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TRANSCRIPT
OF PROCEEDINGS

**PRODUCTIVITY COMMISSION**

**INQUIRY INTO URBAN WATER**

**DR W. CRAIK, Presiding Commissioner**
**DR W. MUNDY, Associate Commissioner**

**TRANSCRIPT OF PROCEEDINGS**

**AT PERTH ON WEDNESDAY, 8 DECEMBER 2010, AT 8.57 AM**

**Continued from 7/12/10 in Adelaide**

INDEX


| | Page |
|---|---|
| WATER CORPORATION: | |
| LLOYD WERNER | 314-333<br>342,353<br>356-357<br>365<br>368-369 |
| DEPARTMENT OF WATER: | |
| WARREN TIERNEY | 327 |
| ECONOMIC REGULATION AUTHORITY: | |
| LYNDON ROWE<br>GREG WATKINSON | 334-345 |
| RESOURCES ECONOMICS UNIT: | |
| JONATHAN THOMAS | 345<br>346-353 |
| CITY OF WANNEROO: | |
| NICOLA HOEY | 354-360<br>367-368 |
| DOUG HALL | 361-369 |
| MARSDEN JACOB ASSOCIATES: | |
| PHIL PICKERING | 365<br>370-372 |

**DR CRAIK:** Good morning, and welcome to the public hearings for the Productivity Commission inquiry into Australia's Urban Water sector following the release of the issues paper on 27 September. My name is Wendy Craik and I'm the presiding commissioner on this inquiry, and the other commissioner on this inquiry is Warren Mundy sitting beside me.

Now, the purpose of this round of hearings is to get comment and feedback on the issues paper and facilitate public participation in the inquiry process more generally. Prior to these hearings in Perth we have met with interested parties and individuals throughout Australia, and during October we held roundtables in Perth, Sydney and Melbourne, and last week in Sydney. Our public hearings commenced in Sydney on 9 November, followed by Canberra on 29 November, Melbourne on 30 November and Adelaide yesterday. Following today's proceedings, the hearing will also be held in Hobart. We will then be working towards completing a draft report for publication sometime in March 2011, having considered all the evidence presented at the hearings and in submissions as well as other informal discussions. Upon release of the draft report there will be a further round of public hearings and submissions, and a final report is due to the government in July 2011.

We like to conduct all hearings in a reasonably informal manner, but I remind participants that a full transcript is being taken. For this reason, comments from the floor cannot be taken, but at the end of proceedings for the day I will provide an opportunity for any persons wishing to do so to make a brief presentation. Participants are not required to take an oath but should be truthful in their remarks, and participants are welcome to comment on issues raised in other submissions. The transcript will be made available to participants and will be available from the commission's web site following the hearings. Submissions are also available on the web site.

Now, to comply with the requirements of the Commonwealth Occupational Health and Safety Legislation you're advised that in the unlikely event of an emergency requiring the evacuation of this building, you should go out to the right and find the stairs on the right-hand side there, and toilets are located to the right as well. Thank you.

I would now like to welcome our first participant Mr Lloyd Werner from the Water Corporation. Lloyd, could I ask you to introduce yourself and state your position for the record, and then if you would like to make a brief statement we would be very happy to hear from you.

**MR WERNER (WC):** Thank you. My name is Lloyd Werner. I'm the Manager Pricing and Evaluation at the Water Corporation. I guess what I want to talk about is probably the advantages of a statewide integrated monopoly which is something we

can do from a Western Australian perspective. I think that's probably what we can add to the discussion. I would like to talk about the incentives for decision-making within a government-owned corporatised entity. I think there's often a perception that we're a monopoly and we're behaving like a private commercial monopoly, and decisions will be made on the basis of maximising profits and the like, where the reality of the decision-making process is very different.

I thought I could touch quickly on the benefits of the economies of scale from a statewide integrated utility. They have been demonstrated in Western Australia as we put the whole of the Water Corporation together. I think there's also benefits in integrated decision-making where you have one body making decisions across the entire water cycle, if you like, and across the entire state, so I would like to say something about that. I could also talk about the functioning of a water market: 17 sources in an integrated water supply system. In terms of the possibility of developing a market, I've got hours to talk about that stuff. I'm happy to talk about it if you want to but I think it's for another time.

Some of the things I find when I go around and talk to people, they attribute motivations to the behaviour of water utilities being monopolies, and everyone knows how a monopoly behaves. I'm sitting there going, "It's not resonating with how we make decisions at all." I find it prevails in people today, "We need to do this within the water industry because that's how a monopoly has got to behave." I'm going, "That's not what happens at all." The reality is that government-owned utilities are basically there to maximise the level of service that they can provide within the limitations of the resources they have, the financial resources that the state makes available to them.

We set efficiency objectives for ourselves which we take very seriously, and a lot of effort goes into making sure that services are delivered efficiently. What are some of the insights that we have? One of the things is that government utilities don't have a share price and that's actually an incredibly important thing to understand if you want to know how they behave. When we were corporatised in 1995, the first thing we did was go, "Hey, we're corporatised, we're going to act like any other business. We're going to go out and grow the business." We went off and looked at all sorts of opportunities. But when it actually came back to making the decision about whether we would be in that business and pursue it or not, it always came back to, would it make sense for a government-owned utility to do that.

Put simply, there is no reward for profit. If you go off and do a management contract in Johannesburg and you make a lot of money out of it, no-one is going to go, "Well done, guys." But if you actually go out and do that and make a loss, you're just going to get slammed. Somebody is going to lose their job. That balance between profit and risk and pursuing those things is not there as it is in a commercial

entity. When you look at the organisations, you actually go, "We'll be more risk averse than profit maximising." So when you try to understand what's happening in the organisation, that's kind of where you get to. That's not the best thing if you want to have innovation and managed risk-taking. That's the downside of that. But it is actually a really good thing if you're dealing with unpredictable and rare events and dealing with externalities and stuff like that.

It's something that we as an organisation recognise, we've learnt that, and when we go about doing our business, we go, "How can we set it up to reflect that?" We contract out a lot of things, we use the commercial incentive to deliver 95 per cent of our capital program. We look at which procurement method is best for any situation. Is it a PPP? Is it an alliance? Is it a normal tender process? In that way you get the best of both worlds. For me, a large integrated utility, I would want them doing the procurement process. There's lots of experience, we do that every day, and I think fundamentally we're more focused on our objectives in terms of service delivery and timely delivery of resources and things like that.

The insight is that we will do that activity with an overall efficiency objective. We've got our 2 per cent per annum efficiency objective. If you look at what people come up with sources and that, they look at the one project, it's transactional, and they go, "Why would the corporation be wanting to optimise that?" We have to optimise those kind of things within the overall objective. We're regulated, so there's no opportunity for monopoly profits. If we gouge one customer it just goes back to another. Our pricing practices, when we look at that, we're all about fairness and consistency. I think that's an area of misunderstanding. There are no monopoly rents to be protected because we're regulated.

People often think, "Well, you're a monopoly, therefore you should be seeking monopoly rents." As a government-owned entity we can take a wider view than just simply, "How can I maximise profits at prevailing market prices?" We can generate business cases that justify doing things that include the externalities and then, as long as it's a positive business case, the revenue will follow out of the regulation process. There's an opportunity within that structure to make better decisions than just, "How can somebody maximise their profits at whatever the market price is?"

Just quickly on the benefits of the economies of scale of an integrated water utility, I experienced the merger of the country operations and metro operations in 1985 and there was a decade of taking costs out of the business. I think when I look back over it, the lowest productivity that we achieved in that decade was something like 4 per cent and there were many years which were much higher than that, getting rid of duplicated structures. More recently we did a joint study with Horizon Power and ourselves to look at whether there was any possibility of getting geographic synergies between their country operations and ours; the opportunity of putting our

country water together with their regional power and seeing whether those geographic synergies were there. What turned out on that one was that we thought that you would need 15 to 20 per cent more people to deliver that structure, basically because you had to duplicate all the functions in the water. So I guess the conclusion there was that the synergies between country water and metropolitan water were higher than the synergies between regional electricity and regional water.

The Allen Consulting Group did some work for the ERA in the last inquiry, looking at the south-west utilities, seeing if there was any possibility of setting up a regional utility down there, and the conclusion there was quite clearly that if you were just looking for economies of scale you'd put Aqwest and Busselton with the Water Corporation, all examples of the economies of scale, of putting things together. So when you're assessing alternative structures, it's all done on the potential for dynamic benefits out of competition. You have got to set that in the context of the genuine economies of scale of putting everything together and you have to see whether that equation adds up.

The other benefit of an integrated utility is that the one organisation is making decisions that bring in the whole water cycle, and also in Western Australia most of the schemes. We have put in place prioritisation processes that look across all of that. I think fundamentally we have the best information to do that. People talk about information asymmetries; information asymmetries exist because some organisations generate the information and others try and get the information. If you can have the decision-making done efficiently within the organisation with all the information, I think that is going to lead to a better outcome. That's on the basis that you have got proper incentives for making decisions, which I believe you have with particularly the Water Corporation.

One of the examples that we have is that we're trying to quantify social and environmental values so that we can systematically put them into all our business cases, and that's some of the work that we're doing at the moment. When you say, "What reforms can we make in the water industry?" I look at what is happening and I go, "Well, that's something that is going to improve decision-making," it's a reform, it bubbles away in the background. It's something in which all the major urban water utilities in Australia are particularly interested, that piece of work, because they see that that's going to add to the quality of decision-making that will occur. I was told I was to have a brief statement; I'll leave it there.

**DR CRAIK:** Thanks very much, Lloyd. Thanks for being brief. I should say we look forward to receiving your submission.

**MR WERNER (WC):** Yes, and I look forward to giving it to you.

**DR CRAIK:** If it's possible to give us a copy of that study that you did with Horizon, we'd love to see that.

**MR WERNER (WC):** Yes.

**DR CRAIK:** I'll hand over to Warren to start the questioning.

**DR MUNDY:** Lloyd, you said Allens did a piece on Aqwest and Busselton Water.

**MR WERNER (WC):** Yes.

**DR MUNDY:** Is that publicly available?

**MR WERNER (WC):** That's on the ERA web site, isn't it? Yes.

**DR MUNDY:** Okay. We won't trouble you for your printers. You made an observation that you don't have a share price, and that's noted. But there is a view and some evidence that some jurisdictional treasuries see water utilities and other government business enterprises as potent revenue sources. So the issue about cash coming out of the businesses is as real for state treasuries in some jurisdictions as it is for private shareholders. How does the treasury in WA go about setting the dividend for the Water Corporation?

**MR WERNER (WC):** The first thing is that if you have regulated prices the revenue is determined by the prices that are set, and the ERA recommends to the government in Western Australia what the prices should be. I think it's safe to say that the government will not charge more than that. So in the first instance I think there's a cap on the revenue of the organisation, so the government aren't sitting there going, "I've got a water utility, I'm going to pump the prices up so I can get more money out of it." The second issue is, are they starving the utilities of funds by pulling big dividends out. The Water Corporation board actually sets the dividend. The dividend was set at 85 per cent - - -

**DR MUNDY:** Of NPAT?

**MR WERNER (WC):** Yes, excluding handover assets - but essentially that dividend level approximates the profit without the development contribution. The reason it's set at that level is that the actual level of debt the Water Corporation holds is relatively low, compared to what a normal industry level of debt is. There was some discussion about, "Do we kind of restructure the balance sheet and do all of that stuff?" One way of letting that happen over time is to pay out a relatively high dividend, and I can assure you that the board of the Water Corporation is going, "When will that dividend have to change? In the future, when we get to whatever."

So the dividend in itself isn't particularly a constraint on the Water Corporation. The constraint on the funding that we have available is what is available in the state budget process. The Water Corporation's debt is part of the state net debt, the state has targets; if the Water Corporation builds a desalination plant, that impacts the state's overall debt position and financial position. So the fact of whether we pay a dividend or not doesn't really impact that net position. I think some people focus and say, Well, governments are ripping a lot of money out of that," but it really doesn't improve the financial position of the state overall, in terms of net debt; if the debt is with the Water Corporation or central government, it makes no difference.

**DR MUNDY:** The government is running the budget services, in which case they just spend it.

**MR WERNER (WC):** I think you have got to recognise that the government is sitting there going, "If we build a desalination plant in the West Pilbara that eats into some of our capacity to provide other services" - and they make those decisions on relative merit.

**DR MUNDY:** I am aware of what used to happen in this jurisdiction in the late 80s, early 90s; I was a treasury official. I accept what you say about getting all the costs out of the small utilities, and it comes to this finding: what, essentially, it seems to me, you're saying is there is actually a binding capital constraint on the Water Corporation that's set by state budgetary policy. So therefore the Water Corporation has got a capital budget which it has got to allocate amongst projects. If you had a jurisdiction, say, as they do in Victoria, where they have a number of relatively large and perhaps geographically more-concentrated businesses, do you see that specific projects may be evaluated better and with more intensity than in a state where you might be making a capital allocation decision between a project in Kununurra and another one in Margaret River? Do you think there might be tensions in there, that perhaps a more disaggregated model is better, and I'm not talking about going back to circa 1980s, but two or three corporations.

**MR WERNER (WC):** Sorry, I'm putting forward the idea that the single utility will make better decisions. I look at the structure in the other states and go, "Well, how would the government be making decisions about the relative merits of projects in each of those utilities?" We experienced the fact that the relative merits of water projects have to be judged within the context of the entire government basket of spending opportunities.

If there are multiple utilities that need to fit into that basket, the government has to make the decision for the utility about what the relative merits are. Whereas if

it's within the one organisation you get a consistency of decision-making with the people with the most information about those projects. I think that's the point that I was making. The prioritisation processes the Water Corporation has, I mean, we have business cases for all projects and then those projects are ranked based on their relative markets across thousands of projects and with quite a deal of rigour and consistency.

If you put artificial slices through that and say, "You guys go off and do those projects, and you guys go off and do those projects," you're going to detract from that process.

**DR MUNDY:** I guess what you're saying is that with less scale there needs to be government coordination across different water businesses?

**MR WERNER (WC):** Yes.

**DR MUNDY:** Okay. Is there a point at which the board of the Water Corporation has to refer its decision-making to central government? I mean, projects over X must be approved by the minister. What's that minimum?

**MR WERNER (WC):** It was $25 million when we first started. It's X per cent of something. It's a significant number.

**DR MUNDY:** It's a number of tens of millions of dollars.

**MR WERNER (WC):** Yes.

**DR MUNDY:** Okay.

**MR WERNER (WC):** Having said that, also we have a community service obligation process for a lot of our country schemes, and that process has all new CSOs been signed off by cabinet and any significant investment over $5 million getting signed off as well.

**DR MUNDY:** And Treasury pays the CSO to you. It's not taken as an adjustment from the dividend, it's cash - - -

**MR WERNER (WC):** No, it's a payment - - -

**DR MUNDY:** Okay. WATA is in their submission suggesting the introduction of third-party access regimes in all states and territories. We've had some interesting evidence from Sydney Water where they suggested that where the real uplift in benefits and third-party access that they're seeing are actually not so much in people

entering the market to compete with them per se, but stand-alone systems in large buildings, for example, on the Sydney foreshore and things like that. So it's more of an opt-out basis. Is that something that you think in both cases - the more traditional enter and compete, or the provide your own integrated water system - is in your mind as a good thing or a bad thing?

**MR WERNER (WC):** I think the Water Corporation's view is that it's quite happy to have an access arrangement in place. I think it gets back to the point that we're a regulated monopoly, there's no monopoly rents to protect, and the real problem that we have is that people come in and go, "This is a fantastic idea," and we go, "Well, we don't think it is," and then they go, "Well, you're just doing that to protect your monopoly," and we go, "Not really. We just don't think it's a great idea." I think access regimes are then actually a possibility of people putting their money where their mouth is, because if they think it's such a great idea they can then go and implement it.

From my point of view, it's a natural monopoly business. I don't think there's going to be a lot of access applications. If people have got better ideas and want to come in and do it, the Water Corporation is quite open to that. The only problem comes is when you say, "Well, no, I don't think that's a good idea," and then people disagree with you, access would give them an avenue to defy that. We've had a major consumer policy in the country which is essentially access but it provides the sources as well. If people want to come and use our infrastructure, we're quite happy to facilitate that. I don't actually think we would need to be forced to do it, but having an access regime in place and certified – would kind of help in some of those other debates. I think the view has been expressed by Treasury - and correct me if I'm misquoting - that the drawback there is the cost of putting it in place. Are the benefits there of actually going to the bother, if you like.

**DR CRAIK:** Thanks, Lloyd. Can you give us very briefly an outline of how past supply augmentations have been made - decisions have been made - and kind of who makes them along the way.

**MR WERNER (WC):** Yes. The process is essentially the Water Corporation has been planning for augmentations and we were always in the process of going, "What are the sources we're going to develop in the future." One of the problems that we had with the drying climate is that the planning that we had in place in the mid-90s all got built by 2001. I think the Harvey Dam got finished around there sometime. In that planning it was actually meant to happen in 2017 or 18 or something like that, but because it's not raining we had to develop all those sources that we had planned. There's a whole raft of small sources that we had ready to go that was developed over that period of time.

We then got to the point where we had the opportunity of two major sources: one was the south-west Yarragadee, and the other one was the Perth Seawater Desalination Plant, and they're big, major, hundreds of millions of dollars investment, and they're the kind of things that government get involved in. They're not going to give you the money to go out and build those things without having a say in that.

The Perth Desalination Plant went ahead because in the end my understanding was that South-West Yarragadee hadn't had all the environmental approvals in place, all the proving up of the resource hadn't happened. It wasn't an available source at the time we made that decision, so the desal plant was essentially a default decision. There was one option there. When we came to build the second desalination plant, there was a lot of resistance in the south-west to doing the South-West Yarragadee, and the government said, "We'll proceed with the desalination plant." It was a government decision to do that.

**DR CRAIK:** By the time you got the second desal, were all the environmental approvals in place for the Yarragadee?

**MR WERNER (WC):** They were almost in place. We were pretty sure we were in the position to proceed with it at that point.

**DR CRAIK:** Did the Water Board essentially recommend the Yarragadee one the second time as well - - -

**MR WERNER (WC):** Yes.

**DR CRAIK:** - - - and get knocked back? So twice it was knocked back.

**MR WERNER (WC):** Well, we weren't knocked back the first time because it wasn't an available source at the time.

**DR CRAIK:** I see. Okay. The second time it was.

**DR MUNDY:** Do you have any idea roughly what the cost differential is between the two of them?

**MR WERNER (WC):** The first time around when we were looking at the first desal plant, the difference was in the operating costs. Essentially the capital costs are very similar, but the operating cost was higher for the desal plant, and therefore there was a higher cost for that. I can't tell you on the second one because one of the problems is that all the integration works is where the big cost is. The second desalination plant is $950 million. The first one was 380 or something; essentially

the same plans, but it's the integration assets that are different. It's how you can use the water and how you can get it up into the dams and things like that. So it's not simply, "You've got that price, and that price is the same today as it was when you were looking at those other alternatives."

**DR CRAIK:** Do you think that the transparency of these things would be improved if you had an independent procurement entity?

**MR WERNER (WC):** No.

**DR CRAIK:** Why? Is everything you do in relation to these augmentation decisions transparent, and the cost-benefit analysis transparent and all the options transparent and the - - -

**MR WERNER (WC):** I guess the question is, transparent to who?

**DR CRAIK:** The public.

**MR WERNER (WC):** Yes.

**DR CRAIK:** The people who pay, at the end of the day.

**MR WERNER (WC):** I don't think it would change any of the decisions.

**DR CRAIK:** You still haven't actually answered the question. Is all your information public?

**MR WERNER (WC):** Obviously all the information isn't public, but a fair degree of it is: what it costs, what the alternatives are, They're widely reported. The bits that probably don't get discussed are, you know, "What is the integration cost?" What is the operating strategy going to be?" Even the probability of restrictions with and without and the uncertainty, I think some of those discussions are out there.

**DR CRAIK:** But rather than discussions being out there and a kind of, "Yes, it's reported in the paper," I mean, is there a procedure to make available a report which assesses the options, the costs and benefits, the impact of what that might be in restrictions? I'm guess I'm trying to see if there's a formal sort of analysis.

**MR WERNER (WC):** You're getting down to the transactional again. We have a Water Forever planning process, it was highly consultative, looking forward to what are the options are what is the community's preference for sources, and stuff like that. The planning process itself is actually quite open to input from the community and that has be taken seriously and that has been reported and published. So in terms of

the issues associated with the planing process, yes. When you come down to the decision, "Well, we have now decided we're going to go for the Southern Seawater Desalination Plant," you can go and ask the government whether they want any more open decision-making on that one.

**DR MUNDY:** So presumably, ex post the decision, all of those integration costs will ultimately become apparent because they'll ultimately go into the tariff-setting processes administered by the ERA.

**MR WERNER (WC):** Yes. The business cases, ERA get to look at all of those, yes.

**DR MUNDY:** So this information ultimately must enter the public domain through the ERA's transparent processes.

**MR WERNER (WC):** Yes.

**DR MUNDY:** Does this information ex ante go to the treasury, to cabinet, to inform their decision-making, or are they making these decisions absent that information?

**MR WERNER (WC):** No.

**DR MUNDY:** So the information is available, it's just not available to the public?

**MR WERNER (WC):** They can get all the information they want in that process.

**DR MUNDY:** So it's just not available to the public; unless they FOI it presumably, and then they don't get it.

**MR WERNER (WC):** It's also incomprehensible to the public. It gets back to that thing where you've got data but have you got anything that anyone will understand. Information asymmetry is, you know, I tell you, "We need that pipe or that pump station," and you go, "Well, how do I understand that?" It's a WikiLeaks kind of discussion I think we're going to have on that one.

**DR CRAIK:** We won't get into WikiLeaks, but can I just follow up this planning issue? Your minister put out a statement recently saying, "The fact is, in this unprecedented situation, even with an extra 50 billion litres of water from the new desalination plant next year and the full emergency groundwater quota, we need at least 70 billion litres of run-off into our dams next winter to get through the 2011-12 summer without the need for further restrictions.' Let's assume if you're in the unfortunate situation that it doesn't rain and you don't get the run-off into your dams

next winter. Are you already planning for another major augmentation to tide you through, in the event that you don't get rain?

**MR WERNER (WC):** The decision there is about, "What is available?" Before we had this unprecedented very low run-off, which no-one could have predicted.

**DR CRAIK:** I'm not being critical.

**MR WERNER (WC):** No. We thought, "Well, we're pretty well placed," probably the next major source is going to be early 2020s. In terms of planning, we'll go, "Well, we might need to get that source in place by 2015. We had better we ready." So that's the kind of thinking, that you have to be ready for what might come up. Nobody thought this situation would come up. The only real opportunity to augment in any serious way is the Southern Seawater Desalination Plant can be augmented by 50 gigalitres. That can't be done within the time frame to deliver water next summer. So the situation is that if we don't get 70 gigalitres of inflow there is no supply response that's available, you just have to go into restrictions. That's not anything that would change if there was a free market or anything, it just takes that long to build a source. The government is certainly looking at that decision.

**DR MUNDY:** Putting aside the short-term issue, are you saying now that Yarragadee is now effectively subject to a policy ban, that it's not worth considering, is politically unacceptable?

**MR WERNER (WC):** You had better ask the government that I think.

**DR MUNDY:** Let me ask you another question. Is the Water Corporation still considering supply augmentations?

**MR WERNER (WC):** We know what to do to develop that source, but we're not factoring that into our planning decisions at this point; just as we're not factoring in a pipeline from the Ord, or something like that.

**DR MUNDY:** But it might be economically more efficient than a pipeline from the Ord.

**MR WERNER (WC):** Yes.

**DR CRAIK:** Are you looking at recycling options?

**MR WERNER (WC):** Yes. The major recycling option is the groundwater recharge. We're working on a trial for that, and if that's successful that can be ramped up, and that is quite possibly the next source. If we don't build the second

part of the desal plant, then it's likely that that would be a source ahead of augmenting the desal plant. There are other groundwater sources that we're looking at, things like that.

**DR CRAIK:** Thanks.

**DR MUNDY:** I understand there was recently a decision made to relax the sprinkler restrictions.

**MR WERNER (WC):** Yes.

**DR MUNDY:** Who makes that decision? Does the Water Corporation make it or does the minister make it?

**MR WERNER (WC):** The minister makes that decision.

**DR CRAIK:** They make the decision to put it on, too?

**MR WERNER (WC):** Warren, the water restriction stuff got changed, didn't it, or is it going to get changed in the new legislation? Who makes the decision? The minister makes the decision, yes.

**DR CRAIK:** So he makes the decision to put it on and pull it off?

**MR WERNER (WC):** Yes.

**MR TIERNEY (DW):** No, currently it's a by-law under the Water Agencies (Powers) Act, under the new legislation, it would be through regulations. So effectively it will go from the minister to - - -

**DR MUNDY:** So the minister makes this decision on the recommendation of the Water Corporation?

**MR WERNER (WC):** And the Department of Water.

**DR MUNDY:** And it's made in consideration of the costs and the benefits of this assessment, made of alternative demand management options?

**MR WERNER (WC):** I'd say yes. I think he makes that decision on all the advice. He also would get advice from the garden industry. There's a lot of input he gets into making a decision, and he doesn't make it lightly.

**DR MUNDY:** Ministers never make decisions lightly. In making that decision,

he'd consider for example supply issues, such as the use of groundwater sources like the Gnangara mound?

**MR WERNER (WC):** Yes.

**DR MUNDY:** Would those decisions be made as a package of measures?

**MR WERNER (WC):** Yes. So the draw from the Gnangara mound would be assessed in terms of the overall water supply situation - - -

**DR MUNDY:** So at some point presumably in late winter, early spring he forms a view about the coming summer?

**MR WERNER (WC):** Yes.

**DR CRAIK:** The City of Wanneroo has some concerns to draw from the Gnangara mound and suggests in a submission which they have forwarded to us that says:

> Despite government intentions for sustainable management, the Gnangara Groundwater System continues to be managed in an unsustainable manner which essentially involves substantially more water being taken out than going into it.

**MR WERNER (WC):** And?

**DR CRAIK:** So is that of concern to the Water Corporation?

**MR WERNER (WC):** Yes.

**DR CRAIK:** And?

**DR MUNDY:** In what way?

**MR WERNER (WC):** I guess one of the driving reasons behind building more desalination plants was so that we could get the draw on the Gnangara mound down.

**DR CRAIK:** But that's not going to happen?

**MR WERNER (WC):** Well, it's not going to happen this year because we didn't get any run-off. It happened last year, we reduced our draw on the Gnangara mound because we had a relatively good season. The draw on the groundwater relates to the level of the dams. There's a bit of a cross-benefit built into that in terms of security of supply. So there are values of the Gnangara mound and there's also the need to

ensure water supplies for Perth. So it's not simply what are the values of the mound, but the decision to augment the sources and build a new desalination plant was going, "Well, it's the only way we're going to reduce the draw on the mound." So that's the driving force on those decisions.

**DR CRAIK:** The situation this year, is this leading to you having to kind of rejig all your augmentation plans?

**MR WERNER (WC):** It depends whether it rains next year or not. I mean, the difficulty is going to be, are we going to make a decision to go, "Well, we'll make another investment in the desal plant augmentation," and then in fact you're in the Queensland situation and it rains and you don't need it for another 10 years. That's the difficulty of decision-making, that you go, "I've got this short-term imperative and what happens if I don't do that?" It gets back to the point I made earlier: you're making decisions for uncertain and possibly rare events, unpredictable events. That's the nature of your source augmentation decisions. If it then subsequently rains you go, "You've spent money that you shouldn't have." It's kind of like an insurance policy. You actually hope you don't need it.

**DR MUNDY:** The decision to take water from the Gnangara mound is made by the minister on advice from yourselves and the department?

**MR WERNER (WC):** It's the Department of Water, yes.

**DR MUNDY:** And yourselves, I think?

**MR WERNER (WC):** We make the case for why we need it in terms of - - -

**DR MUNDY:** Then they - - -

**MR WERNER (WC):** Supply security and stuff like that.

**DR MUNDY:** Does the information about the impacts of drawing the water from the mound, is that provided to the community?

**MR WERNER (WC):** I can't answer that.

**DR MUNDY:** Is that because you don't know?

**MR WERNER (WC):** That's a Department of Water thing, I think.

**DR MUNDY:** So you're not aware that that information is provided? I just want know whether - - -

**MR WERNER (WC):** I'm not. Personally it's not a question I can answer.

**DR MUNDY:** Okay. Do you have a rough idea what they are, those impacts on the community?

**MR WERNER (WC):** Of reducing the draw - - -

**DR MUNDY:** There seems to be concern expressed to us by the City of Wanneroo about impacts on the community in Wanneroo, presumably, about large amounts of extraction from the Gnangara mound. What are the - - -

**MR WERNER (WC):** I'm not the person that can answer those questions.

**DR MUNDY:** So you're not aware of it. Okay.

**MR WERNER (WC):** I'm happy to get somebody else to answer it for you.

**DR MUNDY:** No-one lived around the Gnangara mound when I lived in Perth. There's been some recent coverage about the desal - in fact I saw an ad in the paper yesterday and today about expressions of interest for a desal plant in the Pilbara.

**MR WERNER (WC):** Yes.

**DR MUNDY:** I think at some stage earlier in the year, the minister, and Minister Grylls, I think it was, called for expressions of interest for all water supply options for the Pilbara.

**MR WERNER (WC):** Yes.

**DR MUNDY:** Can you explain to us - I think it was in June or July - how we've gone from a situation of a general expression of interest for all sources to now desal? Obviously a whole pile of non-desal options have been ruled out. How was that done?

**MR WERNER (WC):** The expression of interest was done earlier to see what potential sources were out there. Those came in - - -

**DR CRAIK:** Did you get many? Who assessed them? Did you guys assess them?

**MR WERNER (WC):** That's Water Corporation and Treasury, I think. I didn't assess them, but the Water Corporation - and I think it was Teasury - went through those.

**DR CRAIK:** Did Water Corporation put one in as well?

**MR WERNER (WC):** We didn't have one to put in.

**DR CRAIK:** I thought you were going to be building this desal plant, or commissioning it.

**MR WERNER (WC):** It will be procured with a competitive alliance. That's kind of one of the common misconceptions that the Water Corporation has a proposal and it's going to put a bid in. The Water Corporation has done the planning that's required to build a desal plant. The Water Corporation has also worked with Rio on what's required to develop their Bungaree bore field. We were looking for - did anyone else have any other options. So there had been a whole bunch floated around to spare capacity and other people's desal plants, to bringing water in as ballast and stuff like that. So the idea was you flesh out whether there is any real opportunities there that we're not seeing and, quite frankly, if somebody had come up with a terrific option ready to go then we would have been there.

We were actually looking at whether it was possible for the private sector to provide the desalination plant. The urgency of delivering it created problems in pursuing that option, and also the need to integrate it with the existing Harding Dam and Millstream team also created problems in the short term in actually pursuing that option. The Water Corporation has a set of approvals to build a desal plant on a site that's got an in-fall and outfall and that's the extent of it. The process now will be for people to bid and they will determine how to deliver that six gigalitres. That's the process there. There's an estimate by the Water Corporation of what that's going to cost but it's certainly not, "This is what's going to be built." That process is still to come.

**DR MUNDY:** Yes, I understand that. I guess what we were curious to understand was that there's obviously a desal option. There was obviously consideration of augmentation of the borefield. I presume that all has been done to convince Rio to maximise the efficiency of their water use. But I'm curious whether - - -

**MR WERNER (WC):** Rio has already done that. It's kind of an important point because there is a perception out there that they're watering dust suppression. Well, they want to do that as efficiently as possible. They also need to expand their water supply. They have gone out and looked at a whole bunch of alternatives also and ruled some of them out which people were floating around as possibilities.

**DR MUNDY:** I guess what I'm trying to understand is that from some time in June or July through to about now, the options have been narrowed down to a desal plant

delivered somehow by someone. I'm just trying to get a sense of what other options were brought forward other than a desal plant augmentation of the borefield. Things like ballast - - -

**MR WERNER (WC):** This is not an augmentation, it's a brand new borefield out at Bungaree. It's a new source.

**DR MUNDY:** Yes, it was a new source but I'm wondering which others came up which apparently have no longer been - - -

**MR WERNER (WC):** There was a planning exercise done that looked at all the options.

**DR CRAIK:** Were they made public?

**MR WERNER (WC):** No. The groundwater sources that are available up there and the potential water sources were assessed. Water Corporation initially came to the conclusion that a desal plant was in fact the best way to incrementally develop.

**DR CRAIK:** This is before the EOI process?

**MR WERNER (WC):** No, this was three, four, five years ago.

**DR CRAIK:** Yes.

**MR WERNER (WC):** The problem in the west Pilbara is that the sustainable yield of the source has been downgraded from 15 gigalitres to 10 gigalitres. So five gigalitres of this desal plant is replacing what we thought was existing capacity. So in terms of planning for that it's a chunk of demand that wasn't on the horizon. Also growth has accelerated in that area for the mining boom. When you go back and look at the previous planning, you go, "A desal plant, relatively expensive, but modularly expandable, therefore that's a good solution."

The planning also had different borefields. The problems with those long pipelines, you need a big demand to make them economical to start off with, and then Rio came along with Bungaroo – fully aware of that - and there were issues there about getting water entitlements of what the yield is going to be and the certainty and stuff like that. All of that goes into the mix and you make a decision based on what's there at the time. You could have quite well made everything public five years ago. Everyone goes, "Yep, terrific, that's the solution," and then the next year a major customer comes along or something happens, and a different solution is the one that you would progress.

You make decisions on what you have available, the problem that you have at the time. Country schemes are very much - an event occurs. I have spent a lot of my career dealing with major consumers and their projects. You talk to companies often for many years and, "The project is going to go ahead, the project is going to go ahead," and then it does or it doesn't, and those kind of projects have big, chunky impacts on those schemes. It's not like you go, "Well, Perth is going to grow at 2 and a half per cent per annum. I've got a kind of predictable demand." You go, "That infrastructure has to be there or not," kind of thing. It's a very different kind of decision-making process.

**DR MUNDY:** Could I ask one more question about the Pilbara. Why was their view about supply downgraded from 15 gig to 10? What was learnt that was either previously not known, or what was unlearnt that was previously known?

**MR WERNER (WC):** The issues of Millstream borefield - and there are some environmental criteria that sit behind our draw, and they're about how fast the borefield can be drawn down. We were kind of aware that those were putting constraints on what we could take out, in addition to what the nominal yield of the borefield was. I think it was actually making an assessment of what they really meant.

**DR MUNDY:** They would gather environmental knowledge as time goes on.

**MR WERNER (WC):** I guess it's that, yes.

**DR CRAIK:** Okay. I think we'd better wind up. We've already run over time. Thanks very much, Lloyd.

**DR MUNDY:** Thanks for that. That was very helpful.

**DR CRAIK:** We look forward to seeing your contributions.

**MR WERNER (WC):** Okay. Thank you.

**DR CRAIK:** I'll now call on Lyndon Rowe and Greg Watkinson from the Economic Regulation Authority, thank you. Could I ask you, gentlemen, to give your names and positions for the record. Then if you'd like to make a brief presentation we'd like to hear from you. Thank you.

**MR ROWE (ERA):** Thanks very much. Thanks for the opportunity.

**DR CRAIK:** Thanks for coming along.

**MR ROWE (ERA):** My name is Lyndon Rowe. I'm the chairman of the Economic Regulation Authority, and with me is Greg Watkinson, as chief executive of the Economic Regulation Authority. We're happy to take questions, I guess, but just make some brief introductory comments. Maybe I might just outline what the ERA is and then ask Greg to outline some of our involvement in water issues and why we're particularly interested in your inquiry.

The ERA is an independent statutory body which in a sense has two main functions. It's a regulatory body, so we regulate access arrangements for monopoly infrastructure and we license providers in gas, electricity and water. We also have a role - a little similar, I guess, to your own - as an inquiry body where on the basis of references from the state treasurer we can be asked to undertake inquiries. In undertaking that - a little similar to yourself - we are independent. So in undertaking those inquiries we can't be subject to ministerial direction. They're independent inquiries and there's a requirement under our act that the final reports of those inquiries must become public documents.

I won't go through them but in our very brief submission to you - I apologise for the briefness of it - we highlighted - - -

**DR CRAIK:** We don't mind brief submissions, I'd have to say.

**DR MUNDY:** Brevity is unusual in a regulator.

**MR ROWE (ERA):** I guess the downside was, all we did was refer to you a number of reports we've done which are considerably longer than the submission. But we have over the last five, six years done a significant amount in the water industry, both in our role as the licensing and monitoring of water providers but more particularly in our role in undertaking inquiries. We've listed those in our submission. Greg, do you want to - - -

**MR WATKINSON (ERA):** Sure. The submission covers the major inquiries we've done in water over the last five years or so. ERA was established in 2004. The first one we did was an inquiry into Water Corporation, Aqwest and Busselton

Water which was a tariff inquiry, an efficiency review. We've also done a review of competition in the water sector; a review of pricing of recycled water; an inquiry into the costs of supply of bulk potable water to Kalgoorlie-Boulder; an inquiry into developer contributions to the Water Corporation; and we are currently doing an inquiry into water resource management and planning charges which is a cost recovery issue for the Department of Water. On the basis of those inquiries I feel we have a substantive understanding of issues in the water sector in WA.

I would prefer to take questions and refer you to the report. But in summary there are some problems in the current water environment in WA. These were summarised in the inquiry into competition in the water sector. Some of them include insufficient checks and balances on the Water Corporation; unclear roles and responsibilities across the entities involved in the water sector, and an under-utilisation of private sector innovation. If I can speak personally, I must say my comments reflect to some extent the work we've done, but I can't speak on behalf of the authority.

But if I had a vision for what the water sector would look like in WA, it would have a Water Corporation that focused on the network and retail functions, anticipating that we're some way away from retail competition. The Department of Water would focus on water resource management, so effectively would be the water resource management regulator. The policy functions in water would be in the Utilities Policy Office, combined with the current Office of Energy; the independent procurement entity, which we've outlined in the inquiry into competition in the water sector would be a separate function to ensure least cost balancing of supply and demand was taking place in WA. We've tentatively suggested in the inquiry into competition in the water sector that it (the independent procurement entity) be located with the Independent Market Operator - because there are significant synergies and economies from having energy and water issues to do with supply being dealt with by one entity.

The Economic Regulation Authority would be primarily focused on regulating the natural monopoly aspects of the Water Corporation. That could be independent of government given that it's regulating mainly the networks. The pricing of water would ideally be undertaken by the independent procurement entity, so they would have all of the levers to control supply and demand, including making decisions on restrictions. So the principles that we embody in that view of the world, and particularly the Independent Procurement Entity, include the important one that Perth, it seems, unlike elsewhere in Australia, has a really critical water supply and demand situation. In changing institutional structures there should be no risk to consumers, so a principle embedded within the IPE concept is that the status quo continue, to the extent that it is effective. In other words, it's largely an accountability mechanism, and. if the Water Corporation comes up with best water

supply options, then those would get up. However, the process would be transparent and there would be accountability. So I'll leave it there, in terms of overall comments.

**MR ROWE (ERA):** The only thing I'd just add to that is that the role of the government in that process, in our view, would be to set the security limit, under which the IPE would then operate. So this is security the government set, and it would need to manage future water supply and demand on the basis of achieving that security level. Obviously it would also have a role to the extent there are any CSOs in water, so it would have to make those sort of decisions as well. But it would not have the role in determining what was that next future water resource.

**DR CRAIK:** Thanks very much and thanks for your submission and the reports to which you referred. The IPE that you were discussing has come up in relation to other jurisdictions as well. One of the suggestions that has come to us is that a kind of a grid manager function could also be added to the IPE function, so that in places where you might have a number of water supply sources provided by different providers it might be appropriate for the IPE to have a more operational role as well as the role of a grid manager. Have you thought about that at all?

**MR WATKINSON (ERA):** We are in a tight water security situation at the moment. I think there needs to be incremental reform. You deal with the major problems first; and if you want to add on other roles in the future, you do that. I think Queensland was in a different position, it was coming back from the situation of having a whole lot of entities with unclear roles and responsibilities, and trying to get more synergies and coordination. So potentially in the future that could be done. But I can't see it as being critical in the short term.

**MR ROWE (ERA):** Part of the role of the IPE in looking at future water sources would be to take advice from the Water Corporation on integration issues, and those integration issues would need to be costed into any of those potential alternative sources of water.

**DR MUNDY:** But the real issue is the separation of ownership of the sources of supply from the decisions, which one to bring on, that's the real policy nut that you're trying to crack with this model; who owns the network might be less of an issue.

**MR ROWE (ERA):** It is, and the reason you're doing that is because when you've got the degree of uncertainty which we have got then it's in your interest to have as many options on the table as you possibly can, and the way to encourage people to put those options on the table is to make sure there's a clear and transparent process.

**DR CRAIK:** Yes. That's good. As well, you're suggesting that the IPE would

determine the prices. Are you talking about both bulk and retail?

**MR WATKINSON (ERA):** The bulk water would be determined through the competitive procurement process effectively. Something I didn't say before is that the IPE would take over the Water Corporation's current role of determining the operating strategy, which identifies the sources that would be utilised in any particular year, or whether demand management or other options would be utilised to balance supply and demand for one any particular year.

**DR MUNDY:** So decisions about, for example, on a year-to-year basis, about the utilisation of the Gnangara and Jandakot mounds, would be made by the IPE?

**MR WATKINSON (ERA):** I think a significant advantage of having an IPE would be that it would make very transparent the trade-offs and so say that it was using groundwater, compared to developing new sources.

**DR MUNDY:** Would your sense be that the IPE would make public a draft program, or whatever you might call it, and then seek views from the public? Obviously there are externalities associated with the use of groundwater about which the community are clearly concerned about in the northern suburbs.

**MR ROWE (ERA):** I see a similar process to what we see in electricity, where we publish a statement of opportunities, we then go out for expressions of interest for generation capacity, which is similar to what we're talking about here. Those options would need to go through and satisfy the normal environmental approvals processes. So public consultation would take place through those normal processes, I would have thought.

**DR CRAIK:** You mentioned, Greg, that you didn't see any move or perhaps necessity at this stage for competition and retailing. One of the things that has come out from talking to the people in Melbourne is that the three retail utilities there suggest that there has been some comparative competition and that has generated some benefits, certainly in the early days, in terms of reducing the costs, but now they see the main benefit of the competition is generating innovation between the three. You don't see that - - -

**MR WATKINSON (ERA):** It's not that I don't see it, it's more that I think - - -

**DR CRAIK:** It's not the priority?

**MR WATKINSON (ERA):** Well, look, setting up the framework is important. So it is important to get an access regime in place. Where that leads, who knows? Whether it introduces retail competition or not, depends. We did work on

recycled-water pricing, the authority came to the view that it was important to create a level playing field between all of the potential proponents of water-recycling projects out there so that people could have access to the wastewater resource on fair and reasonable terms. So then if a recycling plant is commercially viable, as Lloyd indicated, it would be able to proceed without having the Water Corporation veto it. If retail competition was viable, it would be able to proceed as well.

**DR CRAIK:** One of the things that the NCC has suggested we consider is that rather than each of the states setting up their own access legislation or getting agreement on what is monopoly infrastructure through all the jurisdictions and getting essentially a declaration, or deeming I suppose, of all monopoly infrastructure, so that at least one step in the process is overcome and then it's just a negotiation about price; and there might be a national agreement on what is a monopoly infrastructure and it's declared or deemed, or whatever the term is, and then the states might regulate the price. What is your view about that, to say each of the states - - -

**MR WATKINSON (ERA):** I have no concern on how it's implemented. For pragmatic reasons, in the competition report we just said to introduce New South Wales' approach; it seemed like a pretty good approach, it could be as a national code effectively.

**MR ROWE (ERA):** To the extent we have got a bias, the bias would be that we're not sure what the benefits here are, so let's put the access arrangement close to the cheapest possible cost. Going back to your earlier question about the retail competition, it wasn't, I don't think, that the authority didn't think there were options for innovation in that area, I think it was a matter of being pragmatic about what we could actually expect government to do and the priorities we would assign to that. So our clear view was, as Greg outlined, "Let's get the unclear roles sorted out for a start," and then, in our view, the biggest gains were probably in the bulk water area.

**DR CRAIK:** Yes. I guess what we're trying to get at with the Melbourne metropolitan example is that it's almost competition in managerial pride, if you like, that they're looking at what others are doing and they're working off that; whereas in jurisdictions which have none, the opportunity for that to emerge doesn't exist. Yes, we had some discussion with Lloyd about the scope of the single monopoly utility across the state. I haven't read the part of the report to which Lloyd referred. Is it the ERA's view that there wouldn't be much to be gained from breaking up water; perhaps taking the metropolitan bit out and leaving the country bit, or taking the metropolitan bit out and having a north and a south or - - -

**MR WATKINSON (ERA):** The context of the analysis to which Lloyd was referring is the costs and benefits of combining the Water Corporation's country

operations with Horizon Power to create a multi utility. Yes, look, that was close enough, from our perspective, to warrant a thorough business case to be prepared, and that was the advice to the government.

**DR MUNDY:** What about rolling in Aqwest and Busselton Water?

**MR WATKINSON (ERA):** They're actually reasonably efficient operations. They are community-driven operations. Their prices are lower than Water Corporation. So rolling them in would probably involve some smearing of overheads and prices going up.

**MR ROWE (ERA):** The argument for remote electricity and water was really about servicing those communities. So it was travel costs, it was the trades to get to those communities. That argument is much stronger in the remote areas of Western Australia.

**DR MUNDY:** It's much stronger in Western Australia than it is in regional Victoria.

**DR CRAIK:** You said your advice was that a thorough business case should be prepared. Was the Allens report a thorough business case or was the Allens report essentially your advice?

**MR WATKINSON (ERA):** No, it was a reasonably thorough analysis but it wasn't sufficient to actually have you proceed - - -

**MR ROWE (ERA):** You wouldn't make a decision on the basis of it.

**DR CRAIK:** So you're saying that the jury is out still on that issue?

**MR WATKINSON (ERA):** Yes, that's right, but it's close enough to do further work.

**MR ROWE (ERA):** Our recommendation was it should be explored.

**DR CRAIK:** Okay. New South Wales, of course, has Country Energy doing - I think they do water and electricity in western New South Wales.

**MR ROWE (ERA):** I think the Northern Territory.

**DR CRAIK:** Yes, Northern Territory does power and water, that's right.

**DR MUNDY:** And Actew.

**DR CRAIK:** So there are a few places that do it.

**DR MUNDY:** Coming back to this regional disaggregation idea - and this is an opinion rather than an analysis - but would you see any merits in looking at, for example, the Pilbarra Water Corporation or are there other regions other than Bunbury and Busselton where you think that sort of model might actually serve those communities better? The second part of the question is, would you be concerned that at some point you followed out the water corporations and you're left with a rump of stuff that might actually leave an organisation itself unviable.

**MR WATKINSON (ERA):** My view is the IPE could have helped with this situation in the Pilbarra in terms of procurement there. I should also say that we're currently doing a review of Horizon Power as a separate inquiry. It is expensive to deliver any utility service in today's regional communities. The Pilbarra is more commercial obviously but I think there are CSOs involved there and when you have a CSO then it's a different sort of - you want to ensure that the overheads are kept as low as possible. You would have to do a lot of work to justify a super utility up there, I would have thought.

**DR CRAIK:** Okay.

**DR MUNDY:** You recently made some recommendations to ministers about prices for Water Corporation in metropolitan Perth and so on. Where is that up to? What has happened with those?

**MR ROWE (ERA):** We're now down to three-yearly reviews of Water Corp in which we do the normal access arrangement about efficient capital and efficient opex and make some recommendations on water tariffs for the next three years. We handed down that report last year and recommended in real terms increases of about 10.4 per cent or 10.8 per cent - I've forgotten the exact figure - a year for the next three years. What has happened so far is in effect the government has picked up that recommendation for the first year, so from 1 July this year there was a significant increase which was described in the reports and in parliament as a 17 per cent increase but for a variety of reasons which I won't bore you with, that equates to 10.8 per cent real. So for all intents and purposes they picked up the recommendation in the first year. They have not indicated what they're proposing to do in the second and third year.

From our point of view our recommendations and our increases were a guide path such that over that three-year period, assuming all those increases were applied, then Water Corp would retrieve its costs, including its return on capital. So rather than look at one large increase, we phase those equally over those three-year periods

in a way which enabled Water Corp to recover the revenue it needed - it's supposed to cover its opex and depreciation and its return on capital. So in the event that the government continues to accept our recommendations over the next two years, then over that three-year period, we will have had cost-reflective tariffs.

**DR CRAIK:** Okay.

**DR MUNDY:** Remote indigenous communities, is that an area in which you undertake a price setting role.

**MR ROWE (ERA):** I need to correct you, we don't undertake a price setting in any area.

**DR MUNDY:** Are they areas in which you make recommendations?

**MR ROWE (ERA):** We have done country towns, but I don't think it went to the remote Aboriginal communities.

**MR WATKINSON (ERA):** I think there are some in there, Lloyd correct me if I'm wrong. I'm pretty sure there are. We have a model that includes all of the towns in WA that the Water Corporation provides a service to and we work out the cost of providing the service to those towns and identify the CSO that goes to those towns.

**DR CRAIK:** So do you do that kind of individually for these towns or does it - - -

**MR WATKINSON (ERA):** No, we have a single aggregated model for the Water Corporation.

**DR CRAIK:** Okay.

**MR ROWE (ERA):** Just to pick up on that, part of our recommendation this year that the government has accepted was in terms of trying to make more cost-reflective price in regional areas as well so we have a uniform pricing policy. But in the south-west it used to apply up to the first 350 kilolitres, we recommended it come back to 300 kilolitres of water. In the north-west I think it was 550 down to 500 - but don't hold me to that - so again a move towards more reflective - because tariffs over that uniform pricing quantity limit then there's a phase-in until at the very high levels you actually have cost-reflective prices for some of these customers.

**DR CRAIK:** How do you determine the size of the blocks?

**MR ROWE (ERA):** In the country?

**DR CRAIK:** Anywhere.

**MR WATKINSON (ERA):** There is quite a discussion in the water pricing report that we just released - whenever it was, it feels like a long time ago - August 2009 and in that report we do spend many pages talking about the principles associated with setting tariffs including inclining block tariffs. There is debate about whether you have inclining tariffs or not and where the authority came down was that, given the uncertainty of rainfall, there's quite a range in efficient prices and so the prices in Perth are based on that range.

**MR ROWE (ERA):** The long-run marginal cost calculation can vary enormously for Perth, depending on the assumptions you make about rainfall.

**MR WATKINSON (ERA):** Then there was also an equity issue about costs increasing, as Lyndon indicated, in the order of 30 per cent and how that should be spread across water users. So the recommendation was to have - which did fit nicely with this range of efficient prices - a lower tariff for the first 150 kilolitres, combined with a fixed charge that's reasonably low as well to minimise the impact of cost increases on those customers who use the least amount of water. In terms of thinking about how you set the thresholds, that partly comes down to issues about family size or household size and whereabouts the threshold should be placed.

**DR MUNDY:** What's discretionary.

**MR WATKINSON (ERA):** Yes, and what's discretionary effectively for different types of houses.

**DR MUNDY:** What's driving these price increases?

**MR WATKINSON (ERA):** That's a better question for the Water Corporation. But network costs are a significant driver as well as source costs. The source costs aren't as great as I initially presumed they would be.

**DR MUNDY:** Is this because servicing new areas and replacement of old infrastructure or a combination of those sorts of things?

**MR WATKINSON (ERA):** Do you want to pick this up, Lloyd? Is that possible to defer to Lloyd?

**MR WERNER (WC):** The main driver in the increasing costs is that desalination plants are much more expensive than existing sources, so they tend to drive the increases but there are other costs throughout business in terms of meeting high quality standards and things like that that flow into - - -

**DR MUNDY:** So it's just a whole pile of things.

**MR ROWE (ERA):** It's the reflection of labour costs in WA as well, I suspect, and it's not as significant as I thought either but one of the reasons why there was a need for increase over this three-year period compared to the first three-year period was the first time we did this and we looked in the future we were actually assuming that South Yarragadee was going to come onstream but the decision was to go desal rather than Yarragadee, that added costs - perhaps not as much as we might have thought - but it did add to the costs of some of those issues as well.

**DR CRAIK:** Does the Water Corporation ever put a view where it gives people some tariff options? One of the retails in Melbourne is now talking about proposing tariff options so that you can pay more for different or higher or lower levels of water security. Was that ever considered here?

**MR ROWE (ERA):** We haven't had it proposed but, from my view, it's what you would see in a competitive market and I don't see a reason for why customers shouldn't have those options if they're prepared to pay for them.

**DR MUNDY:** Just coming back to Yarragadee, how would the circumstance that appears to have developed there, do you think, have been handled by the IPE when - you know, it was a source that was passed over for reasons which had nothing to do with its economics.

**MR ROWE (ERA):** Can I give you a long-winded answer, that one would hope for example that two things would have happened if you had the IPE. One is we would have had a very clear and transparent understanding of what was happening at the Gnangara mound because that would have been much more front and centre through an IPE process. But hopefully the IPE, as an independent body, would have been able to judge the Yarragadee on the merits of the Yarragadee versus desal, devoid of the political constraints. I guess colloquially the example I use to justify that is what we now do with electricity where we have an IMO that independently assesses generation requirements and it's a number of years now since we've had a debate about where the next coal power station is going to be and in which marginal electorate it's going to be. Those issues haven't happened in generation and, in our view, it would be desirable they don't happen in water as well.

**DR MUNDY:** Another question. Do you think setting prices for three years is sufficiently frequent or do you think they should be more frequently?

**MR ROWE (ERA):** Or even less frequent. In the majority of the access we do, they're actually five-year access arrangements. I think in the early stages three years was probably good and indeed in Western Power, which we actually regulate, the first two access arrangements were three years. I think that's in the interests probably of both the regulator and the provider. They get to understand the process and get

better at doing it. Both parties get better at doing that. Having set all that down though, I would rather see probably five-year reviews with a well-established and set glide path for prices.

**MR WATKINSON (ERA):** Can I just add to that maybe, because there's a difference here between the natural monopoly aspects of Water Corporation and then the retail pricing aspects. So for the natural monopoly aspects, yes, I would see no reason for it to be three to five years and the ERA independently regulating that and setting those prices. But for retail, it gets down to the role of the IPE and a situation like we're in now, with very little, if not any, inflows into the dams. There's a considerable risk about a total sprinkler ban coming up. How do you think about that, what are the options, restrictions, price, are there any other supply options, including trading water with Harvey Water or others, what are all of the options available and then to make an apolitical decision.

**DR MUNDY:** I mean, the fact that you could actually put prices up to reflect the scarcity of water, instead of bringing in restrictions, and those sorts of options.

**MR WATKINSON (ERA):** When we recommended the IPE, that was two years ago. It was a great opportunity then because, as Lloyd indicated, the next supply source was 2018 or 2020, some way away, and there was an opportunity then to put in place a framework and a set of institutional structures that could then ensure security in a transparent and accountable way into the future. As it's turned out - and no-one could predict this - as Lloyd indicated, we didn't have any inflows. We are in a difficult situation now. The problem is that there may be a scramble to try and find solutions, rather than actually have a body that can do it in a transparent and accountable way. But the issue does need to be to what extent do you use demand management, does price play a part of that role or do you use restrictions? That debate needs to be had right at the moment as we go into the summer and yet it's not being had effectively because the decision-making is not transparent and so we're back in the situation of difficulty.

**DR MUNDY:** Presumably if the industry structure was as you've described earlier, the problems associated with price movements due to variability of supply would disappear at least in the monopoly part of the business, so you could just do a poles and wires sort of thing. One of the attractions of the IPE is the price that came out of the water supply would, to some extent, actually be a scarcity-reflective price and might be adjusted every year or so, whenever the IPE does its thing. Is that the sort of - - -

**MR WATKINSON (ERA):** Exactly, yes.

**DR MUNDY:** So you get a price for the infrastructure and a price for the water.

**MR WATKINSON (ERA):** Yes, and there does seem to be a lot of work - and the Productivity Commission is doing some of it - to try and figure out how you determine a value for water which could then be reflected in the price and how do you utilitise your sources in any particular year, and they're all interrelated issues. You know, how hard do you run your desal plant, following a couple of years of inflows? All of those decisions need to be made in a transparent way, using a clear and robust framework.

**DR MUNDY:** I guess the challenge for the IPE is balancing the short and the medium term.

**MR WATKINSON (ERA):** Yes, and I think the view in our recent water pricing paper was that you wouldn't necessarily have to have the price drop down below long-run marginal cost, but at other times it could go up. Where the choice is between restrictions and the price and there are allocative inefficiencies associated with restrictions, the community may prefer price, or, as you indicated before, some of the community may prefer to pay a pricing arrangement which allowed them to use more water.

**DR CRAIK:** Is any work done here on the cost of restrictions? Do you guys know?

**MR WATKINSON (ERA):** There has been some work, I think, by Donna Brennan. Have you done any Jonathan or do you know of anyone else?

**MR THOMAS (REU):** Dr Sorada Tapsuwan.

**MR WATKINSON (ERA):** That's the person in WA. I think we refer to her report, but I can give you the contact details.

**DR CRAIK:** That would be good. I don't have anything else. I think we're fine. Thanks very much for coming along today.

**MR WATKINSON (ERA):** Thank you.

**DR CRAIK:** Thanks for your information and thanks for answering all those questions. Thanks a lot. We'll now have a break for morning tea and resume at 11 o'clock with Jonathan Thomas.

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**DR CRAIK:** We might resume again. Thanks, Jonathan, if you could state your name and your organisation for the record and then if you would like to make a brief presentation to us, that would be good.

**MR THOMAS (REU):** Jonathan Thomas, I am the director of a very small consultancy, Resource Economics Unit. I am an economist statistician. I've worked for 20 years with CSIRO, being assistant chief of the division for groundwater research and later, water resources here in Perth, and I was also for a while coordinator of CSIRO's cross-divisional research program in urban water management.

The objectives of the presentation are to present a few contextual water use statistics. I then want to give examples of what I believe would be intermediate cost supply options that have - my word - been neglected for many years in Perth, and thirdly, to suggest possible reasons for the lack of innovation, particularly the institutional context.

Total water use in Perth is to be divided between self supplied and scheme supplied. Water corporations are not really a supplier of the scheme, but the scheme is itself in the minority as far as total water use in the Perth statistical division is concerned. I'm drawing on work that I've recently done for the Department of Water. The percentage of particular water usage sectors that get their water from the IWSS, even households, it's just over 50 per cent. Industry gets roughly 50 per cent from the scheme. Areas which get a high proportion of their water from self-extraction include households, general industry and a range of industries, mining, processing, pasture, crops, horticulture, stock, domestic, largely fringe uses of water in the fringes of the metropolitan area.

Everyone has recognised the scarcity of the resource. Demand seems likely to increase by a minimum of about the cost of per capita usage. Surface to groundwater yields have declined. The sea is seen as effectively an infinite resource but its use is recognised as being costly and because of its high energy inputs, economic sustainability is also questionable. There are alternatives and I'd like to examine some of these.

There are three areas that I'll touch on; firstly, wastewater reuse. Development has been limited to industrial reuse. There has been no delivery to households via dual reticulation, for example, and therefore dual reticulation is not seen as major contribution. In the 1990s, I was fortunate to spend time in Florida, California; there are literally hundreds of schemes which have dual reticulation for the use of wastewater. These would include cities like Orlando, Tampa, quite large cities in Florida that have sandy soils rather like Perth. Disney World I visited and was given a wonderful trip around their sewage treatment plant and what they did with their

water, which is all of their landscaping, median strips, golf course, and they have 10 million people per year. All their irrigation use came from that source.

I think one can postulate some reasons why it's been so unattractive in Australia. I think one reason is that a division of the professional set-up in utilities, the water supply people I think are dominated by hydrologists and some hydraulics people; the wastewater people are dominated by chemical engineers and some hydraulics. Water supply people tend to look at the costs from the new source to the consumer, but I've given you a little diagram which illustrates two schemes, one with wastewater reuse. It costs more to treat and get the wastewater back to consumers, but in the example I've given, the total scheme cost is $1.60 a cubic metre. How come you can get that? It's because you get savings at the source and the sink ends of the system with a reuse scheme.

My second example is irrigation of public open space using treated wastewater. Large cemeteries in Perth, such as Karrakatta, Rockingham, Pinnaroo, use very significant amounts of water for irrigation. As long ago as the 1990s the WA Cemeteries Board was proposing enhanced treatment of wastewater and piping for use in the nearby cemeteries. The reason quoted to me for declining that was that you couldn't apply nutrient-rich waters to the sandy soils of the Swan Coastal Plain, but this was a cemetery that we were talking about. That has continued, I believe, ever since the early 1990s and just recently there has been a proposal between, I think, the Water Corporation - seeking Commonwealth funding for - I think it's sort of symptomatic that it should be seen as something that the Commonwealth might actually support rather than something that's provided by local initiative. There are many suitable land uses for using treated wastewater close to the sewage treatment plants in Perth.

My third example is desalination of brackish water. The Darling Ranges are beset with salinity problems outside of its protected catchments and even in some of the mixed catchments, particularly the Wellington Dam. There are favourable capital operating costs for reverse osmosis desalination of 2000 parts per million rather than 35,000 parts per million from the sea. There are places where you can get accessibility to tropic rains. There's much lower cost also if you can harness hydro power. I'm not claiming that this is necessarily optimal but it's just another example of what I believe would be an intermediate costs source development.

So why does there seem not so much interest in exploring these kinds of options? I've quoted some Water Corporation financial from the latest report. Total revenue just over a billion dollars, 740 million of that comes from service charges which are essentially a property tax, and volume charges in the water area. The dividend paid to the owner, the WA government, is 400 million, and there's a reverse flow in terms of CSOs' receipt by it from government of 500; those are taken from

the 2010 annual report.

I think that whole system offers very little incentive for seeking out of efficient solutions. As a result, I think expensive options have been adopted. This has been a highly conservative and cautious approach and I do accept that someone in charge of a water utility has enormous responsibilities in relation to the assessment of contractors, consumer quality and so on. But I do think that whole of system benefits are not particularly well considered and transactions between the subsupply sector and scheme operators are difficult. Drivers for efficient solutions are weak. Thank you.

**DR CRAIK:** Thank you. Thanks very much, Jonathan. Thanks very much for this. Can we regard this as a submission?

**MR THOMAS (REU):** I was going to put this out into a written submission which will contain - which will be made, by all means.

**DR CRAIK:** Okay, well, when you put in a written one we'll attach it to the written one as a series of slides as well. Okay, that will be great, thank you. Perhaps if I could just come to this - when you came to the table where you've shown the various break-up of revenue and dividends and CSOs and you said there's really no incentives to adopt these intermediate water sources that you referred to. Why? It's not clear to me the connection between those two things. What am I missing?

**MR THOMAS (REU):** I think the first development sequence tends to be - although there are long-term source development plans, the decisions of outsourced development have always been proximate. Where will the next lump of bulk water come from? I think that regardless of imminent supply security or otherwise a much longer-term approach in terms of developing a resilient system would pay dividends. I do recognise that the Water Corporation very much emphasises resilience and diversity of supply in its literature. I just feel that much more could have been done 20 years ago and we'd be in a much better situation.

**DR CRAIK:** Would you think - I mean you heard the ERA and their proposals for something like an IPE, would you think that if an IPE existed that there would be greater likelihood? I mean you don't really know, I suppose, but would you think that's a better structure?

**MR THOMAS (REU):** I think the transparency of decision-making, outsourcing it, would be a big benefit. I felt very much like the sort of outsider that was referred to by Lloyd. I'd only do that - arguing that one, we didn't think it was a good idea for the Water Corporation.

**DR CRAIK:** Yes.

**MR THOMAS (REU):** I think it would be very useful for that transparency to be in the system.

**DR CRAIK:** I was going to say, do you know if these sorts of things that you've put in this presentation here have actually been presented to the Water Corporation to develop?

**MR THOMAS (REU):** Well, following my trip to America I sent them a technical report.

**DR CRAIK:** I see.

**MR THOMAS (REU):** It was actually a technical report to COAG because it was part of a reference on wastewater use and wastewater reuse, storm water management in the context of the national water reform agenda.

**DR CRAIK:** Okay, thanks.

**DR MUNDY:** You did some work back in 82 on elasticity estimates and you got .2.

**MR THOMAS (REU):** Yes.

**DR MUNDY:** We've heard, in the course of this inquiry, that people are developing elasticity estimates on the east coast, in New South Wales in particular, that look to be less than .1.

**MR THOMAS (REU):** Yes.

**DR MUNDY:** I guess my question in part goes - do you think there's any structural changes that may have occurred since 1982 that if you did this work again you - if you did this work again, I guess my question is, would you expect the result to be the same or do you think there might have been things that would have led it to being lower?

**MR THOMAS (REU):** Higher or lower.

**DR MUNDY:** Higher or lower. Different, and why?

**MR THOMAS (REU):** Very briefly, our approach - it was an extension of a survey of 3000 households that was commissioned by the water authority. A subset of about 300 households - we took - we had an enormous amount of information

about the water use in those households and also a very exhaustive checklist of water conservation options that they might undertake and ones that they already undertook. We trained interviewers to sit down with the households, discuss their bills and ask them to say what kind of changes they might make in response to a changed bill. Now, they were actually very limited in the options that were available. So I still have an abiding faith in my own research in terms of the low elasticity.

Water ownership was a big one, but it differs enormously in different parts of the metropolitan area. In some parts where the groundwater is shallow, you get 75 per cent of households have got a bore; other parts down to 10 or 15 per cent. It's proved almost impossible to do anything with time season analysis. It's not surprising if time season analysis shows that water price is not significant because it's been so dominated by climate restrictions and so on that it's no surprise. But on your comment about the low price elasticity, is this good news or bad news?

If your price is very low and by increasing it by 10 per cent you get a 1 per cent reduction in consumption, yes, that's quite good news because 1 per cent is quite a lot of water and I think economists are perhaps to be blamed by using the words "high" and "low", with "medium" anchored at 1. Obviously you have an elasticity of 1, you've got some problems, in the sense that the change in price will be rapidly neutral, whereas if it's lower than 1, you can up the price and still be ahead revenue-wise.

**DR MUNDY:** Do you have a sense of why there is such a market variation between the 2008 study cited here and yours in - - -

**MR THOMAS (REU):** Again, that's another - - -

**DR MUNDY:** Is it a methodological thing?

**MR THOMAS (REU):** I think it's methodological. What the latest study did that produces the elasticity of 1, it was cross-sectional, so they got water usage data from the Water Corporation and they looked at the marginal price being faced by consumers in different bands of the block tariff structure, so that you had a variation in marginal price, but they had a separate thing for income, but personally I think the study really needs to be looked at as to the statistics, how they are allocating variation to the price variable versus the income variable.

**DR MUNDY:** I presume this is the extent of your knowledge about elasticity studies from Perth?

**MR THOMAS (REU):** There is another one that I haven't quoted in that list.

**DR MUNDY:** When you send us the written version, if you can provide us with full references to these, I'd find that very helpful.

**DR CRAIK:** Can I ask a question about the dual reticulation. Are you talking about retrofitting or are you talking about greenfield sites?

**MR THOMAS (REU):** I think it can be either.

**DR CRAIK:** Are you talking about some kind of cost-benefit analysis before it's undertaken?

**MR THOMAS (REU):** Yes, very much so. I'm reminded of how effectively directional drilling gave us cable TV. Now, it might be more expensive to drill pipes down streets than a cable, but certainly in new subdivisions it should come in, I think. I mean, the agricultural department made a proposal for recycling of wastewater to deliver to irrigation which has been knocked back, but I think willingness to pay for recycled water would be a lot more in the household sector than it would be in the irrigation sector.

**DR MUNDY:** Why was it knocked back?

**MR THOMAS (REU):** It was going to cost about $4 a cubic metre and the irrigators couldn't pay for it. In any case, they might have wanted to shift a bit further from the city.

**DR MUNDY:** So it was an economic argument?

**MR THOMAS (REU):** Yes, it was an economic argument.

**DR CRAIK:** And presumably where households are getting their own water, it's from a local bore?

**MR THOMAS (REU):** Yes.

**DR CRAIK:** Is that right?

**MR THOMAS (REU):** Yes. There are about - I think there would be a thousand bores in the Perth metropolitan area.

**DR CRAIK:** Is that where most of this self-extracted water comes from? Is it mostly bores?

**MR THOMAS (REU):** Yes, it's all bores, in Perth, there's no - - -

**DR CRAIK:** Okay.

**MR THOMAS (REU):** Outside of Perth, there's self-extraction from streets.

**DR MUNDY:** No rainwater tanks to speak of?

**MR THOMAS (REU):** They tend to be found I think up in the hills, more along the coastal plains.

**DR CRAIK:** I suppose they're good if it rains.

**MR THOMAS (REU):** I think there's an access issue as well with reuse of wastewater. Like, the cemeteries example is one where one could envisage an independent contractor interposing between the Cemeteries Board and the Water Corporation doing a deal. I think it was much harder for the Cemeteries Board to work as a government instrument - - -

**DR CRAIK:** Directly, yes, okay. What about water trading, I don't think you mentioned water trading in your presentation.

**MR THOMAS (REU):** No. In the whole of the south-west, from Geraldton down to Albany, there are two irrigation cooperatives using surface water with pipe systems. Outside of that, self-supply is with streams or groundwater and you don't have an infrastructure system that can very easily be manipulated. Harvey Water was using about 75 gigalitres, which the whole irrigation system would only supply the equivalent one big desal plant. There are some limitations in the sense that the cooperative acts as a monopoly supplier to its members. The individual members don't have their own state water entitlement. It's only by virtue of being a member, so you can sell it to another member but you can't, for example, decide that you're not going to irrigate, sell the water to someone else, and then inform the cooperative that you've done it and have them adjust.

**DR CRAIK:** So you have to get permission of the cooperative to do that?

**MR THOMAS (REU):** Yes, and there's generally substantial resistance to that from the members.

**DR CRAIK:** Yes, okay. So are you suggesting that there's possibilities for more trading between these cooperatives? If there was agreement or if the rules were changed, that there's more options for trading between the members of these cooperatives and households or urban areas?

**MR THOMAS (REU):** I actually think the Water Corporation would be in a better position to answer that. The trading that has occurred was used by the corporation for channel replacements but it was at a price for transfers that would look rather high in an open market.

**DR CRAIK:** Yes, okay.

**MR WERNER (WC):** The problem with trading with irrigators is that the potable water dams that are in the south-west have never been completely traded back to the Water Corporation, so the water that they have would have to be treated to very high standards to be able to make it (indistinct) so that's the major possibility.

**DR CRAIK:** What, does it make it more expensive than desal or something like that?

**MR WERNER (WC):** Yes.

**DR CRAIK:** Really?

**MR WERNER (WC):** It also has the disadvantage that it (indistinct)

**DR CRAIK:** Yes, sure, climate independence.

**MR THOMAS (REU):** And in the city, the idea of trading as a household with a bore, which I don't have, the idea of surrendering my entitlement for a bore and crediting some other user with that amount of water use from the groundwater - - -

**DR MUNDY:** It's not going to quite work like a solar feed-in tariff, is it.

**DR CRAIK:** No. I don't think I've got any more questions.

**DR MUNDY:** No, none from me.

**DR CRAIK:** Thanks very much, Jonathan. Thanks very much for this presentation and we'll look forward to getting your submission. It's very helpful. Thank you.

**MR THOMAS (REU):** Thanks.

**DR CRAIK:** Okay. The next person we're hearing from is Nicola Hoey from the City of Wanneroo. Nicola, if you could start off by giving us your name and organisation for the record and then if you've got a brief presentation you'd like to make, we'd be happy to hear from you, so thank you.

**MS HOEY (CW):** I'm Nicola Hoey. I'm the environmental coordinator at the City of Wanneroo. I might start by giving some background into the city of Wanneroo. It's situated 22 kilometres north of Perth and covers an area of 685 square kilometres, so it is quite a large area and the population forecasts show that the population will double in the next 20 years. So at the moment the city is planning for that growth and most of the areas where the growth is planned already there is no water allocation left, it's all reserved for the public drinking water supply, which means that there will be issues with supply and irrigation for public open space and other uses outside of household use.

So this is the main issue that we're dealing with in the north coastal corridor. The suburbs are Alkimos, Eglinton, Yanchep and Two Rocks. The City of Wanneroo is supportive of looking at new and innovative ways of supplying water so that we can supply drinking water and also if we supply water more efficiently, we should be able to use water for other uses and the council is definitely supportive of using wastewater. The problem at present is the Alkimos Wastewater Treatment Plant is in a green field area and supplying new residents is dependent on the residents being there. So, from what I'm told by Water Corp, it isn't possible at present to allow for the wastewater to be used for the irrigation of public open space until there are enough residents to supply the wastewater.

**DR CRAIK:** I see. You need enough product generated to generate the subsequent product.

**MS HOEY (CW):** Yes. So it is a potential source in the future, but it's not really viable at the moment. The city is also looking at ensuring integrated water-sensitive urban design in new areas to make sure that the storm water recharged into the ground water is maximised and it is as clean as possible. But realistically the biggest issue we face is creating communities that aren't sustainable socially because of the lack of water and the irrigation required for public open space. It would be possible for the city to support programs that encourage less use of water in households, but the funding we have as a growth council is limited because we're under so much pressure in other ways and then the funding from the state is not really there for such programs either. I know there are programs in New South Wales, for example, but we don't really have that support here.

My last point that I'll raise on the initial submission is when we're looking at

developing new areas, because there is no ground water supply to us for public open space irrigation, et cetera, we will end up having to pay the water service provider for water because it will be taken out of the scheme, rather than being self-sustaining. This cost will mean that in the City of Wanneroo, there will be some suburbs where we're paying for water and there will be other suburbs where we're not and most other councils in Perth won't be paying for water either. It creates an inequality between different residents, depending on where they live.

We did attach a further part of the submission. This is based on Water Corp's application to extract more from the Gnangara mound because of the dry year. The position of the council is Water Corp should really be looking at restrictions and securing other sources of water over and above taking them out of an already stressed system. I'd open it up for questions.

**DR CRAIK:** Thanks very much for the information that you've said. Thanks very much for that and thanks for your presentation. It's useful to have the local government perspective in this inquiry because it seems that local governments are responsible often for things like stormwater drainage, flood mitigation responsibilities and also it obviously has some planning involvement or planning decision-making involvement, I guess, in relation to water issues. So could you give us a bit of an outline of what the role of local government is here in WA in relation to water and waste water?

**MS HOEY (CW):** During the land development process, there was a document released by the Department of Planning in 2008 called Better Urban Water Planning and that sets out the water planning documents that developers have to produce and at which stage of development. The Department of Water and the local government normally sign off on high level water planning documents together and those documents are really about incorporating drainage infrastructure into higher level planning so that you don't get to subdivision or development and not have the room for the systems that you need. It allows for treatment in a way that traditionally wasn't possible.

The traditional method was to have pipe systems to a low point, generally a sump that's fenced, and there is no infiltration along the way and any contaminants picked up are concentrated in the final location. We're also working with some developers in the coastal corridor at high level planning and a group of developers have applied for federal funding for a non-drinking water supply and we will be providing support for that system, acknowledging that it's realistically the only way that the council will be able to provide a consistent level of service across its jurisdiction.

**DR CRAIK:** Do developers have to make a contribution to you for the water

infrastructure or to the Water Corporation or the - - -

**MS HOEY (CW):** No. They put the infrastructure in and maintain it for two years and then we have a handover process.

**DR CRAIK:** But do you have to take it over?

**MS HOEY (CW):** Yes.

**DR CRAIK:** At your cost?

**MS HOEY (CW):** Yes.

**DR CRAIK:** Is their record in maintaining it good or do you find that it ends up costing the council?

**MS HOEY (CW):** There will always be a cost of maintaining the infrastructure, but normally it's maintained well enough and if it wasn't up to standard at the point of handover, the developer would have to fix it before we accepted handover of the infrastructure.

**DR CRAIK:** Do any of them put in dual reticulation systems or do any of them propose to - - -

**MS HOEY (CW):** There is an example of third pipe, but it's a system where we have to pay the water supplier.

**DR CRAIK:** Sorry, the local government has to pay?

**MS HOEY (CW):** We have to pay Water Corp to use the water in that system.

**DR MUNDY:** So this is water that would have otherwise gone where?

**MR WERNER (WC):** Do you want me to help out?

**MS HOEY (COW):** Yes.

**MR WERNER (WC):** It's a groundwater scheme, so there's some community bores. It provides the public open space and a third pipe to the households. It has been put in by the developers who are (indistinct) frequently with council - - -

**MS HOEY (COW):** It does provide - with the same amount of water ultimately just being used more sustainably for a larger use.

**DR CRAIK:** Sorry, where did the water come from?

**MR WERNER (WC):** It's groundwater bores.

**DR CRAIK:** It's groundwater bores?

**MR WERNER (WC):** Yes.

**DR CRAIK:** And then it's just - I see, so it's just - - -

**MR WERNER (WC):** And it's - - -

**DR CRAIK:** It's not a wastewater recycling or anything, yes, okay.

**MR WERNER (WC):** It is accessing an acquifer that would otherwise be accessed by the Water Corporation - - -

**DR CRAIK:** Okay.

**MS HOEY (COW):** So we will be looking to put similar systems in place under current proposals by developers.

**DR CRAIK:** Okay, yes. How about stormwater? How much do you use - do you collect and use much stormwater in Wanneroo?

**MS HOEY (COW):** The aim is to maximise infiltration of stormwater back into the groundwater supply rather than - - -

**DR CRAIK:** Rather than collect and reuse?

**MS HOEY (COW):** Yes.

**DR CRAIK:** Okay.

**DR MUNDY:** Then if you want to extract it from the groundwater supply you then have to come to an arrangement with the Water Corporation?

**MS HOEY (COW):** You would need a licence from the Department of Water or you would end up in court.

**DR CRAIK:** Okay.

**DR MUNDY:** So it's not clear who has - so if you're undertaking measures to capture and maximise the amount of stormwater that's catchment run-off, it's not clear that you have any property rights over that water despite your going to the effort of capturing it?

**MS HOEY (COW):** No.

**DR MUNDY:** Okay.

**DR CRAIK:** Okay. Is flood mitigation an issue in your - - -

**MS HOEY (COW):** Infiltration rates in Wanneroo are very high, so it would only be around wetlands with - peat wetlands that you might get more of an issue, but the area that will be developed first is over 20 metres to the groundwater table.

**DR CRAIK:** Okay.

**MS HOEY (COW):** So it would be highly unlikely.

**DR CRAIK:** So it's not a real issue here?

**MS HOEY (COW):** No.

**DR CRAIK:** An issue you might like to have at the moment, I guess.

**DR MUNDY:** Yes.

**DR CRAIK:** Just one more question before I hand over to Warren. In your submission you mention national standards for water quality including non-potable use.

**MS HOEY (COW):** Yes.

**DR CRAIK:** So do you think that would improve things? I mean I thought there were national water drinking guidelines and I thought there was development of some of these - - -

**MS HOEY (COW):** I think the problem we've had in enabling some systems to go ahead is the Department of Health is still very strict in what they will and will not allow and it doesn't seem to be consistent with some of the Health Department standards over east.

**DR CRAIK:** Okay.

**DR MUNDY:** Okay, so - - -

**DR CRAIK:** Interpretation of these guidelines varies?

**MS HOEY (COW):** To be fair to the Department of Health they are working very closely now with local governments and the Department of Water and I think things are changing and we would have systems approved more easily.

**DR CRAIK:** Yes.

**MS HOEY (COW):** But they were - it was a very cautious approach initially.

**DR CRAIK:** Yes.

**DR MUNDY:** Is that, do you think, just because of lack of experience in having to deal with the issues, they don't have frameworks, they haven't thought about it enough and it's just something they need to work through rather than - - -

**MS HOEY (COW):** I'm not really sure.

**DR MUNDY:** - - - are just they're not interested?

**MS HOEY (COW):** I'm not really sure of that.

**DR CRAIK:** Thanks.

**DR MUNDY:** You mentioned in this supplementary material that you sent to us, which were very interesting, council's concern about a failure to properly consider the impacts on the community of taking extra water out of the Gnangara Mound. What precisely are those impacts?

**MS HOEY (COW):** I will just clarify, I didn't write the second submission, so I'm probably not the best person to talk to, but the main impacts that I personally would see is if you take more out now does that mean there's going to be less in the future, and the system becomes more and more stressed and therefore water use will become even more restricted over time. In Wanneroo there are two series of wetland chains. Both chains of wetland are groundwater fed. These are focal points for the community, they're very well used. If those groundwater systems became stressed or are unhealthy there would be uproar in the community because that is part of the environment - - -

**DR MUNDY:** So the principal issues are environmental impacts on areas of strong community amenity, okay. You might want to - and please, if you don't know the answers if someone could just send us an email so that - - -

**MS HOEY (COW):** Yes.

**DR MUNDY:** What level of consultation occurs with the council prior to these decisions being made or is that something you don't know, it's not something you do?

**MS HOEY (COW):** Level of consultation on which decision, sorry?

**DR MUNDY:** Well, the decision to take more water out of the Gnangara Mound.

**MS HOEY (COW):** It's not a decision that the local council would make. We knew about it from ads in the newspaper and because we're on a communication list that general members of the community would not be. But I don't think that the general community would be that aware that Water Corp is planning to take more water out of the Gnangara Mound.

**DR MUNDY:** Water Corp wouldn't come - from what you understand Water Corp hasn't come to you and said, "We're thinking of doing this, what do you think?"

**MS HOEY (COW):** No.

**DR MUNDY:** Okay.

**DR CRAIK:** Anything else?

**DR MUNDY:** No.

**DR CRAIK:** Okay. Nicola, thanks very much for coming along today.

**MS HOEY (COW):** No problem.

**DR CRAIK:** Thanks for your presentation, thanks for your answering questions.

**DR CRAIK:** Now, Doug, did you want to?

**MR HALL:** Yes, I will take that opportunity.

**DR CRAIK:** Okay. So if you'd like to - thanks Nicola. If you'd like to state your name and the organisation you're representing and make a very brief presentation?

**MR HALL:** Yes, okay. My name is Doug Hall. I'm here to say what I'm going to say today as an individual. I have been involved in the water industry for a bit over four years now and during that time most of as industry development manager for irrigation industry in WA and more recently with the compost industry. Even though four years doesn't seem like a long time, in that time I've been very active in the WA water reform process, including sitting on the government's external reference group for water, involved in ERA processes and working with a lot of government departments and agencies on water reform issues, including the Water Corp and the Water Forever process.

Throughout that entire process of time what I've tried to do is expand people's idea of what water means, because often it's dominated by supply-orientated view, more recently it has expanded to demand. But all the elements of demand aren't necessarily factored into the modelling and the thinking. For example, irrigation in many regards is one of the forgotten sectors. Even though it's a very large proportion of water use often people acknowledge it and then move on, because it is a very complex and challenging area. Even more so, the soil and the importance of soil being factored into water management is critical in terms of, for example, make sure the hydraulic properties of soil are maximised, optimised, to make sure that we're using - you know, the demand side of water as efficiently as possible. That's a dimension that has been largely neglected, I would argue.

So I just reiterate, the following comments I'm going to make are my own views that have been going through that experience that I've described above. I'm essentially pro-market in view and generally supportive of the ERA's submission as they articulated it this morning, including the need for incremental change so that the delivery of product and services to customers is not negatively impacted. What I would specifically like to comment on today is the question about restrictions, and this is particularly relevant, of course, to what is currently happening in WA with the threat next year of potentially quite strong restrictions if we don't get winter rain.

Firstly, I'd just like to say that I fully understand the government's current approach, their reliance on restrictions, because really, there is not a lot of other framework in place as an alternative approach; so by default restrictions is really what you're left with. However, restrictions do threaten - and obviously the extent of those restrictions will determine how much they threaten the quality of life in urban

situations through the potential negative impacts. Clearly the key one is on green space. Green space, of course, is very important for mental health. There's a number of reports that have been released in the last couple of years about that impact. Also, ameliorating the heat island effect, which the people are just starting to look at, how important that is in terms of degrees Celsius reduced through strategic green space and also recreation, but it's also intimately linked to the value of people's properties.

We need to understand that people can sink enormous amounts of money into their landscapes and their houses if they see it as an asset, as well as an actual recreational part of their life. At the moment there's a very strong drive towards conservation, rather than water efficiency. They are connected of course. Industry groups in general, they're the ones with the efficient technology and are very happy for customers to take it up, but one of the fundamental problems is the price of water often is too low relative to the real cost or even the perceived cost of the technology that would allow them to use water more efficiently and sustain their quality of life with less water. That's really the major challenge we've got, is this price differential between the price of water and the efficient technologies.

One mechanism which governments all across Australia could implement to help address this, in my view, is support for the development and adoption of minimum standards for water use. By this I specifically mean water performance, not specific technologies. Too often you can see governments sort of promote that particular technology, because that's essentially an anti-innovative approach, because once you lock in a particular technology, you're denying competitive or new technologies the potential to come into that same space. So it's about performance, so what is the minimum performance standards that we want for, say, irrigation use, soil properties.

Again in Perth, the small coastal plain, and the very, very poor quality of soil we have, which is essentially beach sand, we have major problems with hydrophobic soils, which can lead to run-off off the surface, which means the irrigation is basically not penetrating soil. We can get very heterogenous channelling of water, so if even distribution of irrigation hits the surface of the soil, then that uniformity gets destroyed because it's channelled into specific areas and other areas have no water, other areas have a large amount of water and of course it goes straight through the profile.

So it's things like developing and adopting those minimum standards into things like building codes, and building codes need to extend beyond the house into fence-to-fence situation; and even for public open space, the codes there and, most importantly, planning codes because one of the problems, I think, the last speaker from the City of Wanneroo really is highlighting this issue of the separation of planning in terms of Department of Planning type planning for new developments

and so forth and water planning and making sure that water resources are actually there, so making sure that that co-planning - and it is progressing, but there's still a way to go.

So we are heading in the right direction, but in bringing those two planning operations together, make sure that there's an awareness at the land planning side of the need for these specific performance guidelines or codes. So they're factoring it into their planning at a very strategic level and that makes sure that it's promulgated right through the whole planning process so we actually do get real implementation of technologies that deliver that minimum performance specification, which again will allow people have equality of life using less water.

I guess one other thing I would like to comment on is there is a danger we're trapping ourselves into a crisis situation and we're always going to be on the verge of having to implement restrictions, unless we find a way - and I'm not saying I've got a solution here, but I see a real need for us to put our heads together to try to come up with mechanisms which will allow us to test the market; in other words, the customers or consumers of water's capacity of preparedness to pay more for water. So for that signal to be tested, but also communicated to potential providers of water. At the moment I just don't see that that's possible, so in a sense we're creating a self-fulfilling prophecy that we can't break out of. We can't even test if we should break out of it. It's a difficult one, given the infrastructure and the organisational structure of the water industry in Australia, but at some point we're going to have to cross that boundary.

Linked to that, the last comment I would make is about dynamic efficiency. You highlight three types of efficiency in your report. I think dynamic efficiency in terms of ensuring that there's innovation and the opportunity to innovate into the future and replace existing levels of efficiency with better levels of efficiency is something that - we don't have the space or the mechanisms to allow that to happen enough. We're concentrating on production and allocation efficiencies at the cost of the dynamic innovation efficiencies. Thank you.

**DR CRAIK:** Thanks very much, Doug. Thanks for those comments. I guess your suggestion of developing minimum standards would be a pretty major task to do nationally, given the different kinds of soils in country and uses around the place. I guess the alternative is that water is supplied - really this picks up one of your later points about picking up people's preparedness to pay for more water and water utilities providing more water and there being more of a price signal and tariff options, I suppose, that actually meet that sort of thing so that you actually meet the demand, rather than trying to spend your life permanently trying to find ways to constrain it or regulating or making codes to constrain it and, I guess, letting the market operate slightly more freely.

**MR HALL:** I would totally agree, but, I guess - because if you have a fully-developed market and the prices are set right and all those mechanisms are there, then in effect the guidelines will be put into place through those mechanisms. It's a change management issue, I think. We're going from here to that market somewhere in the future and something like building codes may be a way of releasing some of the pressure off the need for governments to use a restriction framework. For example, going to soil moisture levels and its implications below a certain point of destroying your garden or stressing your plants, but also potential structural damage because the soil has dried out too much.

If you had a restriction regime that was based on allowing people to maintain a minimum water content in their soils and that determined when irrigation events occurred, then you could still have a regulatory framework, but it would be more technologically and outcome driven than the sort of policing-driven framework.

**DR CRAIK:** The sort of activity-driven framework.

**MR HALL:** Yes. So a performance-driven framework. But, again, I reiterate, I understand why government is using the framework at the moment because policing is part of the necessity and just the difficulty of policing outside of strict days is very, very difficult. But while we're locked into that, it's very hard to cross over into these other approaches. Codes could be one sort of stepping stone to try and move out of that.

**DR CRAIK:** Can I just ask, these restrictions that are in place now - and you may not know the answer - but for the water people supply themselves, is that water restricted as well? There's a restriction in place?

**MR HALL:** You mean household bores?

**DR CRAIK:** Yes.

**MR HALL:** I have a bore myself and under the current regime bore owners in Perth it's around three days a week on specific days, which is one day more than scheme water uses. The government at the moment is arguing that that differential is an incentive to consider moving from scheme to ground water, with the caveat that it has to be within areas and the Department of Water has got a map which shows which areas you can put bores into and which ones are stressed environmentally and so forth. So there is a differential advantage, which is encouraging people to look at other alternatives, so there's a more market element to it.

**DR CRAIK:** Is it policed? How does the water police know if you've watered

twice or three times a week?

**MR HALL:** My understanding is that the Water Corp - and Lloyd might correct me here - on behalf of DoW and the Water Corp, have staff who go around and monitor and they have been much more - "diligent" is not the right word - prepared to be harsher, I think, in the current environment, which means that they send more letters and I actually think they fined some people in the last year, whereas there was a hesitancy, I think, to do that previously.

**DR CRAIK:** How do you know though if someone has used their bore to water twice or three times or five times?

**MR HALL:** It's more a case of if they get caught, I think, between 9.00 and 5.00 because bore users and scheme water users are not allowed to use between - - -

**DR CRAIK:** During the day.

**MR HALL:** 9.00 and 6.00, isn't it?

**MR PICKERING (MJA):** A lot of concerned neighbours get on the phone.

**DR CRAIK:** So it's a "dob in your neighbour" strategy.

**MR PICKERING (MJA):** They ring up the water police down in Fremantle.

**MR HALL:** I'd have to say that, from conversations I've had with people, it's quite disturbing in one respect that, despite these regulations and the policing efforts that are going on, the number of people that flagrantly disregard them is quite extraordinary.

**DR CRAIK:** Have there been any surveys here about community support of water restrictions?

**MR WERNER (WC):** Yes, and it's very high.

**DR CRAIK:** It is in the eastern states too.

**MR WERNER (WC):** 94 per cent is one of the numbers that's in my head. Whether that's the right number or not, it's an incredibly high percentage.

**DR CRAIK:** So they like it but a lot of them break it?

**MR WERNER (WC):** Yes.

**MR .....:** Yes, and a general trend across all the surveys, to give more detail, is that they don't favour total outlaw of watering, but they do favour some low level of restriction continuously.

**DR CRAIK:** But they are happy to break the restrictions at the same time?

**MR HALL:** Some people are, yes.

**DR CRAIK:** Warren?

**DR MUNDY:** Just clarifying this situation for the private bore owners: if you are a private bore owner, does that mean you can't take water out of the tap, presumably?

**MR HALL:** There is nothing stopping you, other than if you were to use it for irrigation, you would still have to abide by the scheme water.

**DR MUNDY:** So it's three days for bore owners, okay.

**MR HALL:** It's an and/or - - -

**DR CRAIK:** You can't use five, you can't do five?

**MR HALL:** No, and the reason for that is that the days - as a bore owner, my three days are the same two days as if I was on scheme, for my house address, plus an additional one.

**DR MUNDY:** An additional day?

**MR HALL:** Yes. It's quite feasible that people with bores may still do some hand-watering, for example, from scheme water.

**DR MUNDY:** Testing this preparedness to pay, I'm just interested in a methodological perspective. Presumably what you are saying is that you actually want to test people's preparedness to pay to avoid restrictions. Because what is the counterfactual, I guess is my question?

**MR HALL:** It goes to, people have invested a lot of money in their gardens, there has got to be some preparedness there to save it from death and destruction. So we have got the dual systems, that the previous speaker was referring to. That is probably one situation where there is an opportunity to see what people are prepared to pay in order to keep their gardens alive. Even though it's coming from ground water and even though, at the moment, we pay nothing for ground water. As I say, I don't have the mechanisms; I'm just saying, you need somehow to find a way to test

this preparedness. Because I suspect that people out there who have invested a lot in their gardens are going to, increasingly, not like the fact that they can't keep that investment.

**DR MUNDY:** It's an interesting methodological question, because maybe what you actually want to know is how much money they have sunk in waterwise gardens and what does that mean for them. My other question is this - I am perhaps a little bit more sceptical about standards than Wendy.

**DR CRAIK:** I wasn't - - -

**DR MUNDY:** No, I thought you were sceptical. I guess my question is, presumably one way of doing this is with the five and six-star ratings, or whatever they are in whatever jurisdiction we're concerned with. Extending the application of those to the whole block, as opposed to the building, presumably might be one way of proceeding, at least in an interim, rather than having detailed prescriptive codes.

**MR HALL:** Certainly the well system inside the house and the Smart Approved WaterMark system for outside the house. Certainly, in WA, the irrigation industry here has developed best practice specifications for urban irrigation and that leverages off Smart Approved WaterMark technology. But it takes a whole system approach, so it is about best practice system design, best practice installation, and best practice scheduling.

**DR MUNDY:** So in WA, if I am building, let's say, a new house, I have got to meet certain design standards for that, that are environmentally based? You do in some jurisdictions.

**MR HALL:** Not at the moment.

**DR MUNDY:** Not at the moment, okay.

**MR HALL:** Various industry groups have been trying for some time and, again, making a major push at the moment with governments to raise awareness about the opportunity to use - - -

**DR MUNDY:** So there are no environmental building codes in WA at the moment? There are?

**MS HOEY (COW):** The Building Code of Australia does include a minimum star rating you have to achieve, but it's five star, so that's not particular high.

**DR MUNDY:** But it's based on the building rather than the block as a whole?

**MR HALL:** But that's inside, yes.

**MS HOEY (COW):** It's based on the building.

**MR HALL:** So BCA and those sorts of codes - and there was some contemplation for basics, here, a couple of years ago. Certainly the irrigation industry, at the time, wanted to expand that outside the house so the framework was basically fence to fence.

**DR CRAIK:** Are you all right?

**DR MUNDY:** Yes, I'm happy with that.

**MR WERNER (WC):** Just on that one, some of the developers have put in green developments and they actually specify that you have to have rainwater tanks and solar panels.

**DR CRAIK:** Sort of like covenants over the - - -

**MR WERNER (WC):** So people buy these lots on the basis that all their neighbours are going to do the same thing as they are; it's a voluntary building standard.

**MR HALL:** Just on that, UDIA has got a framework for developments based on six leagues, and one of those is water, and there are some performance criteria within that. So that is an example of the market creating its own standards, which then gives those developers a market edge in terms of marketing their development and selling their property. So that is another way to do it as well.

**DR MUNDY:** Just coming back to your point about technological innovation, would a national approach to that, from the point of the view of the people who make this stuff and sell this stuff - this kit, essentially - would a national approach to that standard provide reduced costs for the people who make this stuff, do R and D, and those sorts of things; or don't you think the varying approach from state to state is that relevant?

**MR HALL:** There are certainly some possibilities there, but the differences would certainly make it challenges from a - a rainwater tank was mentioned before; rainwater tanks are reasonably well understood by most people in Perth not to be really good for irrigating your garden, because it just doesn't rain at the right time of year or often enough.

**DR MUNDY:** They're not much use when your tank is full either.

**MR HALL:** But on the south coast, I think, there is an understanding that they are much more appropriate there, because it does tend to rain more through the year.

**MR WERNER (WC):** The other aspect of those depends on what the cost of the scheme water is. If scheme water is $2, then, no, but if scheme water is $10, yes.

**MR HALL:** I think one thing that would be very valuable is that, at a national level, there's a better understanding of how heterogeneous Australia is, because often, unfortunately, at a national level you get a certain technology - and the rainwater and grey water rebates at a national level are a bit like that, because from a Western Australian - certainly from a Perth - point of view, we could have done with a rebate with a tie to another technology, for example, rather than rain tanks. So if national policy is more cognisant of the heterogeneity and the need for fit-for-purpose technology in order to improve water performance, that would be very valuable, I think.

**DR CRAIK:** Okay, thank you very much Doug. That concludes today's schedule proceedings. It's been the most informal schedule proceedings I've been to. For the record, is there anyone else who wants to appear today before the commission?

**MR PICKERING (MJA):** If it's not going to interrupt everybody's lunch?

**DR CRAIK:** No, you've got 10 minutes.

**MR PICKERING (MJA):** 10 minutes?

**DR CRAIK:** Yes.

**MR PICKERING (MJA):** I wasn't going to say anything, but it's been so interesting.

**DR CRAIK:** So Phil, if you could state your name and who you are representing.

**MR PICKERING (MJA):** From here?

**DR CRAIK:** From there, yes.

**MR PICKERING (MJA):** My name is Phil Pickering, I'm a director with Marsden Jacob Associates. So just very briefly, to let everybody get away, our company has been involved in and I have personally been involved in literally hundreds of business cases and cost-benefit analyses of water options in the last three or four years alone, on behalf of the private sector, on behalf of the Commonwealth, and on behalf of states. Themes emerge after looking at so many business cases and I think we have, in the past, done some analyses of the different options we have seen. I think we recently provided one to CEDA as well - which we could make available as well - on the range of costs for different options that we've seen in the past, ranging from groundwater options and dams, for example, have historically been very cheap, are getting more expensive, particularly as environmental regulations tighten up.

Third pipe schemes are actually an elusive one. Third pipe schemes are difficult, but not impossible, to make work. There are some relatively inexpensive ones, but again it is often not recognised that the cost of a water scheme is 50 to 70 per cent pipe work. There is a lot of concentration on the water sources, but again the water sources are often significantly less than people would realise. So the vast cost of third pipes, the separate third pipe, actually does make matters difficult, but not impossible, particularly because you do avoid a lot of the transmission network. So we have seen some that do compare favourably against the scheme water supply and we have seen several that are borderline and several that definitely struggle to stack up.

There is no fait accompli with these things, and recycled water, in general, I think, has a lot more to understand. There is a lot more disaggregation of types of

schemes, and areas where they make sense and they don't make sense; a lot more work to be done in that area. At the moment there is a general assumption that either they make sense or they don't make sense and it's one or the other, either/or, but it's not; it's a subtle grade.

We've done a fair bit of work on rainwater tanks. In some areas they can cost as low as in the order of $3 a kilolitre, which brings them into line with desal plants, but they are under the very most optimal circumstances. Otherwise, in places like Perth, as we have all seen, they are very expensive. In most places, again, individual roof size, individual locations, make such a big difference that it is impossible to generalise. In general they are on the higher end of the cost spectrum. The lowest-cost tanks are at the high end of the other options, so they do have some interchangeability.

There have also been a number of long-distance pipeline proposals, which we've all seen, of which some of them in the east are making some sense. Some of the ones that have been proposed in the west and cross-country pipelines; pipelines are expensive, people forget that. In their rush to see the large water supply they forget the cost of pipelines and transmission. One issue that comes out of that is that the large water supplies that are available need a lot of planning, a lot of foresight, a lot of development. The smaller options can be done with a little bit more speed and by more parties than one central agency, so it is an interesting distinction and it is something, I think, that needs to be kept in mind in discussing independent procurement entities and their role as compared with a water network operator and potentially a water procurement entity as well.

I know we have heard from the ERA that the idea of transparency and independence of an independent procurement entity is a good idea, and I think there is certainly value in the principles. We have also heard from organisations like the Water Corporation that there is more to consider than just economics and also more about integration. Again, there is a potential middle ground that I have discussed with Wendy only just previously, and there is a potential to think about options; for example, if there are concerns about the transparency of the process, about formalising the role of the network operator/utility/water service provider, who at the moment is examining a range of different options. If there are concerns about transparency, we could think about whether or not they can be better regulated.

We see right across the country at the moment that most of the large, new options are not actually going into the hands of the water service provider. So we see South East Queensland, for example, setting up some new companies; we see Melbourne Water, of course, already has a separate organisation; obviously the desal plant being operated by a new organisation. So the water service providers are typically not actually acting at the moment as the agency that is promoting a new

water source. They are in fact purchasing new water sources and planning for new water sources.

So again it is a consideration whether there is some middle ground, considering the difficulty and complications with setting up a new entity, and the removal of that entity from the scheme integration. There is detailed knowledge that is required to understand how and where a new water source can be injected into a system and the water quality issues, the reliability issues; there is a large balancing act that needs to be done, and there might be some concern with adding another layer of decision makers onto that. So, yes, a potential compromise solution might be bundling those together. Yes, I will leave it there. There is lots more to discuss, but we are getting late in the day. I will leave it at that.

**DR CRAIK:** That's great. Thanks very much, Phil.

**MR PICKERING (MJA):** Thank you very much.

**DR CRAIK:** Does anyone else wish to appear before we adjourn proceedings? Okay, then I adjourn these proceedings and the commission will resume in Hobart on December 13. Thank you very much.

AT 12.05 PM THE INQUIRY WAS ADJOURNED UNTIL
MONDAY, 13 DECEMBER 2010