water and excessive profits are being made, and that it was a better strategy to actually hear what everyone had to say under different scenarios and come up with an estimate to determine a price.

That is different to a long-term contract for a desalination plant with a commercial operator. Without getting into the terms and conditions, it is not like a five-year price determination with what we would call a ‘variation clause’ if things go horribly wrong in the middle. I think they are different purposes. There will be other studies no doubt that water corporations will also put on the table. To me personally, I get back to the proposition that you do need assumptions, medium and long term, but these things need to be carefully reviewed year on year.

A PPP signing away for several billion dollars of an investment in a commercial situation will be different than a view on what demand might be for the purposes of setting a price which could ultimately get varied if you get it wrong — a ‘no questions asked’ kind of thing.

Mr BARBER — If we are on the 10-year scenario, then by 2012 we would be off stage 1 water restrictions. This is a chart of storage levels, and storage levels trigger water restrictions, so it would be clear that by 2012 we would be off water restrictions and just back to permanent water saving rules.

Mr WILSON — If you read off this line, I guess that is what it is saying. But I am not across the background of this thing. I see the source of it is Melbourne Water Corporation. I see that it starts in January 2008, so straightaway I am not sure how, from January 2008 to November 2009, that line has actually moved.

Mr BARBER — Not much.

Mr BARBER — The starting point is about the same — 600 000 in the dams.

Mr WILSON — I guess what I am saying, Mr Barber, is I am not across the detail or the background of this particular quite complicated-looking chart, but I am happy if one of my colleagues has a view.

Mr BARBER — This committee wants to get across the detail, because this appears prima facie to be the justification for those two big supply augmentations. It is the modelling exercise. We have got something called demand scenario A and demand scenario B. Is there anybody who can tell me what those demand scenarios are in the sense of consumption?

Mr WILSON — Not off the top of my head, but I am happy to have a quick look through it, Mr Barber, if you would like.
Mr BARBER — Okay. Because the outputs of this modelling appear to be storage levels, but an input to the model would obviously be water consumption. But since water consumption changes as we move through the water restriction triggers, that demand must also change. Is there somebody working for you — because this was a DSE-Melbourne Water exercise — who can give us another output, which is demand scenarios through these times?

Mr WILSON — I see on page 15 we have demand scenario A and B outlined, which I think is useful in a sense, because you can see the various factors that go to creating those scenarios, which in themselves will be probabilistic in nature to some extent as well.

Essentially my understanding is that this is the core function of Melbourne Water Corporation as the corporation with the statutory responsibility to do this sort of technical modelling and so on, but it would work with our people. We could certainly come back to you with more detailed information on that sort of modelling and so on and how it works and the sorts of assumptions that you could plug into it to get different sorts of scenarios.

Mr BARBER — Again, it is the only public information this committee has got as to why we are building a whacking great desalination plant. This is based on 150 gigalitres from that plant. What appears to happen is that within a fairly short order of time we move to a huge amount of water in the dams really — virtually to the point where they would be full.

Mr WILSON — I am not sure about that particular scenario, and I am not sure about the proposition that this particular chart and what it is saying was the actual basis alone for building a desalination plant. Not to put words into your mouth, but the sense I got was that this was the only bit of information that provided the justification for it. I am aware through the whole process — late calendar 2008 — of significant amounts of studies and so on around the desalination plant and what have you.

Mr BARBER — But we do not have those.

Mr WILSON — I take your point. If this is the only bit of information around this demand modelling, we are happy to provide the committee with more information in a separate submission on that subject.

Mr BARBER — I have just another quick question on that. Also commissioned by the Essential Services Commission is a document where it is checking the homework of Melbourne Water in relation to some of its expenditure. On the page I have given you, page 62, there is a paragraph at the bottom that says:

In its water plan, Melbourne Water has assumed for modelling purposes that the pipeline will transfer an average volume of 75GL/annum from 2010–11, following 30GL in 2009–10 (February to June 2010) on the basis that it will divert any surplus flows (until at least 2014) to facilitate recovery of its storages. However, it now appears these transfer volumes are likely to be overstated. We understand that Melbourne Water has recently been in discussions with DSE in relation to future demand volumes. This has resulted in a reduction to the forecast transfer volumes for the Sugarloaf pipeline …

Can you tell me what the new estimate is of how much water will be going through the Sugarloaf pipeline?

Mr WILSON — I cannot tell you the estimate. All I know is that there is a maximum of 75 gigalitres and the savings need to be audited and that it needs to be EPBC act compliant.

Mr BARBER — No, it says here — —

Mr DOWNIE — I can add to that that the objective is to deliver 75 gigalitres to Melbourne in the first year of operation of the pipeline, and as the minister has announced, we expect that the pipeline will commence operation in about February and that would be 75 gigs reported.

Mr BARBER — No. Deloitte — from this document — says:

We understand … This has resulted in a reduction to the forecast transfer volumes for the Sugarloaf pipeline.

Move over to the next page, 63, where there — —

Mr VINEY — I have got a real problem with this, Chair.

Mr BARBER — I will bet you do.
The CHAIR — Your point of order, Mr Viney?

Mr VINEY — I am happy to have a full-on debate with you in the chamber, Mr Barber, whenever you like. But I think it is pretty discourteous to the rest of the committee that Mr Barber is questioning witnesses on the detail of documents that he has not provided to the rest of the committee. I do not need advance copies, but I think it would be reasonable for other members of the committee to actually see the documents that he is using so that we can follow what is going on.

Mr DRUM — It just forces you to listen a bit harder.

Mr VINEY — If it requires a 10-minute adjournment so that the documents can be copied, fine, but I do not find it acceptable to be sitting here listening to questions and I have not got a clue what they are about.

Mr DRUM — We have not got time.

The CHAIR — Mr Barber, the committee is at a disadvantage not having the documents that you and Mr Wilson are referring to. If you could provide the secretariat with copies?

Mr BARBER — Yes. Can we have a 10-minute break?

Mr VINEY — I move a 10-minute adjournment so that we can get them.

Mr DRUM — It will only take 5.

The CHAIR — Mr Barber’s time period has basically expired at this point in any case. What I propose, since we will have time at the end, is that we will move on to Ms Lovell, and we will have the secretariat provide some copies of that document. If there are any other documents, Mr Barber, that you wish to refer to extensively further in this hearing, we could also get copies of those.

Mr BARBER — No, I do not think so, not that are not on the internet.

Mr TEE — I do not have access to the internet.

Mr VINEY — I do not have a computer in front of me, so I am happy — if you want to call an adjournment — to go down and get that. But the thing is that you are asking questions about details and we have no idea what it is about.

The CHAIR — I take Mr Viney’s point. It would assist the committee if we were able to see the documents, if you are referring to them extensively. I do not propose that committee members have to present documents ahead of hearings, or anything else. It has certainly never been the practice, but it would assist us on that basis. We will move on to Ms Lovell now, and if we get those copies we can return to Mr Barber.

Ms LOVELL — In the submission to the inquiry on page 23 — page 27 in our documents — it talks about business opportunities, and the second paragraph of that says:

It is estimated that 50 per cent of the non-local workforce may be temporarily relocated to Bass Coast. If 10 per cent bring their families, this could include 73 children … The accommodation sector would benefit from an influx of workers.

I was wondering, have you considered the impact that will have on the local private rental market and the tenants that are currently occupying those premises?

Mr WILSON — I have not got the specifics, but I know we have contributed to a study on that particular issue. I have not got the details with me, but I am happy to give you the follow-up on that, but my understanding is that there has been work done with the Bass shire on the influx of workers and the broader effects of that sort of influx on homes.

Mr VINEY — There certainly has.

Mr WILSON — Through accords reached with real estate agents to make that sort of transition of people into that area through holiday homes that are vacant and that type of thing. I have not got the details of the study, but that is my understanding. There has been a lot of work as a result of the recommendations of the EES
process that those sort of impacts on the community need to be looked at. There is a reference group or a committee with the shire and other stakeholders, and I know there has been work done to look at those impacts. I am pretty sure we funded half of it, if not all of it, but I can confirm that.

**Ms LOVELL** — Okay. Do you have any plans to provide any additional housing via a temporary village or perhaps building some additional properties that might later transfer to Office of Housing or something?

**Mr WILSON** — Again, I would have to get back to you on that and confirm that. I did have some notes here, but again that is another thing that I would like to get back to you on.

As I said, a lot of that engagement has occurred with the CEO of the shire and other stakeholders through a community reference group. I know the project itself has invested a bit in various sorts of community infrastructure, studies and things of that nature, but I am happy to come back and confirm that, and take that on notice.

**Ms LOVELL** — I was in Wonthaggi yesterday, as part of my role as shadow Minister for Housing and also shadow Minister for Children and Early Childhood Development, speaking to people from the housing sector and also from children’s services. Are you aware that recently there has been quite a spate of 120-day notices to vacate — notices without reason — to tenants within the Wonthaggi region?

**Mr WILSON** — I am not personally aware of it, but if that is the case, I am happy to follow that up.

**Ms LOVELL** — There is great concern amongst the housing sector down there that it is to move people on so that they can rent at a higher rate to the workers coming in for the desal construction.

**Mr WILSON** — I am certainly happy to follow that up. As I said, my understanding of the strategy was that they would use what would be mostly vacant holiday homes, and they entered into accords with real estate agents to facilitate that, with a view perhaps to avoiding the consequences you are talking about. So I am happy to follow that up.

**Ms LOVELL** — Also in talking to children’s services there seems to be an increase in demand of people ringing up for placements next year, saying that they are moving to the region. Children’s services such as maternal and child health, child-care centres and kindergartens are struggling to cope. Is the government going to provide any additional funding to Bass Coast Shire to help them to provide these additional services for the workers, or is this just going to be something that will impact on locals being able to obtain those services?

**Mr WILSON** — I cannot commit the government to providing more funding than what has been committed already, and I know there has been some on various studies and so on, but in terms of your point around the additional demand on services, I am happy to follow that up and get back to you on that question. It may have been allowed for already in either the project funding or through the Department of Health or Department of Human Services, but I will have to check that one and get back to you.

**Ms LOVELL** — Okay. During the planning and development of the business case for the northern Victoria irrigation renewal project, that was developed with the assistance of DSE, you obviously considered the need for the EPBC act action and that the matter would most likely become a controlled action under that act. Did you believe that the matter would be assessed by the preliminary documentation, as was originally announced by the federal minister last week, or did you expect it to be assessed under the more stringent and longer process of a public environmental report, which the initial decision has now been changed to?

**Mr WILSON** — I would have to take advice on the specifics of that and the background and the legalities of it. My understanding is that in terms of the works, lining channels and so on, they are pretty much a large-scale version of what happens already in terms of, as Mr Drum pointed out, reconfiguration projects and so on. In terms of the action of actually constructing channels and so on that are following the same channel route, it is a bit like the advance maintenance program of Goulburn-Murray, or reconfiguration or rationalisation. Our view is that that would go ahead outside the EPBC act and that we would have our own environmental management planning requirements and all those sorts of things in place.

That left the actual reconfigured modernised system. The physical action associated with that, as I understand it, is that water that would have gone through outfalls and through other means from the operation of the existing
system would have found its way into wetlands and so on, and mindful of the potential adverse effect of that being changed, we have developed strategies where they would be identified and mitigation strategies would be put in place so that there is no adverse effect on those high-value wetlands. I do not know if there is anything Jane Doolan can add to that process in terms of where we are at with it.

Ms DOOLAN — No. We submitted the referral as the operation of a fully modified irrigation system. We submitted it with a range of information that was related to our own planning minister’s conditions. Some of that work is still to be completed as the project rolls out, and as a result of that we considered that it was highly likely to be a controlled action and any decision taken by the federal minister was their decision, and we are working with them to comply.

Ms LOVELL — In the referral document it says that they are planning on providing mitigation water where it is shown that saved water has a material and beneficial effect on the higher environmental values. The document also says that this mitigation water is not part of the 425 gigalitres of savings. Does this mean that you are actually going to be saving more than 425 gigalitres and returning some of that as part of the environmental water plan? If that is so, what is the volume of the mitigation water?

Ms DOOLAN — The requirement is that if there is a high-value wetland or waterway that it is shown that the irrigation system has provided water to and that water is both material and beneficial, then the project’s impacts will be mitigated by the provision of a water supply. There can be a range of ways that that water can be provided. It can be provided by special supply; it can be provided by consumptive water en route. So there is a range of water arrangements by which that water supply can be secured to that wetland. There is a principle within the whole NVIRP project that any savings is net of the volume required to maintain the high-value wetlands, so that has been taken into account in the calculation of the savings.

The CHAIR — Mr Turner, did you want to add anything?

Mr TURNER — No, I am happy with that.

Ms LOVELL — One of the issues that has concerned me is the loss of water from the Goulburn-Murray irrigation district that has occurred primarily as a result of water being traded out of the system. I do not know whether this has really been fully factored into the estimate of savings; nor have the impacts been fully appreciated by Goulburn-Murray Water. Overall, to date something like 365 gigalitres has been traded out of the region, which brings a total allocation on the system down from around 1600 gigalitres to less than 1300 gigalitres, and further trading entitlement out of the region is inevitable over the next few years, especially with the commonwealth’s $3.1 billion buyback. So it is likely that in a couple of years the total volume of water entitlement in the food bowl could be less than 1000 gigalitres, or nearly 40 per cent below the volume when the government made its savings estimates. Has the dramatic reduction in the volume of water in the food bowl irrigation area been factored into the government’s savings estimates for food bowl 1 and 2?

Mr WILSON — I can say that we are mindful of that more generally, I guess, in terms of the basin plan and agreements around water trading rules and the whole reconfiguration process and the need to engage the community and have modernisation committees and so on. I think more generally it is something we are thinking about in terms of the work that we do and so on and the interactions we have with the commonwealth and what have you. I know that kind of aspect of the trading out of districts and so on is covered in the business case, the summary of which we would hope to get out quite soon.

I guess in terms of your proposition that as the water goes out or there is less water delivered, it is a bit like Graeme Turner was saying at the beginning, there is this relationship between aggregate volumes that move around with inflows and they move around with water trading out as well. The more the market opens up, there is still the prospect of a modernised system of water being brought back in as well. So I note your point that the commonwealth are looking for more water for the environment and they have a buyback program. That factor is one that does affect the overall project, as people rationalise the size of the areas and all that sort of thing, as well as the point you make about water. It is something that is being and has been considered. In terms of the specific numbers you are presenting to us, it goes back to that question of relationship between losses and water delivered, entitlements and inflows, and then in this case I guess the spatial dimension of that, where water is purchased from.
There is a range of different variables there, but we understand the point you are making. But the business case is probably the best thing to look at, when that comes out, to see how that was treated.

Ms LOVELL — Okay. I have a document the others do not have, but I am happy to read from it.

The CHAIR — Can you identify what it is?

Ms LOVELL — It is a DSE document called *Water Savings Framework for Northern Victoria Irrigation Renewal Project*. Page 9 talks about the audit process and says:

The water savings audit process of the water savings protocol sets out the guidelines for the appointment of the independent auditor as well as defining the scope of the work brief to be undertaken by the independent auditor.

As the audit process is going to be governed by the water savings protocol that has been set in place, I wonder whether the savings protocol has been independently peer reviewed to assess whether the savings it says can be achieved are actually going to be there.

Mr WILSON — There are two things. There is the reviewing the protocol as a protocol, and then there is: will the savings be there?

Ms LOVELL — Yes.

Mr WILSON — Will the savings be there? As I said at the Public Accounts and Estimates Committee, that goes to the robustness of assumptions and so on, which goes back to the business case, and that will be released in a summary form in the near future. In terms of the water saving protocol and the design of it, the principles and the rules and everything, I might turn to Graeme Turner. But my understanding is that it has had a lot of expert input and peer review. Mr Turner can perhaps respond to that part of your question.

Mr TURNER — The technical manual, which is part of the protocol, is the key document, which actually calculates the water savings. That document was peer reviewed by Don Blackmore at the — —

Ms LOVELL — I do not believe that was really a peer review process, the Don Blackmore process.

Mr TURNER — Well, we gave him the document before finalising it, as an independent person with considerable expertise in irrigation and within the Murray-Darling Basin, and he reviewed the document. But I should also point out that that document was put together very closely with Goulburn-Murray Water and NVIRP, and also the Southern Rural Water corporation had an involvement in it. That was done over a 12-month period with all the expertise available to those authorities. So in that sense there has been a thorough peer review within the Victorian context, and there is not another document like this elsewhere.

Ms LOVELL — Okay.

Mr DRUM — Can I ask a follow-up to this one, Ms Lovell?

Ms LOVELL — Yes.

Mr DRUM — It is in relation to Dr Blackmore’s evidence in his *Independent Review of Guidelines for the Assessment of Water Savings in Irrigation Modernisation Programs*. Dr Blackmore is on record as saying the following. In relation to the question whether the guidelines in the technical manual are fit for purpose, he said:

There are a number of comments on specific aspects which could be addressed relatively simply to improve them. In making these statements I have not examined the underlying science and engineering that underpin some of the specific assessments. However, I am advised that these have been through a rigorous program of assessment in their own right.

You are saying that Dr Blackmore has peer reviewed or has checked out the technical manual, and Ms Lovell is right in saying that Dr Blackmore’s own evidence is that he effectively had to take all of the assumptions that are in this document as a given. He has said that if you were to take all those assumptions that you have in the technical manual as a given, then yes, it stacks up. However, he has not reviewed the technical data. Yet you are referring to Dr Blackmore as the auditor who has reviewed your manual.

The CHAIR — Thank you, Mr Drum. Mr Turner, do you wish to respond to that point?
Mr TURNER — Yes, I do. So Dr Blackmore reviewed the methodology, in terms of the overarching concepts in the manual, and made some recommendations which we adopted. As I said earlier, we have used all the experts who are available effectively within the water corporations within Victoria and in NVIRP, and that has been coordinated with consultants. So all the experts that we have available to us within Victoria, who have the detailed knowledge of irrigation systems, have supported that document. In that context, it has been peer reviewed.

The CHAIR — Ms Lovell?

Ms LOVELL — No, I agree with Mr Drum. It is not a full peer review.

The CHAIR — Any further questions?

Ms LOVELL — No, I am fine with that.

The CHAIR — Thank you. Mr Tee.

Mr TEE — I want to go to your submission. You indicated in your submission that the storages in Melbourne as at 16 March were 30 per cent. They have obviously increased since then. Can you update the committee in terms of where the storages are up to, how that compares with the last couple of years, how that is across the state — I suspect it is not uniform — and what implications there are for the food bowl. I suppose it is really about updating the committee with the more recent information in terms of where we are up to with our storages.

Mr WILSON — I will do my best, referring you to this particular chart on page 8 and using my recollection of how things have moved over the last few months. If members have gone to that, in our submission — —

Mr TEE — Today?

Mr WILSON — No the actual submission itself. I am not sure if the members have that with them.

The CHAIR — Yes.

Mr WILSON — The red line there, the lowest line, is 2008, I think from memory. There is a black line there for 2006.

The CHAIR — Unfortunately, Mr Wilson, ours is not in colour, so could you give us some direction as to which lines you are referring to?

Mr WILSON — My apologies for that.

The CHAIR — They are all labelled by years, I think.

Mr WILSON — Essentially, in the 2008 year you get a sense of what happens mid-year in terms of Melbourne’s storages. What I was drawing the members’ attention to was that around May–June on any of those lines you get a feel for the importance of the winter–spring inflows, and if you can track down the 2006 year, which I think is a black line, it just kept going down and down, from memory, from 60 per cent to 40 per cent.

Then you see the orange and the red lines for 2007 and 2008 lifted up a little bit in the spring period but not as much as those earlier years. The 2009 year was basically tracking along with the 2008 year. Visually it would have been a few millimetres below that red line until about, I think, August. So the rain that we had for September and October meant that storages went from 29 per cent to 38 per cent, with much more of a typical yield across those months, noting of course that the heat of the last week or so would mean that that has stopped where it is.

That, in a sense, shows that Melbourne storages have come back as a result of that rain, so the prospect of a 2006 year — 60 per cent straight down to 40 per cent — we can now rule out, now that we are in November. In terms of the rest of the state, as I understand it the Wimmera and in particular south-west Victoria have had a lot
of good rain to the point where, with the benefit of the pipeline project and so on out there, those towns might now go onto stage 1 restrictions.

I have not got all the details of inflows across the state, but certainly there has been some pretty good rain in various parts of the state. I am not sure about the prospects of water allocations in the north — the October 15 announcement.

Mr DOWNIE — It is about 57 per cent at the moment on the Murray and 45 — I am advised it is 55 and 41.

Mr WILSON — Thank you. And compared to this time last year it is probably 7 to 10 per cent more, something like that. So the last couple of months have been quite good in terms of inflows.

Mr TURNER — The last month has been pretty poor, actually.

Mr WILSON — Sorry, it was the September month, was it?

Mr TURNER — Yes. September–October were good.

Mr WILSON — Yes. And in November, as I have mentioned, the hot weather in the last few days has meant a lot more pressure on demand for water and of course no rain, but there is some predicted for tonight and through the weekend, so hopefully things will change.

Generally these are the sorts of things that David Downie and his people are keeping an eye on with Melbourne Water and the water corporations to track these things, so it has been a little bit more positive in recent months, although as Graeme Turner pointed out, the last few weeks have been pretty dry.

Mr TEE — Thank you. The other issue I wanted to look at is again in your submission. On page 32 you state:

Without investment in modernisation, the region is left with an outdated irrigation delivery system that limits the ability to —

and you go on to talk about ensuring that irrigators do not have to bear the complete cost of meeting new compulsory national metering standards.

I would not mind if you could expand on what are the current deficiencies in the metering standards that need to be changed to bring them up to those national standards, and I suppose how the current rollout is going to meet those standards.

Mr WILSON — I assume you are aware of Dethridge wheels and the old gate-style mode of controlling the movement of water around those systems and ageing channels and channels with all sorts of yabby holes and evaporation and those sorts of problems? I can give you that general picture, and you can imagine wanting to grow high-value products and so on, which goes to issues around the timeliness and the ability to maximise the production value of that sort of produce. But in terms of the specific metering standards, the legalities and the codes — —

Mr TEE — It was more about where the deficiencies are at the moment.

Mr WILSON — I am certainly aware, again going back to my early days in water, that we embarked on the consultation process around metering and put out what was referred to as a green paper. We asked people what they thought about more metering, more measurement, more monitoring and better water accounting; and from memory, out of over 90 policy proposals, that was the particular one from follow-up surveys and so on that had the strongest support.

So I think generally in the case of water management here in Victoria we have come a long way. Whether it is in an urban setting, with pricing based on usage, which requires metering, or whether it is in a rural setting, with the metering, the management and the technology of shifting water around the irrigation system or metering around groundwater diversions and that sort of thing, and then sitting above all of that the actual work we are doing on water accounting basin by basin, all of those details are now on the DSE website.
So relative to five years or so ago there is certainly a hell of a lot more done on understanding water resources, whether it is groundwater streams, dams, channels: what have we got, where is it going and who is using it? There has been a lot of investment in that area and a lot more transparency and public information with respect to individual basins and systems that are up on our website.

Mr TEE — The other issue I wanted to go to was the independent audit. There has been some discussion about it in part of your slides. I think we have a number of witnesses later who are, from reading their submissions to us, sceptical about the degree of savings that will be made, and I am wondering in terms of the independent audit what comfort or assurance we can give them about the independence of the auditor, the timing, the methodology. I am wondering what information is available that we can provide to them to provide, I suppose, an assurance that it will be independently measured.

Mr WILSON — If I can make a general comment on the point you raise that there has been some scepticism — and we have acknowledged that with our own reference panels and groups that we established in the early days of the food bowl project and that has been reported back to us in terms of robustness and concerns around savings, and the rules and how is it all going to work, which is understandable — it was something that was picked up by the Auditor-General. So to me, the response that the government has basically decided upon in a general sense around robustness of numbers, as I have mentioned, is to release a summary of the business case in accordance with the Auditor-General’s finding that that sort of information should go out to the public to address some of those concerns. And then your specific point, which is a subset of that, I guess, is how do we know that the savings that are subsequently used and allocated were really there and that the works actually did generate those savings, which goes to the commitment to have them independently audited before any water is allocated. Graeme Turner has been involved in that process. I might ask him to give you an update on where that is at.

Mr TURNER — We have gone through a process and appointed a panel of independent auditors. We were very clear when we went through that process about having someone outside DSE as part of the appointment process to appoint that independent auditor. So that independent person chaired the selection panel to select the independent auditors. We were very careful in going through that process to ensure that there were not any conflicts of interest with any of the consultants that put in for that job, and we narrowed that down and appointed a panel of two. The independent auditor who is just in the process of completing the audits now is Cardnol, which is a Queensland-based firm. As I said, we were very careful in ensuring that there were not any conflicts in doing that.

The only other comment I would make is that we have also made available protocols to the Auditor-General here and we have also made them available to the commonwealth due diligence auditor, and we await, of course, their reports associated with that. So we have gone through a very careful process to ensure that it is fully independent, and the requirement is that the assessment made by the independent auditor is the final number.

Mr TEE — Thank you. The other issue, I suppose, which I think, again from reading the submissions, might emerge this afternoon is in relation to the usage of the Sugarloaf pipeline and I suppose in particular whether or not there will be sufficient water to justify the pipeline in years to come. I am wondering again what comfort we can give in terms of the estimates that have been made, the scenarios that have been painted and the science around those calculations — so again, a broad response around how we have come to make the assumptions which have justified the expenditure.

Mr WILSON — I guess there are the initial assumptions I might ask Graeme to talk about in terms of the work that is done there, and then there is the robustness around them in more detail, which will be covered off in a summary business case which we would hope to get out soon. But I might ask Graeme, because it does get quite complicated in terms of entitlements versus real-world losses year on year, long-term averages, long-term cap equivalent. It all has to be consistent in a way with the Murray-Darling Basin Authority, and I think Graeme endorsed the audit process and so on as well. All of the states are contributing water to the Murray as well, so I guess because this comes out of the basin we are guided by all the rules that govern the measurement and assumptions around water. But I might hand over to Graeme Turner to give you a bit more detail on that.

Mr TURNER — There are really two process that we have gone through. The first process was the broad-scale assessment of the capacity of the system to deliver the savings that we have looked at, and we did
that through the mechanism that I explained earlier of modelling the system over the long term, both in terms of
the historic climate and also having a look at an adjusted climate under drier conditions, given the repeat of the
last 10 years or so.

The broad-scale, long-term average savings for the historic climate is around about 850GL of losses in the
Goulburn-Murray irrigation district. As I said earlier, when we ran the models adjusted for a drier climate, we
had losses of between 700 and 800GL, on average. One of the initial assumptions there was that with the
efficiencies in the irrigation system at the moment of 70 per cent — or around about that, and we have actually
dropped in recent years because of the very dry conditions, but a long-term average of around about 70 per
cent — based on the work that we have done in some of the detailed pilots and things around particularly the
Central Goulburn pilot but also elsewhere, we believed that we could bring the efficiency up to 85 per cent in
the system. To bring the efficiency up to 85 per cent means that we could save half of those losses. That was the
broadscale assessment, but that is at a high level and we will have to test that over time as the works roll out.

But what the business case does, and we do not have the benefit of that at this stage, is that works through a
bottom-up process of looking at the nature of the various components of loss and what interventions would be
required to reduce those losses. The works that NVIRP is rolling out are targeting the different components of
the loss — for example, lining the channels, target seepage and leakage. Based on the work that we have done
through the technical manual and the protocol, which I should point out are generally conservative, the business
case builds up from those interventions. For the various interventions we know whether it is going to produce a
relatively fixed saving, because the losses are relatively fixed, versus the variable components. Some of the
interventions target the variable components.

The business case actually builds up from the actual works on the ground to deliver the 225, so we are doing
two things: we are building up, based on the works that we are actually putting in place — and we know from
the technical work that has been done that that will deliver the outcome over the long term if we have a repeat of
the climate record — and we will come back and look at it from the top down as we get knowledge and do
water balances of the system as we roll the program out. In effect that is the process. We are doing it both ways,
and it is dependent on the climatic record into the future — obviously it will make some impacts.

Mr Wilson — Perhaps I could add to that, Mr Tee. As Graeme pointed out, there are these broad
assumptions — the 225 gigalitres and percentages and things like that — but as the Auditor-General pointed
out, there are the feasibility studies and business cases and when you actually get to do the work, there is still an
obligation on NVIRP, the authority doing the work who you will hear from later, to actually find the maximum
amount of water for that money. I would caution — —

We have thrown a lot of figures around here today, but the real work is rolling out and there will be audited
savings. As Graeme said, that is when these things can be determined with a tick finally, but certainly all the
broader assumptions and so on and the more specifics that you will get in the summary business case will
provide a better picture of that. Every district is different and the channels are different and so on, and as
Graeme said, there are different savings from lining channels and putting in gates and relocating meters and all
those sorts of things.

They all have various cost benefits associated down at that level, but I just wanted to make the point that from
our point of view with value for money we want to get the maximum benefit for that money. We would be
looking to NVIRP with the irrigators and Goulburn Murray Water and the modernisation committees and so on
to be doing that, and that is what they are doing. As I pointed out in the opening comments, significant progress
is being made in terms of rolling out works and getting on with things, which we are pleased with.

Mr Tee — I suppose in looking at the inflows over the last hundred or so years the difficulty that you have
got is that we are in a new era where the old rules and the old assumptions and the old averages just do not
apply, so you are essentially trying to work through what may or may not occur without the benefit of all those.
But just on that, I want to pick up your point when you said you have made an adjustment for a drier climate.
Again I am assuming that those assumptions take into account the last 10 years rather than the last 100 years,
but also the scientific projections in terms of rainfall over the next period of time — is that the sort of material
you have taken into account to make those assumptions and is there anything else?
Mr TURNER — We need to be clear here. When the government took the decision, it took it on the basis of the historic record, so all its water supply planning decisions have been based on the historic record effectively. All we are saying is we have looked at what will happen to the system under a climate change scenario, and we are confident that there are still a lot of savings — over 700 GL of savings. We are aiming to — —

Mr DOWNIE — Losses.

Mr TURNER — Sorry. Losses. We are aiming to target the 425. There might be some adjustment of the works program as it rolls through to try and ensure that we deliver on that as the food bowl program rolls out, but government took the decision based on the information we had at the time and based on the knowledge we had at the time. Obviously into the future we do not know what the climate is in the future, but we have a lot of confidence that a very significant proportion of these savings is relatively fixed and unaffected by the climate. There will be a little bit that is affected by the climate, clearly, and we do not know what that is going to be in the future, but it is a much better project than perhaps a comparable new dam, which would be entirely climate impacted, whereas this one actually has got this component which is relatively fixed. So there is that uncertainty into the future, and that is what we have to deal with I guess.

The CHAIR — We will return to Mr Barber. Have you got those documents, Mr Willis? We have got roughly 15 minutes left for Mr Barber to — —

Mr DRUM — I would appreciate some questions too, if I could, thanks Chair.

The CHAIR — Mr Barber did not finish his slot before, so Mr Barber will finish up his section.

Mr BARBER — I will be really efficient.

The CHAIR — Then if there are other questions we can go to those.

Mr BARBER — On page 63 of a document produced by Deloitte for the Essential Services Commission, *Melbourne Water Expenditure Review*, in table 6.12 Melbourne Water estimates its new costs as a result of the discussions it has had with DSE about the likely volume that will go down the pipe. Electricity, I think you would agree, would be a variable cost, fairly proportional to the volume of water that is pumped.

Mr WILSON — Sorry, I did not quite hear that, Mr Barber.

Mr BARBER — This is the Sugarloaf pipeline total operating expenditure. Electricity costs, I am sure you would agree, would be more or less proportional to the volume of water that is pumped.

Mr WILSON — I would agree, yes. As a non-engineer, I would point out, that is my understanding.

Mr BARBER — Good guess. And what we see is the estimates that Melbourne Water put forward for the water plan, and Melbourne Water’s updated estimate below. Never mind the 2009–10 year because that is the commissioning year; but in 2010–11, 2012 and 2013, the estimate was about $4.7 million to be spent on electricity each year. The new estimates are $3.9 million, $2.5 million and $3.2 million. Based on the commentary that is attached with this, would you agree that it seems that DSE and Melbourne Water between them have already worked out that there is likely to be less than 75 gigalitres pumped through the pipeline in each of these three years?

Mr WILSON — Yes, I am not sure. I would agree that these numbers suggest that. What went on in the specific discussions back then between Melbourne Water and DSE, I do not know. But I would assume that a prudent thing to do, if you are Melbourne Water and you are going to have your prices set, would be to initially assume the highest cost option to make sure it is covered. And I can tell you all the associated utilities — gas and electricity — all the ones I have dealt with would do that as a prudent thing to do.

Mr BARBER — That is an incredibly cynical view you are expressing.

Mr WILSON — It is a prudent thing to do when things are uncertain. It is like accounting conventions: you recognise those costs early and revenues when you have got them.
Mr BARBER — You would think that — sorry, Mr Wilson, to interrupt — except that we have this commentary here:

We understand that Melbourne Water has recently been in discussions with DSE … This has resulted in a reduction to the forecast transfer volumes …

Mr WILSON — Yes, sorry — —

Mr BARBER — Does Mr Downie have anything he can share on that?

Mr WILSON — If I can just make one point: I was just making the point around the first set of numbers and then the second one, and the note you are drawing my attention to, I would only have thought that — I am not sure in terms of whether there is a staged process to the food bowl — I would assume that the pipeline is built and, bang, there is 75 in year 1 — these are financial years as well.

Mr DOWNIE — I think what happened — and my memory may need some checking but I think what happened — during Melbourne Water’s initial submissions to the ERC was that they made some assumptions about 75 gigalitres every year. That is not the case, obviously, and that may have been for whatever reason optimistic.

Mr BARBER — Okay. What is the case?

Mr DOWNIE — It will be 75 in the first year, as we have said, and then it will be a third of whatever the savings are that have accumulated to the works. Given stage 1 is five years, we will not be finished, we expect, to 25 until the end of the five years. Unless it is wet or wetter than we thought, I do not expect it to be 75 every year on that basis.

Mr BARBER — This implies it will be about two-thirds of the volume the following year, and maybe about 75 per cent of whatever the first year’s is the following year.

Mr DOWNIE — I agree with Mr Wilson. Melbourne Water is entitled to make whatever submissions it makes to the ERC on the basis that it needs to have revenue. That is entirely appropriate.

Mr BARBER — Yes.

Mr DOWNIE — We are not making that suggestion; we are saying that it is 75 in the first year and it will be a third, third, third, whatever that is. Of course it falls to them, as the recipient of water, to try to estimate what is there, and that is all I would say.

Mr BARBER — Thanks. I look forward to seeing how that was integrated into your business case when we see that. Moving very quickly to the EPBC act referral, the minister has determined the proposed action is:

The modified operation of the fully modernised Goulburn-Murray irrigation district as described in the referral received on 12 October.

Can you tell me if the modified operation of the district for this summer will have a significant impact on matters of national environmental significance?

Mr WILSON — I will have to take advice from Jane Doolan on that.

Mr BARBER — Thanks.

Ms DOOLAN — No, it will not. The works done to date, the construction done to date, have been works that have for the most part — not the whole part — been within the channels as you described earlier. There have been five areas that were potentially impacted by those works. Environmental watering plans have been done for all five of those areas, and as a consequence of that no matters of national significance will be impacted by those works.

Mr BARBER — Are there any other projects that are running that would have an impact on matters of national significance this summer?

Ms DOOLAN — As part of NVIRP?
Mr BARBER — Any other water projects in the Goulburn-Murray district?

Ms DOOLAN — Not that I am aware of.

Mr BARBER — No? Because this is about the modified operation. You understand it is an important distinction? It is not to do with what physical works are being done; it is how the water is moved differently.

Ms DOOLAN — That is right.

Mr BARBER — So there is nothing in the Kerang lakes by way of modified operation that will have an impact on those lakes?

Ms DOOLAN — No.

Mr BARBER — Thanks very much.

Mr DOWNIE — We have undertaken to advise the commonwealth if there were specific works that, in our estimation, did have an impact on recognised environmental values. We have undertaken to do that.

Mr BARBER — Yes. A final question: is the ESC treating the cost of desalinated water once it is negotiated as a pass-through event?

Mr WILSON — My understanding of that price determination, the legal document that sets prices, is that there would be an ability for Melbourne Water and the three retail water companies, if they felt things were significantly different, to seek some sort of adjustment. But that again is my understanding; there could be other things that go the other way or whatever. So they would need to weigh up whether they want to seek some changes and so on, and the time taken to go through that process.

Mr BARBER — As you would know, there is the possibility up-front to determine a specific known but not understood event to be a pass-through event. Do you have the detail on that?

Mr WILSON — My understanding — I think it is in our submission — is that there are some numbers used by Melbourne Water for the purposes of making that submission which took place prior to tenders and public sector comparators and the details being known. So the contract terms and conditions will obviously be different, unless it is a remarkable coincidence. If you constructed this yourself, you would have a big capital component and you would have a return on the capital, and then you would have an annual operating expense, whereas the reality is that, as a PPP, those things will be bundled up in a payment in accordance with the contract. There will be differences in the structure, but that would be a matter for Melbourne Water and the ESC if it turned out significantly different.

Mr DRUM — I just want to quickly give Mr Downie a copy of this document. Earlier on the evidence given was that there was not going to be any — over the page, Mr Downie, you will see this is about the four or five-year project reconfiguration project. You mentioned that there was no water from the Shepparton irrigation project coming into the reconfiguration project. That graph there effectively shows that there is 6 gigalitres from the Shepparton irrigation modernisation project coming across to the reconfiguration project.

Mr DOWNIE — I cannot really comment, Mr Drum, other than to say what I said earlier. I do not know what this document is, and I have not had the opportunity and I would like to — —

Mr DRUM — It is an NVIRP reconfiguration transfer proposal document, which is detailed on the front sheet. Over the front page you will see it says ‘NVIRP supports the proposal above conditional on’ and in the water savings-reconfiguration table there is the 11.5 gigalitres of water savings that was completed to that date.

Mr TEE — Is this a National Party document?

Mr DRUM — It is an NVIRP document, Mr Tee. Six gigalitres was unallocated from the Shepparton project, 4.1 from unfunded and there is 3.4 there, which effectively again — earlier in your evidence you spoke about the fact that you were not going to purchase water, but this document clearly states the $4.7 million in funds will be required to be paid from GMW to NVIRP.
Mr DOWNIE — To try to be helpful to the committee, perhaps Mr Turner can comment, but I cannot comment without being able to study that document. As I have said before, I am not aware of any attempts to purchase water. ‘Purchase’ to me has a particular meaning rather than to transfer money from one organisation to another. Perhaps Mr Turner can help you.

Mr TURNER — Obviously we need to talk to Goulburn-Murray Water and NVIRP about this. In the context of the 25, my understanding is there are two parts to this. Originally in the reconfiguration project Goulburn-Murray Water had to determine which irrigation areas were going to contribute relatively to the 25, depending on how they allocated the water. The point that we were making earlier was when the Shepparton project came subsequently to the reconfiguration program — it was a later project — there were adjustments made so that with the commitment that Goulburn-Murray Water had for the 25, they made an adjustment to say that we cannot double-count here, we will redistribute the 25 to the other irrigation areas, because at that point we believed that the Shepparton project was fully allocated to other things.

Mr DRUM — Other projects. That is not the case any more. You have found 6 gigs.

Mr TURNER — What has happened is — I think Water for Rivers originally had some interest in investing in the Shepparton project, and at the end they decided not to invest in that project. I believe that as a result of that, NVIRP has become an investor in that part of the project, which was not part of it — it was a 50-GL project and Living Murray was 29.

Mr DRUM — It was originally 38 and then it was changed.

Mr TURNER — There are some leftovers, if you like. NVIRP has become an investor in it, and because NVIRP have picked up some of the outstanding works associated with the reconfiguration program, I think this document refers to the way they were going to meet that remaining commitment to the 25. We will need to get back to you on that.

Mr DOWNIE — We will need to get back to you and explain that.

The CHAIR — We would appreciate that, thanks.

Mr DOWNIE — We are integrating a number of projects, and that is the significance for a number of investors.

The CHAIR — Thank you, Mr Downie. We have time for one final question.

Mr VINEY — It is a fairly straightforward question. At the heart of what appear to be the criticisms of the northern irrigation project is the questioning around the potential gain or savings from losses, if you like, and some questioning of the assumptions. I would just like to know how many scientists or engineers — putting aside the political opponents or political activists involved in the campaign against the project — or consulting engineers have advised you that the assumptions and the savings are not there to be had?

Mr WILSON — None to my knowledge saying they are not there.

Mr DRUM — We still have 5 minutes, Chair. I would like to — —

The CHAIR — No, we said we would finish with Mr Viney’s question. We have 90 seconds, Mr Drum, and by the time I wrap up, we will be finished.

Gentlemen and Ms Doolan, the committee appreciates your evidence here this morning. A number of matters were taken on notice which the secretariat will follow up with you for response. Likewise, we look forward to receiving the desalination documents post 2 December and the business case documents you referred to earlier. We will also have a draft version of the transcript to you in the next couple of days for any corrections, and no doubt the committee will look forward to taking further evidence on those desalination matters. We appreciate your evidence today and your written submission.

Witnesses withdrew.